

**BEFORE
HON'BLE JHARKHAND STATE ELECTRICITY
REGULATORY COMMISSION, RANCHI
PETITION
FOR
TRUE-UP FOR FY 2012-13**



**JHARKHAND STATE ELECTRICITY BOARD
(GENERATION, TRANSMISSION AND DISTRIBUTION)
JHARKHAND**

AFFIDAVIT

BEFORE THE JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION, RANCHI

Filing No.....

Case No.....

IN THE MATTER OF: Filing of the Petition for True-up for FY 2012-13 for the Licensee under Section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003 and as per the regulations of Jharkhand State Electricity Regulatory Commission (JSERC) (Terms And Conditions For Distribution Tariff) Regulation, 2010.

AND

IN THE MATTER OF: Jharkhand State Electricity Board (hereinafter referred to as "JSEB" which shall mean for the purpose of this petition the Licensee)

AFFIDAVIT VERIFYING THE PETITION

I, _____ son of _____, aged ___ years residing at _____ do hereby solemnly affirm and state as follows:

1. I am _____ (Commercial & Revenue) of Jharkhand State Electricity Board (JSEB), the Petitioner in the above matter and am duly authorised by the said Petitioner to make this affidavit.
2. I say that on behalf of JSEB, I am now filing this Petition under The Electricity Act, 2003 and relevant provisions under JSERC Tariff Regulations 2010 for approval of petition for True-up for FY 2012-13 and Revenue Gap recovery to be charged by JSEB for licence area.
3. I further say that the statements made and financial data presented in the Petition are as per records of the Board and on the information received from the concerned officials and believed to be true to the best of my knowledge.

4. Further, to my knowledge and belief, no material information has been concealed in this Petition.

DEPONENT

VERIFICATION

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

Verified at Ranchi on this ____ day of _____, 2014

DEPONENT

Witness



BEFORE THE JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION, RANCHI

Filing No.....

Case No.....

IN THE MATTER OF: Filing of the Petition for True-up and Revenue Gap for FY 2012-13 for the Licensee under Section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003 and as per the regulations of Jharkhand State Electricity Regulatory Commission (JSERC) (Terms And Conditions For Distribution Tariff) Regulation, 2010.

AND

IN THE MATTER OF: Jharkhand State Electricity Board (hereinafter referred to as "JSEB" which shall mean for the purpose of this petition the Licensee)

The Petitioner respectfully submits as under: -

1. Jharkhand State Electricity Board (hereinafter referred to as the "Petitioner" or "JSEB" or "Board" was constituted on March 10, 2001 under Section 5 of the Electricity (Supply) Act, 1948 as a result of the bifurcation of the erstwhile State of Bihar. Before that, the Bihar State Electricity Board (BSEB) was the predominant entity entrusted with the task of generating, transmitting and supplying power in the State. The Board has been engaged in electricity generation, transmission, distribution and related activities in the state of Jharkhand. Presently, the board is functioning as two entities, i.e. State Transmission Utility (STU) and a Distribution Licensee.
2. Pursuant to the enactment of the Electricity Act, 2003, JSEB is required to submit its Aggregate Revenue Requirement (ARR) for control period and Tariff Petitions as per procedures outlined in section 61, 62 and 64, of Electricity Act 2003, and the



governing regulations thereof.

3. The present petition is filed with the Hon'ble Commission for True-Up of Annual Accounts of erstwhile JSEB on consolidated basis for the period of FY 2012-2013.
4. The present petition is filed with the Hon'ble Commission for truing-up of Aggregate Revenue Requirement (ARR) for the FY 2012-13 based on the available accounts as per the Electricity Act, 2003, as per the provisions of the Tariff regulations issued by the Hon'ble Jharkhand State Electricity Regulatory Commission (JSERC) for the area under its operation.
5. The Present petition is filed in accordance with the Electricity Act 2003 and relevant clause of JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2010, JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2010 and JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010.
6. JSEB along with this petition is submitting the relevant data & information to an extent applicable and would make available any further information/ additional data required by the Hon'ble Commission during the course of proceedings.

Prayers to the Hon'ble Commission:

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

Prayers to the Commission:

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

- Examine the proposal submitted by the petitioner in the enclosed petition and admit the same for a favourable dispensation.
 - Pass suitable orders with respect of the True-up for FY 2012-13 of erstwhile JSEB and allow the ARR and the gap along with the relevant financial parameters proposed in
-



Petition for Provisional True-up for FY 2012-13 –
JSEB (Distribution)

the petition.

- Consider the revised values/ figures submitted by JSEB in **True-up Petition** for FY 2012-13.
- Allow the Truing-up for FY 2012-13 to be carried out on a consolidated basis and pass on the revenue gap/ (surplus) in the respective distribution petition of JSEB;
- Pass suitable orders with respect to the true-up for FY 2012-13.
- Condone the delay in filing of the True-up Petition, if any and requests Hon'ble Commission to accept the petition for processing;
- Condone any inadvertent omissions/errors/shortcomings and permit JSEB to add / change / modify / alter this filing and make further submissions as may be required at a future date.
- Pass such further, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.

Jharkhand State Electricity Board
Petitioner

Ranchi

Dated: _____ 2014



TABLE OF CONTENTS

1. INTRODUCTION	1
1.1 BACKGROUND	1
1.2 CONTENTS OF THE PETITION	2
2. OVERALL APPROACH FOR PRESENT FILING	3
2.1 PRESENT APPROACH	3
2.2 REGULATIONS ON TERMS & CONDITIONS OF TARIFF	3
2.3 ALLOCATION OF EXPENSES INTO GENERATION, TRANSMISSION AND DISTRIBUTION FUNCTION	4
3. TRUING UP FOR FY 2012-13	6
3.1 BACKGROUND	6
3.2 SALES	6
3.3 OWN GENERATION	7
3.4 POWER PURCHASE COST	13
3.5 ENERGY BALANCE	14
3.6 OPERATION & MAINTENANCE EXPENSES	18
3.7 CWIP, GFA AND DEPRECIATION	24
3.8 INTEREST AND FINANCE CHARGES	26
3.9 INTEREST ON SECURITY DEPOSIT	27
3.10 INTEREST ON WORKING CAPITAL	28
3.11 TOTAL INTEREST AND FINANCE CHARGES INCLUDING OTHER INTEREST	31
3.12 REASONABLE RATE OF RETURN ON EQUITY	32
3.13 NON TARIFF INCOME	34
3.14 BAD DEBTS WRITTEN OFF	35
3.15 PRIOR PERIOD ITEM	36
3.16 REVENUE FROM SALE OF POWER	36
3.17 RESOURCE GAP	37
4. SUMMARIZED ARR AND REVENUE GAP FOR FY 2012-13	38
4.1 ARR OF GENERATION – THERMAL FUNCTION	38
4.2 ARR OF GENERATION – HYDRO FUNCTION	39
4.3 ARR OF GENERATION FUNCTION (THERMAL + HYDRO)	39
4.4 ARR OF TRANSMISSION FUNCTION	40
4.5 ARR OF DISTRIBUTION FUNCTION	41
4.6 TOTAL ARR AND REVENUE GAP FOR JSEB	42
4.7 CARRYING COST	42



LIST OF TABLES

Table 1: Allocation principles for each component for FY 2012-13.....	4
Table 2: Sales for FY 2012-13.....	6
Table 3: Operational Parameters of PTPS.....	8
Table 4: Gross and Net Generation from PTPS.....	9
Table 5: Generation Fuel cost for PTPS.....	10
Table 6: Other Generation Related Cost of PTPS.....	11
Table 7: Plant Parameter of SHPS.....	13
Table 8 : Power Purchase Quantum and Cost for FY 2012-13.....	14
Table 9 : Energy Balance for FY 2012-13.....	15
Table 10: Allocation of Employee Expenses of JSEB.....	19
Table 11: Employee Expenses (approved vis-a-vis actual).....	20
Table 12: Allocation of A&G Expenses of JSEB.....	21
Table 13: A&G Expenses (approved vis-à-vis actual).....	21
Table 14: Allocation of R&M Expenses of JSEB.....	22
Table 15: R&M Expenses (approved vis-a-vis actual).....	23
Table 16 : O&M Expense for JSEB for FY 2012-13.....	24
Table 17 : CWIP, CAPEX and Capitalisation for FY 2012-13.....	25
Table 18 : GFA and depreciation of each Function for FY 2012-13.....	25
Table 19: Ratio of allocation of interest and Financial Charges.....	26
Table 20: Interest and Finance Charges (Functional basis).....	27
Table 21 : Interest on Security Deposit for FY 2012-13.....	28
Table 22: Interest on Working Capital – Generation (Thermal) Function.....	29
Table 23: Interest on Working Capital – Generation (Hydro) Function.....	30
Table 24: Interest on Working Capital – Transmission Function.....	30
Table 25: Interest on Working Capital for FY 2012-13.....	31
Table 26: Interest on Working Capital of JSEB.....	31
Table 27 : Interest and Finance Charges of JSEB for FY 2012-13.....	32
Table 28: Equity base for Distribution Function.....	33
Table 29 : Return on Equity for FY 2012-13.....	33
Table 30 : Non Tariff Income for each function of FY 2012-13.....	34
Table 31: Non-Tariff Income of JSEB.....	35
Table 32: Prior Period Item for FY 2012-13.....	36
Table 33: Revenue from Sale of Power.....	37
Table 34 : Aggregate Revenue Requirement for Generation Thermal Function for FY 2012-13.....	38
Table 35: Aggregate Revenue Requirement for Generation Hydro Function for FY 2012-13.....	39
Table 36: Aggregate Revenue Requirement for Generation Function for FY 2012-13.....	39
Table 37: Aggregate Revenue Requirement for Transmission Function for FY 2012-13.....	40
Table 38: Aggregate Revenue Requirement for Distribution Function for FY 2012-13.....	41
Table 39 : Aggregate Revenue Requirement - JSEB for FY 2012-13.....	42
Table 40: Computation of Carrying Cost for FY 2012-13.....	43



LIST OF ANNEXURE

Annexure 1: Annual Accounts of erstwhile JSEB for FY 2012-13 44



List of Abbreviations

Sr. No	Abbreviations	Descriptions
1.	A&G	Administrative & General Expenses
2.	ABC	Arial Bunched Cable
3.	AMR	Automatic Meter Reading
4.	ARR	Annual Revenue Requirement
5.	BSEB	Bihar State Electricity Board
6.	CAPEX	Capital Expenditure
7.	CEA	Central Electricity Authority
8.	Crs	Crores
9.	CWIP	Capital Work in Progress
10.	DPS	Delay Payment Surcharge
11.	F.D.	Fixed Deposit
12.	FO	Furnace Oil
13.	FOR	Forum of Regulators
14.	FY	Financial Year
15.	GFA	Gross Fixed Assets
16.	GPF	General Provident Fund
17.	GSS	Group Saving Scheme
18.	HQ	Head Quarters
19.	HT	High Tension
20.	JSEB	Jharkhand State Electricity Board
21.	JSERC	Jharkhand State Electricity Regulatory Commission
22.	kV	Kilo Volt
23.	LDO	Light Diesel Oil
24.	LT	Low Tension
25.	MUs	Million Units
26.	MW	Mega Watt
27.	MYT	Multi Year Tariff
28.	NAPAF	Normative Plant Availability Factor
29.	NTP	National Tariff Policy
30.	O&M	Operation and Maintenance
31.	PLF	Plant Load Factor
32.	PP	Power Purchase



Petition for Provisional True-up for FY 2012-13 –
JSEB (Distribution)

Sr. No	Abbreviations	Descriptions
33.	PTPS	Patratu Thermal Power Station
34.	R&M	Repair & Maintenance Expenses
35.	RBI	Reserve Bank of India
36.	RoE	Return on Equity
37.	RTC	Round The Clock
38.	SHPS	Sikidiri Hydrel Power Station
39.	SHR	Station Heat Rate
40.	SOC	Secondary Oil Consumption
41.	STU	State Transmission Utility
42.	T&D	Transmission & Distribution



1. INTRODUCTION

1.1 Background

- 1.1.1 The erstwhile Jharkhand State Electricity Board (“Board” or “JSEB”) is a statutory body constituted under Section 5 of the Electricity (Supply) Act, 1948 and has been engaged in electricity generation, transmission, distribution and related activities in the State of Jharkhand.
- 1.1.2 Section 62 of the Electricity Act 2003 requires the licensee to furnish details as may be specified by the Commission for determination of tariff. Accordingly, JSEB is submitting this True Up Petition as per provisions of JSERC (Terms and Conditions for Determination of Generation / Transmission / Distribution Tariff) Regulations, 2010. JSEB is also submitting the Annual Accounts for the period 1st April 2012 to 31st March 2013 for the purpose of truing up of expenses and revenue.
- 1.1.3 The Hon’ble Commission on 1st November 2010 issued JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 (hereinafter referred as JSERC Tariff Regulations 2010) which is applicable for Transition period from 1st April 2011 to 31st March 2013 and Control Period from 1st April 2013 to 31st March 2016 for elements of ARR such as Distribution Loss, RoE and Interest rate etc. In line with the same, JSEB is filing its True-up Petition for consideration of the Hon’ble Commission and submitting the relevant data & information to an extent applicable.
- 1.1.4 Since unbundling is effective from January 6, 2014, Annual accounts for FY 2012-13 are available on a consolidated basis and though the accounts are approved by the Board, the audit certificate is still pending. Therefore, a consolidated true-up petition for FY 2012-13 has been submitted for erstwhile JSEB as a whole and the Surplus / Deficit thus determined shall be taken forward to Annual Revenue Requirement and tariff determination of MYT Period as per the direction of the Hon’ble Commission.
- 1.1.5 The determination of ARR has been based on the provisions of the following Acts and Policies of the Government of India and principles outlined in the relevant regulations notified by the Jharkhand State Electricity Regulatory Commission:
- Provisions of Electricity Act 2003;
 - Provisions of the National Electricity Policy;
 - Provisions of the National Tariff Policy;



- Principles laid down in the JSERC (Terms and Conditions for Determining Generation Tariff), Regulations, 2010;
- Principles laid down in the JSERC (Terms and Conditions for Determining Transmission Tariff), Regulations, 2010;
- Principles laid down in the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 for transition period from April 2011 to March 2013 and Control Period from April 2013 to March 2016;

1.1.6 JSEB has made genuine efforts for compiling all relevant information relating to Truing up petition as required by the regulations issued by the Hon'ble Commission and has also made every effort to ensure that information provided to the Hon'ble Commission is accurate and free from material errors. However, there may be certain deficiencies owing to the compilation of accounts of all function and allocation principles adopted in the petition. Hence, JSEB prays to the Hon'ble Commission that the information provided be accepted for the current filing and assures that any discrepancies in the data will be justified / clarified by JSEB.

1.2 Contents of the petition

1.2.1 This petition comprises of main section namely:

- ✓ Identification of the cost function wise;
- ✓ Allocation principles for common cost or other cost as specified in the petition;
- ✓ Consolidation of Annual Accounts for erstwhile JSEB and unbundled subsidiaries;
- ✓ Determination of Revenue Gap / (Surplus) through Truing up exercise;



2. OVERALL APPROACH FOR PRESENT FILING

2.1 Present Approach

2.1.1 The Hon'ble Commission on 1st November 2010 has notified the JSERC Tariff Regulations 2010 which is also applicable for transition period from 1st April 2011 to 31st March 2013 for elements of ARR such as Distribution Loss, RoE and Interest rate etc. In line with the same, JSEB is filing its True-up Petition for FY 2012-12 for the consideration of the Hon'ble Commission. JSEB is carrying out the true up exercise for FY 2012-13, based on available accounts of JSEB for the period of 1st April 2012 to 31st March 2013.

2.1.2 Since the performance of FY 2012-13 is approved by Hon'ble Commission on an aggregated basis for JSEB as a whole (though ARR as been approved function wise), the true up exercise is also undertaken on the basis of Consolidated accounts of erstwhile JSSEB and has been allocated to Generation, Transmission and Distribution function based on the assumption as specified.

2.1.3 The Audited Annual Accounts for the above period are submitted along with petition as Annexure 1.

2.1.4 It is submitted by the petitioner that the approved figures for FY 2012-13 presented in the petition are taken from the order issued in August 2012 from the Review section and may be read accordingly.

2.1.5 Accordingly, revised Aggregated Annual Revenue Requirement, Revenue and Consequent Gap for the period of FY 2012-13 are provided in following paragraphs of the section.

2.2 Regulations on Terms & Conditions of Tariff

2.2.1 The Hon'ble Commission in JSERC Tariff Regulations 2010 has laid down the principles of ARR as well as the methodology to determine the tariff to be charged to the consumers under the MYT Framework. As per **Regulation 11.1** of the JSERC Tariff Regulations 2010; Performance review and adjustment of variations of the Licensees for years before the Transition Period shall be considered during the Transition



Period (i.e. from 1st April 2011 – 31st March 2013). Hence, JSEB hereby submits its true up for the year FY 2012-13 for its Distribution Function.

2.2.2 As per **Regulation 5.1** of JSERC Tariff Regulations 2010, the MYT framework shall be based on the Business Plan of JSEB for the entire Control Period. JSEB has submitted its Business Plan for the Control Period, i.e. FY 2013-14 to FY 2015-16.

2.2.3 However, it is pertinent to note that at the time of submission of the Business Plan, the various parameters were projected on the basis of the corresponding performances over the previous years as the accounts for the year FY 2011-12 and FY 2012-13 were under compilation at the time of submission. However, at the moment, the Provisional Accounts are available; hence the true up for FY 2012-13 is based on the provisional accounts. Consequently, the figures submitted in this current petition shall differ from that submitted in the Business Plan.

2.3 Allocation of Expenses into Generation, Transmission and Distribution Function

2.3.1 Certain expenses like O&M are available for the whole of JSEB. In order to allocate the same into Generation, Transmission and Distribution functions; JSEB has adopted a methodology for allocating the expense which are outlined in the following table:

Table 1: Allocation principles for each component for FY 2012-13

#	Elements of ARR	Approach for FY 2012-13
1	Distribution Loss	In accordance with actual distribution loss data as per Provisional Accounts
2	Power Purchase	In accordance with actual Power Purchase quantum and Cost data as per Provisional Accounts
3	O&M Cost	
a	Employee Expenses	The actual expense as evident from Trial Balance of provisional accounts for FY 2012-13 of each function.
b	A&G Expenses	Add (+) DDA (Sectt), DDA (HQ) and Common costs have been allocated equally to each function i.e. Generation-Thermal, Generation – Hydro, Transmission and Distribution
c	R&M Expenses	Add (+) Financial Expenses such as Interest on GSS and GPF in employee ration
		Add (+) Other interest and Financial Expenses in GFA ratio
4	Capital Expenditure	As per capital expenditure undertaken by the petitioner in line with the Trial balance of the Provisional Accounts;
5	Capitalisation	In accordance with the Provisional trial balance whereby



Petition for Provisional True-up for FY 2012-13 –
JSEB (Distribution)

#	Elements of ARR	Approach for FY 2012-13
		capitalisation is identified function wise.
6	Depreciation	In accordance with the Provisional trial balance whereby depreciation is identified function wise
7	Interest on Loans	The actual financial charges as evident from Trial Balance of provisional accounts for FY 2012-13. Add (+) Interest on Loan allocation based on ratio adopted in FY 2011-12 true-up Petition Add(+) Common costs which have been allocated based on ratio adopted in FY 2011-12 true-up Petition (the %age of actual Interest & Finance Charges for Distribution function over the total Interest & Finance Charges for all functions of FY 2011-12)
8	Interest Capitalised	The actual interest capitalised from provisional accounts for FY 2012-13 allocated in the ratio adopted for allocation of interest on loan.
9	Interest on Security Deposit	In accordance with the Provisional trial balance provided to distribution function
10	Return on Equity	As per JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2010 i.e. 15.5% (post tax), 22.94% (pre-tax)
11	Non Tariff Income	The actual income as evident from Trial Balance of provisional accounts for FY 2012-13 of each function. Add (+) DDA (Sectt), DDA (HQ) and Common costs have been allocated equally to each function i.e. Generation-Thermal, Generation – Hydro, Transmission and Distribution Add (+) Area Board, RE Wing and Technical Services being a part of DISCOM has been allocated 100% to the Distribution Function
12	Revenue Projections	As per provisional annual accounts of FY 2012-13.



3. TRUING UP FOR FY 2012-13

3.1 Background

3.1.1 JSEB in its previous petitions had submitted the provisional figures of ARR for the year FY 2012-13. Now, JSEB in this chapter submits the actual performance based on the provisional accounts for true up. This chapter summarizes each of the components of ARR for FY 2012-13 and requests the Hon'ble Commission to allow the ARR and the resultant gap along with the past gap to be recovered through tariffs to be determined for FY 2014-15.

3.1.2 A comparison of the figures approved by the Hon'ble Commission and figures based on the provisional accounts are shown in the table under relevant sections discussed herein:

3.2 Sales

3.2.1 The Hon'ble Commission had approved total sales for FY 2012-13 at 8,400.57 MUs, however the actual sales for FY 2012-13 are 7,260.14 MUs. The category wise details for FY 2012-13 have been shown in the below for perusal of the Hon'ble Commission

Table 2: Sales for FY 2012-13

Sales for FY 2012-13			
Consumer Categories	Sales (MUs)		
	Approved	Actual	Difference
Domestic	3,756.64	2,888.55	868.09
Commercial	428.01	339.21	88.80
Public Lighting	202.12	127.18	74.94
Irrigation	70.98	67.71	3.27
MES/PWW	10.63	70.63	(60.00)
Industrial LT / MT	173.54	136.09	37.45
Industrial HT	2,461.03	2,498.25	(37.22)
Railway	697.61	658.73	38.88
Inter-state sale	600.00	473.79	126.21
Total	8,400.57	7,260.14	1,140.42

3.2.2 As is evident from the table, that there is a shortfall of 1,140.42 MUs compare to the approved sales resulting in lower revenue also. The major shortfall in the sales is in domestic category followed by Inter-State Sales and Commercial category.



3.2.3 The Hon'ble Commission is requested to approve the actual sales for FY 2012-13 as submitted above.

3.3 Own Generation

JSEB owns two power plants namely Patratu Thermal Power Station (PTPS) having a capacity of 840 MW (de-rated capacity of 640 MW) and Sikidiri Hydrel Power Station (SHPS) having a capacity of 130 MW. This petition is being submitted by the Board for approval of Annual Revenue Requirement for Generation function of the Board consisting of Patratu Thermal Power Station (PTPS) and Sikidiri Hydrel Power Station (SHPS).

3.3.1 Thermal (Coal) Generation

Erstwhile JSEB had only one generation station, namely Patratu Thermal Power Station (PTPS) which has 10 Units with a total installed capacity of 840 MW. The Units 1 to 6 of the PTPS are 40 years old (installed during 1966-71) and have run beyond their normal economic life; while the Units 7 to 10 installed during 1977-86, have also become quite old. Due to aging of these units, capacities of Units 1-8 have been derated by 70 MW and hence the overall capacity of the stations stands reduced to 770 MW as against the installed capacity of 840 MW which was further de-rated to 640 MW in FY 2012-13.

3.3.1.1 Operational Parameter:

- ✓ The Petitioner submits that due to receipt of lower quality of coal which has higher ash & moisture content, repetitive tripping and forced shut down of the plant as well as other issues, the performance of the plant has been affected adversely.
- ✓ Further, following units did not generate power during FY 2012-13 for the reasons as mentioned below:
 - **Unit 1:** Under shut down since October 2010 due to problem in turbine, the upper portion of the turbine has been opened and necessary assessment is being done;
 - **Unit 2:** Under shut down since March 2010 due to boiler explosion;
 - **Unit 5:** Shut down since May 2004 (Under consideration for Phasing out as per CEA Recommendations)
 - **Unit 7:** Under shut down since October 2010 due to earth fault in Generator stator. The necessary assessment has been done. The Board is also planning for restoration and R&M of Unit 7.



- Also, Units **3, 8, 9** and **10** did not generate power during FY 2011-12. The reasons are as mentioned below:
 - Unit 3: Shut down since August 2003 (Under consideration for Phasing out as per CEA Recommendations)
 - Unit 8: Under shut down since October 2005. The Board is also planning for R, M & U of Unit 8 from 110 MW to 120 MW.
 - Units 9 & 10: Damaged in fire incident on August 2006. Restoration was going for Unit 9 & Unit 10.
- Central Electricity Authority (CEA) vide their Letter No.CEA/PLG/DMLF/545/Ret./2011 dated 4th January 2012 addressed to the Petitioner has suggested to phase out of the PTPS Units 2, 3, 5, 6 & 8, since these units are not contributing to the generation and as such the same needs to be phased out. JSEB has been planning to phase out such units accordingly.
- ✓ Due to above factors, petitioner was not able to achieve the target performance parameters like Plant Load Factor (PLF), auxiliary consumption, Station heat rate (SHR), transit loss and Specific Oil Consumption (SOC). The following table summarizes the approved and actual operational parameters for PTPS:

Table 3: Operational Parameters of PTPS

Operational Performance Parameter of PTPS for FY 2012-13			
Particulars	Units	Approved	Actual
Installed Capacity of PTPS	MW	840	840
Derated Capacity of PTPS	MW	640	640
Station Heat Rate (SHR)	Kcal/kWh	3125	3962
Aux. consumption	%	12%	14.96%
Plant Load Factor (PLF)	%	82%	13.12%
Specific oil consumption for FO	ml/kWh	3.5	1.92
Specific oil consumption for LDO	ml/kWh	3.5	4.72
Transit Loss	%	0.20%	0.21%

Note: The Petitioner has not submitted separate information in Tariff Petition for FY 2012-13 as these figures are actual as per the annual accounts.

3.3.1.2 **Gross and Net Generation of Power**

- ✓ It is submitted by the petitioner that the actual gross generation for JSEB is at 735.71 MUs for FY 2012 -13. However, the Hon'ble Commission had approved



the Gross Generation for PTPS, on the basis of Usable capacity of 640 MW and approved PLF of 82% estimating 4238.09 MUs for FY 2012-13.

- ✓ Based on actual performance parameters, the actual Gross and Net Generation for FY 2012-13 are outlined in the following table:

Table 4: Gross and Net Generation from PTPS

Details of Own Generation - Thermal of JSEB for FY 2012-13			
Particulars	Units	Approved	Actual
PTPS			
Installed Capacity	MW	840	840
De-rated Capacity	MW	640	640
P.L.F.	%	82.00%	13.12%
Aux. Consumption	%	12.00%	14.96%
Gross Generation	MUs	4,238.09	735.71
Less: Auxilliary Consumption	MUs	508.57	110.09
Net Generation	MUs	3,729.52	625.61

- ✓ The Hon'ble Commission is requested to approve the actual gross generation, auxiliary consumption and net generation for FY 2012-13 as submitted above.

3.3.1.3 Generation Cost

- ✓ Based on the actual performance parameters, the Petitioner submits the actual generation costs for PTPS for FY 2012-13 of Rs. 114.10 Crs. The detailed calculation of Generation Cost of PTPS has been summarised below:



Table 5: Generation Fuel cost for PTPS

Fuel Cost of JSEB for FY 2012-13			
Particulars	Units	Approved	Actual
Installed Capacity	MW	840.00	840.00
De-rated Capacity	MW	640.00	640.00
Capacity for PLF calculation	MW	640.00	640.00
P.L.F.	%	82.00%	13.12%
Aux. Consumption	%	12.00%	14.96%
Sp. Coal Consumption	kg/kWh	0.67	0.92
FO Consumption	mL/kWh	3.50	1.92
LDO Consumption	mL/kWh	3.50	4.72
Station Heat rate	kcal/kWh	3,125.00	3,962.08
Calorific Value of Coal	kcal/kg	4,689.98	4,309.54
Calorific Value of FO/LDO	kcal/L	10,500.00	10,500.00
Coal Transit Loss	%	0.20%	0.21%
Price of Secondary Oil (FO)	Rs. / mL	0.05	0.06
Price of Secondary Oil (LDO)	Rs. / mL	0.05	0.06
Price of Coal	Rs./Tonne	1,369.27	1,252.18
Gross Generation	MUs	705.58	735.71
Auxiliary Consumption	MUs	84.67	110.09
Net units generated	MUs	620.91	625.61
Workings of Variable Cost			
Station Heat Rate	kcal/kWh	3,125.00	3,962.08
Gross Units Generated	MUs	705.58	735.71
Total Heat Required	Million kCal	2,204,946	2,914,925
Secondary Oil Consumption(FO)	KL	2,470	1,411
Secondary Oil Consumption (LDO)	KL	2,470	3,476
Heat Generated by Sec fuel	Million kCal	25,930.17	25,656.75
Heat Required from Coal	Million kCal	2,179,016	2,889,269
Coal Requirement	MT	0.47	0.67
Secondary Oil Cost (FO + LDO)	Rs. Crs	10.93	27.49
Coal Cost	Rs. Crs	63.56	84.12
Primary Fuel / Oil Cost	Rs. Crs	74.49	111.61
Other Fuel Cost	Rs. Crs		2.49
Total Fuel Cost	Rs. Crs	74.49	114.10
Coal Cost	Rs. /kWh	1.03	1.34
Secondary Oil Cost (FO + LDO)	Rs. /kWh	0.18	0.44
Other Fuel Cost	Rs. /kWh	-	0.04
Total Fuel Cost	Rs. /kWh	1.20	1.82

* Includes cost of secondary fuel oil and other fuel related cost also;



- ✓ The Petitioner submits that due to the low quality of coal with higher ash & moisture content, SHR of the Plant has been higher than the approved parameters. However, it is submitted that the petitioner is continuously working on the improvement of the operational parameters and can be ascertained by the fact that SHR is lower than the previous year and also the FO Consumption;
- ✓ The Petitioner would like to submit to the Hon'ble Commission that it has been carrying quality repair and maintenance works and thus has been able to reduce specific oil consumption of FO by 1.92 (ml/kWh) which is also lower than the approved limit as per the Generation Tariff Regulations.
- ✓ The Petitioner submits that the actual transit loss is in line with the normative transit loss as approved by the Hon'ble Commission. It may be noted that JSEB has always made concerted efforts to bring its transit loss to minimum and shall continue to do the same.
- ✓ The Petitioner further submits that it sources Grade E coal from the collieries of Central Coal Fields Limited and is uncontrollable in nature. Therefore, GCV and price of the Coal / secondary Oil are specified as actual in the Petition based on the prevalent market condition.
- ✓ The Petitioner also claims Rs. 2.49 Crs which are the cost related to Water Charges, Fuel related cost and Lubricants and Consumable Stores which are the part of the Generation Cost as per Schedule 7 of the Accounts. The break up of the Other Generation related cost are as outlined below:

Table 6: Other Generation Related Cost of PTPS

Details of Other Fuel Cost for FY 2012-13		
Particulars	Units	Actual
Other Fuel related Cost	Rs. Crs	0.03
Cost of Water	Rs. Crs	0.65
Lubricants and Consumable Stores	Rs. Crs	1.81
Total Other Fuel Related Cost	Rs. Crs	2.49

- ✓ The Petitioner submits that as per Clause 8.1, 8.2 and 8.3 of the Generation Tariff Regulations 2010 state that secondary fuel oil cost should form part of annual fixed cost. The relevant extract of the regulations has been reproduced here:

Quote:

“Components of tariff

8.1 The Tariff for supply of electricity from a thermal generating station shall comprise of two parts, namely, capacity charge (for recovery of annual fixed cost)



and energy charge (for recovery of primary fuel cost) to be worked out in the manner provided hereinafter.

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

- a) Return on Equity;*
- b) Interest and Financing Charges on Loan Capital;*
- c) Depreciation;*
- d) Operation and Maintenance Expenses;*
- e) Interest Charges on Working Capital;*
- f) Cost of Secondary Fuel Oil (for coal based and lignite fired generating stations only); and*
- g) Special allowance in lieu of R&M or separate compensation allowance, wherever applicable:*

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

- ✓ Accordingly, the petitioner submits that in the ARR of Generation Function, Secondary fuel cost and other fuel cost is consider as a part of the fixed cost components and the fuel cost has been computed based on cost of primary fuel i.e. coal only.
- ✓ The Petitioner request the Hon’ble Commission to approve total Fuel cost including the cost related to Generation of Power for FY 2012-13 as submitted in this petition.

3.3.2 Hydro Generation

3.3.2.1 Generation and Operational Parameter

- ✓ The Petitioner submits that the SHPS has been designed for continuous operation at the reservoir level of 1925 ft. However, it has been observed by the Technical consultant appointed by the Board that the reservoir is above the level of 1925 ft for only 3-4 months in a year as there are restrictions on account of the fact that the same reservoir is the source of supply of water to Ranchi town.
- ✓ It is also submitted that the quantity of water in the reservoir is lower than the reported level due to heavy silting resulting in a lower generation of power.
- ✓ The Plant parameter of SHPS is outlined in the following table:



Table 7: Plant Parameter of SHPS

Details of Own Generation - Hydro of JSEB for FY 2012-13			
Particulars	Units	Approved	Actual
SHPS			
Hydel Capacity	MW	130	130
Gross Hydel Generation	MUs	288	142
Aux Power	%	0.70%	2.03%
	MUs	2.01	2.88
Net Generation	MUs	285.54	139.09

3.4 Power Purchase Cost

3.4.1 The Petitioner has firm allocations of power from thermal power plants of Central Generating Station such as NTPC, NHPC, PTC and other sources such as TVNL and DVC. In addition to these sources, the Petitioner also has an interconnection point with the WBSEB from where it draws power and it also has a short-term allocation of 100 MW from DVC which is available on Round the Clock (RTC) basis.

3.4.2 For the year FY 2012-13, the power purchase quantum from the Central Sector is around 2632.09 MUs, from other sources such as DVC, TVNL, UI etc is around 7497.15 MUs and from renewable sources – Solar, the power procured is around 17.67 MUs. In addition to this, JSEB is generating power of around 764.70 MUs from their own thermal and Hydro generation plant.

3.4.3 Thus, the total power purchase quantum for the year FY 2012-13 for the distribution function is 10,146.90 MUs as against 10926.28 MUs (**before disincentive for non-achievement of T&D Loss**) as approved by Hon'ble Commission. It can be seen that power procured by JSEB is lower than what had been approved by the Hon'ble Commission. This is on account of the decrease in demand resulting into lower sales.

3.4.4 It is submitted that the Hon'ble Commission in its order issued in August 2012 has erroneously included Rs. 14.58 Crs in the total cost which has been highlighted in the table. Also, on the MUs side, ~14.98 MUs though has been erroneously included in the summation side of total power purchase, however the net total after inclusion of own generation and reduction due to disincentive has been summed properly resulting in no error in total of power purchase.

3.4.5 The table below shows the power purchase quantum and Cost for the FY 2012-13



Petition for Provisional True-up for FY 2012-13 –
JSEB (Distribution)

Table 8 : Power Purchase Quantum and Cost for FY 2012-13

Power Procurement for FY 2012-13									
Name of the Source	Power Purchase (MUs)			PP Cost (Rs. Crs)			PP Cost per unit (Rs./kWh)		
	Approved	Actual	Difference	Approved	Accounts	Difference	Approved	Accounts	Difference
NTPC	2587.82	1814.93	772.89	1245.65	573.97	671.68	4.81	3.16	(1.65)
DVC	4256.35	4576.11	(319.76)	1818.39	1,747.90	70.49	4.27	3.82	(0.45)
NHPC	333.65	318.41	15.24	40.37	78.78	(38.41)	1.21	2.47	1.26
Chukha	257.89		257.89	50.41		50.41	1.95	-	(1.95)
PTC	469.68	498.74	(29.06)	102.8	143.60	(40.80)	2.19	2.88	0.69
VVNL			-			-	-	-	-
TVNL	2344.76	2606.95	(262.19)	594.02	809.56	(215.54)	2.53	3.11	0.57
WBSEB		38.86	(38.86)		29.44	(29.44)	-	7.58	7.58
Tata Power, APNRL, Mittal Power	3.28	189.58	(186.30)	1.35	64.91	(63.56)	4.12	3.42	(0.69)
Solar	143.85	17.67	126.18	79.12	20.50	58.62	5.50	11.60	6.10
Other renewable	529.00		529.00	264.5		264.50	5.00	-	(5.00)
Net UI		85.66	(85.66)		11.86	(11.86)	-	1.38	1.38
GRIDCO			-			-	-	-	-
ERLDC			-	26.28	27.44	(1.16)	-	-	-
PGCIL			-	98.95	97.17	1.78	-	-	-
Reactive charges			-			-	-	-	-
Difference			-	14.58		14.58	-	-	-
Gross Power Purchase Cost	10,926.28	10,146.90	779.38	4,336.42	3,605.14	731.28	3.97	3.55	(0.42)
Less: Disincentive for non-achievement of T&D loss reduction targets	1719.83			604.47			3.51	-	
Net Power Purchase Cost	9,206.45	10,146.90	(940.45)	3,731.95	3,605.14	126.81	4.05	3.55	(0.50)
Own Generation	906.45	764.70							
Total Energy Available	10,112.90	10,911.60		3,731.95					

3.4.6 The power purchase cost for the **10,146.90 MUs** works out to be **Rs. 3,605.14 Crs** as against **Rs. 3,731.95 Crs** approved for the FY 2012-13. The average Power Purchase rate as per the annual accounts comes to around **Rs. 3.55 per unit** for FY 2012-13.

3.4.7 However, it is noticed that per unit cost of the power procurement has also been reduced from Rs. 3.97 per unit as approved by the Hon'ble Commission to Rs. 3.55 per unit as per actual power Purchase cost.

3.4.8 The Petitioner prays the Hon'ble Commission to approve the Power Purchase Cost for the FY 2012-13 which is based on the provisional annual accounts as summarised in the table above.

3.5 Energy Balance

3.5.1 The Energy Balance for FY 2012-13 is provided in the table below.



Petition for Provisional True-up for FY 2012-13 –
JSEB (Distribution)

Table 9 : Energy Balance for FY 2012-13

Energy Balance (MUs)			
Sr No	Particulars	Approved	Annual Account
		FY 2012-13	FY 2012-13
A	ENERGY REQUIREMENT		
1	Power Purchase from Outside JSEB Boundary	3,649.04	2,670.94
2	Loss in external systems (%)		3.04%
3	MU's lost in external system		81.20
4	Net Outside State Power Purchase	3,649.04	2,589.75
5	Energy Input Directly to State Transmission System	6,748.24	7,390.30
6	Own Generation	906.45	764.70
7	UI Payable	-	85.66
8	Energy available for onward transmission	11,303.73	10,830.41
9	Transmission loss (%)	5.00%	5.00%
10	Transmission loss (MUs)	565.19	541.52
11	Net Energy Sent to Distribution (MUs)	10,738.54	10,288.89
12	Direct input at distribution voltage (33 kV)	2,937.97	3,502.54
13	Total Energy Available for Distribution	10,112.89	10,288.89
14	Inter state sales (MUs)	600.00	473.79
15	Sales (MUs)	7,800.57	6,786.35
16	Distribution loss (MUs)	1,712.32	3,028.75
17	Distribution loss (%)	16.93%	29.44%
	Overall T&D Losses	18.00%	30.86%
B	ENERGY AVAILABILITY		
1	NTPC	2,587.82	1,814.93
2	NHPC	333.65	318.41
3	PTC	727.57	498.74
4	Others	6,748.24	7,514.82
a	DVC	4,256.35	4,576.11
b	WBSEB	-	38.86
c	TVNL	2,344.76	2,606.95
d	DVC STOA		-
e	PGCIL		-
f	Posoco (ERLDC)		-
g	UI Payable	-	85.66
h	PTC STOA		-
i	NVVN STOA		-
j	Solar	143.85	17.67
k	Banking of Power (PTC)		-
l	Others	3.28	189.58
5	Own Generation	906.45	764.70
6	Disincentive	1,719.83	-
7	RPO	529.00	-
8	Total Pooled Energy Availability	10,112.90	10,911.60



- 3.5.2 The energy requirement has been calculated by energy sales within state and external energy sales i.e. NTPC, NHPC, PTC and WBEB. JSEB has adjusted the energy sales and inter-state power sale with T&D losses as highlighted in the table above.
- 3.5.3 Consequently, the energy requirement for FY 2012-13 comes to around 10,911.60 **MUs**. In order to meet the demand, JSEB has been procuring power from various sources viz NTPC, NHPC, DVC, PTC, VVNL, TVNL, Own Generation (Patratu & Sikhidri), etc. The total pooled Energy requirement has been met by way of own generation, UI and power purchase.
- 3.5.4 As can be seen from the table, the State transmission loss for FY 2012-13 considered is 5.00% and the Inter-State transmission loss considered is 3.04%. Though Distribution loss highlighted in the annual accounts is 33.46%, the distribution loss as projected above is 30.86%. The difference is due to the reasons that T&D loss as per accounts is a difference between the Energy requirement and sales irrespective of inter / intra state transmission loss and inter-state loss. However, while submitting to the Hon'ble Commission, JSEB has calculated inter / intra State loss separately and also Distribution loss is not claimed on Inter-State Sale.
- 3.5.5 Although, the distribution loss as compared to approved T&D loss is high, JSEB time and again has been putting efforts in order to reduce the same and shall continue to do so.
- 3.5.6 The Petitioner would like to highlight that the T&D Loss in last 4 to 5 years has been significantly reduced due to the efforts undertaken. Some of the key activities undertaken by JSEB in FY 2012-13 for reduction of T&D Losses are as identified below:
- Tele-metering for HT and LT industrial consumers;
 - Conversion of LT line into Arial Bunch Cable (ABC);
 - Routine maintenance of distribution transformers and power transformers to control technical loss;
 - Tightening of jumpers at power substations;
 - Replacement of gas kit to avoid oil flow from transformer on regular basis;
 - Strengthening of HT and LT Lines;



- Shortening of LT lines by providing additional pole between the span to maintain HT-LT ratio;
 - Appointment of collection based rural franchisee and also franchisees for some of the major urban areas.
- 3.5.7 It is further submitted that it is making all efforts to reduce distribution losses by metering of consumers, introduction of AMR/ Remote Metering, introducing spot billing, undertaking network up-gradation/ improvement projects, undertaking R-APDRP projects in 30 towns etc.
- 3.5.8 It is stated that the massive electrification work has been undertaken under the RGGVY scheme and this significant expansion of the network has not only led to increase in the technical losses in the system, but has also rendered the system porous and prone to theft of electricity. Due to both these reasons, the Petitioner is not able to achieve the loss targets set by the Hon'ble Commission.
- 3.5.9 It is also submitted that in order to reduce distribution losses and to enforce discipline in the erring consumers, the Petitioner consistently enhanced its focus on conducting raids at consumer premises.
- 3.5.10 It is submitted that the T&D losses approved by the Hon'ble Commission in tariff order dated 2nd August 2012 was based on the trajectory fixed by the Hon'ble Commission in "Distribution Tariff Regulations, 2010". The petitioner would like to aver that the T&D loss of 19% is a computed figure without any study and based on reduction of trajectory set in the Tariff Regulations, 2010.
- 3.5.11 The Petitioner would like to submit that in the Report "Loss Reduction Strategies Review of Provisions in Act and Policies" issued by Forum of Regulators in September 2008, FOR Group has specified in para 8.4.1 of page no. 21 of the report that
- "The group felt that the trajectory for loss reduction should be determined keeping in view the actual loss levels, the capital expenditure made in the past for improving the network infrastructure, and the future capital expenditure plans for the purpose. This was important keeping in view the Orissa experience, where the loss level allowed in tariff at the beginning of the reforms process was much below the actual loss level and this completely distorted the revenue requirement and the utility went into a perennial loss".*



- 3.5.12 Further, if the loss trajectory as per the Hon'ble Commission is considered, i.e.18%, it shall result into a reduction of 12.89% loss (30.89% (actual T&D loss for FY 2011-12 – 18.00%) which is an uphill task and therefore a realistic approach is required to be undertaken. The Petitioner would like to submit that measurement of the T&D losses and thereafter specifying a reduction target is an important component of the whole exercise of revenue requirement.
- 3.5.13 It is re-submitted in the given petition that the significant disallowances on grounds of non-achievement of T&D loss as approved by unrealistic T&D loss target provided by the Hon'ble Commission in the past Tariff Order issued by Hon'ble Commission had an adverse impact on the revenue of the Petitioner. It also mentioned that such basis is not reflective of the prudent cost of supply calculated in accordance with guiding principles laid by the NTP and the recommendations of Abraham Committee Task Force.
- 3.5.14 The Petitioner prays that the disincentive for non-achievement of Distribution losses be discontinued and reversed with retrospective effect in the current petition for FY 2012-13. As it has not only been adversely impacting the financial viability of the Petitioner but have also encouraged inefficient usage of electricity in the State. This basically violates the objective of the NTP which states that financial viability of the utility needs to be maintained while deciding tariff.
- 3.5.15 The Petitioner humbly submit that the T&D loss arrived without any support data or considering the past trajectory and thus requests the Hon'ble Commission to kindly approve the energy balance and revised T&D loss for FY 2012-13 as per actual figures.

3.6 Operation & Maintenance Expenses

- 3.6.1 Operation & Maintenance Expenses consists of three elements viz Employee Expenses, A&G Expense and R&M Expense:
- Employee expenses comprise of salaries, dearness allowance, bonus, terminal benefits in the form of pension & gratuity, leave encashment and staff welfare expenses



Petition for Provisional True-up for FY 2012-13 –
JSEB (Distribution)

- Administrative expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.
- Repairs and Maintenance Expenses go towards the day to day upkeep of the distribution network of the Board and form an integral part of the Board's efforts towards reliable and quality power supply as also in the reduction of losses in the system.

3.6.2 For the allocation of O&M expense, the principle as specified in Para 2 and Table 1 of this petition has been adopted.

3.6.3 **Employee Expenses**

- ✓ The Employee Expense for the whole of JSEB for the FY 2012-13 is around Rs. 290.65 Crs as per the provisional annual accounts. Thus, in line with the principles adopted for allocation of the Employee Expenses to each of the function as specified in Table 1 of this petition, the employee expense for each function of JSEB is outlined in the following table:

Table 10: Allocation of Employee Expenses of JSEB

Employee Expenses	Thermal	Hydro	Trans.	Dist.	Area Board	D. D. A. (Sectt)	R. E. Wing.	Technical Service	D.D.A. (HQ)	Common Units	Total
FY 2012-13 (Provisional)											
Salaries	28.07	3.45	9.78	65.64	5.86	13.02	-	-	-	-	125.82
Over Time	0.60	0.07	0.34	0.22	0.64	-	-	-	-	-	1.88
Dearness Allowance	19.53	2.46	6.68	37.58	3.57	8.86	-	-	-	-	78.68
Other Allowance	0.83	0.15	1.13	8.29	0.99	2.54	-	-	-	-	13.93
Bonus.	-	-	-	-	-	-	-	-	-	-	-
Medical Exp. (Rem.)	0.82	0.10	0.08	0.33	0.10	0.37	-	-	-	-	1.80
L.T.A.	-	-	-	-	-	-	-	-	-	-	-
E.L.E.	6.30	0.74	0.74	7.26	0.84	1.84	-	-	-	-	17.72
Workment. Comp.	-	-	-	0.41	0.08	-	-	-	-	-	0.49
Staff Welfare Expenses	0.03	0.16	0.00	0.69	0.01	0.36	-	-	-	-	1.24
Terminal Benefits	10.01	1.56	2.94	21.72	9.24	3.64	-	-	-	-	49.09
Total Employee Expenses of JSEB	66.19	8.70	21.68	142.14	21.33	30.62	-	-	-	-	290.65
Allocation - Area Board, RE wing and Technical service to Distribution				21.33							21.33
Allocation - DDA (Sect. & HQ) and Common Units equally to all function	7.65	7.65	7.65	7.65							30.62
Total Employee Expenses of each function	73.84	16.35	29.33	171.12							290.65

- ✓ Based on the allocation principle adopted by the Petitioner for segregation of Employee expenses and as highlighted in the above table, the variance between



the approved and actual employee expenses for each function is highlighted in table below:

Table 11: Employee Expenses (approved vis-a-vis actual)

Employee Cost of JSEB for FY 2012-13					
Particulars	Approved	Actual	Difference	Approved	Actual
	Rs. Crs			% Allocation	
Generation					
<i>Thermal</i>	69.39	73.84	(4.45)	24.75%	25.41%
<i>Hydel</i>	8.50	16.35	(7.85)	3.03%	5.63%
Transmission	28.42	29.33	(0.91)	10.14%	10.09%
Distribution	174.07	171.12	2.95	62.08%	58.88%
Total	280.38	290.65	(10.27)	100.00%	100.00%

- ✓ As can be analysed from the above table, the variance in the approved and actual expenses is ~3.66% which may not be considered as a major variance. However, in between the functional allocation of the cost, the more has been allocated to Generation (Thermal & Hydro) Function than as been approved by the Hon'ble Commission in August 2012 order which was based on the assumptions of allocation on the basis of the number of employees.
- ✓ The Petitioner also submits that the increase in the employee cost is due to the reason that at the time of creation of the Board, no funds had been transferred to JSEB for payment of outstanding liabilities like pension, GPF, Gratuity and other terminal benefits, which it had to incur through its own resources
- ✓ The petitioner requests Hon'ble Commission to approve the employee expenses as proposed in truing-up for FY 2012-13.

3.6.4 Administrative and General Expenses

- ✓ The A&G Expenses for the whole of JSEB for the FY 2012-13 is around Rs. 69.78 Crs as per the provisional annual accounts. Thus, in line with the principles adopted for allocation of the A&G Expenses to each of the function as specified in Table 1 of this petition, the A&G expenses of JSEB is allocated as outlined in the following table:



Petition for Provisional True-up for FY 2012-13 –
JSEB (Distribution)

Table 12: Allocation of A&G Expenses of JSEB

A&G Expenses	Thermal	Hydro	Trans.	Dist.	Area Board	D. D. A. (Sectt)	R. E. Wing.	Technical Service	D.D.A. (HQ)	Common Units	Total
FY 2012-13 (Provisional)											
Rent, Rates & Taxes	0.03	0.00	0.01	4.01	0.10	1.43	-	-	-	-	5.57
Insurance	0.91	0.02	0.00	-	-	0.04	-	-	0.06	-	1.03
Telephone Charges, Postage, Telegram & Telex Charges	0.06	0.00	0.08	0.32	0.20	0.71	-	-	-	-	1.38
Legal Charges	0.01	0.02	0.00	1.15	0.01	1.33	-	-	-	-	2.52
Audit Fees	-	-	-	-	-	1.72	-	-	-	-	1.72
Consultancy Charges	-	-	-	0.18	-	0.41	0.58	-	0.06	-	1.23
Technical Fees	-	-	-	0.17	-	0.00	-	-	-	-	0.17
Professional Charges	0.21	-	-	0.03	0.04	-	-	-	-	-	0.28
Conveyance and Travels	0.73	0.20	0.84	3.32	0.47	1.82	-	-	-	-	7.39
Fees and Subscriptions	-	0.00	-	0.01	0.00	1.02	-	-	0.01	-	1.04
Books & Periodicals	0.01	0.00	0.00	0.00	0.00	0.01	-	-	-	-	0.03
Printing & Stationary	0.01	0.00	0.02	0.14	0.03	0.58	-	-	-	-	0.79
Advertisements	-	-	-	0.00	0.00	2.28	-	-	-	-	2.28
Water Charges	-	-	-	0.01	-	-	-	-	-	-	0.01
Electric. Charges	-	0.07	0.06	3.66	0.34	0.16	-	-	-	-	4.28
Entertainment Charges	0.03	0.00	0.01	0.04	0.01	0.14	-	-	-	-	0.24
Misellaneous. Expenses	13.81	0.53	1.28	15.78	2.38	0.47	0.00	-	3.94	-	38.20
Freight	0.89	-	0.03	0.29	0.02	-	-	-	-	-	1.22
Purchase. Related Expenses	-	-	0.01	0.40	-	-	-	-	-	-	0.41
Total A&G Expenses of JSEB	16.70	0.86	2.35	29.49	3.60	12.12	0.58	-	4.07	-	69.78
Allocation - Area Board, RE wing and Technical service to Distribution				4.18							4.18
Allocation - DDA (Sect. & HQ) and Common Units equally to all function	4.05	4.05	4.05	4.05							16.19
Total A&G Expenses of each function	20.75	4.90	6.39	37.73							69.78

- ✓ Based on the allocation principle adopted by the Petitioner for segregation of A&G expenses and as highlighted in the above table, the variance between the approved and actual A&G expenses for each function is highlighted in table below:

Table 13: A&G Expenses (approved vis-à-vis actual)

Administration & General Cost of JSEB for FY 2012-13					
Particulars	Approved	Actual	Difference	Approved	Actual
	Rs. Crs			% Allocation	
Generation					
<i>Thermal</i>	14.36	20.75	(6.39)	24.73%	29.74%
<i>Hydel</i>	1.76	4.90	(3.14)	3.03%	7.03%
Transmission	5.91	6.39	(0.48)	10.18%	9.16%
Distribution	36.04	37.73	(1.69)	62.06%	54.07%
Total	58.07	69.78	(11.71)	100.00%	100.00%



- ✓ As can be analysed from the above table, the variance in the approved and actual expenses is ~Rs. (11.71) Crs. Also, in between the functional allocation of the cost, the more has been allocated to Generation (Thermal & Hydro) Function then as been approved by the Hon'ble Commission in August 2012 order which was based on the assumptions of allocation on the basis of the number of employees.
- ✓ The reasons for such escalation in A&G expenses are as outlined below:
 - The Thermal and Hydro Plant has witness a growth in Generation in FY 2012-13 as compared to past years which has resulted in increase in A&G cost;
- ✓ The petitioner requests Hon'ble Commission to approve the employee expenses as proposed in truing-up for FY 2012-13.
- ✓ The Hon'ble Commission is requested to allow the A&G expenses of JSEB for FY 2012-13 as per Audited accounts.

3.6.5 **Repair and Maintenance Expenses**

- ✓ The R&M Expenses for the whole of JSEB for the FY 2012-13 is around Rs. 70.24 Crs as per the provisional annual accounts. Thus, in line with the principles adopted for allocation of the R&M Expenses to each of the function as specified in Table 1 of this petition, the R&M expenses of JSEB is allocated as outlined in the following table:

Table 14: Allocation of R&M Expenses of JSEB

R&M Expenses	Thermal	Hydro	Trans.	Dist.	Area Board	D. D. A. (Sectt)	R. E. Wing.	Technical Service	D.D.A. (HQ)	Common Units	Total
FY 2012-13 (Provisional)											
Plant and Machinery	12.45	3.83	12.05	1.03	2.56	-	-	-	-	-	31.91
Buildings	1.26	0.17	0.54	1.05	0.18	1.97	-	-	-	-	5.17
Civil Works	0.12	0.79	0.98	0.66	1.12	0.70	-	-	-	-	4.37
Hydraulic Works	0.65	0.15	-	0.01	-	-	-	-	-	-	0.81
Line Cable Networks etc	0.49	0.35	4.54	17.76	3.69	-	-	-	-	-	26.82
Vehicles	0.04	0.03	-	0.01	-	0.12	-	-	-	-	0.20
Furniture and Fixture	0.00	0.00	0.02	0.01	0.00	-	-	-	-	-	0.03
Office Equipments	-	0.00	0.20	0.03	0.02	0.68	-	-	-	-	0.94
Total R&M Expenses of JSEB	15.01	5.31	18.32	20.56	7.57	3.48	-	-	-	-	70.24
Allocation - Area Board, RE wing and Technical service to Distribution				7.57							7.57
Allocation - DDA (Sect. & HQ) and Common Units equally to all function	0.87	0.87	0.87	0.87							3.48
Total R&M Expenses of each function	15.88	6.18	19.19	29.00							70.24
Cl. GFA	922	45	498	1,881							3,345.95
R&M as a % of GFA	1.72%	13.81%	3.85%	1.54%							2.10%



- ✓ As specified in the above table, the overall R&M expenses as a % of GFA is ~2.10% of the GFA which is lower than the overall % of 2.22% as approved by the Hon'ble Commission in August 2012 tariff order. However, after the allocation of the expenses, the ratio for each function differs.
- ✓ Based on the allocation principle adopted by the Petitioner for segregation of R&M expenses and as highlighted in the above table, the variance between the approved and actual R&M expenses for each function is highlighted in table below:

Table 15: R&M Expenses (approved vis-a-vis actual)

Repair & Maintenance Cost of JSEB for FY 2012-13					
Particulars	Approved	Actual	Difference	Approved	Actual
	Rs. Crs			% Allocation	
Generation					
<i>Thermal</i>	21.63	15.88	5.75	29.91%	22.60%
<i>Hydel</i>	1.14	6.18	(5.04)	1.58%	8.80%
Transmission	13.56	19.19	(5.63)	18.75%	27.32%
Distribution	35.99	29.00	6.99	49.76%	41.28%
Total	72.32	70.24	2.08	100.00%	100.00%

- ✓ As can be analysed from the above table, the variance in the approved and actual expenses is on a lower side whereby against the approval of R&M cost of 2.22% of the GFA (i.e. Rs. 72.32 Crs), the actual is only ~2.10% of the GFA resulting in a lower actual cost by Rs. 2.08 Crs. However, in between the functional allocation of the cost, the more has been allocated to Generation (Thermal & Hydro) Function than as been approved by the Hon'ble Commission in August 2012 order.
- ✓ The R&M expenses has been allocated on a higher side in the generation plant due to higher operation of both the plants as compare to the earlier years.
- ✓ The petitioner requests Hon'ble Commission to approve the R&M expenses as proposed in truing-up for FY 2012-13.

3.6.6 **Operation and Maintenance Expenses**

- ✓ Based on the foregoing paragraphs, Summary of O&M expense for the JSEB as a whole based on the accounts for FY 2012-13 has been calculated at **Rs. 430.66 Crs** as against **Rs. 410.78 Crs** approved by the Hon'ble Commission which is shown in the table below:



Table 16 : O&M Expense for JSEB for FY 2012-13

Operation & Maintenance Cost of JSEB for FY 2012-13					
Particulars	Approved	Actual	Difference	Approved	Actual
	Rs. Crs			% Allocation	
Generation					
<i>Thermal</i>	105.39	110.47	(5.08)	25.66%	25.65%
<i>Hydel</i>	11.40	27.43	(16.03)	2.78%	6.37%
Transmission	47.89	54.92	(7.03)	11.66%	12.75%
Distribution	246.10	237.84	8.26	59.91%	55.23%
Total	410.78	430.66	(19.88)	100.00%	100.00%

- ✓ The Petitioner submits that the variance between the approved and actual O&M expenses is 4.84% which is not a major difference and request to approve this variance.
- ✓ The Hon'ble Commission is requested to approve the O&M Expenses for the JSEB for FY 2012-13 which is based on Provisional Annual Accounts of JSEB and the methodology adopted as specified in Table 1 of this petition.

3.7 CWIP, GFA and Depreciation

3.7.1 The petitioner submits that the erstwhile JSEB was an integrated utility carrying generation, transmission and distribution function and therefore there is a practical difficulty in segregation of CWIP, Loans, Consumer contribution, etc. Hence, the petitioner has submitted the bifurcation of such expenditure based on certain assumption as highlighted in Table 1 of this petition. The petitioner requests the Hon'ble Commission to allow the basis of such allocation.

3.7.2 The Capital Work In Progress (CWIP), Gross Fixed Asset (GFA) and Depreciation are shown below. The figures of CWIP, GFA and depreciation have been derived from the provisional annual accounts.

3.7.3 The petitioner submits on the consolidated basis the CWIP statement of JSEB as a whole for FY 2012-13 with the allocation break-up of the amount function wise in the following table



Petition for Provisional True-up for FY 2012-13 –
JSEB (Distribution)

Table 17 : CWIP, CAPEX and Capitalisation for FY 2012-13

Provisional CWIP of JSEB for FY 2012-13						
Particulars	CAPEX	Capitalisation	Op. Bal	CAPEX	Capitalisation	Cl. Bal
	Approved		Provisional			
Generation						
<i>Thermal</i>	120.00	226.49	176.45	32.15	186.98	21.62
<i>Hydel</i>	30.00	13.55	-	-	-	-
Transmission	1,246.22	484.98	187.58	25.41	3.85	209.14
Distribution	1,103.00	626.26	1,388.23	955.73	654.33	1,689.64
Total	2,499.22	1,351.28	1,752.26	2,098.24	845.16	1,920.40

3.7.4 As seen from the table above, the CWIP has a variation with the approved figures by the Hon'ble Commission whereby the Capital Expenditure incurred and capitalisation during the FY 2012-13 is lower as compared to approved figures. This Capex pertains to the expenses carried under the Annual Development, R-APDRP and RGGVY for the year FY 2012-13. It is submitted that under R-APDRP, major expenditure has been under Hardware installation and other relevant works, payments to IT Consultant, Development Infrastructure, and R-APDRP Manpower.

3.7.5 Based on the capitalisation carried out during the year, the depreciation has been calculated on Straight Line Method for each function which is as specified in the annual accounts of JSEB.

Table 18 : GFA and depreciation of each Function for FY 2012-13

Rs. Crs

Gross Fixed Assets of JSEB for FY 2012-13								
Particulars	Op. Bal	Capitalisation	Cl. Bal	Depn.	Op. Bal	Capitalisation	Cl. Bal	Depn.
	Approved				Provisional			
Generation								
<i>Thermal</i>	975.64	226.49	1,202.13	12.77	733.52	186.98	920.50	13.61
<i>Hydel</i>	51.31	13.55	64.86	1.03	43.02	-	43.02	1.94
Transmission	611.53	484.98	1,096.51	26.30	492.56	3.85	496.42	25.72
Distribution	1,623.07	626.26	2,249.33	67.72	1,231.68	654.33	1,886.01	94.63
Total	3,261.55	1,351.28	4,612.83	107.82	2,500.79	845.16	3,345.95	135.90

3.7.6 The Petitioner request the Hon'ble Commission to allow the CAPEX, Capitalisation and Depreciation as submitted in the Petition.



3.8 Interest and Finance Charges

3.8.1 Since erstwhile JSEB is an integrated utility, the segregation of loan as well as other financial charges are allocated in the ratio as specified in Table 1 of this petition. The detailed about allocation of interest and financial charges has been specified in the petition below:

3.8.2 The Petitioner submits that the Hon'ble Commission while approving the interest on loan has considered average balance of Normative Loan for the each function. Also, the deemed repayments for normative loans had been considered equivalent of the net depreciation cost of the financial year and the deemed additions during the year as the balancing figure while approving the loan.

3.8.3 However the petitioner would like to submit to the Hon'ble Commission that the actual interest on Loan for the petitioner computes to Rs. 593.61 Crs. as per provisional accounts for FY 2012-13. The allocation for interest on Loan is done as per Table 1 of this petition whereby the Interest on loan has been allocated in the similar ratio which is adopted in the petition for true-up for FY 2011-12.

3.8.4 The Petitioner submits that apart from the interest on loan which is paid to State Government, on bonds and PFC loan, there is also an financial charges in form of interest paid on Group Saving Scheme (GSS), Interest paid on General Provident Fund (GPF), interest on security deposit from staff and other interest and finance charges. The ratio of allocation of specified interest and financial charges are highlighted in the table below:

Table 19: Ratio of allocation of interest and Financial Charges

Particulars	Thermal	Hydro	Trans.	Dist.	Total	Base of allocation
Interest on Loan	5%	1%	12%	82%	100%	As per FY 2011-12
Interest to G.S.S.	22%	2%	15%	61%	100%	Employee Ratio
Interest to G.P.F	22%	2%	15%	61%	100%	Employee Ratio
Other Interest and Finance Charges	5%	1%	12%	82%	100%	As per FY 2011-12

* - All

other costs are allocated based on actual, based on the provisional accounts

3.8.5 Based on the above allocation table, the interest on loan and financial charges has been allocated to each function accordingly as outlined in the following table:



Table 20: Interest and Finance Charges (Functional basis)

Rs. Crs

Interest and Financial Charges of JSEB for FY 2012-13					
Particulars	Thermal	Hydro	Trans.	Dist.	Total
Interest on Loan					
Interest on State Govt. Loan.	27.59	4.83	67.44	466.77	566.63
Interest on Bonds	0.74	0.13	1.81	12.52	15.20
Interest on PFC Loan	0.57	0.10	1.40	9.70	11.78
Total Interest on Loan	28.91	5.06	70.65	488.99	593.61
Less: Interest Capitalised	5.68	0.99	13.88	96.05	116.60
Net Interest on Loan	23.23	4.07	56.77	392.94	477.01
Other Financial Charges					
Interest to G.S.S.	0.03	0.00	0.00	0.07	0.09
Interest to G.P.F	9.27	0.97	5.45	17.77	33.45
Interest on Security Deposit from Staff.	-	-	0.00	-	0.00
Other Interest and Finance Charges	10.50	1.84	25.56	176.93	214.83
Total Financial Charges	19.80	2.80	31.01	194.77	248.37
Total Interest and Financial Charges of each function	43.03	6.87	87.78	587.71	725.38

3.8.6 The Hon'ble Commission is requested to approve the amount of **Rs. 725.38 Crs** as Interest Amount as shown above.

3.9 Interest on Security Deposit

3.9.1 The security deposit in JSEB pertains to the distribution functions wholly. The provision for Interest on Security Deposit for FY 2012-13 has been made based on the prevailing RBI Bank Rate. This is in accordance with Jharkhand Electricity Supply Code Regulations, 2005. However, the RBI Bank Rate in FY 2012-13 are as follows:

- From 13th Feb 2012 to 16th April 2012 – 9.50% (RBI circular dated 13/02/2012)
- From 17th April 2012 to 28th January 2013 – 9.00% (RBI circular dated 17/04/2012)
- From 29th January 2013 to 18th March 2013 – 8.75% (RBI circular dated 29/01/2013)
- From 19th March 2013 to 31st March 2013 – 8.50% (RBI circular dated 19/03/2013)

Source - <http://www.allbankingsolutions.com/Banking-Tutor/Chronology-Bank-Rate-India.shtml>



Table 21 : Interest on Security Deposit for FY 2012-13

Interest on Security Deposit (Rs. Crs)		
Particulars	Approved	Annual Account
	FY 2012-13	FY 2012-13
Opening Security Deposit (in cash only)		254.69
Security Deposit received		33.69
Closing Security Deposit		288.38
Average Security Deposit		271.53
Rate of Interest :	6%	8.88%
Interest on Security Deposit	16.26	24.10

3.9.2 Accordingly, JSEB has calculated Interest on Security Deposit considering the average interest rates @8.88% (interest prevailing @9% and 8.75% for FY 2012-13) at **Rs. 24.10 Crs** for FY 2012-13 and request the Hon'ble Commission to approve the same.

3.10 Interest on Working Capital

3.10.1 The petitioner would like to submit that it borrows loans from various banks/institutions etc for working capital requirements. However, it is submitted that since the interest on working capital is provided on normative principles, the petitioner is herewith computing the same as per principles outlined by the Hon'ble Commission in its Terms and Conditions of Tariff Regulations, 2010 for each function.

3.10.2 Also, in line with the Tariff Regulations, the interest considered on working capital is 14.75% which is SBI PLR as on 1st April 2012.

3.10.3 The details of the calculation of working capital loan for each function i.e. Generation – Thermal & Hydro, Transmission and Distribution are summarised in the following paragraphs:

Generation – Thermal Power

✓ As per Clause 7.34 of "Generation Tariff Regulations, 2010" for Thermal Power Station as:

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



- (ii). *Cost of secondary fuel oil for two months for generation corresponding to the Normative Annual Plant Availability Factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;*
 - (iii). *Maintenance spares @ 20% operation and maintenance expenses*
 - (iv). *Operation and maintenance expenses for 1 month*
 - (v). *Receivables equivalent to 2 months of capacity and energy charges from sale of electricity calculated on the NAPAF.”*
- ✓ The computation of working capital for the Generation – Thermal function is shown in the following table. Further, as the JSEB was still an integrated unit in FY 2012-13, the working capital on receivables is considered to be equivalent to the ARR of Generation -Thermal Function as there is no base for revenue calculation.

Table 22: Interest on Working Capital – Generation (Thermal) Function

Interest on Working Capital of PTPS for FY 2012-13		
Particulars	Approved	Actual
Cost of Coal for 1.5 months	7.95	10.52
Cost of Secondary Fuel Oil for 2 months#	1.50	18.60
O&M expenses for 1 month	8.78	9.21
Maintenance spares @ 20% of O&M Expenses	21.08	22.09
Receivables for 2 months	49.43	52.65
Total Working Capital	88.74	113.07
Rate of Interest	14.75%	14.75%
Interest on Working Capital	13.09	16.68

Generation – Hydro Power:

- ✓ **As per Clause 7.36 of Generation Tariff Regulations, 2010 for Hydro Power Station as:**
- (i). *Receivables equivalent to 2 months of fixed Cost.*
 - (ii). *Maintenance spares @ 15% operation and maintenance expenses*
 - (iii). *Operation and maintenance expenses for 1 month*
- ✓ The computation of working capital for the Generation – Hydro function is shown in the following table. Further, as the JSEB was still an integrated unit in FY 2012-13, the working capital on receivables is considered to be equivalent to the ARR of Generation –Hydro Function as there is no base for revenue calculation.



Table 23: Interest on Working Capital – Generation (Hydro) Function

Interest on Working Capital of SHPS for FY 2012-13		
Particulars	Approved	Actual
O&M expenses for 1 month	0.95	2.29
Maintenance spares @ 15% of O&M Expenses	1.71	5.49
Receivables for 2 months	2.82	5.71
Total Working Capital	5.48	7.77
Rate of Interest	14.75%	14.75%
Interest on Working Capital	0.81	1.15

Transmission Function

- ✓ **As per Clause 7.30 of Transmission Tariff Regulations, 2010 as:**
 - a) *Operation & Maintenance expenses for one month.*
 - b) *Maintenance spares @ 15% of operation and maintenance expenses*
 - c) *Receivables equivalent to two months of fixed cost*

- ✓ The computation of working capital for the Transmission function is shown in the following table. Further, as the JSEB was still an integrated unit in FY 2012-13, the working capital on receivables is considered to be equivalent to the ARR of Transmission Function as there is no base for revenue calculation.

Table 24: Interest on Working Capital – Transmission Function

Interest on Working Capital of Transmission for FY 2012-13		
Particulars	Approved	Actual
O&M Expenses (1 Month)	3.99	4.58
Maintenance Spares (15% of O&M)	7.18	8.24
Receivables for 2 months	30.82	33.36
Total Working Capital	41.99	46.17
Rate of Interest	14.75%	14.75%
Interest on Working Capital	6.19	6.81

Distribution function

- ✓ **As per Clause 6.26 of Distribution Tariff Regulations, 2010:**
 - (i). *Operation and maintenance expenses for 1 month plus*
 - (ii). *Maintenance spares at 1% of Opening GFA; plus*
 - (iii). *Two months equivalent of the expected revenue from sale of electricity at the prevailing tariffs; minus*



- (iv). Amount held as security deposits; minus
(v). One month equivalent of cost of power purchased

- ✓ The computation of working capital for the Distribution function is shown in the following table.

Table 25: Interest on Working Capital for FY 2012-13

Interest on Working Capital of Distribution for FY 2012-13		
Particulars	Approved	Actual
O&M Expenses (1 Month)		19.82
Maintenance Spares (1% of Opening GFA)		12.32
Expected Revenue at Existing Tariff (2 Months)		622.10
Less:		
Power Purchase Cost (1 Month)		317.11
Security Deposit		295.33
Total Working Capital		41.80
Rate of Interest	14.75%	14.75%
Interest on Working Capital	-	6.17

3.10.4 Based on the above submission, the interest on working capital claimed by the Petitioner for each function is depicted in the following table:

Table 26: Interest on Working Capital of JSEB

Interest on Working Capital of JSEB for FY 2012-13		
Particulars	Approved	Actual
Generation - Thermal	13.09	16.68
Generation - Hydro	0.81	1.15
Transmission	6.19	6.81
Distribution	-	6.17
Total Working Capital	20.09	30.80

3.11 Total Interest and Finance Charges including other interest

3.11.1 Accordingly, the total Interest and Finance Charges for FY 2012-13 including interest on working capital and interest on security deposit is tabulated as below:



Table 27 : Interest and Finance Charges of JSEB for FY 2012-13

Interest on Finance Charges (Rs.Crs)		
Particulars	Approved	Annual Account
	FY 2012-13	FY 2012-13
Generation - Thermal Function		
Interest on Normative Loan	41.34	43.03
Interest on Working Capital	13.09	16.68
Total Interest & Finance Charges - (A)	54.43	59.70
Generation - Hydro Function		
Interest on Normative Loan	2.14	6.87
Interest on Working Capital	0.81	1.15
Total Interest & Finance Charges - (B)	2.95	8.02
Transmission Function		
Interest on Normative Loan	65.95	87.78
Interest on Working Capital	6.19	6.81
Total Interest & Finance Charges - (C)	72.15	94.59
Distribution Function		
Interest on Normative Loan	58.72	587.71
Interest on Working Capital	-	6.17
Interest on Security Deposit	16.26	24.10
Total Interest & Finance Charges - (D)	74.98	617.97
JSEB as an integrated unit		
Interest on Normative Loan	168.15	725.38
Interest on Working Capital	20.09	30.80
Interest on Security Deposit	16.26	24.10
Total Interest & Finance Charges - (A+B+C+D)	204.51	780.29

3.11.2 It is requested to the Hon'ble Commission to approve the Interest and Finance Charges amounting to **Rs. 780.29 Crs** for FY 2012-13 in true-up process.

3.12 Reasonable Rate of Return on Equity

3.12.1 The Petitioner submits that the Return on Equity has been calculated in the Petition for each function separately based on the specific regulations as specified below:

✓ **Generation Function – Thermal & Hydro**

- As per Clause 7.3, 7.13 & 7.14 of "Generation Tariff Regulations 2010", the return on equity has been calculated on pre-tax basis at the base rate of 15.50% considering 30% of the CAPEX as addition to the equity during the year.

✓ **Transmission Function**



Petition for Provisional True-up for FY 2012-13 –
JSEB (Distribution)

- As per Clause 7.10 of the “Transmission Tariff Regulations 2010”, the return on equity has been calculated on pre-tax basis at the base rate of 15.50% considering 30% of the CAPEX as addition to the equity during the year.
- ✓ **Distribution Function**
 - As per Clause 6.20 to 6.23 of the “Distribution Tariff Regulations 2010” and the methodology adopted by the Hon’ble Commission in the tariff order issued in August 2013, the Return on Equity has been calculated at the base rate of 15.50% whereby the closing equity has been considered at 30% of GFA less the Consumer Contribution.

3.12.2 The petitioner submits that the opening equity balances for each function is based on submission of true-up petition made by erstwhile JSEB for FY 2011-12 (closing balance of FY 2011-12).

3.12.3 The details of the calculation of the Equity base for Distribution function has been highlighted in the following table:

Table 28: Equity base for Distribution Function

Rs. Crs

Equity Component - Distribution	
Particulars	Accounts
Gross fixed assets	1,886.01
Less:Accumulated Depreciation	682.28
Net Fixed Assets	1,203.73
Sources	
Consumer Contribution	1,316.54
Closing Equity base [30% * (GFA - Contribution)]	170.84

3.12.4 The Return on Equity approved by the Hon’ble Commission in its Tariff Order and as computed by JSEB (each function wise) for FY 2012-13 is summarised in the table below:

Table 29 : Return on Equity for FY 2012-13

Return on Equity	Units	Approved					Accounts				
		Thermal	Hydro	Trans.	Dist.	Total	Thermal	Hydro	Trans.	Dist.	Total
Equity (Opening Balance)	Rs Crs	292.69	15.39	183.46	205.25	696.79	220.07	12.92	147.77	134.73	515.49
Net additions during the year	Rs Crs	67.95	4.06	145.49	174.92	392.42	9.65	-	7.62	36.11	53.38
Equity (Closing Balance)	Rs Crs	360.64	19.45	328.95	380.17	1,089.21	229.72	12.92	155.39	170.84	568.87
Average Equity	Rs Crs	326.67	17.42	256.21	292.71	893.00	224.89	12.92	151.58	152.78	542.18
Rate of Return on Equity	%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Return on Equity	Rs Crs	50.63	2.70	39.71	45.37	138.42	34.86	2.00	23.50	23.68	84.04



3.12.5 The Hon'ble Commission is requested to approve the RoE for JSEB as whole at **Rs. 84.04 Crs.**

3.13 Non Tariff Income

3.13.1 The Non-Tariff Income includes Delayed Payment Surcharge, interest on staff loans, income from investment, income from trading, interest from banks etc.

3.13.2 While working out the Non Tariff Income, JSEB has disaggregated the Non Tariff Income based on the nature of the income that is attributable to each function. The details have been provided in the Table 1 of Chapter 2 of this petition.. The table below shows the Non Tariff Income for Generation (Thermal & Hydro), Transmission and Distribution Function for FY 2012-13.

Table 30 : Non Tariff Income for each function of FY 2012-13

Non-Tariff Income of JSEB for FY 2012-13					
Particulars	Thermal	Hydro	Transmission	Distribution	Total
Interest on Staff Loan & Advance	-	-	-	-	-
Income from Investment (F.D)	1.61	1.61	1.61	1.86	6.69
Interest on loans and advances to licensee	-	-	-	-	-
D.P.S from Consumer	-	-	0.70	203.30	204.00
Interest on advance to Supplier/Contractor	0.43	0.43	0.43	0.43	1.74
Interest from Bank (Other then F.D)	0.96	-	-	23.12	24.09
Income from trading	10.32	-	-	0.13	10.45
Income from staff Welfare Activities	-	-	0.17	0.01	0.18
Net Miscellaneous Receipt.	3.49	3.09	(4.34)	3.87	6.12
Meter Rent	-	-	-	7.92	7.92
Total	16.82	5.13	(1.42)	240.65	261.19

3.13.3 Based on the above allocation of Non-Tariff Income to each function, the comparison of Non-Tariff income with the amount approved by the Hon'ble Commission in August 2012 Tariff Order is highlighted in the following table:



Table 31: Non-Tariff Income of JSEB

Non-Tariff Income of JSEB			
Particulars	Approved	Actual	Difference
Generation			
<i>Thermal</i>	1.14	16.82	(15.68)
<i>Hydel</i>	1.14	5.13	(3.99)
Transmission	1.14	(1.42)	2.56
Distribution	223.13	240.65	(17.52)
Total	226.55	261.19	(34.64)

3.13.4 As can be depicted from the above table, the Non-Tariff Income as per the accounts is Rs. 261.19 Crs which is higher than the amount approved by the Hon'ble Commission. It is requested to the Hon'ble Commission to kindly approve the same for FY 2012-13.

3.14 Bad debts written off

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

3.14.2 It is requested to the Hon'ble Commission to consider the practical difficulties resulting due to the geographical spread of the large consumer base across the State including a large part of the same prevailing in the far flung areas and the problem of realizing energy dues from retail consumers, the bad & doubtful debts has been written off and request to allow the same.

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

3.14.4 Also, the petitioner submits it has made all efforts to achieve 100% collection efficiency during 2010-11 in accordance with the applicable JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010. However, it is submitted that while other utilities in the State have enjoyed a more favourable consumer mix and operate in limited supply areas, the Petitioner has the distribution Licensee for the entire State of Jharkhand including rural and far flung areas.



Considering the different consumer mix, it is practically difficult to maintain the target of 100% collection efficiency.

3.14.5 The Petitioner submits that the amounts related to bad debts are actually written off in the accounts and not a provision. In light of the above submission, the petitioner claims Rs. 72.15 Crs and request the same to be allowed in true-up.

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

3.15 Prior Period Item

3.15.1 The Petitioner submits that the prior period as per provisional accounts are in relation to the power purchase cost which though incurred in the previous years but has been recognised in the FY 2012-13 and in line with the accounting principles has been highlighted in a prior period item. The Petitioner also submits that since the cost is related to the power purchase item and therefore the same has been allotted 100% to the distribution function.

Table 32: Prior Period Item for FY 2012-13

Prior Period Expenses of JSEB			
Particulars	Approved	Actual	Difference
	Rs. Crs		
Distribution		1,520.03	(1,520.03)
Total	-	1,520.03	(1,520.03)

3.15.2 The petitioner requests Hon'ble Commission to approve the net prior period charges for FY 2012-13 as claimed above.

3.16 Revenue from Sale of Power

3.16.1 The revenue from sale of power as per Audited accounts is given in table below:



Table 33: Revenue from Sale of Power

Revenue for FY 2012-13			
Consumer Categories	Revenue (Rs. Crs)		
	Approved	Actual	Difference
Domestic		387.91	(387.91)
Commercial		244.69	(244.69)
Public Lighting		20.35	(20.35)
Irrigation		4.53	(4.53)
MES/PWW		40.37	(40.37)
Industrial LT / MT		110.04	(110.04)
Industrial HT		1,320.69	(1,320.69)
Railway		401.37	(401.37)
Inter-state sale		102.65	(102.65)
Total	2,949.99	2,632.61	317.38

3.16.2 The Petitioner submits that due to fall in demand of power, the sales and revenue has witnessed a downfall as compare to the same approved by the Hon'ble Commission in August 2012 Order.

3.16.3 The petitioner requests the Hon'ble Commission to approve the total revenue from sale of power for FY 2012-13.

3.17 Resource Gap

3.17.1 The erstwhile JSEB being a Government of Jharkhand entity, the un-bridged expenditure gap was being met either by revenue income from tariff fixed by the Hon'ble Commission for the different categories of consumers or as subsidy / resource gap funding by the Government of Jharkhand.

3.17.2 As per the accounts, the State Government has provided the resource funding of Rs. 1100 Crs for FY 2012-13.

3.17.3 The Petitioner submits that this subsidy as a part of Resource Gap support is used for meeting the future year ARR and for recovery against the accumulated revenue gap and against the retiring accumulated outstanding dues of various power generators and other old liabilities.



4. SUMMARIZED ARR AND REVENUE GAP FOR FY 2012-13

The petitioner would like to submit the separate ARR for each function for a true-up purpose for FY 2012-13 to the extent it is possible to segregate the expenses. It is submitted that Hon'ble Commission may however consider the final / total figures of all functions on a consolidated basis for the purpose of true-up of FY 2012-13. This chapter highlights the ARR of each function as well as for JSEB as a whole along with the revenue gap of FY 2012-13 to be claimed by the Petitioner in the tariff determination process to be undertaken by the Hon'ble Commission.

4.1 ARR of Generation – Thermal Function

4.1.1 The table below provides the ARR of Generation – Thermal Function for FY 2012-13:

Table 34 : Aggregate Revenue Requirement for Generation Thermal Function for FY 2012-13

True-up of PTPS Generation of JSEB for FY 2012-13			
Particulars	Approved	Accounts	Difference
Fuel Cost	63.56	84.12	(20.56)
Secondary Oil Cost + Other Fuel Cost	10.93	29.97	(19.04)
Employee cost	69.39	73.84	(4.45)
R&M expenses	21.63	15.88	5.75
A&G expenses	14.36	20.75	(6.39)
Interest and finance charges	41.34	43.03	(1.69)
Interest on working capital	13.09	16.68	(3.59)
Depreciation	12.77	13.61	(0.84)
Total Expenditure	247.07	297.88	(50.81)
Add: Return On Equity	50.63	34.86	15.77
Less: Non Tariff Income	1.14	16.82	(15.68)
Net Revenue Required	296.57	315.91	(19.34)
Add: Past Revenue Gap/(Surplus) from True up of FY 2003-04 to FY 2010-11	(63.99)	(63.99)	
Net Revenue Requirement after adjustment	232.58	251.92	



4.2 ARR of Generation – Hydro Function

4.2.1 The table below provides the ARR of Generation – Hydro Function for FY 2012-13:

Table 35: Aggregate Revenue Requirement for Generation Hydro Function for FY 2012-13

True-up of SHPS Generation of JSEB for FY 2012-13			
Particulars	Approved	Accounts	Difference
Fuel Cost	-	-	-
Employee cost	8.50	16.35	(7.85)
R&M expenses	1.14	6.18	(5.04)
A&G expenses	1.76	4.90	(3.14)
Interest and finance charges	2.14	6.87	(4.73)
Interest on working capital	0.81	1.15	(0.34)
Depreciation	1.03	1.94	(0.91)
Total Expenditure	15.38	37.39	(22.01)
Add: Return On Equity	2.70	2.00	0.70
Less: Non Tariff Income	1.14	5.13	(3.99)
Net Revenue Required	16.93	34.26	(17.33)
Add: Past Revenue Gap/(Surplus) from True up of FY 2003-04 to FY 2010-11	(4.49)	(4.49)	-
Net Revenue Requirement after adjustment	12.44	29.77	(17.33)

4.3 ARR of Generation Function (Thermal + Hydro)

4.3.1 The table below provides the ARR of whole Generation Function for FY 2012-13:

Table 36: Aggregate Revenue Requirement for Generation Function for FY 2012-13

True-up of Generation Function of JSEB for FY 2012-13			
Particulars	Approved	Accounts	Difference
Fuel Cost	63.56	84.12	(20.56)
Secondary Oil Cost + Other Fuel Cost	10.93	29.97	(19.04)
Employee cost	77.89	90.19	(12.30)
R&M expenses	22.77	22.05	0.72
A&G expenses	16.12	25.66	(9.54)
Interest and finance charges	43.48	49.90	(6.42)
Interest on working capital	13.90	17.82	(3.93)
Depreciation	13.80	15.54	(1.74)
Total Expenditure	262.45	335.27	(72.82)
Add: Return On Equity	53.33	36.86	16.47
Less: Non Tariff Income	2.28	21.96	(19.68)
Net Revenue Required	313.50	350.17	(36.67)
Add: Past Revenue Gap/(Surplus) from True up of FY 2003-04 to FY 2010-11	(68.48)	(68.48)	-
Net Revenue Requirement after adjustment	245.02	281.69	(36.67)



4.4 ARR of Transmission Function

4.4.1 The table below provides the ARR of Transmission Function for FY 2012-13:

Table 37: Aggregate Revenue Requirement for Transmission Function for FY 2012-13

True-up of Transmission Function of JSEB for FY 2012-13			
Particulars	Approved	Accounts	Difference
Employee expenses	28.42	29.33	(0.91)
Repair & Maintenance expenses	13.56	19.19	(5.63)
Administration & General expenses	5.91	6.39	(0.48)
Interest & Finance Charges	65.95	87.78	(21.83)
Interest on working Capital	6.19	6.81	(0.62)
Depreciation	26.30	25.72	0.58
Total Costs	146.34	175.23	(28.89)
Add: Return on Equity	39.71	23.50	16.22
Less: Non-Tariff Income	1.14	(1.42)	2.56
Net revenue recoverable	184.91	200.15	(15.24)
Add: Past Revenue Gap/ (Surplus) from True up of FY 2003-04 to FY 2010-11	(17.74)	(17.74)	-
Net Revenue Requirement after adjustment	167.17	182.41	(15.24)



4.5 ARR of Distribution Function

4.5.1 The table below provides the ARR of Distribution Function for FY 2012-13:

Table 38: Aggregate Revenue Requirement for Distribution Function for FY 2012-13

ARR for JSEB (Distribution Function) for FY 2012-13			
Particulars	Approved	Annual Account	Difference
Power Purchase cost	3,731.95	3,605.14	126.81
O&M Expenses	246.10	237.84	8.26
<i>Employee cost</i>	174.07	171.12	2.95
<i>R&M expenses</i>	35.99	29.00	6.99
<i>A&G expenses</i>	36.04	37.73	(1.69)
Total Interest and Finance Charges	74.98	617.97	(542.99)
<i>Interest on Loan and Finance charges</i>	58.72	587.71	(528.98)
<i>Interest on working capital</i>	-	6.17	(6.17)
<i>Interest on Consumer Security Deposits</i>	16.26	24.10	(7.84)
Bad debts provision	-	72.15	(72.15)
Depreciation	67.72	94.63	(26.91)
Prior period expenses	-	1,520.03	(1,520.03)
Gross Average Revenue Requirement	4,120.75	6,147.77	(2,027.01)
Add: Return on Equity	45.37	23.68	21.69
Less: Non Tariff Income	223.13	240.65	(17.52)
Net Aggregate Revenue Requirement	3,942.99	5,930.80	(1,987.80)



4.6 Total ARR and Revenue Gap for JSEB

4.6.1 The ARR for the whole of JSEB and the resultant gap is shown in the following table for FY 2012-13:

Table 39 : Aggregate Revenue Requirement - JSEB for FY 2012-13

ARR for JSEB as whole - Rs. Crs			
Particulars	Approved	Annual Account	Difference
Generation ARR (Thermal)	296.57	315.91	19.34
Generation ARR (Hydro)	16.93	34.26	17.33
Transmission ARR	184.91	200.15	15.24
Distribution ARR	3,942.99	5,930.80	1,987.80
Total ARR	4,441.40	6,481.11	2,039.71
Revenue from Sale of Power	2,949.99	2,632.61	(317.38)
Resource Gap Funding from State Government	1,000.00	1,100.00	100.00
Total Revenue	3,949.99	3,732.61	(217.38)
Revenue Gap of the Year	491.41	2,748.51	2,257.10

4.6.2 The Hon'ble Commission is requested to allow the revenue gap for FY 2012-13 excluding Carrying Cost thereof at **Rs. 2,748.51 Crs**. The Hon'ble Commission is also requested to approve above mentioned Revenue gap and suggest the methodology for recovery of the same.

4.7 Carrying Cost

4.7.1 As per Section 10 of the Tariff Order dated 3rd August 2012, the Hon'ble Commission has approved a gap of Rs. 448.30 Crs upto FY 2012-13 which has been arrived at after adjusting Rs. 1000 Crs as a proposed gap funding proposed by State Government. It is submitted that depriving the Utility from the recovery of total gap has resulted in further increase in gap and therefore, the petitioner hereby claims the carrying cost on the unrecovered gap for FY 2012-13.

4.7.2 Also, as per Clause 7.66 of the Tariff Order dated 3rd August 2012, it reads-
"The Commission has not computed the revenue gap for the Petitioner for FY 2011-12 on provisional basis. The revenue gap for FY 2011-12 along with the carrying cost, shall be computed and allowed by the Commission in the tariff for the next financial year when the audited accounts for FY 2011-12 are made available by the Petitioner."



4.7.3 The petitioner feels that it has been deprived of the revenue it was eligible in earlier years due to which there has been revenue gap in the true-up process. Accordingly petitioner hereby claims the carrying cost on the unrecovered revenue gap for FY 2012-13 also.

Table 40: Computation of Carrying Cost for FY 2012-13

Carrying Cost for gap of FY 2012-13		
Particulars	Units	Amount
Revenue gap of the year	Rs. Crs	2,748.51
Interest Rate equivalent to Interest on Working cap	%	14.75%
Carrying cost for FY 2012-13 to FY 2013-14	Rs. Crs	810.81

4.7.4 The Petitioner submits that though the carrying cost has been calculated till FY 2013-14, it is requested to the Hon'ble Commission, that the carrying cost for the FY 2014-15 till the date of the Tariff Order issued may also be allowed to be recover.

4.7.5 Hence the Hon'ble Commission is requested to allow the Petitioner to recover the revenue gap of FY 2012-13 alongwith the carrying cost.



Annexure 1: Annual Accounts of erstwhile JSEB for FY 2012-13

The petitioner submits, that Revised Board-approved Annual Accounts for FY 2012-13 for JSEB as a whole have already been submitted, along with the reply to commission's queries (on the previous tariff petition for *True-Up For FY 2011-12, Annual Revenue Requirement for FY 2012-13, MYT for Control Period FY 2013-14 to FY 2015-16 & Tariff Determination for FY 2013-14 for Distribution Function*) sent on 25th June 2014.