

Jharkhand State Electricity Board



Aggregate Revenue Requirement & Tariff Petition

For FY 2011-12

And

True-up from FY 2003-04 to FY 2010-11

Submitted to

Hon'ble Jharkhand State Electricity Regulatory Commission

Submitted by:
State Transmission Utility and Licensee
Jharkhand State Electricity Board
Dhurwa, HEC, Ranchi

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Before**The Jharkhand State Electricity Regulatory Commission, Ranchi****Filing Number:** _____**Case Number:** _____

IN THE MATTER OF: Filing of the Petition for Aggregate Revenue from Charges or Aggregate Revenue Requirement (ARR) and tariff petition for the financial year 2011-12 for the State Transmission Utility and Licensee under Section 45, 46, 61, 62 and 86 of the Electricity Act, 2003.

AND

Filing of the Petition for Truing-up of Aggregate Revenue from Charges or Aggregate Revenue Requirement (ARR) for the financial year 2003-04 to 2010-11 for the State Transmission Utility and Licensee under Section 45, 46, 61, 62 and 86 of the Electricity Act, 2003.

AND

IN THE MATTER OF: Jharkhand State Electricity Board (hereinafter referred to as "JSEB" or "The Board" which shall mean for the purpose of this petition the State Transmission Utility and the Licensee – Applicant.

The applicant respectfully submits as hereunder: -

- 1.1 As per the orders of the Government of Jharkhand as well as Government of India, JSEB had been allowed to function as State Transmission Utility and a Licensee till 30th September 2010. The extension for JSEB to continue as a Transmission utility and a licensee is under process and would be shortly communicated to the Hon'ble Commission. Presently, the Board is functioning as two entities i.e. State Transmission Utility (STU) and a Licensee. This Aggregate Revenue Requirement (ARR) and Tariff petition is being submitted by the State Transmission utility and the Licensee.

- 1.2 This application has been prepared in accordance with Section 61, 62 of the Electricity Act 2003 and has taken into consideration the regulations – JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations 2010 as published in the Extraordinary Jharkhand Gazette No. 590 dated 28th October 2010 and the JSERC (Terms and Conditions for determination of Transmission Tariff) Regulations, 2010 and JSERC (Terms and Conditions for determination of Distribution Tariff) Regulations, 2010 as published in the Extraordinary Jharkhand Gazette No. 589 dated 28th October 2010 and No. 615 dated 4th November 2010 respectively.
- 1.3 The petitioner has also taken into consideration the JSERC (Terms and Conditions for Distribution Tariff) Regulation, 2004 and JSERC (Terms and Condition for Determination of Thermal Generation Tariff) Regulation, 2004 notified by Hon'ble Jharkhand State Electricity Regulatory Commission for the previous years from FY 2003-04 to FY2010-11 for which true-up based on Annual Accounts is proposed.
- 1.4 This petition includes the tariffs proposed for different categories of consumers for the year 2011-12.
- 1.5 In this Petition, JSEB has responded to the directives issued by Hon'ble Jharkhand State Electricity Regulatory Commission in the Tariff Order FY 2003-04, Provisional Tariff Order FY 2006-07, and the Order dated April, 2010 on Provisional Tariff Order on Trueing up of FY 2003-04 to FY 2006-07 and Aggregate Revenue Requirement for FY 2007-08 & 2008-09 and suo-motu proceedings for FY 2009-10 & 2010-11 and Determination of Tariff for FY 2010-11.
- 1.6 JSEB along with this petition is submitting the statutory formats with additional/ supplementary data & information to an extent available and would make available any additional data required by the Hon'ble Commission from time to time.

Prayers to the Commission:

- 1.7 The petitioner respectfully prays that the Hon'ble Commission may:
 - (a) Examine the proposal submitted by the petitioner for a favourable dispensation as detailed in the enclosed proposal.
 - (b) Pass suitable orders with respect to the proposed Gross ARR for JSEB as a whole amounting to Rs 3798.77 Crs as well for Generation, Transmission and Distribution functions separately as proposed in this petition along with the relevant operational and financial parameters as proposed in the petition.
 - (c) Accept the petitioners' prayer for discontinuance of penalties/disallowances imposed upon in the form of disincentive for non-achievement of T&D losses, inefficient cost of PTPS and Penalty for non-compliance of SoP.
 - (d) Pass suitable Orders for creation of regulatory asset as proposed to cover for true up of the unrecovered gap of Rs. 9093.30 Crs based on revised/finalized board approved annual accounts for the period FY 2003-04 to FY 2009-10 and

for FY 2010-11 on the basis of the revised estimates being submitted in this petition.

- (e) Pass suitable orders for implementation of the tariff proposals for the FY 2011-12 for making it applicable from April 1, 2011 onwards.
- (f) Pass suitable order for facilitating the proposed resource gap funding of Rs.1,080 crores from the Government of Jharkhand.
- (g) Approve the terms and conditions of tariffs and various other matters as proposed in this petition.
- (h) 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.
- (i) Pass such further order, as the Hon'ble Commission may deem fit and proper keeping in view the facts and circumstances of the case.

Jharkhand State Electricity Board

Petitioner

Ranchi

Dated: December 31, 2010

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TABLE OF CONTENTS

| | |
|---|-----------|
| A1: INTRODUCTION..... | 1 |
| A2: TRUE-UP FROM FY 2003-04 TO FY 2010-11 | 7 |
| Interest on Consumer Security Deposit | 11 |
| Interest on Working Capital..... | 12 |
| Statutory Return on Equity | 12 |
| Inefficient cost of PTPS | 13 |
| Disincentive for T&D losses..... | 15 |
| Penalty for SoP | 24 |
| Provision for bad debts | 24 |
| Other items..... | 27 |
| A3: ENERGY BALANCE..... | 28 |
| Sales Projections | 28 |
| Distribution Losses | 29 |
| A4: POWER PURCHASE & FUEL COST..... | 33 |
| Power Purchase..... | 33 |
| Own Generation | 34 |
| A5: CAPITAL EXPENDITURE & RELATED EXPENSES | 38 |
| Generation..... | 38 |
| Transmission..... | 38 |
| Distribution | 39 |
| Overall Capex for JSEB..... | 41 |
| Return on Equity | 42 |
| Interest expenses | 43 |
| A6: OPERATING EXPENSES..... | 45 |
| Operation & Maintenance Expenses..... | 45 |
| Interest on working capital..... | 47 |
| Interest on Consumer Security Deposit | 48 |
| Provision for Bad and Doubtful Debts..... | 49 |
| A7: DISAGGREGATED AGGREGATE REVENUE REQUIREMENT..... | 50 |
| ARR for Thermal Generation | 50 |
| ARR for Hydel Generation | 50 |
| ARR for Transmission | 51 |
| ARR for Distribution | 51 |
| Disaggregated ARR | 52 |

| | |
|--|-----------|
| A8: AGGREGATE REVENUE REQUIREMENT FOR JSEB | 53 |
| A9: REVENUE PROJECTIONS | 54 |
| Revenue from sale of power at existing tariff..... | 54 |
| Revenue from sale of power at proposed tariff..... | 54 |
| Non-tariff Income | 54 |
| Proposed Revenue for FY 2011-12..... | 55 |
| A10: REVENUE GAP..... | 56 |
| Revenue Gap at Existing Tariff | 56 |
| Revenue Gap at Proposed Tariff..... | 57 |
| Creation of Regulatory Asset..... | 58 |
| Resource Gap funding from Government of Jharkhand | 59 |
| A11: TARIFF PROPOSALS..... | 61 |
| Summary of Tariff Proposals..... | 61 |
| Domestic Service (DS) | 63 |
| Non-Domestic Service (NDS)..... | 68 |
| Low Tension Industrial & Medium Power Service (LTIS)..... | 72 |
| Irrigation & Agriculture Service (IAS)..... | 74 |
| High Tension Voltage Supply Service (HTS) | 76 |
| Railway Traction Service (RTS)..... | 83 |
| Street Light Service (SS) | 85 |
| Rural Electric Co-operative (REC)..... | 86 |
| Bulk Supply to Military Engineering Service (MES)..... | 87 |
| A12: PROPOSED TERMS & CONDITIONS OF TARIFF..... | 88 |
| Connected load at different voltage levels..... | 88 |
| Penalty for exceeding contract demand | 89 |
| Minimum Contract Demand requirements | 90 |
| Point of Supply | 93 |
| Tariff for Temporary Connections..... | 93 |
| Dishonored Cheques | 93 |
| Stopped/ defective meters | 93 |
| Resale of energy..... | 94 |
| Release of new connections | 94 |
| kVAh Billing..... | 94 |
| Installation of shunt capacitors | 94 |
| Transformer Capacity | 95 |
| Installation of Circuit Breaker & ELCB | 95 |
| Electricity Duty..... | 96 |
| Conversion factors | 96 |
| Fuel & Power Purchase Cost Adjustment..... | 96 |
| A13: SCHEDULE OF MISCELLANEOUS CHARGES PROPOSED | 97 |

| | |
|---|------------|
| A14: COMPLIANCE TO DIRECTIVES | 100 |
| Directives given in the Tariff Order for 2003-04..... | 100 |
| Directives given in the Tariff Order for 2006-07..... | 102 |
| Directives given in the Tariff Order for 2010-11..... | 110 |

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A1: INTRODUCTION

- 1.1 The 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.
- 1.2 Presently, the Board is functioning as two entities i.e. State Transmission Utility (STU) and a Licensee. This Aggregate Revenue Requirement (ARR) and Tariff petition is being submitted by the State Transmission utility and the Licensee.
- 1.3 Section 62 of the Electricity Act 2003 requires the licensee to furnish details as may be specified by the Commission for determination of tariff. In addition, as per the regulations issued by the Hon’ble Commission, JSEB is required to file for all reasonable expenses it believes it would incur over the next financial year and seek the approval of the Hon’ble Commission for the same. The filing is to be done based on the projections of the expected revenue and costs, which should be arrived at by a reasonable methodology adopted by the petitioner. In compliance of this regulatory obligation, JSEB hereby files its tariff petition for the year 2011-12 for the kind perusal and approval of the Hon’ble Commission.
- 1.4 The current petition has been prepared in accordance with the following acts/policies/regulations issued by the Hon’ble Commission:
 - (a) Electricity Act 2003;
 - (b) Provisions of National Electricity Policy;
 - (c) Provisions of National Tariff Policy;
 - (d) Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010;
 - (e) Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2010; and
 - (f) Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2010;
- 1.5 The objectives of the petition are threefold, as under:
 - (a) Seeking the approval of the Hon’ble Commission for the expenses that JSEB expects to incur in FY 2011-12;
 - (b) Apprising the Hon’ble Commission of the financial health of Jharkhand State Electricity Board;
 - (c) Providing the status of compliance of directives issued by the Hon’ble Commission from time to time and seeking relaxation on a rational basis in

cases where even after the best and sincere efforts of JSEB compliance could not be ensured.

- 1.6 JSEB has made genuine efforts for compiling all relevant information relating to the tariff 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 limitations in the information systems of the petitioner.. Hence, JSEB prays to the Hon'ble Commission that the information provided be accepted for the current filing and at the same time JSEB assures that it is taking strong measures to improve its management information system as elaborated in subsequent chapters of this petition.

Contents of the petition

- 1.7 The petition details out the following aspects:

- (a) **A2: True-up from 2003-04 to 2010-11:** As detailed in later sections, JSEB had submitted its annual accounts with the CAG for audit of the same. However objections were raised by CAG on the annual accounts of JSEB. In this section JSEB details out the true up of the costs based on the revised annual accounts. As per the regulation of the Hon'ble Commission for determination of tariff, audited financial accounts are to be submitted by the petitioner for the previous years. However, JSEB makes a humble submission that the annual accounts of JSEB till FY 2009-10 have been submitted to the CAG for audit and audit reports have been issued for financial year 2001-02 and 2002-03. The audit for financial year 2003-04 is going on at present. Pr. AG, Jharkhand has been requested to expedite audit of annual accounts by deputing multiple teams. The audit report of the remaining annual accounts shall be submitted to the Hon'ble Commission as soon as the audit report is received from CAG. Till such time JSEB requests the Hon'ble Commission to consider audited annual accounts up to 2002-03 and the provisional annual accounts for assessing the tariff petition.
- (b) **A3 & A4: Energy balance and sales projections:** In this section JSEB presents all the assumptions that were taken for projecting the sales and energy requirement of JSEB in FY 2011-12. The methodology of 'Trend analysis' was used for making the projections. Suitable adjustments were also made from case to case basis, based on actual and specific information available with JSEB.
- (c) **A5 & A6: Capital expenditure plan and operational expenses:** In this part of the petition, JSEB details out the investment planned in the different functions over the period of FY 2010-11 to FY 2011-12. The calculation of Return on Equity (RoE) is also detailed out in this section and the same is carried out as per the guidelines of the Hon'ble Commission. The operational expenses expected to be incurred by JSEB have also been projected and their basis for projection has been highlighted in this section. JSEB has made the projections in strict compliance of the guidelines of the Hon'ble Commission and utmost care has been taken that inflated/abnormal projections are avoided.

- (d) **A7 &A8: Disaggregated and total Aggregate Revenue Requirement for the different functions of JSEB:** During the filing of tariff petition for the year 2006-07, the Hon'ble Commission had directed JSEB to file its tariff petition segregated for each function, namely Generation, Transmission and Distribution. The breakup of assets into the three functions has been taken as per the function wise information available in the annual accounts of the JSEB. However, for items where break-ups were not available, the same has been done on the basis of rational assumptions which are explained in this petition. JSEB prays to the Hon'ble Commission to accept the breakup and the methodology adopted and approve the disaggregated ARR for the individual functions proposed in this petition.
- (e) **A9 &A10: Revenue projections and revenue gap:** Based on the sales projections and cost estimates done in previous sections, JSEB has calculated the total projected revenue in this section in both the scenarios, that is, at current tariff and at the proposed tariff. This projected revenue is then used to estimate the expected revenue gap in both the scenarios.
- (f) **A11 & A12: Tariff proposal:** This section provides the tariff proposed by JSEB for partially meeting the ARR gap projected in the previous sections. In addition to providing the detailed tariff schedule for the categorywise tariff proposed, the tariff proposal also outlines the key changes proposed by JSEB in comparison to the last approved tariff. The section also proposes the key changes that need to be undertaken in the "Terms and conditions of tariff" keeping in mind the currently prevailing conditions vis-à-vis those prevalent during issuance of the last tariff order.
- (g) **A13:** This section covers the schedule of miscellaneous charges proposed to be implemented along with the tariff order for 2011-12.
- (h) **A14: Status of compliance of directives:** In this section JSEB provides the status of compliance of directives issued by the Hon'ble Commission. JSEB has made every possible effort to ensure compliance with the directives. However even after its best efforts, JSEB was not able to implement a few directives due to reasons varying from lack of resources to manpower shortage. JSEB submits to the Hon'ble Commission that instances of non-compliance, if any, are not due to the lack of sincerity on part of JSEB, but due to resource crunch and prays to the Hon'ble Commission to take sympathetic stand on the same.

Submission of JSEB on certain aspects of the previous tariff order

- 1.8 JSEB hereby submits on the following disallowances/penalties imposed in the suo-motu tariff order for the year 2010-11 for consideration of the Hon'ble Commission:
- (a) Disincentive for non-achievement of T&D loss reduction targets;
- (b) Disincentive for inefficient cost of PTPS

- (c) Calculation of working capital requirement and interest thereon for the period till FY 2010-11;
- (d) Revision of loss reduction targets given by the Hon'ble Commission based on the order of Hon'ble APTEL dated 8.5.2008;
- (e) Lack of provision for bad and doubtful debts;
- 1.9 These points have been dealt with in the relevant sections along with the detailed reasons elaborated thereon. In most of the cases, JSEB has also drawn upon practices being followed by other states/regulators and presented the same for the consideration of the Hon'ble Commission.
- 1.10 JSEB prays to the Hon'ble Commission to consider the explanations submitted by the JSEB on each of these penalties/disincentives on their merit and take necessary steps for discontinuance of these with retrospective effect.

Status of Annual Accounts

- 1.11 The State of Jharkhand was formed with effect from 15.11.2000 with bifurcation of the State of Bihar. Jharkhand State Electricity Board (JSEB) was constituted on 16.03.2001 and started functioning w.e.f. 01.04.2001. However, the allocation of assets and liabilities between the two State Electricity Boards i.e. Bihar State Electricity Board (BSEB) and Jharkhand State Electricity Board (JSEB) remain incomplete due to several disputes. The same is yet to be finalized and the matter is lying subjudiced before Hon'ble Supreme Court.
- 1.12 Meanwhile, due to non-finalization of opening balances of accounts, the licensee started functioning on Provisional Accounts. The provisional annual accounts for the period 2003-04 to 2006-07 were earlier submitted to the Hon'ble Commission for the purpose of truing up.
- 1.13 The JSEB in compliance to the directive given by the Hon'ble Commission in its tariff order for the 2006-07 regarding submission of Audited Annual Accounts and Asset Registers had already initiated the process of preparation of Annual Accounts, their Approval from the JSEB/ Board and their onward submission to the CAG for Audit. The chronological sequence of JSEB/ Board's approvals and onward submission to the CAG for the annual accounts till the year 2009-10 are provided in the table below:

Table 1: Status of Annual Accounts of the JSEB

| Sl. | Year | Board Agenda/ Date of Meeting/ Resolution No. | Onward Submission to AG Jharkhand (Letter No. & Date) | Status of Audit |
|-----|---------|---|---|---|
| 1. | 2001-02 | 572/ 2009-10/ 25.08.2009/ 556 | 1102/ 16.10.2009 | Audit Completed and Report received vide letter no. PAG, Jharkhand/214/dated 20.08.2010 |
| 2. | 2002-03 | 596/ 2009-10/ 09.03.2010/ 586 | 277/ 01.04.2010 | Audit Completed report received. |
| 3. | 2003-04 | 597/ 2009-10/ 09.03.2010/ 587 | 278/ 01.04.2010 | Audit is in progress. |
| 4. | 2004-05 | 607/ 2009-10/ 30.03.2010/ 602 | 351/ 21.04.2010 | Submitted for audit. |

| Sl. | Year | Board Agenda/ Date of Meeting/ Resolution No. | Onward Submission to AG Jharkhand (Letter No. & Date) | Status of Audit |
|-----|---------|---|---|----------------------|
| 5. | 2005-06 | 628/ 2010-11/ 10.05.2010/ 625 | 465/ 26.05.2010 | Submitted for audit. |
| 6. | 2006-07 | 636/ 2010-11/ 10.07.2010/ 633 | 672/ 05.08.2010 | Submitted for audit. |
| 7. | 2007-08 | 663/ 2010-11/ 30.09.2010/ 658 | 889/ 01.11.2010 | Submitted for audit. |
| 8. | 2008-09 | 690/ 2010-11/ 19.11.2010/ 686 | 965/ 04.12.2010 | Submitted for audit. |
| 9. | 2009-10 | 771/ 2010-11/ 24.12.2010/ 707 | 1077/ 30.12.2010 | Submitted for audit |

1.14 The CAG audit for the Revised Annual Accounts for the FY 2001-02 and 2002-03 has already been completed and the JSEB received the reports against the same vide letter no. PAG, Jharkhand/214 dated August 20, 2010 and PAG/AG/ Coml. Hqr/ JSEB – A/C/ 2002-03/ 121 dated 22/12/2010.

1.15 On study of the CAG report on final audit and queries received earlier while the audit was being conducted, the JSEB identified material issues that needed incorporation in the Annual Accounts prepared by the JSEB for the subsequent years. In view of the same, the JSEB revised the Annual Accounts for the period FY 2003-04 to FY 2006-07 which have already been submitted to the CAG for audit.

1.16 The Revised Provisional Annual Accounts for the period 2003-04 to 2006-07 and Provisional Annual Accounts for the period 2007-08 to 2009-10 which have already been approved by the JSEB Board are being submitted for consideration of the Hon'ble Commission.

1.17 The case of JSEB being a board constituted under the provisions of the Electricity Supply Act, 1948 is not comparable to other utilities which are companies registered under the Companies Act, 1956 wherein the companies are at a liberty to appoint Statutory Auditors.

1.18 The Section 69, Clause 2 of the Electricity Supply Act, 1948 which mandates audit by CAG/CAG appointed auditor is reproduced below for reference:

“The accounts of the Board shall be audited by the Comptroller and Auditor-General of India or by such person as he may authorize in his behalf and any expenditure incurred by him in connection with such audit shall be payable by the Board to the Comptroller and Auditor-General of India.”

- Section 69, Clause 2 of the Electricity Supply Act, 1948

1.19 Therefore, the CAG is the sole auditor for the JSEB. The Provisional Annual Accounts/ Revised Annual Accounts have already been submitted to the CAG after due approval of the JSEB/ Board. It is submitted that CAG audit is a time consuming process and waiting for the audited accounts would therefore prevent the JSEB from filing its ARR/Tariff petitions by the date given by the Hon'ble Commission. This will further worsen the already distressed financial health of JSEB and will ultimately weaken the electricity sector in the State of Jharkhand.

1.20 The JSEB shall submit its petition to the Hon'ble Commission with audited annual accounts for final true-up for each year for which true-up is being proposed in this

petition as and when the CAG audit of the annual accounts for the same gets completed.

A2: TRUE-UP FROM FY 2003-04 TO FY 2010-11

- 2.1 In compliance to the Hon'ble APTEL's Direction no.8 in the Order dated 8.5.2008 held in Appeal no. 129/2007 and IA No.78 of 2009, the Hon'ble Commission had conducted the provisional truing up for the FY 2003-04 to FY 2006-07.
- 2.2 On requisition by the Hon'ble Commission, the JSEB had submitted the provisional Annual Accounts for FY 2003-04, FY 2004-05, FY 2005-06 & FY 2006-07. The Hon'ble Commission thereafter conducted the true-up for the period FY 2003-04 to FY 2006-07 based on the provisional annual accounts made available by JSEB, the previous tariff orders approved by the Hon'ble Commission and applicable regulations in force. The same was passed on in the tariff order dated April 26, 2010 by the Hon'ble Commission.
- 2.3 The Commission also stated that the final truing-up for the period FY 2003-04 to FY 2006-07 shall carried out once the audited annual accounts for the respective years are submitted by the JSEB.
- 2.4 It is submitted that the CAG audit for the Annual Accounts for the FY 2001-02 has already been completed and the JSEB received the report against the same vide letter no. PAG, Jharkhand/214/dated August 20, 2010.
- 2.5 On study of the CAG report on final audit and queries received earlier while the audit was being conducted, the JSEB identified material issues that needed incorporation in the Annual Accounts prepared by the JSEB for the subsequent years. In view of the same, the JSEB revised the Annual Accounts for the period FY 2001-02 to FY 2006-07 which had already been submitted to the CAG for audit. Thereon, the audit report for the annual accounts of FY 2002-03 has also been received by JSEB. The revised Annual Accounts for the period FY 2003-04 to FY 2008-09 have been resubmitted to the CAG and are being considered for the purpose of audit.
- 2.6 Accordingly, the JSEB/Board approved revised provisional Annual Accounts for the period 2003-04 to 2006-07 and the Annual Accounts for the period 2007-08 to 2009-10 which are being submitted to the Hon'ble Commission along with this petition for the purpose of truing up.
- 2.7 Meanwhile, in the order against suo-motu Case No. 30 of 2010, the Hon'ble Commission has directed all generators and licensees of the State to file their ARR and tariff petition for their ARR and tariff petition for determination of tariffs for FY 2011-12 by December 31st, 2010 in the formats appended with the Regulations along with Accounts audited by their statutory Auditors. The Hon'ble Commission has taken the reference of the Hon'ble APTEL order dated 29.9.2010 passed in Appeal No. 56 of 2010 (BHPC vs. BERC).
- 2.8 It may be noted that the case of JSEB being a board constituted under the provisions of the Electricity Supply Act, 1948 is not comparable to other utilities which are companies registered under the Companies Act, 1956 wherein the companies are at liberty to appoint Statutory Auditors.
- 2.9 The Section 69, Clause 2 of the Electricity Supply Act, 1948 which mandates audit by

CAG/ CAG appointed auditor is reproduced below for reference:

“The accounts of the Board shall be audited by the Comptroller and Auditor-General of India or by such person as he may authorize in his behalf and any expenditure incurred by him in connection with such audit shall be payable by the Board to the Comptroller and Auditor-General of India.”

- Section 69, Clause 2 of the Electricity Supply Act, 1948

- 2.10 Therefore, the CAG is the sole auditor for the JSEB. The Annual Accounts/Revised Annual Accounts have already been submitted to the CAG after due approval of the JSEB/ Board. It is submitted that CAG audit is a time consuming process and waiting for the audited accounts would therefore prevent the JSEB from being able to file its ARR/ Tariff petitions by the date given by the Hon’ble Commission.
- 2.11 In compliance to the directives given in the Appellate Tribunal of Electricity (APTEL) Direction no.8 in the Order dated 8.5.2008 held in Appeal no. 129/2007 and IA No.78 of 2009, the JSEB prays to the Hon’ble Commission to consider the Revised Annual Accounts submitted, duly approved by the JSEB/Board for the period 2003-04 to 2006-07 and submitted to the CAG for audit, for the purpose of second round of provisional truing-up of the Aggregate Revenue Requirement of the JSEB from FY2003-04 to 2006-07.
- 2.12 In addition to the above, in compliance to the directives given in the Appellate Tribunal of Electricity (APTEL) Direction no.8 in the Order dated 8.5.2008 held in Appeal no. 129/2007 and IA No.78 of 2009, the JSEB prays to the Hon’ble Commission to consider the Revised Annual Accounts submitted, duly approved by the JSEB/ Board for the period 2007-08 to 2009-10 and submitted to the CAG for audit, for the purpose of provisional truing-up of the Aggregate Revenue Requirement of the JSEB from FY 2007-08 to FY 2009-10.
- 2.13 The JSEB shall submit its petition for final true-up for the period 2003-04 to 2006-07 and 2007-08 to 2009-10 as and when the CAG audit for the same gets completed for the purpose of final true-up by the Hon’ble Commission.
- 2.14 Consequently, in compliance to the directives given in the Appellate Tribunal of Electricity (APTEL) and the previous orders of the Hon’ble Commission, the JSEB submits herewith its petition for truing-up of the ARR for the FY2003-04 to FY2008-09, which have been approved earlier and the suo-motu ARR approved by the Hon’ble Commission for FY 2009-10 & 2010-11.

Table 2: Proposed True-up for FY2003-04 & 2004-05

| Description | 2003-04 (A) | | | 2004-05 (A) | | |
|----------------------|----------------|-------------------|----------------------|----------------|-------------------|----------------------|
| | Appr. by JSERC | As per Annual A/C | Proposed for True-up | Appr. by JSERC | As per Annual A/C | Proposed for True-up |
| Power Purchase | 993.8 | 1023.8 | 1023.8 | 1275.3 | 1174.4 | 1174.4 |
| Generation Cost | 119.3 | 151.2 | 151.2 | 80.9 | 111.6 | 111.6 |
| Repair & Maintenance | 29.7 | 29.4 | 29.4 | 26.3 | 26.3 | 26.3 |

| Description | 2003-04 (A) | | | 2004-05 (A) | | |
|---|----------------|-------------------|----------------------|----------------|-------------------|----------------------|
| | Appr. by JSERC | As per Annual A/C | Proposed for True-up | Appr. by JSERC | As per Annual A/C | Proposed for True-up |
| Employees Cost | 128.0 | 144.4 | 144.4 | 137.3 | 155.9 | 155.9 |
| Admin & General Expenses | 23.8 | 23.8 | 23.8 | 28.5 | 27.2 | 27.2 |
| Depreciation | 57.8 | 64.4 | 64.4 | 50.0 | 65.8 | 65.8 |
| Provision for Bad Debts | 0.0 | 222.3 | 222.3 | 0.0 | 312.8 | 312.8 |
| Interest & Finance Charges | 365.8 | 110.4 | 110.4 | 418.4 | 184.2 | 184.2 |
| Prior Period Expenses | 0.0 | 6.2 | 6.2 | 0.0 | 134.3 | 134.3 |
| Interest on Working Capital | 0.0 | 0.0 | 4.4 | 0.2 | 0.0 | 0.4 |
| Interest on Consumer Security Deposit | | 4.7 | 4.7 | | 4.9 | 4.9 |
| Less: Inefficient cost of PTPS | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Less: Disincentive on T&D losses | 50.6 | 0.0 | 0.0 | 139.0 | 0.0 | 0.0 |
| Less: Penalty for SoP | | | | | | |
| Total Expenditure | 1667.6 | 1780.6 | 1785.0 | 1877.9 | 2197.4 | 2197.8 |
| Statutory Return/ RoE | | | 50.6 | 0.0 | | 53.5 |
| Revenue Required | 1667.6 | 1780.6 | 1835.6 | 1877.9 | 2197.4 | 2251.2 |
| Temporary Contingency | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Gross Revenue Requirement | 1667.6 | 1780.6 | 1835.6 | 1877.9 | 2197.4 | 2251.2 |
| Less: Miscellaneous Receipts | 419.0 | 353.4 | 48.5 | 514.6 | 430.6 | 53.8 |
| Net Revenue Required | 1248.6 | 1427.3 | 1787.0 | 1363.3 | 1766.8 | 2197.4 |
| Revenue at Current Tariff | 1077.4 | 1071.8 | 1071.8 | 1108.5 | 1009.3 | 1009.3 |
| Grants-In-Aid of Debt Service | 75.0 | 75.0 | 75.0 | 104.3 | 104.3 | 104.3 |
| Subsidy for R.E. Loss | 109.6 | 0.0 | 0.0 | 114.9 | 0.0 | 0.0 |
| Revenue Gap | -13.3 | 280.4 | 640.2 | 35.7 | 653.3 | 1083.8 |
| | | | | | | |
| Total Accumulated Losses Gap 2003-04 | -13.3 | 280.4 | 640.2 | 22.4 | 933.7 | 1724.0 |

Table 3: Proposed True-up for FY2005-06 to 2006-07

| Description | 2005-06 (A) | | | 2006-07 (A) | | |
|----------------------------|----------------|-------------------|----------------------|----------------|-------------------|----------------------|
| | Appr. by JSERC | As per Annual A/C | Proposed for True-up | Appr. by JSERC | As per Annual A/C | Proposed for True-up |
| Power Purchase | 1435.2 | 1335.8 | 1335.8 | 1711.5 | 1539.5 | 1539.5 |
| Generation Cost | 89.5 | 119.5 | 119.5 | 78.2 | 88.0 | 88.0 |
| Repair & Maintenance | 28.3 | 31.2 | 31.2 | 30.4 | 36.3 | 36.3 |
| Employees Cost | 144.8 | 169.9 | 169.9 | 149.7 | 169.1 | 169.1 |
| Admin & General Expenses | 30.2 | 30.6 | 30.6 | 32.0 | 32.7 | 32.7 |
| Depreciation | 50.0 | 32.4 | 32.4 | 45.7 | 35.6 | 35.6 |
| Provision for Bad Debts | 0.0 | 249.3 | 249.3 | 0.0 | 181.8 | 181.8 |
| Interest & Finance Charges | 486.9 | 308.7 | 308.7 | 653.1 | 479.7 | 479.7 |
| Prior Period Expenses | 0.0 | 233.6 | 233.6 | 0.0 | -54.9 | -54.9 |

| Description | 2005-06 (A) | | | 2006-07 (A) | | |
|---|----------------|-------------------|----------------------|----------------|-------------------|----------------------|
| | Appr. by JSERC | As per Annual A/C | Proposed for True-up | Appr. by JSERC | As per Annual A/C | Proposed for True-up |
| Interest on Working Capital | 2.1 | 0.0 | 0.1 | 0.6 | 0.0 | 1.3 |
| Interest on Consumer Security Deposit | | 5.9 | 5.9 | | 6.8 | 6.8 |
| Less: Inefficient cost of PTPS | 0.0 | 0.0 | 0.0 | 104.7 | 0.0 | 0.0 |
| Less: Disincentive on T&D losses | 234.9 | 0.0 | 0.0 | 82.7 | 0.0 | 0.0 |
| Less: Penalty for SoP | | | | | | |
| Total Expenditure | 2031.9 | 2516.9 | 2516.9 | 2513.8 | 2514.7 | 2516.0 |
| Statutory Return/ RoE | 46.1 | | 43.8 | 47.6 | | 44.8 |
| Revenue Required | 2078.0 | 2516.9 | 2560.7 | 2561.4 | 2514.7 | 2560.7 |
| Temporary Contingency | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Gross Revenue Requirement | 2078.0 | 2516.9 | 2560.7 | 2561.4 | 2514.7 | 2560.7 |
| Less: Miscellaneous Receipts | 575.2 | 515.3 | 173.4 | 556.2 | 457.2 | 184.7 |
| Net Revenue Required | 1502.8 | 2001.6 | 2387.3 | 2005.2 | 2057.4 | 2376.0 |
| Revenue at Current Tariff | 1187.1 | 1155.2 | 1155.2 | 1405.2 | 1407.0 | 1407.0 |
| Grants-In-Aid of Debt Service | 363.5 | 363.5 | 363.5 | 210.0 | 200.0 | 200.0 |
| Subsidy for R.E. Loss | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Revenue Gap | -47.8 | 483.0 | 868.7 | 390.0 | 450.5 | 769.0 |
| | | | | | | |
| Total Accumulated Losses Gap 2003-04 | -25.4 | 1416.7 | 2592.7 | 364.6 | 1867.1 | 3361.7 |

Table 4: Proposed True-up for FY 2007-08 & FY 2008-09

| Description | 2007-08 (A) | | | 2008-09 (A) | | |
|---------------------------------------|----------------|-------------------|----------------------|----------------|-------------------|----------------------|
| | Appr. by JSERC | As per Annual A/C | Proposed for True-up | Appr. by JSERC | As per Annual A/C | Proposed for True-up |
| Power Purchase | 1552.5 | 1655.9 | 1655.9 | 1774.2 | 1785.6 | 1785.6 |
| Generation Cost | 79.0 | 88.8 | 88.8 | 108.2 | 137.1 | 137.1 |
| Repair & Maintenance | 32.4 | 57.2 | 57.2 | 37.6 | 68.3 | 68.3 |
| Employees Cost | 158.6 | 168.9 | 168.9 | 312.2 | 189.2 | 189.2 |
| Admin & General Expenses | 33.7 | 34.1 | 34.1 | 50.7 | 55.1 | 55.1 |
| Depreciation | 52.5 | 43.5 | 43.5 | 70.0 | 48.4 | 48.4 |
| Provision for Bad Debts | 0.0 | 403.0 | 403.0 | 0.0 | 209.5 | 209.5 |
| Interest & Finance Charges | 438.7 | 455.9 | 455.9 | 524.9 | 449.2 | 449.2 |
| Prior Period Expenses | | -12.3 | -12.3 | 0.0 | 48.0 | 48.0 |
| Interest on Working Capital | 7.6 | 0.0 | -1.4 | 10.6 | 0.0 | 0.4 |
| Interest on Consumer Security Deposit | | 7.3 | 7.3 | | 7.8 | 7.8 |
| Less: Inefficient cost of PTPS | 96.6 | 0.0 | 0.0 | 131.7 | 0.0 | 0.0 |
| Less: Disincentive on T&D losses | 275.4 | 0.0 | 0.0 | 415.9 | 0.0 | 0.0 |
| Less: Penalty for SoP | 7.0 | | | 30.0 | | |
| Total Expenditure | 1976.1 | 2902.2 | 2900.8 | 2310.7 | 2998.2 | 2998.6 |
| Statutory Return/ RoE | 42.7 | | 39.6 | 52.6 | | 33.5 |
| Revenue Required | 2018.8 | 2902.2 | 2940.3 | 2363.4 | 2998.2 | 3032.1 |
| Temporary Contingency | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Gross Revenue Requirement | 2018.8 | 2902.2 | 2940.3 | 2363.4 | 2998.2 | 3032.1 |

| Description | 2007-08 (A) | | | 2008-09 (A) | | |
|--------------------------------------|----------------|-------------------|----------------------|----------------|-------------------|----------------------|
| | Appr. by JSERC | As per Annual A/C | Proposed for True-up | Appr. by JSERC | As per Annual A/C | Proposed for True-up |
| Less: Miscellaneous Receipts | 128.3 | 232.2 | 52.7 | 352.4 | 285.1 | 45.9 |
| Net Revenue Required | 1890.5 | 2670.0 | 2887.7 | 2010.9 | 2713.2 | 2986.2 |
| Revenue at Current Tariff | 1431.4 | 1391.2 | 1391.2 | 1541.6 | 1584.9 | 1584.9 |
| Grants-In-Aid of Debt Service | 77.3 | 77.3 | 77.3 | 80.0 | 80.0 | 80.0 |
| Subsidy for R.E. Loss | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Revenue Gap | 381.8 | 1201.5 | 1419.2 | 389.3 | 1048.2 | 1321.3 |
| | | | | | | |
| Total Accumulated Losses Gap 2003-04 | 746.4 | 3068.6 | 4780.9 | 1135.7 | 4116.9 | 6102.2 |

Table 5: Proposed True-up for FY2009-10 to 2010-11

| Description | 2009-10 (A) | | | 2010-11 (RE) | | |
|---------------------------------------|----------------|-------------------|----------------------|----------------|-------------------|----------------------|
| | Appr. by JSERC | As per Annual A/C | Proposed for True-up | Appr. by JSERC | As per Annual A/C | Proposed for True-up |
| Power Purchase | 1861.9 | 1924.4 | 1924.4 | 1950.7 | | 2351.7 |
| Generation Cost | 95.0 | 143.6 | 143.6 | 86.6 | | 71.2 |
| Repair & Maintenance | 47.5 | 68.1 | 68.1 | 54.0 | | 75.4 |
| Employees Cost | 222.3 | 207.8 | 207.8 | 188.9 | | 371.1 |
| Admin & General Expenses | 37.8 | 41.2 | 41.2 | 40.1 | | 47.7 |
| Depreciation | 82.4 | 49.8 | 49.8 | 90.1 | | 60.6 |
| Provision for Bad Debts | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Interest & Finance Charges | 524.9 | 451.5 | 451.5 | 524.9 | | 236.0 |
| Prior Period Expenses | 0.0 | 147.4 | 147.4 | | | 0.0 |
| Interest on Working Capital | 10.1 | 0.0 | 14.4 | 10.3 | | 22.2 |
| Interest on Consumer Security Deposit | | 8.4 | 8.4 | | | 11.0 |
| Less: Inefficient cost of PTPS | 117.8 | 0.0 | 0.0 | 115.0 | | 0.0 |
| Less: Disincentive on T&D losses | 995.9 | 0.0 | 0.0 | 1552.9 | | 0.0 |
| Less: Penalty for SoP | 31.5 | | 0.0 | 0.0 | | 0.0 |
| Total Expenditure | 1736.7 | 3042.4 | 3056.8 | 1277.7 | | 3246.9 |
| Statutory Return/ RoE | 64.3 | | 37.7 | 69.5 | | 38.3 |
| Revenue Required | 1801.0 | 3042.4 | 3094.5 | 1347.2 | | 3285.1 |
| Temporary Contingency | 0.0 | | 0.0 | 0.0 | | 0.0 |
| Gross Revenue Requirement | 1801.0 | 3042.4 | 3094.5 | 1347.2 | | 3285.1 |
| Less: Miscellaneous Receipts | 360.1 | 301.4 | 61.9 | 367.3 | | 92.7 |
| Net Revenue Required | 1440.9 | 2740.9 | 3032.7 | 979.9 | | 3192.5 |
| Revenue at Current Tariff | 1625.4 | 1634.4 | 1634.4 | 1754.9 | | 1904.6 |
| Grants-In-Aid of Debt Service | 0.0 | 400.0 | 400.0 | 0.0 | | 0.0 |
| Subsidy for R.E. Loss | 0.0 | 0.0 | 0.0 | 0.0 | | 0.0 |
| Revenue Gap | -184.5 | 706.6 | 998.3 | -775.0 | | 1287.9 |
| | | | | | | |
| Total Accumulated Losses Gap 2003-04 | 951.2 | 4823.4 | 7100.5 | 176.2 | | 8388.5 |

Interest on Consumer Security Deposit

2.15 Interest on Consumer Security Deposit has been proposed in accordance with Regulation 12 of the JSERC (Terms and Conditions for Distribution Tariff)

Regulation, 2004.

- 2.16 The same have been taken from the annual accounts for the purpose of true-up proposed for the year 2003-04 to 2009-10.
- 2.17 The calculations/ workings for the true-up proposed for 2010-11 are detailed along with the workings shown for the year 2011-12 in the subsequent chapters.

Interest on Working Capital

- 2.18 The JSEB submits that the interest on working capital allowed in the previous tariff order is inadequate to cover the real working capital requirements of the integrated utility.
- 2.19 Also, the JSEB would like to bring to the notice of the Hon'ble Commission that the methodology adopted for allowance of interest on working capital is not in accordance with that being followed by various State Electricity Regulatory Commissions across the country.
- 2.20 Interest on working capital normally allows for a few months of receivables, O&M expenses and spares. JSEB has accordingly assumed 2 months of receivables, 1 month of O&M expenses and spares at 1% of opening GFA for arriving at the working capital requirement for each of the years under assessment. Bank rate of interest has been applied on the working capital arrived at for arriving at the interest on working capital.
- 2.21 JSEB has proposed interest on working capital for the period 2003-04 to 2010-11 in accordance with the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010. Accordingly, 1/12th of O&M, maintenance spares at 1% of opening GFA, two months expected revenue from sale of power at existing tariff minus amount held as security deposit minus one month equivalent of cost of power purchase has been considered for calculation of working capital. Bank rate of interest has been applied on the working capital thus calculated for arriving at the interest on working capital proposed for each of the years.
- 2.22 JSEB submits that the interest on working capital in accordance with the JSERC (Terms and Conditions of Distribution Tariff), Regulations 2004 was not adequate for meeting the genuine working capital requirements of the business.
- 2.23 It is prayed that the interest on working capital as proposed be approved by the Hon'ble Commission.
- 2.24 The calculations/ workings for the true-up proposed for 2010-11 are detailed along with the workings shown for the year 2011-12 in the subsequent chapters.

Statutory Return on Equity

- 2.25 JSEB has proposed revisions in the Statutory Return on Equity in accordance with Regulation 19 and Regulation 20 of the JSERC (Terms and Conditions for

Distribution Tariff) Regulation, 2004.

- 2.26 Capital Subsidies, Grants, Contributions have duly been adjusted from the opening figures of the GFA for each year under review for arriving at the assessed equity contribution in the allowable value of GFA for the purpose of determination of statutory return.
- 2.27 The calculations/ workings for the true-up proposed for 2010-11 are detailed along with the workings shown for the year 2011-12 in the subsequent chapters.

Inefficient cost of PTPS

- 2.28 The JSEB would like to bring to the notice of the Commission that out of the 10 Units of the Patratu Thermal Power Station (PTPS), Units 1 –6 of the station are around 37 – 42 years old (installed in 1966 -71) and have run beyond normal economic life of these stations. Units 7 –10 were installed during 1977 – 86 and have also become reasonably old. Status of various units of the PTPS and the estimate for undertaking R&M is summarized below:

Table 6: Status of various units of the PTPS

| Unit | Capacity/ Derated Capacity | Date of commissioning | Present status | Estimated cost of restoration | Schedule for restoration |
|------|----------------------------------|--------------------------|--|--|--------------------------------|
| 1 | 50 MW/ 40 MW | 26.06.1966 | Under shut down due to jamming of rotor. | Rs. 5.30 Crs. | July, 2011 |
| 2 | 50 MW/ 40 MW | 27.04.1967 | Under shut down due to boiler explosion. | Rs. 5.00 Crs. | July, 2011 |
| 3 | 50 MW/ 40 MW | 16.10.1968 | Shut down since August 03. | Being phased out by JSEB as per CEA recommendation. | |
| 4 | 50 MW/ 40 MW | 30.10.1969 | Running | | Running |
| 5 | 100 MW/ 90 MW | 31.03.1971 | Shut down since May '04. | Being phased out by JSEB as per CEA recommendation. | |
| 6 | 100 MW/ 90 MW | 31.03.1972 | Running with one boiler. | 20.00 Crs for restoration of boiler. | Running |
| 7 | 110 MW/ 105 MW | 31.08.1977 | Under shut down since 30.09.2010 due to earth fault in stator. Planned to be restored with effect from June 1, 2011. | Rs. 3.5 crs. | June, 2011 |
| 8 | 110 MW/ 105 MW | 16.12.1979 | Under shut down since August '03. M/s Evonik is consultant. | Heavy investment of over Rs. 250 cr. required for restoration. | |
| 9 | 110 MW | 30.03.1984 | Damaged in fire incident on 10.08.06. Restoration is being done. | Rs. 331.11 crs. total revised project cost. | February, 2012 |
| 10 | 110 MW | 02.03.1986 | | | October, |

| Unit | Capacity/ Derated Capacity | Date of commissioning | Present status | Estimated cost of restoration | Schedule for restoration |
|------|----------------------------------|--------------------------|----------------|----------------------------------|--------------------------------|
| | | | | | 2011 |

- 2.29 As can be seen from the above table, units 3, 5, 8, 9 and 10 have been under shutdown for more than 4 years now. These units need major overhauling and in many cases the work is underway. The most recently commissioned unit amongst these was commissioned in 1986, i.e. almost 25 years back. Units 1 to 6 were all commissioned 40 years back and have outlived their useful life.
- 2.30 Units 10 and 9 are undergoing major R&M work and are expected to start functioning from October, 2011 and February, 2012 respectively. In light of the power shortage being faced by the state, JSEB is making every sincere effort possible to bring these units in operation.
- 2.31 In view of the above facts, JSEB prays to the Hon'ble Commission to calculate the PLF based only on the operational units of the plant, that is, units 1, 2, 4, 6, 7 and 8 for the period up to March, 2011. The Unit 10 and 9 may also be considered as they get commissioned in October, 2011 and February, 2012 respectively.
- 2.32 All the above units were installed to meet the demand for power of the State/ erstwhile State before the JSEB came into existence. The Central Electricity Authority vide its letter dated August 20, 2009 addressed to the Principal Secretary, Energy, Government of Jharkhand has already proposed retirement of Units 1-6 during the 11th and the 12th Plan periods.
- 2.33 It is submitted that the Hon'ble Bihar Electricity Commission has approved the ARR/ variable charges for Barauni Thermal Power Station at much relaxed norms owing to the vintage and the present situation of the power plant. While the ARR/ variable charges approved for the PTPS are considering very high efficiency levels which are not achievable for a plant with the vintage of PTPS.

Table 7: Comparison of Regulatory Approvals of Barauni TPS with PTPS

| Parameters | Barauni Thermal Power Station | Patratu Thermal Power Station |
|--|---|---|
| Total installed capacity | 320 MW | 770 MW (De-rated capacity) |
| Units in operation/Total number of units | 1/4 | 2/10 |
| Norms approved by respective Commissions | | |
| Specific consumption of coal | 0.9 kg/kWH | 0.75 kg/kWH |
| Specific consumption of oil | 10 ml/kWH | 2 ml/kWH |
| Station heat rate | 4009.8 kcal/kWH | 3250 kcal/kWH |
| Total Variable cost | 64.07 crores | 209.94 crores |
| Per unit variable cost | 1.97 | 0.92 Rs/kWH |
| Approved PLF | 12.84% | 38% |
| Penalty imposed for inefficient generation | Over and above the disallowed generation costs no penalty imposed by the Hon'ble Commission | 115.07 crores on assumed/ approved availability/ efficiency norms |

- 2.34 In addition to relaxations in efficiency norms, it may also be noted that the Hon'ble Bihar Electricity Regulatory Commission has not penalized the BSEB for the existing inefficiencies of the Barauni TPS even though the operational units BTPS were commissioned after PTPS and its plant and machinery is relatively new in comparison to PTPS.
- 2.35 The JSEB, therefore, prays to the Hon'ble Commission not to penalize JSEB on account of operating inefficiencies of these old units and allow the JSEB to plan for their retirement/ R&M.
- 2.36 It may also be noted that the landed cost of generation from the PTPS is not on the higher side and is comparable to other thermal power plants of the same vintage in the region/ State.

Disincentive for T&D losses

- 2.37 The JSEB submits that the penalty against disincentive for not being able to meet the loss reduction targets given by the Hon'ble Commission will cripple the JSEB financially.
- 2.38 The Hon'ble Commission had disallowed a total of Rs. 3747.21 crores in the form of disincentive as disincentive for non-achievement of T&D Loss targets for the period 2003-04 to 2010-11 as provided in the table below:

Table 8: Disincentive for non-achievement of T&D losses as imposed by Hon'ble Commission

| Year | T&D loss Target Set by the Commission | Energy Requirement as per JSEB | Energy Requirement as per Target Losses (MU) | Variation on Account of inefficiency (MU) | Average Rate of Power Purchase (Rs./ kWh) | Cost of inefficiency (Rs. Cr.) |
|---------|---------------------------------------|--------------------------------|--|---|---|--------------------------------|
| 2003-04 | 42.66% | 5205.79 | 4993.02 | 212.77 | 2.38 | 50.56 |
| 2004-05 | 40.66% | 5876.7 | 5315.13 | 561.57 | 2.48 | 139.01 |
| 2005-06 | 38.66% | 6580.15 | 5619.2 | 960.95 | 2.44 | 234.86 |
| 2006-07 | 36.66% | 7193.52 | 6881.62 | 311.9 | 2.65 | 82.67 |
| 2007-08 | 32.66% | 7479.99 | 6297.47 | 1182.52 | 2.33 | 275.41 |
| 2008-09 | 28.66% | 8173.15 | 6516.83 | 1656.32 | 2.51 | 415.88 |
| 2009-10 | 24.66% | 8722.29 | 6585.64 | 2136.65 | 4.66 | 995.89 |
| 2010-11 | 20.66% | 9203.93 | 6814.82 | 2389.11 | 6.5 | 1552.93 |

- 2.39 It is submitted that as proposed in the true-up for the years 2003-04 to 2010-11 presented in the previous chapter of this petition, the JSEB is already considering the impact of sale of any surplus power in its income which is illustrated in the table below:

Table 9: Break-up of Revenue from sale of power proposed for true-up

| Year | Revenue from Retail Sale of Power (Rs. Cr.) | Sale Outside State (Rs. Cr.) | Net Miscellaneous Charges (Rs. Cr.) | Total Revenue from Sale of Power Proposed for True-up (Rs. Cr.) |
|------------|---|------------------------------|-------------------------------------|---|
| FY 2003-04 | 1,066.67 | 0 | 5.16 | 1,071.8 |
| FY 2004-05 | 1,007.47 | 0 | 1.84 | 1,009.3 |
| FY 2005-06 | 1,151.09 | 0 | 4.09 | 1,155.2 |
| FY 2006-07 | 1,222.05 | 189 | (4.32) | 1,407.0 |
| FY 2007-08 | 1,347.86 | 55 | (11.76) | 1,391.2 |
| FY 2008-09 | 1,421.41 | 179 | (15.29) | 1,584.9 |
| FY 2009-10 | 1,529.31 | 119 | (13.98) | 1,634.4 |

2.40 Therefore, the revenues from any actual sale of power under UI/ trading route have already been considered in the revenues proposed for true-up on actual basis. Any further charging of disincentive against non-achievement of T&D losses on surplus units assumed at targeted T&D loss level will lead to duplication of consideration of revenues against sale of surplus power on actual basis.

2.41 An average rate of trading of the surplus power considered for the purpose of calculation on disincentive is very much on the higher side not only in comparison to the actual average power purchase cost of JSEB but also in comparison to the actual UI prices prevailing in the region as applicable to the JSEB on actual basis for FY 10 and FY 11.

2.42 It is submitted that the average rate of power purchase considered by the Hon'ble Commission for the FY 2009-10 and FY 2010-11 are very much on the higher side in comparison to the actual average rate of power purchase as indicated in the table below:

Table 10: Comparison of actual average power purchase cost with average rate of purchase considered for cost of inefficiency

| Description | FY10 | FY11 (Apr - Sep) |
|--|------|------------------|
| Average Power Purchase Cost | 2.44 | 2.67 |
| Average Rate of Purchase Taken by Hon'ble Commission for Calculation of Cost of Inefficiency on account of non-achievement of T&D loss targets | 4.66 | 6.50 |
| Actual as a (%) of values approved by the Hon'ble Commission | 52% | 41% |

2.43 The actual average power purchase cost in 2009-10 and 2010-11 (RE) are only 52% and 41% of the average rate of power purchase considered by the Hon'ble Commission for calculation of disincentive for non-achievement of T&D losses. Consideration of the actual average cost of power purchase will itself reduce the disincentive for non-achievement of T&D Loss targets by over Rs. 1389 cr. during FY 2009-10 and FY 2010-11.

Table 11: Percentage of ARR disallowed on account of disincentive for non-achievement of T&D loss targets

| Year | Disincentive for non-achievement of T&D loss Target (Rs. Cr.) | Approved ARR without Disincentive for non-achievement of T&D loss target (Rs. Cr.) | % Disallowance on account of disincentive for T&D loss |
|---------|---|--|--|
| 2003-04 | 50.56 | 1299.16 | 3.9% |
| 2004-05 | 139.01 | 1502.31 | 9.3% |
| 2005-06 | 234.86 | 1737.64 | 13.5% |
| 2006-07 | 82.67 | 2087.91 | 4.0% |
| 2007-08 | 275.41 | 2165.88 | 12.7% |
| 2008-09 | 415.88 | 2426.80 | 17.1% |
| 2009-10 | 995.89 | 2436.80 | 40.9% |
| 2010-11 | 1552.93 | 2532.82 | 61.3% |
| Total | 3747.21 | 16189.32 | 23% |

2.44 It is submitted that such substantial disallowances as illustrated above, to the tune of 61.3% of the approved ARR in a single financial year will cripple the JSEB financially and the JSEB will not be able to meet its genuine expenses which are essential to serve its consumers.

2.45 The extracts of the Hon'ble APTEL Order dated 8.5.2008 against the appeal No. 129 of 2007 on Excessive T&D losses and Inefficiencies of JSEB and the Compliance reported by the Commission in the previous tariff Order is reproduced below:

Table 12: Compliance of APTEL's Order on Excessive T&D Losses and inefficiencies of JSEB

| Direction No. | Direction by Hon'ble APTEL/ Relevant Para of the Judgement | Compliance by Hon'ble Commission (JSERC) |
|---------------|---|--|
| (10) | <p>Excessive T&D Losses and inefficiencies of JSEB</p> <p>"50. Prevalent inefficiencies in the Board, excessive Transmission and Distribution losses are a matter of grave concern and are extremely detrimental to the interest of the consumers. We deprecate the current affairs of the Board and direct that immediate steps will be taken to improve the working of the Board. <i>We direct that the Commission lays down time bound targets for reduction of T&D losses and norms for improvement of the Power Stations and increasing the overall efficiency of the Board.</i>"</p> | In compliance to the Hon'ble APTEL's direction, the Commission has set the time bound targets for reduction of T&D losses and norms for improvement of Power Stations and increasing the overall efficiency of the licensee as detailed in Section 7 and Section 11 of this Order. |

2.46 JSEB was of the view that the loss reduction targets given by the Hon'ble Commission would be revised taking into consideration the actual level of losses in accordance with the Hon'ble APTEL Order. However, the Commission approved the T&D loss targets for FY10 and FY11 based on historically drawn targets and has not taken into account the actual level of T&D losses. The difference between the actual and the target given by the Hon'ble Commission and the annual reduction targeted thereafter is shown in the following table:

Table 13: Actual/ RE Vs. Approved T&D loss Targets

| | Actual/ RE estimate of T&D Losses (in JSEB System) | Approved T&D losses (Previous Tariff Order) | Approved Loss Reduction (Previous Tariff Order) | Difference between actual JSEB losses and target |
|------|--|---|---|--|
| FY10 | 35.38% | 24.66% | | 10.72% |
| FY11 | 33.90% | 20.66% | 4% | 13.24% |
| FY12 | | 19.00% | 1.60% | |
| FY13 | | 18% | 1% | |
| FY14 | | 17% | 1% | |
| FY15 | | 16% | 1% | |
| FY16 | | 15.50% | 1% | |
| FY17 | | 15% | 1% | |

2.47 The JSEB has analyzed annual average loss reduction achieved by several well performing utilities across the country. The average annual loss reductions achieved over a period of time are provided in the table below for reference of the Hon'ble Commission:

Table 14: Average Annual T&D loss reduction achieved by other utilities

| Utility name | T&D loss levels reported in tariff Orders | Average Annual Loss Reduction Achieved (%) |
|------------------------------|---|--|
| NDPL | • Losses reported at 42.44% in 2003-04 reduced to 18.27% in 2009-10 | 4.0% |
| AP - All Discoms | • Losses reported at 25.01% in 2003-04 reduced to 18.63% in 2009-10 | 1.1% |
| BSEB | • Losses reported at 41.4% in 2006-07 reduced to 35% in 2009-10 | 1.3% |
| UHBVN | • Losses reported at 32.19% in 2003-04 reduced to 26.72% in 2009-10 | 1.1% |
| DHBVN | • Losses reported at 30.7% in 2003-04 reduced to 29.8% in 2009-10 | 0.2% |
| PSEB | • Losses reported at 24.59% in 2004-05 reduced to 19.5% in 2009-10 | 1.0% |
| Madhya Pradesh - All Discoms | • Losses reported at 35.87% in 2003-04 reduced to 28.59% in 2009-10 | 1.2% |

2.48 As may be seen from the table, the maximum annual average T&D loss reduction has been achieved by NDPL which is at 4%. It is also submitted that the case of NDPL is not directly comparable with that of the JSEB. NDPL operates in a predominantly urban license area of approximately 500 square kilometers only and has a very high density of consumers/ load in comparison to the JSEB.

2.49 Therefore, the annual loss reduction being proposed by the Hon'ble Commission which is based on historical loss reduction targets is not achievable as it reflects an annual loss reduction of over 13% which has not been achieved by any utility in the country. Such unachievable annual loss reduction target will put immense financial burden on the JSEB in the form of regulatory disallowances.

- 2.50 The National Tariff Policy (NTP), notified by the Central Government in Compliance to the Section 3 of the Electricity Act, 2003 is the guiding policy for the State Electricity Regulatory Commissions (SERCs) in discharging their functions including framing the regulations under section 61 of the Act, is reproduced below for the reference of the Hon'ble Commission. Item 8.2.1.(2) of the NTP states that:

“ATC loss reduction should be incentivised by linking returns in a MYT framework to an achievable trajectory.”

- Item 8.2.1.(2), National Tariff Policy

- 2.51 JSEB prays to the Hon'ble Commission to revise the loss reduction targets in accordance with guiding principles of the National Tariff Policy and the Abraham Committee recommendations and taking cognizance of the existing level of losses for implementation of the APTEL order in its true spirit. The recommendations of the Abraham Committee on loss reduction targets are summarized below for information.

Table 15: Recommendations of Abraham Committee on Loss Reduction Targets

| Base level of losses | Recommended Targets as per Abraham Committee |
|--|--|
| Utilities having AT&C losses above 40%: | Reduction by 4% per year; |
| Utilities having AT&C losses between 30 & 40%: | Reduction by 3% per year; |
| Utilities having AT&C losses between 20 & 30%: | Reduction by 2% per year; |
| Utilities having AT&C losses below 20%: | Reduction by 1% per year. |

- 2.52 As illustrated in Table 13 the actual annual loss reduction targets for FY11 and FY12 worked out by JSEB taking cognizance of the existing loss levels are very much on the higher side in comparison to that prescribed by the Abraham Committee. Report dated October, 2006.
- 2.53 It is prayed that the loss reduction targets for the JSEB be revised in accordance with the recommendations of the Abraham Committee shown above. The same reduction as above may be adopted for the T&D loss targets as the collection efficiency is considered at 100% in accordance with prevalent regulations in the State.
- 2.54 JSEB was carved out from the BSEB on creation of the State of Jharkhand in 2001. Despite being part of the same entity until 2001, the T&D/ AT&C loss targets given by the Hon'ble Commission (JSERC) is much higher than what has been given by the Hon'ble Bihar Electricity Regulatory Commission.

Table 16: Comparison of T&D loss targets set in Bihar & Jharkhand by the respective Hon'ble SERC's

| Financial Year | Targets Set by Hon'ble JSERC (As in Tariff Order for FY2010-11) | Targets Set by Hon'ble BERC (As in Tariff Order for FY2010-11) |
|----------------|---|--|
| FY 2009-10 | 24.66% | 35% |
| FY 2010-11 | 20.66% | 32% |
| FY 2011-12 | 19.66% | 29% |

- 2.55 The JSEB prays to the Hon'ble Commission to take cognizance of the T&D loss targets given by the Hon'ble BEREC to the BSEB for revising the T&D loss targets.
- 2.56 Several utilities with legacy systems, similar to the JSEB, have not been able to achieve the T&D/ AT&C loss reduction targets given by the respective Commissions. However, none of the regulators have adopted an approach as drastic as that taken by Hon'ble JSERC:
- In most cases SERCs have given achievable annual target to utilities considering their present level and past performance. In several cases, the loss reduction targets have been reduced to make the same achievable for the utilities.
 - The penalties on accounts non achievement of T&D/ AT&C loss reduction targets are imposed by disallowing power purchase cost to the extent of underachievement of loss reduction targets by most SERCs.
 - There is no precedence of making adjustments/ disallowances to the genuine Aggregate Revenue Requirement of utilities against assumed sales at assumed trading tariffs in any of the States in the Country.
- 2.57 The stand taken by several SERCs in situations very similar to that in the case of JSEB are tabulated below for reference.

Table 17: Treatment of non-achievement of T&D losses in other States

| Utility/ State | Treatment of non-achievement of T&D loss targets |
|--------------------------------|--|
| East Discom, Madhya Pradesh | <ul style="list-style-type: none"> • Tariff Order for FY10, approved by the Hon'ble MPERC: <ul style="list-style-type: none"> - The East Discom had projected the T&D loss target for FY10 at 31.86%. - The Hon'ble Commission has approved T&D loss targets at 26.5% for FY10 and at 23.5% for FY11 in accordance with the loss reduction trajectory specified by the GoMP. • Tariff Order for FY11, approved by the Hon'ble MPERC: <ul style="list-style-type: none"> - The East Discom projected the T&D losses at 32.5% for FY11. - The Hon'ble Commission revised the T&D loss target for FY11 to 30% from the earlier approved value of 23.5%. - The Commission revised the loss keeping in view the interests of the consumers as also that of Discoms, as per the tariff order. |
| West Discom, Madhya Pradesh | <ul style="list-style-type: none"> • Tariff Order for FY10, approved by the Hon'ble MPERC: <ul style="list-style-type: none"> - The West Discom had projected the T&D loss target for FY10 at 27.4%. - The Hon'ble Commission has approved T&D loss targets at 25.5% for FY10 and at 24% for FY11 in accordance with the loss reduction trajectory specified by the GoMP. • Tariff Order for FY11, approved by the Hon'ble MPERC: <ul style="list-style-type: none"> - The West Discom projected the T&D losses at 29.76% for FY11. |

| Utility/ State | Treatment of non-achievement of T&D loss targets |
|----------------------------------|---|
| | <ul style="list-style-type: none"> - The Hon'ble Commission revised the T&D loss target for FY11 to 26% from the earlier approved value of 24%. - The Commission revised the loss keeping in view the interests of the consumers as also that of Discoms, as per the tariff order. |
| CSEB/ CSPDCL, Chhattisgarh | <ul style="list-style-type: none"> • Tariff Order for FY08 for CSEB, approved by the Hon'ble CSERC: <ul style="list-style-type: none"> - The actual loss levels reported by the CSEB were at 36.19% for FY06, at 35.54% for FY07 and at 34.46% for FY08. - The Hon'ble Commission approved T&D losses at 35.81% for FY06, at 33.81% for FY07 and at 32.54% for FY08. - The Hon'ble Commission had disallowed power purchase expenses corresponding to the losses reported in excess of that corresponding to approved T&D losses. • Tariff Order for FY10 for CSPDCL, approved by the Hon'ble CSERC: <ul style="list-style-type: none"> - The CSPDCL reported actual T&D losses for FY08 at 39.92% and projected T&D losses for FY10 at 35.82%. - The Hon'ble Commission giving cognizance to the existing level of losses fixed the T&D loss targets for FY09 at 37.32% and for FY10 at 34.32%, which are higher than that approved for FY08 in the previous tariff order. - The Hon'ble Commission approved T&D losses at 35.81% for FY06, at 33.81% for FY07 and at 32.54% for FY08. - Order states that <i>"considering the practical aspect, and the fact that the actual distribution loss levels are being reported as 39.32% in FY 2007-08, the Commission is left with no option but to revise the loss reduction target"</i> - The Hon'ble Commission accepted the distribution loss reduction target of 2% as proposed by CSPDCL for FY09. |
| Punjab | <ul style="list-style-type: none"> • Tariff Order for FY09, approved by the Hon'ble PSERC: <ul style="list-style-type: none"> - The PSEB had reported actual loss levels at 23.92% for FY07 and at 22.53% for FY08. - The PSEB has projected T&D losses for FY09 at 21%. - The Hon'ble Commission had approved losses at 20.75% for FY07, at 19.5% for FY08 and at 19.5% for FY09. - The Commission disapproved power purchase expenses on account of higher than approved T&D losses at the average power purchase cost. • Tariff Order for FY10, approved by the Hon'ble PSERC: <ul style="list-style-type: none"> - The PSEB had reported actual loss levels at 21% for FY09. - The PSEB has projected T&D losses for FY09 at 19.5%. - The Hon'ble Commission had approved losses at 19.5% for FY09 as well as FY10. - The Hon'ble Commission disapproved power purchase expenses on account of T&D losses at the average power purchase cost. • Tariff Order for FY10, approved by the Hon'ble PSERC: <ul style="list-style-type: none"> - The PSEB had reported actual loss levels at 25.12% for FY08 and at 22.21% |

| Utility/ State | Treatment of non-achievement of T&D loss targets |
|--------------------------|--|
| | <p>for FY09.</p> <ul style="list-style-type: none"> - The PSEB has projected T&D losses for FY10 at 19.5%. - The Hon'ble Commission had approved losses at 22% for FY10 and at 20% for FY11. - The Hon'ble Commission disapproved power purchase expenses on account of T&D losses at the average power purchase cost. - Loss levels were revised due to new AG consumption study conducted by the Consumption. - The Hon'ble Commission has fixed loss targets in accordance with recommendations of the Abraham Committee. |
| J&K PDD, Jammu & Kashmir | <ul style="list-style-type: none"> • Tariff Order for FY09, approved by the Hon'ble JKSERC: <ul style="list-style-type: none"> - The J&KPDD had projected T&D losses for FY09 at 49%. The J&KPDD had also reported actual T&D loss level at 51% in FY07 and at 49.83% in FY08. - The Hon'ble JKSERC had not approved any T&D loss levels on account of absence of reliable sales data. • Tariff Order for FY11, approved by the Hon'ble JKSERC: <ul style="list-style-type: none"> - The J&KPDD had projected T&D losses for FY11 at 57.48%. - The J&KPDD had also submitted that the actual T&D loss levels at 61.9% for FY08, at 61.31% for FY09 and at 65.78% for FY10. - The Commission approved loss levels at 63.6% for FY10 and at 57.79% for FY11. - The Commission has approved losses in accordance with the recommendations of Abraham Committee (APDRP Restructuring Report). |
| BSEB, Bihar | <ul style="list-style-type: none"> • Tariff Order for FY07, issued by the Hon'ble BERC: <ul style="list-style-type: none"> - In the Tariff Order for FY07 the BSEB had projected T&D losses at 47.30% for FY07. - The Hon'ble Commission approved losses for FY07 at 41.40% and also gave targets for FY08 at 38% and at 34% for FY09. - Energy sales of 4338 MUs were approved against 5268 MUs projected by BSEB. • Tariff Order for FY09, issued by the Hon'ble BERC: <ul style="list-style-type: none"> - The actual T&D losses were reported at 42.61% for FY07 and at 41.4% for FY08. - The BSEB had projected T&D losses for FY09 at 40.5%. - The Hon'ble Commission approved the T&D losses for FY09 at 38% as against 34% approved in the tariff order for FY07. The Hon'ble Commission also fixed targets for FY10 at 35%, FY11 at 32% and FY12 at 29%. - The Commission has approved losses in accordance with the recommendations of Abraham Committee (APDRP Restructuring Report). • Tariff Order for FY11, issued by the Hon'ble BERC: <ul style="list-style-type: none"> - The BSEB reported actual T&D losses at 42.61% for FY07, at 39.06% in FY08 and at 38.007% in FY09. |

| Utility/ State | Treatment of non-achievement of T&D loss targets |
|----------------|---|
| | <ul style="list-style-type: none"> - The BSEB also submitted the estimated T&D losses at 35% for FY10 and at 32% for FY11. - The Hon'ble Commission approved the T&D losses at 32% for FY11 and at 29% for FY12. • Inference: <ul style="list-style-type: none"> - The Hon'ble Commission had revised the T&D loss targets in the Tariff Order for FY09 taking into cognizance the actual level of T&D losses reported and also the recommendations of the Abraham Committee on restructuring of the APDRP. - On revision of targets to realistic levels the BSEB has been able to meet the T&D loss targets set by the Hon'ble BERC. |

2.58 As evident from above, there is no precedence of penalization for non-achievement of T&D loss levels in any of the States in India in the form of assumed sale of the power. Several SERCs have revised loss reduction targets taking into consideration the actual level of losses. JSEB would also like to bring to the kind attention of the Hon'ble Commission to the loss levels prevailing in last tariff year and since.

2.59 Item 8.3 of the National Tariff Policy (NTP) titled Tariff Design: Linkage of Tariffs to Cost of Service which states that tariffs should progressively reflect the efficient and prudent cost of supply of electricity are reproduced below for the reference of the Hon'ble Commission:

"It has been widely recognised that rational and economic pricing of electricity can be one of the major tools for energy conservation and sustainable use of ground water resources.

In terms of the 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."

- Item 8.3, National Tariff Policy

2.60 It is submitted that the significant disallowances on grounds of assumed sales of power by the Hon'ble Commission is reducing the Aggregate Revenue Requirement of the JSEB to unrealistically low levels and the tariff determined on 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.

2.61 It is prayed that the disallowances imposed by the Hon'ble Commission in the form of Disincentive for non-achievement of T&D losses be discontinued and reversed with retrospective effect and be allowed in the ARR of JSEB for the purpose of tariff determination. This is not only adversely impacting the financial viability of the JSEB but it is also promoting inefficient usage/ wastage of power in the State.

- 2.62 JSEB is making concerted efforts to reduce T&D losses by metering of consumers, introduction of AMR/ Remote Metering, conducting enforcement drives, introducing spot billing, undertaking network up-gradation/ improvement projects, undertaking R-APDRP projects in 30 towns etc.

Penalty for SoP

- 2.63 The JSEB has already submitted its status on compliance to SoP regulations in its letter on Compliance to directives dated November 30, 2010.
- 2.64 Also, the methodology adopted by the Hon'ble Commission is adversely affecting the financial health of the already financially crippled JSEB. Also JSEB has observed no precedence of such substantive disallowance on similar ground in any other State in the country.
- 2.65 The Bihar Electricity Regulatory Commission has issued BERC (Standards of Performance of Distribution License), 2006 which is in force in the State of Bihar since April, 2007. The BSEB has not reported compliance level against the various Standards set in the said regulations; however, there is no penalty which has been charged by the Hon'ble BERC in the Tariff Order for 2010-11.
- 2.66 The JSEB has reviewed several tariff orders issued by State Electricity Regulatory Commissions in the State of Punjab, Madhya Pradesh, Jammu & Kashmir, Chhattisgarh etc. and not found penalization against reporting of compliance to the applicable Standards of Performance Regulations.
- 2.67 While JSEB is making all efforts to comply with the Standards of Performance Regulations issued by the Hon'ble JSERC, putting into place requisite systems for measurement and reporting will take time and also involve costs. The Hon'ble Commission may allow a budget of in the ARR of JSEB specifically to enable it to invest in such systems. If this is acceptable to the Hon'ble Commission, the JSEB is willing to assess the costs involved and submit its detailed investment plan for the same.
- 2.68 The JSEB is also in the process of creating customer care centers at 30 towns which are covered under the R-APDRP scheme. The customer care centers planned will have the requisite IT systems which will enable the JSEB to accurately measure and report compliance to the SoP Regulations. However, the same will become operational in about a year and half as per the R-APDRP plan of JSEB.
- 2.69 The JSEB prays to the Hon'ble Commission to not impose any penalty till such time strong measurement/ monitoring systems for measuring compliance are put in place by the JSEB.

Provision for bad debts

- 2.70 Provision for bad and doubtful debts has been proposed for true-up for the period 2003-04 to 2009-10 as per the actual in accordance with the Annual accounts of the JSEB. The provision for bad and doubtful debts proposed for true-up are summarized

below:

Table 18: Proposed provision for bad and doubtful debts

| Financial Year | Proposed Provision for Bad & Doubtful Debts for truing-up (Rs. Cr.) |
|----------------|---|
| 2003-04 | 222.34 |
| 2004-05 | 312.75 |
| 2005-06 | 249.33 |
| 2006-07 | 181.81 |
| 2007-08 | 402.96 |
| 2008-09 | 209.53 |
| 2009-10 | 0.00 |

2.71 The extracts of relevant sections of the applicable Terms and Conditions of Distribution Tariff Regulations are reproduced below for reference:

Table 19: Extracts of Applicable Hon'ble JSERC Regulations on Provision for Bad and Doubtful Debts

| Regulation | Relevant Extract on Provision for Bad and Doubtful Debts |
|---|--|
| JSERC (Terms and Conditions for Distribution Tariff) Regulation, 2004 | 10. Provision for Bad and Doubtful Debts "10.1 No amount can be allowed to be passed on the consumer on the ground of it being bad and doubtful debt as it will lead to inefficiency in collection." |
| JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 | Targets for Distribution Losses and Collection Efficiency The Hon'ble Commission has given the target of 100% collection efficiency from 2011-12 to FY 2015-16 for JSEB and other utilities. |

2.72 The business of power distribution for a utility with Universal Supply Obligation (USO) like that of JSEB is prone to difficulties of T&D losses and collection inefficiencies. Several, State Electricity Regulatory Commissions have taken cognizance of the ground realities and allowed a provision for bad and doubtful debt in the regulations enforced. Relevant extracts from the regulations prescribed by some of the SERCs are summarized below for reference:

Table 20: Extracts of Applicable Regulation on Provision for Bad and Doubtful Debts

| State | Provision in Regulation | Reference |
|----------------|--|---|
| Madhya Pradesh | "As per the Regulation, the Commission allows the Licensees to include provision for bad and doubtful debts as 1% of the total sales revenue" | Notification no: 2934/MPERC/2005 "Madhya Pradesh electricity regulatory commission (terms and conditions for determination of tariff for distribution and retail supply of electricity) regulations, 2005" Chapter 2, Clause 2.27. |
| Rajasthan | "The Commission may consider a provision for writing off of bad and doubtful debts up to 0.25% of receivables subject to writing off of bad and doubtful debts in the previous year in accordance with procedure laid down by the licensee and generating company" | Notification no: RERC/Secy/Reg.-76 "The Rajasthan Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2009". Clause 26. |
| Jammu & | "Bad and Doubtful Debts shall be | Notification no: 2/JKSERC/2005 Jammu & |

| State | Provision in Regulation | Reference |
|---------------|---|---|
| Kashmir | <i>allowed as a legitimate business expense only if it is within the norms fixed by the Commission and to the extent the distribution licensee or utility has identified and actually written off bad debts according to a transparent policy approved by the Commission.</i> | Kashmir State Electricity Regulatory Commission (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2005; Chapter 4: Annual expenditure, Clause 12 |
| Bihar | There is provision for bad and doubtful debts actually written off by the licensee to be claimed in expenditure, subjected to approval by the Commission. No normative figures have been provided though. | Notification no: BERC/Regl-10/06-2/2007 , Bihar Electricity Regulatory Commission “Terms and conditions for determination of tariff” regulation, 2007; Chapter – 5: Distribution, Clause 85(ii)(18) |
| Haryana | There is provision for bad and doubtful debts actually written off by the licensee to be claimed in expenditure, subjected to approval by the Commission. No normative figures have been provided though. | Regulation no HERC/21/2008 : “Terms and Conditions for determination of Wheeling tariff and distribution and retail supply tariff”; Chapter IV; Clause 10: Components of tariff |
| Chhattisgarh | <i>“As a normative provision 1% of sales revenue shall be allowed as bad and doubtful debt subject to actual writing off of bad and doubtful debts in the previous year.”</i> | Notification No.26/CSERC/2007 : “Chhattisgarh State Electricity Regulatory Commission (Terms and conditions of determination of tariff according to Multi-Year tariff Principles) Regulations, 2008.” Clause 59 |
| Gujarat | There is provision for bad and doubtful debts actually written off by the licensee to be claimed in expenditure, subjected to approval by the Commission. No normative figures have been provided though. | Notification No. 12 of 2005: “ Gujarat electricity regulatory commission Terms and Conditions of Tariff ” Regulation, 2005; Chapter 5, Clause 66. |
| Uttar Pradesh | <i>“Bad and Doubtful Debts shall be allowed as a legitimate business expense with the ceiling limit of 2% of the revenue receivables provided the distribution licensee actually identifies and writes off bad debts as per the transparent policy approved by the Commission. In case there is any recovery of bad debts already written off, the recovered bad debt will be treated as other income.”</i> | Notification No UPERC/Secy/Regulation/06-2102:“ Uttar Pradesh Electricity Regulatory Commission (Terms and Conditions for Determination of Distribution Tariff) Regulations-2006 ” Chapter 4: Annual Expenditure, Clause 4.4 |

2.73 It is submitted that while other licensees in the State enjoy a significantly favourable consumer mix and operate in limited supply areas and thus have higher load density and lesser line length of distribution networks which makes it easier for them to control losses. The JSEB is the distribution licensee for the entire State of Jharkhand including rural and far flung areas. As is evident from the growth in the number of rural/BPL/kutir jyoti connections in the State, JSEB’s consumer mix is becoming more and more dominated by consumers pertaining to the economically weaker sections of the society.

2.74 Accordingly, it is submitted that the distribution loss target of 19% given to the JSEB is very strict considering SAIL Bokaro with a much more favorable consumer mix and a very limited urban supply area has a target level of 17% in 2011-12.

- 2.75 Also, in view of the SAIL-Bokaro's distribution loss target given at 17% for 2011-12, the target given to the JSEB which is at 19% for 2011-12
- 2.76 Therefore, the target of 100% collection efficiency given by the Hon'ble Commission for all licensees in the State needs to be relooked taking into consideration the ground realities of difference in consumer mix and the geographical spread of its license area.
- 2.77 In view of the above facts, the JSEB prays to the Hon'ble Commission to use its power to relaxation and allow for the provision for bad and doubtful debts proposed for true-up in accordance with the annual accounts for the period 2003-04 to 2009-10. Notwithstanding the same, the JSEB shall endeavor to achieve 100% collection efficiency in accordance with the targets given by the Hon'ble Commission in the applicable regulations.

Other items

- 2.78 Changes in all other items are proposed in accordance with the values in the approved Annual Accounts of the JSEB.
- 2.79 As against the amount of Rs. 50 crores which was approved by the Hon'ble Commission towards the expenses to be incurred by the JSEB for arrears pertaining to the 6th Pay Commission, it is submitted that the actual impact of the same has been arrived at Rs. 172.70 crores by JSEB. The provision for expenses towards this has already been made under the head prior period expenses in the annual accounts for 2009-10 which is submitted in this petition for true-up. The JSEB prays to the Hon'ble Commission for approval of the same.
- 2.80 The calculations/ workings for the true-up proposed for 2010-11 are detailed along with the workings shown for the year 2011-12 in the subsequent chapters.

A3: ENERGY BALANCE**Sales Projections**

3.1 JSEB has witnessed a substantial growth in sales over the the period 2004-05 to 2009-10. The 5 year compounded annual growth rate (CAGR) for the various consumer categories is provided in the following table.

Table 21: Consumer Category Wise Sales Trend.

| Description | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 5 Yr CAGR |
|---|---------|---------|---------|---------|---------|----------|-----------|
| Units Billed (Units) | | | | | | | |
| Domestic Service | 784.30 | 905.78 | 1104.69 | 1370.28 | 1615.23 | 2,256.03 | 23.5% |
| Non-Domestic Service | 141.59 | 160.91 | 184.60 | 214.35 | 239.45 | 265.74 | 13.4% |
| Low Tension Industrial & Medium Power Service | 93.71 | 98.38 | 117.60 | 123.58 | 137.57 | 145.85 | 9.3% |
| High Tension Voltage Supply Service | 1236.10 | 1563.28 | 1643.37 | 1791.44 | 1851.65 | 1,962.93 | 9.7% |
| Street Lighting Service (PL) | 74.89 | 80.22 | 83.00 | 71.59 | 76.73 | 120.67 | 10.0% |
| Railway Traction Service | 427.63 | 444.33 | 471.29 | 531.46 | 616.60 | 603.23 | 7.1% |
| Irrigation & Agriculture Service | 56.18 | 59.27 | 72.26 | 72.42 | 68.79 | 65.72 | 3.2% |
| PHED | 68.27 | 69.28 | 65.21 | 70.21 | 63.82 | 72.21 | 1.1% |
| Total | 2882.67 | 3381.46 | 3742.04 | 4245.32 | 4669.85 | 5492.36 | 13.8% |

3.2 The JSEB has used the 5 year CAGR after normalizing the same for projecting the sales growth for the years 2010-11 and 2011-12.

3.3 The sales projections for 2010-11 have been verified with respect to the actual sales data available for the first six months of the year and necessary corrections/modifications have been incorporated, wherever required.

3.4 The actual/ proposed growth in the number of Kutir Jyoti/ BPL consumers on account of the large scale electrification of rural areas under the RGGVY scheme undertaken by the JSEB have been incorporated in the sales projections over and above the growth observed as per historical trends. Over 9,66,667 number of Kutir Jyoti connections are originally covered under the RGGVY. The JSEB has proposed the additions to the Kutir Jyoti category as per its base case considerations for the purpose of projecting sales growth.

3.5 The projected number of consumers, connected load and the sales in MU's for 2010-11 and 2011-12 and the actual for the year 2009-10 for each of the consumer/ tariff categories are provided in the table below.

Table 22: Projected Number of Consumers, Connected Load and Sales

| | No. of Consumers | | | Connected Load ('000 kW/ HP) | | | Sales (MUs) | | |
|---------------------------|------------------|-----------|----------|------------------------------|-----------|----------|-------------|-----------|----------|
| | FY10 (A) | FY11 (RE) | FY12 (P) | FY10 (A) | FY11 (RE) | FY12 (P) | FY10 (A) | FY11 (RE) | FY12 (P) |
| Domestic | 1322317 | 1501290 | 2371753 | 1150 | 1363 | 1686 | 2256 | 2485 | 2982 |
| Non-Domestic | 99835 | 129934 | 169106 | 218 | 247 | 280 | 266 | 301 | 342 |
| Low Tension | 11234 | 12325 | 13522 | 217 | 238 | 260 | 218 | 238 | 260 |
| Irrigation & Agricultural | 20343 | 23926 | 28139 | 43 | 46 | 48 | 66 | 69 | 73 |
| High Tension service | 1061 | 1136 | 1217 | 546 | 599 | 657 | 1314 | 1393 | 1476 |
| HT Special S | 55 | 59 | 63 | 162 | 178 | 195 | 602 | 639 | 677 |
| Traction | 13 | 13 | 13 | 185 | 185 | 185 | 603 | 615 | 615 |
| Street Light Service | 587 | 562 | 539 | 32 | 35 | 38 | 121 | 133 | 146 |
| MES | 9 | 10 | 11 | 7 | 7 | 8 | 47 | 51 | 56 |
| Overall/ Total | 1455454 | 1669255 | 2584362 | 2560 | 2897 | 3357 | 5492 | 5924 | 6628 |

Distribution Losses

- 3.6 JSEB has worked out the distribution losses occurring in its network on the basis of actual power purchase and sales data available for the years for the year 2009-10 and on the basis of revised estimates of sales and power purchase for 2010-11.
- 3.7 The distribution losses for the year 2011-12 have been projected taking into consideration the recommendations of the Abraham Committee Report on restructuring of the APDRP. Accordingly, a reduction of over 3% with respect to the distribution losses assessed in the year 2009-10 has been proposed by JSEB, which is more than the 3% annual loss reduction recommended by the Abraham Committee Report.
- 3.8 The power purchase/ energy input required for the year 2011-12 have been worked out in the reverse manner considering the sales, targeted distribution loss reduction and the past trend of losses observed in the system at higher levels including state level transmission system and that in the regional/ inter-regional transmission systems beyond the State boundaries.
- 3.9 The losses beyond the State boundary are based on actuals for 2009-10 and on estimated values based on past trend for the period 2007-08 to 2009-10 for the years 2010-11 and 2011-12.
- 3.10 The transmission losses in the State transmission system owned and operated by the JSEB have been taken at 5% as approved by the Hon'ble Commission in the Tariff Order for 2010-11.
- 3.11 In view of the above, the distribution losses for 2009-10 (actuals), 2010-11 (revised estimates) and for 2011-12 (projected) are shown in the following table:

Table 23: Distribution losses for 2009-10, 2010-11 and 2011-12 (in MUs)

| Description | 2009-10 (A) | 2010-11 (RE) | 2011-12 (P) |
|--|-------------|--------------|-------------|
| Power Purchase from Outside JSEB Boundary | 3959 | 5138 | 4668 |
| Loss in external systems (%) | 3.84% | 2.70% | 2.70% |
| MU's lost in external system | 152 | 139 | 126 |
| Net Outside State Power Purchase | 3807 | 5000 | 4542 |
| Energy Input Directly to State Transmission System | 475 | 822 | 822 |
| Own Generation | 1084 | 597 | 1784 |
| UI Payable | 237 | 52 | 0 |
| UI Sale/ Recievable | 308 | 763 | 785 |
| Energy available for onward transmission | 5295 | 5707 | 6362 |
| Transmission loss (%) | 5% | 5% | 5% |
| Transmission loss (MUs) | 265 | 285 | 318 |
| Net Energy Sent to Distribution (Mus) | 5030 | 5422 | 6044 |
| Direct input at distribution voltage (33 kV) | 3204 | 3256 | 3256 |
| Total Energy Available for Distribution | 8235 | 8678 | 9300 |
| Sales (MUs) | 5492 | 5924 | 6628 |
| Distribution loss (MUs) | 2742 | 2754 | 2673 |
| Distribution loss (%) | 33.3% | 31.7% | 28.7% |

3.12 The Hon'ble Commission in the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 has given the following distribution loss targets for the JSEB for the transition and the control period specified in the regulations:

Table 24: Distribution loss targets as per applicable Regulations

| Distribution loss Target | 2011-12 | 2012-13 | 2013-14 | 2014-15 | 2015-16 |
|--------------------------|---------|---------|---------|---------|---------|
| JSEB | 19% | 18% | 17% | 16% | 15.5% |

3.13 The Hon'ble Commission has given some relaxation to the JSEB by revising the target for T&D losses at 19% for 2011-12 in the previous Tariff Order for 2010-11 to a distribution loss target of 19% for 2011-12 in the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010.

3.14 However, as can be seen from the distribution loss calculation provided by JSEB, the distribution loss which is estimated at 31.7% in 2010-11 is required to be reduced by over 12.7% by the JSEB in a single year for meeting the target given by the Hon'ble Commission for the year 2011-12.

3.15 As already submitted in the chapter on truing-up, an average annual reduction in losses of more than 4% has not been achieved by any utility in the country. For reference of the Hon'ble Commission, the annual average loss reduction achieved by some of the well performing utilities in the countries is reproduced below:

Table 25: Average Annual T&D loss reduction achieved by other utilities

| Utility name | T&D loss levels reported in tariff Orders | Average Annual Loss Reduction Achieved (%) |
|------------------------------|---|--|
| NDPL | • Losses reported at 42.44% in 2003-04 reduced to 18.27% in 2009-10 | 4.0% |
| AP - All Discoms | • Losses reported at 25.01% in 2003-04 reduced to 18.63% in 2009-10 | 1.1% |
| BSEB | • Losses reported at 41.4% in 2006-07 reduced to 35% in 2009-10 | 1.3% |
| UHBVN | • Losses reported at 32.19% in 2003-04 reduced to 26.72% in 2009-10 | 1.1% |
| DHBVN | • Losses reported at 30.7% in 2003-04 reduced to 29.8% in 2009-10 | 0.2% |
| PSEB | • Losses reported at 24.59% in 2004-05 reduced to 19.5% in 2009-10 | 1.0% |
| Madhya Pradesh - All Discoms | • Losses reported at 35.87% in 2003-04 reduced to 28.59% in 2009-10 | 1.2% |

- 3.16 The National Tariff Policy (NTP), notified by the Central Government in Compliance to the Section 3 of the Electricity Act, 2003 is the guiding policy for the State Electricity Regulatory Commissions (SERCs) in discharging their functions including framing the regulations under section 61 of the Act, is reproduced below for the reference of the Hon'ble Commission. Item 8.2.1.(2) of the NTP states that:

“ATC loss reduction should be incentivised by linking returns in a MYT framework to an achievable trajectory.”

- Item 8.2.1.(2), National Tariff Policy

- 3.17 JSEB prays to the Hon'ble Commission to revise the loss reduction targets for the transition period as well as the control period in accordance with the Abraham Committee recommendations and taking cognizance of the existing level of losses. The recommendations of the Abraham Committee on loss reduction targets are summarized below for information.

Table 26: Recommendations of Abraham Committee on Loss Reduction Targets

| Base level of losses | Recommended Targets as per Abraham Committee |
|--|--|
| Utilities having AT&C losses above 40%: | Reduction by 4% per year; |
| Utilities having AT&C losses between 30 & 40%: | Reduction by 3% per year; |
| Utilities having AT&C losses between 20 & 30%: | Reduction by 2% per year; |
| Utilities having AT&C losses below 20%: | Reduction by 1% per year. |

- 3.18 In view of the above it is prayed that the distribution loss level of 28.7% as proposed by the JSEB be approved for the purpose of determination of ARR for the year 2011-12.
- 3.19 It is submitted that driven by the targets and directives given by the Hon'ble Commission, the JSEB has made concerted efforts to reduce distribution losses which has already come down significantly during the last three to four years. It may be noted that despite exponential growth in BPL/ Kutir Jyoti connections in rural areas,

the JSEB has been able to control losses over the years.

- 3.20 In order to reduce distribution losses and to enforce discipline in the erring consumers, the JSEB has consistently enhanced its focus on conducting raids at consumer premises. The number of raids conducted, FIRs lodged by the different circles JSEB over the years is provided below for reference of the Hon'ble Commission. As may be seen from the table there has been a sharp increase in number of raids/ FIRs since 2007-08 and especially in 2010-11.

Table 27: Details of circle-wise raids conducted and FIRs lodged

| Sl. | Name of Circle | F.Y. 2007-2008 | | F.Y. 2008-2009 | | F.Y. 2009-2010 | | FY2010-11 (upto December) | |
|------|----------------|----------------|------------|----------------|------------|----------------|------------|---------------------------|------------|
| | | No. of Raids | No. of FIR | No. of Raids | No. of FIR | No. of Raids | No. of FIR | No. of Raids | No. of FIR |
| 1 | Jamshedpur | 155 | 92 | 623 | 581 | 838 | 818 | 1336 | 911 |
| 2 | Chaibasa | 77 | 22 | 14 | 8 | 243 | 168 | 318 | 151 |
| 3 | Ranchi | 1034 | 701 | 948 | 731 | 793 | 565 | 2740 | 1253 |
| 4 | Gumla | 0 | 0 | 11 | 11 | 50 | 28 | 303 | 117 |
| 5 | Daltonganj | 0 | 0 | 53 | 51 | 257 | 38 | 399 | 238 |
| 6 | Garhwa | 0 | 0 | 45 | 24 | 28 | 29 | 225 | 156 |
| 7 | Dhanbad | 20 | 17 | 499 | 303 | 682 | 373 | 1090 | 440 |
| 8 | Loyabad | 42 | 42 | 255 | 174 | 255 | 156 | 1491 | 555 |
| 9 | Hazaribagh | 211 | 96 | 1212 | 675 | 2528 | 1154 | 3056 | 1382 |
| 10 | Giridih | 93 | 91 | 764 | 512 | 1269 | 786 | 1695 | 849 |
| 11 | Deoghar | 7 | 2 | 62 | 45 | 116 | 73 | 618 | 269 |
| 12 | Dumka | 94 | 28 | 43 | 23 | 68 | 21 | 353 | 179 |
| 13 | Sahebganj | 46 | 27 | 63 | 12 | 141 | 29 | 680 | 97 |
| JSEB | | 1779 | 1118 | 4592 | 3150 | 7268 | 4238 | 14304 | 6597 |

- 3.21 JSEB 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.

A4: POWER PURCHASE & FUEL COST**Power Purchase**

4.1 JSEB has firm allocations of power from thermal power plants of NTPC, TVNL and DVC and Hydel Power Plants of NHPC and through PTC. In addition to these sources JSEB also has an interconnection point with the WBSEB from where it draws power. JSEB's allocations from these long term sources are summarized in the table below:

Table 28: Source wise firm allocation of power

| Source | Percentage allocation | Installed capacity of source in MW | Allocation |
|----------------------|-----------------------|------------------------------------|------------|
| NTPC - Farakka | 9.83% | 1600 | 157.23 MW |
| NTPC - Kahalgaon –I | 4.62% | 840 | 38.77 MW |
| NTPC - Kahalgaon –II | 1.67% | 1500 | 25.05 MW |
| NTPC - Talcher | 9.15% | 1000 | 91.47 MW |
| NHPC – Rangit | 13.33% | 60 | 8.00 MW |
| NHPC – Teesta | 12.42% | 510 | 63.34 MW |
| PTC Chukha | 10.74% | 360 | 38.66 MW |
| PTC Tala | 11.46% | 1020 | 116.89 MW |
| DVC | 9.83% | - | 157.23 MVA |
| WBSEB | 4.62% | - | 38.77 MVA |

4.2 In addition to the above JSEB also has a short-term allocation of 100 MW from DVC which is available on an RTC basis. However, as the own generation is expected to increase due to commissioning of the 9th and 10th Units, JSEB intends to reduce drawal from the short-term arrangements.

4.3 JSEB plans to procure power from solar and other non-renewable sources in 2011-12 in compliance of the renewable purchase obligation put forth under JSERC (Renewable Purchase Obligations and its Compliance) Regulations, 2010. In accordance with Regulation 5, clause 5.2 of the Renewable Purchase Obligation and its Compliance, Regulations, 2010, JSEB has considered a total purchase of 3% from Renewable/ Non-Conventional energy sources which includes 0.5% from solar power generation plants.

4.4 JSEB has taken due considerations of the loss reduction targets it needs to meet and the same has been taken in accordance with the Abraham Committee Recommendations for arriving at the power purchase requirement for the year 2011-12.

4.5 Accordingly, the total purchase from outside sources is estimated at 8505 MUs in 2010-11 which is based on the actual drawal from April, 2010 to November, 2010 and at 7961 MUs for 2011-12.

4.6 The cost of power from each source for the year 2010-11 has been based on the actual costs incurred/ bills received for the period April, 2011 to November, 2011. The cost of power from various sources for the year 2011-12 are based on the growth in cost observed during the last two years.

4.7 Source wise estimate of power purchase, per unit rate and total cost for the same have been projected for the years 2010-11 and 2011-12 as provided in the table below:

Table 29: Source wise Power Purchase Projection for 2010-11 and 2011-12

| Source | 2010-11 | | | 2011-12 | | |
|---------------------------|----------------------|-------------|------------------|----------------------|-------------|------------------|
| | Unit Rate (Rs./ kWh) | MU's | Amount (Rs. Cr.) | Unit Rate (Rs./ kWh) | MU's | Amount (Rs. Cr.) |
| Farakka | 3.51 | 969 | 340 | 4.22 | 969 | 409 |
| Kahalgaon | 2.80 | 227 | 64 | 2.93 | 227 | 66 |
| Kahalgaon II | 3.41 | 127 | 43 | 2.92 | 127 | 37 |
| Talcher | 2.44 | 610 | 149 | 3.72 | 610 | 227 |
| WBSEB | 5.85 | 59 | 34 | 5.85 | 59 | 34 |
| DVC | 3.00 | 3197 | 959 | 3.14 | 3197 | 1004 |
| Rangit(NHPC) | 2.01 | 45 | 9 | 1.75 | 44 | 8 |
| Teesta(NHPC) | 1.65 | 320 | 53 | 1.53 | 289 | 44 |
| Chukha | 1.61 | 199 | 32 | 1.61 | 199 | 32 |
| PTC (ST) | | 0 | 0 | 0.00 | 0 | 0 |
| TVNL | 2.05 | 2178 | 447 | 2.05 | 2178 | 447 |
| UI Payable | 4.19 | 52 | 22 | 0.00 | 0 | 0 |
| UI Receivable | 2.46 | 763 | 188 | 2.46 | 785 | 193 |
| Power traded through IEX | | 0 | 0 | 0.00 | 0 | 0 |
| PTC (Tala HEP) | 1.86 | 407 | 76 | 1.84 | 407 | 75 |
| DVC (ST) | 2.77 | 878 | 243 | 2.85 | 146 | 42 |
| Own Generation (thermal) | 0.00 | 595 | 0 | 0.00 | 1735 | 0 |
| Own Generation (hydel) | 0.00 | 2 | 0 | 0.00 | 49 | 0 |
| Solar | | | | 5.5 | 49 | 27 |
| Other Renewable | | | | 5 | 244 | 122 |
| PGCIL | | | 61.0 | | | 66.5 |
| ERLDC | | | 7.28 | | | 1.22 |
| | | | | | | |
| Payable | | 9268 | 2539 | | 8746 | 2642 |
| Receivable | | 763 | 188 | | 785 | 193 |
| Net Purchase/ Cost | 2.77 | 8505 | 2352 | 3.08 | 7961 | 2449 |

Own Generation

4.8 The installed capacity of the Patratu Thermal Power Station is 840 MW. However, JSEB would like to bring to the notice of the Commission that of 10 units the Patratu Thermal Power Station (PTPS), Units 1 –6 of the station are around 37 – 42 years old (installed in 1966 -71) and have run beyond normal economic life of these stations. Units 7 –10 were installed during 1977 – 86 and have also become reasonably old.

4.9 The derated capacity which has been considered for calculation of PLF of the plant for the previous years of 2009-10 and 2010-11, is 770 MW. The Central Electricity Authority vide its letter dated August 20, 2009 addressed to the Principal Secretary, Energy, Government of Jharkhand has proposed retirement of Units 1-6 during the

11th and the 12th Plan periods in a phased manner.

- 4.10 Considering this proposal JSEB has planned to phase out unit 3 & 5 in with effect from April, 2011 with total installed capacity of 150 MW which reflects an existing derated capacity of 130 MW.
- 4.11 Also, two units of 110 MW each, which have remained under shut down for last few years will be operational and are estimated to commence operation during financial year 2011-12.
- 4.12 The two units are scheduled to run for 2 months and 6 months each on commissioning at an 85% annual PLF after major overhauling by BHEL is completed and would improved the overall annual PLF to 67.40%
- 4.13 Accordingly, JSEB prays to the Hon'ble Commission to approve calculation of PLF on the operational units of the plant, that is, units 1, 2, 4, 6, 7 and 8 for the period up to March, 2011. The Unit 10 and 9 may also be considered as they get commissioned in October, 2011 and February, 2012 respectively.
- 4.14 The Hon'ble Commission is requested to take a notice of this improvement in own generation and re-consider the inefficiency charges that has been levied on the generating station levied in the previous order.
- 4.15 The fuel cost per unit from the PTPS station comes out to be Rs 1.45 / kWh in 2011-12 with a coal cost of Rs 1148 / tonne and coal transit loss of 2.58%.
- 4.16 The parameters have been estimated using simple statistical techniques on the last five years data:

Thermal Generation – PTPS

Table 30: Calculation of Variable Cost of Generation for PTPS

| Parameters | Units | 2010-11(RE) | 2011-12(P) | Remarks / Basis |
|--|----------|-------------|------------|---|
| Installed Capacity | MW | 840.0 | 690.0 | Unit 3 & 5 being retired in March, 2011 |
| Derated Capacity (Usable) | MW | 640.0 | 640.0 | Derated capacity |
| Proposed for consideration for PLF calculation | MW | 370.0 | 590.0 | 1, 2, 4, 6, 7 and 8 considered in all years, 9 & 10 post commissioning in 2011-12 |
| Plant Load Factor | % | 21.2% | 67.4% | Calculated |
| Auxiliary Consumption | % | 13.4% | 12.9% | Past Performance |
| Station Heat Rate | kCal/kWh | 4274.9 | 3800.0 | Past Performance |
| Calorific Value of Coal | kCal/kg | 4540.1 | 4540.1 | Past Performance |
| Calorific Value of FO/LDO | kCal/L | 10500.0 | 10500.0 | Past |

| Parameters | Units | 2010-11(RE) | 2011-12(P) | Remarks / Basis |
|---|-----------------|-------------|-------------|---|
| | | | | Performance |
| Coal Transit Loss | % | 2.58% | 2.58% | Past Performance |
| Price of Coal - Landed Cost (Incl Transit Loss) | Rs/Tonne | 1084.9 | 1148.2 | Assumed an increase in the price of coal/ FO/ LDO |
| Price of Oil (FO) | Rs/kL | 28772.1 | 30776.9 | |
| Price of Oil (LDO) | Rs/kL | 45611.6 | 52782.3 | |
| Specific Coal Consumption | kg/kWh | 0.95 | 0.85 | Calculated |
| Sp. Oil Consumption (FO) | ml/kWh | 7.1 | 7.1 | Past Performance |
| Sp. Oil Consumption (LDO) | ml/kWh | 4.9 | 4.9 | Past Performance |
| Workings | | | | |
| Gross units generated | MU | 687 | 1993 | |
| Net units generated | MU | 595 | 1735 | |
| Fuel Cost | | | | |
| Station Heat Rate | kCal/ kWh | 4274.9 | 3800.0 | |
| Gross Units Generated | MU | 687.1 | 1992.5 | |
| Total Heat Required | Million kCal | 2937129.0 | 7571661.1 | |
| Calorific Value of Sec Fuel | kCal/ Litre | 10500.0 | 10500.0 | |
| Specific Oil Consumption (FO) | mL/kWh | 7.1 | 7.1 | |
| Secondary Oil Consumption(FO) | kL | 4888.9 | 14178.2 | |
| Specific Oil Consumption (LDO) | mL/kWh | 4.9 | 4.9 | |
| Secondary Oil Consumption (LDO) | kL | 3390.2 | 9831.9 | |
| Heat Generated by Sec fuel | Million kCal | 35597.0 | 103234.8 | |
| Heat Required from Coal | Million kCal | 2901532.01 | 7468426.30 | |
| Calorific Value of Coal | kCal/ kg | 4540.1 | 4540.1 | |
| Coal Consumption | Million Tons | 0.7 | 1.7 | |
| Secondary Oil (FO) Cost per Klitres | 0 | 28772.1 | 30776.9 | |
| Secondary Oil (LDO) Cost per Klitres | Rs/ kLitres | 45611.6 | 52782.3 | |
| Secondary Oil Cost (FO + LDO) | Rs Million | 295.3 | 955.3 | |
| Coal Cost per Ton | Rs/ Ton | 1084.9 | 1148.2 | |
| Coal Cost | Rs Million | 711.7 | 1938.8 | |
| Fuel Cost / Unit | Rs / kWh | 1.47 | 1.45 | |

Hydel Generation – Sikidri

4.17 It may be noted that Generation from Sikidri has reduced significantly since FY 2009-10 due to scanty rainfall. The plant is practically not in operation since June, 2010 due to non-availability of water and no further generation is expected in FY 2010-11 in the ensuing months. Even if there is average to good rain in FY 2011-12, there is least chance of any generation from the Sikidri Hydro plant till September, 2011. Accordingly, the average of units generated in FY 2008-09 and 2009-10 during the period October to March has been considered as the expected generation FY 2011-12.

4.18 The actual generation for the past years and the proposed generation in FY 2011-12 for the Sikidri Hydro power plant is shown in the table below:

Table 31: Proposed Generation from Sikidri Hydro Electric Plant (MUs)

| FY | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 |
|--|---------|---------|---------|---------|---------|---------|
| Generation from Sikidri Hydro Electric Plant (MUs) | 207.60 | 216.46 | 235.20 | 91.65 | 2.00 | 49.37 |

A5: CAPITAL EXPENDITURE & RELATED EXPENSES**Generation**

- 5.1 Patratu Thermal Power Station (PTPS) has ten units with a total derated capacity of 770 MW. The Unit 3 and 5 are in the process of being retired by the JSEB reducing the overall derated capacity to 640 MW with effect from April, 2011. Besides PTPS, JSEB also owns and operates the Sikidri Hydro Generation Station with an installed capacity of 130 MW.
- 5.2 Six units of the PTPS are quite old and require substantial capital investments for bringing them in operation. Presently, Renovation and Modernization (R&M) of Unit 9 and 10 is underway with a total revised capital outlay of Rs.331.11 crores and are expected to get commission by February, 2012 and October, 2011 respectively.
- 5.3 In addition to this, certain new works as listed below are also planned to be undertaken by the JSEB in 2011-12:
- (a) Renovation of DM water plant;
 - (b) Renovation of old Railway track;
 - (c) Augmentation of switchyard at PTPS;
 - (d) Restoration of certain units under long shutdown;
 - (e) Scheduled maintenance of Unit 4 & 6;
 - (f) Renovation and modernization of Subarnekhya Hydel Project Sikidri
- 5.4 The planned capital expenditure outlay for Generation segment of JSEB is as summarized in the table below:

Table 32: Capital Expenditure Plan for Generation (Rs. Lakhs)

| Plan Outlay/ Proposed Schemes | 2010-11 | 2011-12 |
|-------------------------------|---------|---------|
| Generation | 9,000 | 10,000 |

Transmission

- 5.5 JSEB since its formation in 2001 has undertaken various transmission network capacity addition, augmentation and improvement projects for achieving its objective of making availability and reliability of power uniform across the State.
- 5.6 In addition to augmentation of existing Grid substations, eight new substations and one mini Grid substation as well as the associated transmission lines are in the process of being added by the JSEB. The construction of the 8 new substations and associated transmission lines have been funded by REC loans routed through the State Government. The cost of this scheme has been revised from Rs. 406.23 crores to Rs.

497 crores. The work most of the items under this scheme is in advanced stages and are likely to be completed by March, 2011 provided pending forest clearances are granted.

- 5.7 In addition to the above, project works totaling Rs. 1600 crores for construction of new GSS and transmission lines have been sanctioned by the REC through the State Government. The work on Simdega GSS and associated lines has already been taken up as a standalone project. In addition to new GSS at Chaibasa, Dumka, Ramchdrapur, Govindpur, Manoharpur, Mango and associated lines are proposed to be constructed under this scheme. Out of Rs.1600 crores, projects worth Rs.800 crores are proposed to be undertaken/ initiated in 2011-12.
- 5.8 Construction of a GSS at Chatra along with associated transmission lines is proposed to be constructed by JSEB under the Fast Track Backward Linkage Scheme.
- 5.9 Additional schemes for strengthening of the transmission network and connectivity including new lines for availing 900 MW from the new plant of DVC are under initial stages of pre-project development, the details for which will be submitted to the Hon'ble Commission at a later stage.

Table 33: Capital Expenditure Plan for Generation (Rs. Lakhs)

| Plan Outlay/ Proposed Schemes | 2010-11 | 2011-12 |
|--|---------------|----------------|
| State Plan Schemes | 14,500 | 7,153 |
| REC sanctioned Scheme | | |
| a.. Rs.406.23 cr. Scheme revised to Rs. 496.59 cr. | 0 | 160,000 |
| b. Rs. 665.86 cr. Schemes for GSS and Transmission Lines | 0 | |
| c. Rs. 428.44 cr. Schemes for GSS and Transmission lines | 0 | |
| Transmission | 14,500 | 167,153 |

Distribution

- 5.10 Schemes under the distribution segment of the JSEB include 33/11 kV Power Sub-Stations (PSS), 33 kV lines, 11 kV lines, Distribution Transformers, LT lines etc. required for end mile delivery of reliable and quality power to consumers. Distribution related capital expenditure is an ongoing process and the size of projects undertaken varies from small works to large scale network capacity addition/ improvement works under funded schemes.

R-APDRP

- 5.11 JSEB has taken up substantial IT and network strengthening related works under the Part-A and Part-B of the R-APDRP scheme introduced by the Ministry of Power. JSEB would like to detail out its investment plan outlay under this scheme for the kind perusal of the Hon'ble Commission and consideration of the same for the purpose of tariff determination for the year 2011-12.
- 5.12 Part-A of R-APDRP scheme involves establishment of baseline data through metering arrangements at appropriate levels in the network and establishing consumer care

centres. JSEB has already prepared the detailed project reports (DPRs) for 30 town falling under its jurisdiction, for implementation of RAPDRP Part-A. The DPR's have been approved by the funding agency namely PFC vide its letter No. 02:10:R-APDRP(P-A):2009:JSEB dated 24.09.2009 and 02:10:R-APDRP(P-A):2009:JSEB dated 11.11.2009. The table below provides the year-wise expenditure plan as part of this project.

Table 34: Planned Expenditure under Part-A of R-APDRP (Rs. Cr.)

| Part – A | Total layout | 2010-11 | 2011-12 | 2012-13 |
|---|--------------|---------|---------|---------|
| Cost of (30 Towns) IT implementation as per DPR | 225.72 | 68.00 | 150 | 7.7 |
| Central Assistance as a loan convertible into grant | 160.61 | 48.36 | 106.73 | 5.5 |
| Assistance from State Govt. as grant | 65.11 | 19.64 | 43.27 | 2.2 |

5.13 The main works being undertaken under Part-A are summarized in the table below:

Table 35: Summary of works under Part-A of R-APDRP

| Year | Summary of works |
|---------|---|
| 2010-11 | Rs. 50 Crore is proposed to be spent in developing infrastructure like building, appointment of IT Consultants, IT Implementing Agency, Boundary Meters, hiring/sourcing of APDRP support manpower, vehicle, Office expenses precision air conditioning, Network Connectivity, Fire Fighting, Mobilization advance against ITIA and Boundary & Feeder Meters. |
| 2011-12 | Major expenditure amounting Rs. 150 Crore will be done against Hardware installation and other relevant works, payments to IT Consultant, Development Infrastructure, R-APDRP Manpower, Vehicles etc. |
| 2012-13 | Rs. 25.72 Crore will be spent for the balance work as may be felt necessary for completion of the project. |

5.14 JSEB has also identified the areas of investment in part-B of the scheme and the expected expenditure to be incurred. In accordance with the estimates, JSEB is preparing the DPRs for the approval of the funding agency. The works to be carried out in RAPDRP Part-B can be classified as under:

- (a) Power system strengthening, augmentation including HVDS.
- (b) Provision of AB Cable in LT & 11 kV Feeder.
- (c) Provision of Cable.
- (d) Electronic meters to Consumers etc.

5.15 As part of the ambitious RAPDRP implementation in the state, JSEB intends to invest approximately Rs. 2500 Crore during the period 2010-11 to 2012-13. The work shall

be carried out in the same 30 cities covered under RAPDRP part-A. The DPR preparation for the part-B is underway and the same shall be got approved from the Ministry of Power.

Table 36: Investment outlay under Part-B of R-APDRP (Rs. Crs.)

| Part-B, R-APDRP outlay | Project Cost | 2010-11 | 2011-12 | 2012-13 |
|--|--------------|---------|---------|---------|
| DPRs of 30 Towns to be sanctioned | 2500 | 100 | 500 | 1900 |
| Central assistance as a loan convertible into grant (25% of above) | 625 | 25 | 125 | 475 |
| Balance 75% to be arranged by the Board from own resources/ taking loans for Fis/ or taking the amount as a grant from the State Govt. | 1875 | 75 | 375 | 1425 |

RGGVY

5.16 JSEB has undertaken large scale electrification works under the centrally funded RGGVY Scheme which is aimed at creation of Rural Electrification Backbone (REDB), electrification of villages and providing electricity connectivity to 100% BPL households.

5.17 The scheme is being implemented by NTPC, DVC and JSEB in the entire State of Jharkhand with a revised estimated cost of 3534.91 crores and is scheduled to be completed by March, 2011.

Distribution System Improvement in 10 LWE Districts

5.18 In order to facilitate all round development of villages augmentation of the infrastructure created under RGGVY to three phase lines and installation of higher capacity distribution transformers (63 kVA/ 100 kVA) is proposed under this scheme.

Table 37: Capital Expenditure Plan for Distribution (Rs. Lakhs)

| Plan Outlay/ Proposed Schemes | 2010-11 | 2011-12 |
|--|---------|---------|
| Distribution (ADP) & 52 PSS Scheme | 8,000 | 10,000 |
| APDRP | | 0 |
| R – APDRP | 16,800 | 65,000 |
| APDRP - A | 6,800 | 15,000 |
| APDRP - B | 10,000 | 50,000 |
| RE State Plan | 1,000 | 16,811 |
| RGGVY | 0 | 35,350 |
| DVC | | 35,350 |
| NTPC | | |
| JSEB | | |
| Distribution. System Capacity improvement in LWE Districts | 0 | 10,000 |
| Distribution | 42,600 | 237,511 |

Overall Capex for JSEB

5.19 The planned capital outlay of JSEB for the purpose of this petition is as summarized

in the table below:

Table 38: Capital Expenditure Plan (Rs. Lakhs)

| Plan Outlay/ Proposed Schemes | 2010-11 | 2011-12 |
|-------------------------------|---------------|----------------|
| Generation | 9,000 | 10,000 |
| Transmission | 14,500 | 167,153 |
| Distribution | 42,600 | 237,511 |
| Total JSEB | 49,300 | 314,314 |

5.20 In addition to the capital projects targeted to be initiated in FY 2010-11 and FY 2011-12, the closing balance of Capital Works in Progress (CWIP) for the year FY 2009-10 as per actual figures taken from Annual Accounts has also been considered for capitalization. The CWIP for FY12 has been worked out based on the capitalization on the opening FY10 CWIP and the additional CWIP on account of proposed outlay for FY11. The Opening CWIP for FY10, FY11 and FY12 are as provided in the table below:

Table 39: Opening Capital Works in Progress (Rs. Cr.)

| Capital Investment Plan | 2009-10 (A) | 2010-11 (RE) | 2011-12 (P) |
|-------------------------|-------------|--------------|-------------|
| Generation | 578.70 | 684.23 | 627.20 |
| Transmission | 192.30 | 227.30 | 302.28 |
| Distribution | 744.00 | 903.50 | 946.18 |

5.21 JSEB has considered phasing of capital expenditure against new schemes as per actual plan wherever the same is available, in other cases, the JSEB has considered the capitalization schedule taken by the Hon'ble Commission on the new projects considered in the Annual Plan outlay for FY2010-11 and FY2011-12 as shown in the table below:

Table 40: Capitalization schedule considered by the Hon'ble Commission in the tariff order for 2010-11

| Function | Year 1 | Year 2 | Year 3 | Year 4 |
|------------------------------|--------|--------|--------|--------|
| Generation | 30% | 30% | 20% | 20% |
| Transmission | 25% | 30% | 30% | 15% |
| Distribution | 25% | 25% | 25% | 25% |
| Opening CWIP (all functions) | 30% | 30% | 40% | - |

Return on Equity

5.22 JSEB has proposed the Return on Equity (RoE) in accordance with the prevalent regulations for each of the years. The key considerations for calculation of RoE are:

- The average GFA for each of the years after adjusting for Grants and Consumer Contributions has been considered for calculation of RoE.

- (b) Equity for the purpose of calculation of Return on Equity has been arrived at in accordance with the approvals made by the Hon'ble Commission in the tariff order for 2010-11 and the Terms and Conditions of Distribution Regulations, 2004; normative equity of 30% is estimated by taking the gross fixed assets less consumer contribution.
- (c) RoE has been calculated at the prescribed rates in the applicable regulations for each of the functions for each year. The RoE for FY 2011-12 have been taken for at the prescribed rates for the transition period in the MYT regulations approved by the Hon'ble Commission. The RoE for previous years has been proposed in accordance with the various Terms and Conditions of Tariff Regulations notified by the Hon'ble Commission earlier for various functions viz. Generation and Distribution.

5.23 The RoE proposed by JSEB in accordance with the above is provided in the table below:

Table 41: Return on Equity (Rs. Cr.)

| Return on Equity (Rs Crores) | 2009-10 (A) | 2010-11 (RE) | 2011-12 (P) |
|------------------------------|-------------|--------------|-------------|
| Thermal Generation | 7.89 | 13.14 | 25.50 |
| Hydel Generation | 0.49 | 0.80 | 1.56 |
| Transmission | 2.79 | 5.26 | 21.25 |
| Distribution | 10.47 | 19.08 | 64.01 |

Interest expenses

5.24 JSEB has proposed interest expenses in consideration of the approvals made by the Hon'ble Commission for arriving at the normative equity for calculation of Return on Equity and the Terms and Conditions of Distribution Regulations, 2004. For the loans taken/ proposed against the ongoing and new additions to the GFA, loan interest expenses have been proposed after adjusting for the normative equity considered for the calculation of RoE. Interest rates have been taken as per actual for the existing and the expected rate for the new loans proposed.

5.25 The total interest expenses for the purpose of ARR for each of the functions of the JSEB viz. Generation, Transmission and Distribution are as provided in the table below:

Table 42: Interest expenses (Proposed)

| Interest expenses | Generation | Transmission | Distribution | Total JSEB |
|----------------------------|------------|--------------|--------------|------------|
| 2010-11 (RE) | | | | |
| Interest on existing loans | 116.87 | 67.48 | 360.63 | 544.98 |
| Interest on new loans | 5.85 | 9.43 | 16.77 | 32.05 |
| Sub-total | 122.72 | 76.90 | 377.40 | 577.03 |
| Less: IDC | 85.24 | 34.42 | 120.23 | 239.90 |
| Net Interest | 37.48 | 42.48 | 257.17 | 337.13 |

| Interest expenses | Generation | Transmission | Distribution | Total JSEB |
|-------------------------------------|------------|--------------|--------------|------------|
| Interest considered for ARR (@ 70%) | 26.24 | 29.74 | 180.02 | 235.99 |
| | | | | |
| 2011-12 (Proposed) | | | | |
| Interest on existing loans | 119.79 | 95.10 | 380.63 | 595.52 |
| Interest on new loans | 18.20 | 127.50 | 122.69 | 268.39 |
| Sub-total | 137.99 | 222.60 | 503.32 | 863.91 |
| Less: IDC | 71.06 | 117.69 | 115.87 | 304.62 |
| Net Interest | 66.93 | 104.92 | 387.45 | 559.30 |
| Interest considered for ARR (70%) | 46.85 | 73.44 | 271.21 | 391.51 |

A6: OPERATING EXPENSES**Operation & Maintenance Expenses****Basis of Segregation**

- 6.1 The table below gives the summary of the basis on which the components of operating cost has been segregated among three functions viz. - Generation, Transmission and Distribution.

Table 43: Basis of segregation of operating expenses for 2010-11 and 2011-12

| Sl | Component | Basis | Description | | |
|----|---------------|---|----------------------|-------|-------|
| 1 | Employee Cost | Number of employees in G, T and D | No. of employees | | |
| | | | G | T | D |
| | | | 1484 | 566 | 3425 |
| 2 | R&M Cost | Proportional to GFA corresponding to G, T and D | R&M Cost as % of GFA | | |
| | | | G | T | D |
| | | | 2.84% | 2.84% | 2.84% |
| 3 | A&G Cost | Proportional to GFA corresponding to G, T, D | No. of employees | | |
| | | | G | T | D |
| | | | 1484 | 566 | 3425 |

Employee Expenses

- 6.2 The JSEB has proposed the employee expenses for 2010-11 based on the latest revised estimates for the year. There is substantial increase in the employee expenses in 2010-11 owing to the following reasons:
- The annual increment including 3% in basic and 18% increase in DA thereon;
 - While the JSEB had started paying sixth pay commission salaries with effect from May, 2009, pensions continued to be on the old salaries, which are now being paid as per the revised salaries along with arrears since May, 2009.
 - Several employees have approached for commutation of pension which has led to increase in employee expenses for the year 2010-11.
- 6.3 The JSEB has proposed the employee costs for 2011-12 considering an escalation rate of 6% in accordance with the tariff order for 2010-11 approved by the Hon'ble Commission and the 'Generation Tariff Regulation, 2004' and the Terms and Conditions of Distribution Tariff Regulations, 2004.
- 6.4 The allocation of the total employee cost among three divisions – Thermal Generation, Hydel Generation, Transmission and Distribution, is done in proportion to the number of employees working in the respective division.

Table 44: Employee Cost (Rs. Cr.)

| Employee cost | 2009-10 (A) | 2010-11 (RE) | 2011-12 (P) |
|----------------------|-------------|--------------|-------------|
| Generation – Thermal | 51.50 | 91.95 | 97.47 |
| Generation – Hydel | 7.60 | 13.57 | 14.38 |
| Transmission | 21.09 | 37.66 | 39.92 |
| Distribution | 127.64 | 227.89 | 241.56 |
| Total | 207.83 | 371.07 | 393.33 |

Repair & Maintenance Expenses

- 6.5 R&M cost has been proposed as percentage of Gross Fixed Assets (GFA). The GFA for each of the divisions has been taken as per actual from the annual accounts.
- 6.6 The JSEB has proposed the norms as provided in table for the purpose calculation of R&M costs taking into consideration the actual trend of expenses observed over the period 2005-06 to 2009-10. The Hon'ble Commission in its previous tariff order had approved the R&M expenses at 1.83% of GFA. Several items in the GFA of the JSEB are more than 25 years old and hence the ratio approved in the previous tariff order is not reflective of the real expenses being incurred by the JSEB.
- 6.7 R&M expenses have been segregated across the Thermal Generation, Hydel General, Transmission and Distribution functions on the basis of the closing GFA for 2011-12.
- 6.8 It is prayed that the proposed ratio of R&M expenses be approved by the Hon'ble Commission taking into consideration the ground realities of the expenses being incurred by the JSEB for purpose of determination of ARR.

Table 45: Repair and Maintenance Expenses (Rs. Cr.)

| Rs Crores | 2009-10 (A) | 2010-11 (RE) | 2011-12 (P) |
|----------------------|-------------|--------------|-------------|
| Generation – Thermal | 24.21 | 26.21 | 35.10 |
| Generation – Hydel | 1.48 | 1.60 | 2.15 |
| Transmission | 8.53 | 10.01 | 26.57 |
| Distribution | 33.92 | 37.54 | 82.89 |

Administration & General Expenses

- 6.9 The JSEB has proposed the administrative and general costs considering an escalation rate of 6% in accordance with the tariff order for 2010-11 approved by the Hon'ble Commission and the 'Generation Tariff Regulation, 2004' and the Terms and Conditions of Distribution Tariff Regulations, 2004.
- 6.10 The allocation of the A&G expenses has been considered on the total number of employees across three divisions – Generation, Transmission and Distribution.

Table 46: Administrative and General Cost (Rs. Cr.)

| A&G Costs | 2009-10 (A) | 2010-11 (RE) | 2011-12 (P) |
|----------------------|-------------|--------------|-------------|
| Generation – Thermal | 14.64 | 15.52 | 16.45 |

| A&G Costs | 2009-10 (A) | 2010-11 (RE) | 2011-12 (P) |
|--------------------|-------------|--------------|-------------|
| Generation – Hydel | 0.89 | 0.95 | 1.01 |
| Transmission | 4.18 | 4.43 | 4.70 |
| Distribution | 25.31 | 26.83 | 28.44 |

Total Operation & Maintenance Cost

- 6.11 The total O&M expenses for each of the Generation and Distribution have been calculated by summing up corresponding employee cost, R&M cost and A&G cost.
- 6.12 The total O&M expenses for each of the functions is provided in the table below:

Table 47: Total O&M Cost (Rs. Cr.)

| Rs Crores | 2009-10 (A) | 2010-11 (RE) | 2011-12 (P) |
|----------------------|-------------|--------------|-------------|
| Generation – Thermal | 90.35 | 133.68 | 149.02 |
| Generation – Hydel | 9.97 | 16.12 | 17.54 |
| Transmission | 33.81 | 52.11 | 71.19 |
| Distribution | 186.87 | 292.26 | 352.89 |

Interest on working capital

- 6.13 JSEB has proposed interest on working capital in accordance with the applicable regulations put in force by the Hon'ble Commission. The considerations for the purpose of calculation of working capital and thereon along with references are summarized in the table below for each of the functions separately.

Table 48: Summary of norms for working capital calculation

| Description | Generation | Transmission | Distribution |
|-----------------------|---|---|---|
| Norms for calculation | <p>Thermal WC = 2 months cost of coal + 2 months cost of secondary fuel oil + Maintenance spares (20% of O&M) + 1 month O&M + Receivables (2 months of capacity & energy charges).</p> <p>Hydel WC = Maintenance spares (15% of O&M) + 1 month O&M + Receivables (2 months of fixed cost)</p> | WC = Maintenance spares (15% of O&M) + Receivables (2 months of transmission charges) + 1 month O&M | WC=1/12 of O&M + Maintenance spares(1% of Opening GFA) + 2 months revenue – security deposit – 1 month cost of power purchase |
| Reference | JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations,2010. | JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2010 | JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 |

- 6.14 In accordance with above, the working capital and the interest thereon proposed for

2010-11 and 2011-12 are as provided in the table below:

Table 49: Working Capital and Interest on Working Capital

| Particulars | Generation - Thermal | Generation - Hydel | Transmission | Distribution |
|---------------------------------------|----------------------|--------------------|--------------|--------------|
| 2010-11 | | | | |
| 1 month primary fuel | 5.93 | 0.00 | 0.00 | 0.00 |
| 1 month sec fuel | 2.46 | 0.00 | 0.00 | 0.00 |
| 1 month O&M | 11.14 | 1.34 | 4.34 | 24.35 |
| Maintenance Spares | 20.56 | 0.58 | 7.82 | 9.87 |
| Receivables | 0.00 | 0.00 | 0.00 | 485.19 |
| Less: 1 month cost of power purchase | 0.00 | 0.00 | 0.00 | 195.98 |
| Less: Security Deposit from Customers | 0.00 | 0.00 | 0.00 | 192.59 |
| Total Working Capital requirement | 40.09 | 1.92 | 12.16 | 130.84 |
| Interest on Working Capital | 4.81 | 0.23 | 1.46 | 15.70 |
| | | | | |
| 2011-12 | | | | |
| 1 month primary fuel | 32.31 | 0.00 | 0.00 | 0.00 |
| 1 month sec fuel | 15.92 | 0.00 | 0.00 | 0.00 |
| 1 month O&M | 12.42 | 1.46 | 5.93 | 29.41 |
| Maintenance Spares | 29.80 | 2.63 | 10.68 | 13.22 |
| Receivables | 0.00 | 0.00 | 0.00 | 540.87 |
| Less: 1 month cost of power purchase | 0.00 | 0.00 | 0.00 | 204.08 |
| Less: Security Deposit from Customers | 0.00 | 0.00 | 0.00 | 212.85 |
| Total Working Capital requirement | 90.46 | 4.09 | 16.61 | 166.57 |
| Interest on Working Capital | 10.85 | 0.49 | 1.99 | 19.99 |

Interest on Consumer Security Deposit

- 6.15 Interest on consumer security deposits (CSD) is proposed in accordance with 'Jharkhand Electricity Supply Code Regulations, 2005'. JSEB has calculated the interest on CSD at an interest rate of 6%.
- 6.16 CSD has been projected to grow at the 5 year actual CAGR observed during the period 2004-05 to 2009-10. The interest on CSD for each of the years has been considered at the average of opening and closing balance of CSD.

Table 50: Interest on Consumer Security Deposit (Rs. Cr.)

| Interest on CSD | 2009-10 (A) | 2010-11 (RE) | 2011-12 (P) |
|-----------------|-------------|--------------|-------------|
| Distribution | 8.42 | 11.01 | 12.16 |

Provision for Bad and Doubtful Debts

- 6.17 While the JSEB shall make 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.
- 6.18 It is submitted that while other utilities in the State have enjoy a favorable consumer mix and operate in limited supply areas, JSEB is the distribution licensee for the entire State of Jharkhand including rural and far flung areas. As is evident from the growth in the number of rural/ BPL/ kutir jyoti connections in the State, JSEB's consumer mix is becoming more and more dominated by the economically weaker sections of the society.
- 6.19 Therefore, the target of 100% collection efficiency given by the Hon'ble Commission for all licensees in the State needs to be relooked taking into consideration the ground realities of difference in consumer mix and the geographical spread of its license area.
- 6.20 Accordingly, the JSEB shall submit its petition for truing-up of provision for bad debts, if any for the purpose of truing-up based on actuals, after finalization of annual accounts for the years 2010-11 and 2011-12.
- 6.21 It is prayed that the same be approved by the Hon'ble Commission on submission by the JSEB while truing-up the ARR for 2010-11 and 2011-12 based on annual accounts for the years.

A7: DISAGGREGATED AGGREGATE REVENUE REQUIREMENT

- 7.1 Based on the above methodologies proposed for calculating the costs for each of the businesses, the ARR for each function has been presented separately in this chapter.
- 7.2 Since, JSEB is an integrated entity, assumptions in breaking the costs under each of the business heads have been considered based on past data and other prudent generally accepted assumptions which have been elaborated in the previous chapters of this petition.

ARR for Thermal Generation

- 7.3 The ARR for Thermal Generation consists of mainly two parts – Variable Expenses arising out of the fuel expenses (primary and secondary) and Fixed expenses consisting of the Interest Cost, Depreciation, Interest on Working Capital, O&M expenses and Return on Equity.
- 7.4 Based on the methodologies and calculations adopted and the calculations elaborated in the previous chapters of this petition, the table below outlines the ARR for the PTPS Thermal Generation station.

Table 51: ARR for Thermal Generation (PTPS)

| Costs (Rs Cr) | 2010-11 (RE) | 2011-12 (P) |
|---------------------|--------------|-------------|
| Fuel Cost | 100.70 | 289.42 |
| Interest Cost | 24.65 | 44.07 |
| Depreciation | 9.42 | 12.51 |
| O&M cost | 133.68 | 149.02 |
| Interest Cost on WC | 4.81 | 10.85 |
| RoE | 13.14 | 25.50 |
| Total | 286.40 | 531.37 |

- 7.5 As already submitted earlier, it is reiterated that the Unit-3 and Unit-5 of the PTPS are planned to be phased out with effect from April 1, 2011, thus reducing the overall derated capacity from 770 MW to 640 MW. It is prayed that the same be considered accordingly by the Hon'ble Commission while determining the PLF for the PTPS for 2011-12.

ARR for Hydel Generation

- 7.6 The ARR for Hydel Generation, 130 MW Sikidri Plant of JSEB as proposed in accordance with applicable regulations is summarized in the table below:

Table 52: ARR for Hydro Generation

| Costs (Rs Cr) | 2010-11 | 2011-12 |
|---------------|---------|---------|
| Interest Cost | 1.59 | 2.78 |
| Depreciation | 0.58 | 0.76 |
| O&M cost | 16.12 | 17.54 |

| Costs (Rs Cr) | 2010-11 | 2011-12 |
|---------------------|--------------|--------------|
| Interest Cost on WC | 0.23 | 0.49 |
| RoE | 0.80 | 1.56 |
| Total | 19.32 | 23.14 |

ARR for Transmission

7.7 The overall ARR for the Transmission function of the JSEB in accordance with the working/ calculation of each of the components elaborated earlier in this petition is summarized in the table below:

Table 53: ARR for Transmission

| Costs (Rs Cr) | 2009-10 (A) | 2010-11 (RE) | 2011-12 (P) |
|---------------------|--------------|--------------|---------------|
| Interest Cost | 44.20 | 29.74 | 73.44 |
| Depreciation | 7.66 | 9.25 | 19.84 |
| O&M cost | 33.81 | 52.11 | 71.19 |
| Interest Cost on WC | 0.95 | 1.46 | 1.99 |
| RoE | 2.79 | 5.26 | 21.25 |
| Total | 89.41 | 97.82 | 187.72 |

ARR for Distribution

7.8 The power purchase cost which has been estimated at Rs 2448.95 crores for the assessment year 2011-12 forms 75.46% of the proposed ARR for the Distribution function.

7.9 All other costs have been calculated based on the applicable regulations, past data and prudent/ generally accepted norms as already elaborated in relevant sections of this petition earlier.

7.10 The table below outlines the ARR for the distribution business of JSEB for the years 2009-10, 2010-11 and the assessment year 2011-12.

Table 54: ARR for Distribution

| Costs (Rs Cr) | 2009-10 (A) | 2010-11 (RE) | 2011-12 (P) |
|---------------------|-----------------|-----------------|-----------------|
| Interest Cost | 113.53 | 180.02 | 271.21 |
| Depreciation | 32.94 | 41.34 | 75.98 |
| O&M cost | 186.87 | 292.26 | 352.89 |
| Interest Cost on WC | 8.59 | 15.70 | 19.99 |
| Interest on CSD | 10.10 | 11.01 | 12.16 |
| RoE | 10.47 | 19.08 | 64.01 |
| Power Purchase Cost | 1,924.41 | 2,351.73 | 2,448.95 |
| Total | 2,286.92 | 2,911.14 | 3,245.20 |

Disaggregated ARR

7.11 The overall ARR for the Generation, Transmission and Distribution function of the JSEB is summarized in the table below. It may be noted that the Generation function accounts for 12%, Transmission function for 5% and the Distribution function accounts for over 83% of the JSEB's overall ARR for 2011-12.

Table 55: Function wise ARR for FY 2011-12

| Item | Generation | Transmission | Distribution | Total JSEB |
|---------------------------------------|------------|--------------|--------------|------------|
| Power Purchase | 0.00 | 0.00 | 2448.95 | 2448.95 |
| Generation Cost | 193.88 | 0.00 | 0.00 | 193.88 |
| Repair & Maintenance | 37.24 | 26.57 | 82.89 | 146.70 |
| Employees Cost | 111.85 | 39.92 | 241.56 | 393.33 |
| Admin & General Expenses | 17.46 | 4.70 | 28.44 | 50.60 |
| Depreciation | 13.27 | 19.84 | 75.98 | 109.09 |
| Provision for Bad Debts | 0.00 | 0.00 | 0.00 | 0.00 |
| Interest & Finance Charges | 46.85 | 73.44 | 271.21 | 391.51 |
| Prior Period Expenses | 0.00 | 0.00 | 0.00 | 0.00 |
| Interest on Working Capital | 11.35 | 1.99 | 19.99 | 33.33 |
| Interest on Consumer Security Deposit | 0.00 | 0.00 | 12.16 | 12.16 |
| Total Expenditure | 0.00 | 0.00 | 0.00 | 3779.56 |
| Statutory Return/ RoE | 27.06 | 21.25 | 64.01 | 112.33 |
| Aggregate Revenue Requirement | 458.98 | 187.72 | 3245.20 | 3891.89 |
| | | | | |
| % of total JSEB ARR | 12% | 5% | 83% | 100% |

A8: AGGREGATE REVENUE REQUIREMENT FOR JSEB

- 8.1 The aggregated ARR proposed for the integrated JSEB as per the disaggregated ARR for each of the functions viz. Generation, Transmission and Distribution proposed by the JSEB in the previous chapter of this petition is provided below:

Table 56: Proposed ARR for JSEB for 2011-12

| Parameter | 2010-11 (RE) | 2011-12 (P) |
|---------------------------------------|--------------|-------------|
| Costs | | |
| Power Purchase & UI Charges | 2,351.73 | 2,448.95 |
| Fuel | 71.17 | 193.88 |
| Repairs & Maintenance | 75.36 | 146.70 |
| Employee | 371.07 | 393.33 |
| Admin & General | 47.74 | 50.60 |
| Depreciation | 60.59 | 109.09 |
| Provision for Bad Debts | | |
| Interest | 235.99 | 391.51 |
| Interest on Working Capital | 22.20 | 33.33 |
| Interest on Consumer Security Deposit | 11.01 | 12.16 |
| Total Costs | 3246.86 | 3779.56 |
| | | |
| Add: Reasonable Return/ RoE | 38.28 | 112.33 |
| | | |
| Aggregate Revenue Requirement | 3,285.14 | 3,891.89 |

- 8.2 As shown in the table above, the overall ARR of the JSEB is proposed to from Rs. 3285.14 cr. in 2010-11 to Rs. 3891.89 cr. in 2011-12 with an annual growth of over 18.5%.

A9: REVENUE PROJECTIONS**Revenue from sale of power at existing tariff**

- 9.1 Revenue projections from sale of power at existing tariff as assessed for the projected sales figures detailed in the chapter on energy balance from FY10 to FY12 are provided in the table below:

Table 57: Revenue at Existing Tariff

| Consumer category/ sub-category | Revenues at Existing Tariff (Rs. Cr.) | |
|---------------------------------|---------------------------------------|-------------|
| | FY11 | FY12 |
| Domestic | 361 | 418 |
| Non-Domestic | 123 | 140 |
| Low Tension | 104 | 113 |
| Irrigation & Agricultural | 4 | 4 |
| High Tension service | 714 | 754 |
| HT Special S | 227 | 236 |
| Traction | 315 | 317 |
| Street Light Service | 42 | 47 |
| MES | 16 | 17 |
| Total | 1905 | 2046 |

Revenue from sale of power at proposed tariff

- 9.2 Revenue projections from sale of power at proposed tariff assessed on the projected sales figures detailed in the chapter on energy balance from FY10 to FY12 are provided in the table below:

Table 58: Revenue at Proposed Tariff

| | Revenues at Proposed Tariff (Rs. Cr.) for FY2011-12 |
|---------------------------|--|
| Domestic | 867 |
| Non-Domestic | 216 |
| Low Tension | 161 |
| Irrigation & Agricultural | 12 |
| High Tension service | 922 |
| HT Special S | 396 |
| Traction | 390 |
| Street Light Service | 105 |
| MES | 25 |
| Oveall/ Total | 3094 |

Non-tariff Income

- 9.3 Item wise proposed Non-Tariff Income for the FY2011-12 by the JSEB is provided in the table below:

Table 59: Projected Non-Tariff Income

| Other Income for Petition | FY12 |
|---|--------------|
| Realizable DPS @ 10% of DPS | 30.80 |
| Sale of Water/ Income from trading | 2.04 |
| Meter Rent | 5.33 |
| Income from Investment (FD) | 5.60 |
| Income on advance to supplier/ contractor | 0.49 |
| Income from Staff Welfare Activities | 0.00 |
| Miscellaneous Receipts | 47.41 |
| Income from sale of power under trading/ UI | 0.00 |
| Total Non-Tariff Income | 93.12 |

- 9.4 JSEB has considered Delayed Payment Surcharge (DPS) in accordance with the principle adopted by the Hon'ble Commission in the previous tariff orders. Realizable DPS for the purpose of Non-Tariff Income has been assessed at 10% of the outstanding DPS in the most recent approved Annual Accounts for the JSEB.
- 9.5 The proposed income from Sale of Water/ Trading has been assessed at the 5 year average of the actual income under the same head recorded in the annual accounts from FY05 to FY09.
- 9.6 The proposed income from Meter Rent has been assessed by applying 5 year CAGR on the actual information available in the annual accounts for the FY09.
- 9.7 The proposed income from miscellaneous receipts has been taken as the five year average income under the same head in the approved annual accounts for the period FY05 to FY09.
- 9.8 JSEB has not considered any income from sale of power under trading/ UI owing to the fact that income from UI is not certain and shall be dependent on actual drawal and scheduling of contracted power. JSEB has duly consider any income/ loss due to UI based on actual information in subsequent petitions for truing up for the FY12.

Proposed Revenue for FY 2011-12

Table 60: Proposed Revenue for FY 2011-12 (Rs. Cr.)

| Proposed Revenue for FY 2011-12 (Rs. Cr.) | FY12 |
|---|----------------|
| Revenue from sale of power at proposed tariff | 3093.94 |
| Non-Tariff Income | 93.12 |
| Total Income | 3187.06 |

A10: REVENUE GAP**Revenue Gap at Existing Tariff**

- 10.1 With proposed Gross Aggregate Revenue Requirement for FY 2011-12 of Rs. 3891.85 crores and the projected revenues at the existing tariff of Rs. 2046.4 crores, the revenue gap for the year is assessed at Rs. 1749.7 crores.

Table 61: Revenue Gap in FY 2011-12 at Existing Tariff (Rs. Cr.)

| Parameter | Amount |
|---------------------------------------|----------|
| Costs | |
| Power Purchase & UI Charges | 2,448.95 |
| Fuel | 193.88 |
| Repairs & Maintenance | 146.70 |
| Employee | 393.33 |
| Admin & General | 50.60 |
| Depreciation | 109.09 |
| Provision for Bad Debts | 0.00 |
| Interest | 391.51 |
| Interest on Working Capital | 33.33 |
| Interest on Consumer Security Deposit | 12.16 |
| | |
| Add: Reasonable Return | 112.33 |
| | |
| Aggregate Revenue Requirement | 3,891.89 |
| | |
| Non-Tariff Income | 93.12 |
| | |
| Gross ARR | 3,798.77 |
| | |
| Covered by | |
| Revenue at existing tariff | 2046.4 |
| Resource gap from GoJ | 0.00 |
| Revenue gap | 1,752.37 |

- 10.2 In accordance with the true-up proposed by the JSEB for the years from FY2003-04 to FY 2010-11 in this petition earlier and the projected revenue gap for the FY 2011-12 as elaborated above, the overall accumulated revenue gap from FY 2003-04 to FY 2011-12 at existing tariffs is projected at Rs. 10140.84 crores.

Table 62: Accumulated Revenue Gap at Existing Tariff (Rs. Crores)

| Year | Approved by JSERC | Actuals As per JSEB |
|---|-------------------|---------------------|
| FY 2003-04 (Actuals) | -13.34 | 640.20 |
| FY 2004-05 (Actuals) | 35.69 | 1083.85 |
| FY 2005-06 (Actuals) | -47.78 | 868.67 |
| FY 2006-07 (Actuals) | 390.03 | 769.03 |
| FY 2007-08 (Actuals) | 381.80 | 1419.18 |
| FY 2008-09 (Actuals) | 389.33 | 1321.29 |
| FY 2009-10 (Actuals) | -184.51 | 998.32 |
| FY 2010-11 (Revised Estimates) | -774.98 | 1287.93 |
| Cumulative Gap from FY 04 to FY 11 | 176.24 | 8388.47 |
| FY 2010-11 projected gap at existing tariff | | 1752.37 |
| Cumulative Gap from FY 04 to FY 12 | | 10140.84 |

Revenue Gap at Proposed Tariff

- 10.3 With proposed Gross Aggregate Revenue Requirement for FY 2011-12 of Rs. 3798.77 crores and the projected revenues at the proposed tariff of Rs. 3093.94 crores, the revenue gap for the year is assessed at Rs. 704.83 crores.

Table 63: Revenue Gap in FY 2011-12 at Proposed Tariff (Rs. Crores)

| Parameter | Amount |
|---------------------------------------|----------|
| Costs | |
| Power Purchase & UI Charges | 2,448.95 |
| Fuel | 193.88 |
| Repairs & Maintenance | 146.70 |
| Employee | 393.33 |
| Admin & General | 50.60 |
| Depreciation | 109.09 |
| Provision for Bad Debts | 0.00 |
| Interest | 391.51 |
| Interest on Working Capital | 33.33 |
| Interest on Consumer Security Deposit | 12.16 |
| | |
| Add: Reasonable Return | 112.33 |
| | |
| Aggregate Revenue Requirement | 3,891.89 |
| | |
| Non-Tariff Income | 93.12 |
| | |
| Gross ARR | 3,798.77 |
| | |

| Parameter | Amount |
|----------------------------|---------|
| Covered by | |
| Revenue at proposed tariff | 3093.94 |
| Resource gap from GoJ | 0 |
| Revenue gap | 704.83 |

10.4 In accordance with the true-up proposed by the JSEB for the years from FY2003-04 to FY 2010-11 in this petition earlier and the projected revenue gap for the FY 2011-12 as elaborated above, the overall accumulated revenue gap from FY 2003-04 to FY 2011-12 at proposed tariffs is projected at Rs. 9093.30 crores.

Table 64: Accumulated Revenue Gap at Proposed Tariff (Rs. Crores)

| Year | Approved by JSERC | As per JSEB |
|---|-------------------|-------------|
| FY 2003-04 (Actuals) | -13.34 | 640.20 |
| FY 2004-05 (Actuals) | 35.69 | 1083.85 |
| FY 2005-06 (Actuals) | -47.78 | 868.67 |
| FY 2006-07 (Actuals) | 390.03 | 769.03 |
| FY 2007-08 (Actuals) | 381.80 | 1419.18 |
| FY 2008-09 (Actuals) | 389.33 | 1321.29 |
| FY 2009-10 (Actuals) | -184.51 | 998.32 |
| FY 2010-11 (Revised Estimates) | -774.98 | 1287.93 |
| Cumulative Gap from FY 04 to FY 11 | 176.24 | 8388.47 |
| FY 2011-12 projected gap at proposed tariff | | 704.83 |
| Cumulative Gap from FY 04 to FY 12 | | 9093.30 |

Creation of Regulatory Asset

10.5 JSEB is of the view that a tariff increase to cover the cumulative revenue gap for the period FY 2003-04 to FY 2011-12 which is assessed at Rs. 9093.30 crores will lead to a tariff shock to its consumers. The tariff increase required to set-off the cumulative revenue gap and that proposed by the JSEB is illustrated in the table below:

Table 65: Cumulative Gap from FY 2003-04 to FY 2011-12 at Different Tariff Scenario's

| Tariff Scenario | Projected Revenue From Sale of Power (Rs. Cr.) | % Increase in Tariff | Projected Cumulative Gap from FY 2003-04 to FY 2011-12 (Rs. Crores) |
|--|--|----------------------|---|
| Existing Tariff | 2046 | 0% | 10140.84 |
| Tariff At which Gap from FY2003-04 to FY2011-12 is met | 12187 | 496% | 0 |
| Tariff At which Cumulative Gap for FY2011-12 is met | 3799 | 86% | 8388.47 |
| At proposed Tariff | 3094 | 51% | 9093.30 |

10.6 JSEB proposes creation of regulatory asset for the cumulative gap at proposed tariff

of Rs. 9093.30 crores since the same has not been covered for at the proposed tariff. The regulatory gap thus created may be gradually allowed in the retail tariffs for the JSEB in the subsequent years. JSEB proposes recovery of the regulatory asset from retail tariffs during the period FY 2012-13 to FY 2016-17 as per the phasing provided in the table below:

Table 66: Proposed Phasing for Recovery of Regulatory Asset

| Year | % of Regulatory Asset Allowed | Amount to be passed on in ARR (Rs. Cr.) |
|---------|-------------------------------|---|
| 2012-13 | 15% | 1364 |
| 2013-14 | 15% | 1364 |
| 2014-15 | 20% | 1819 |
| 2015-16 | 25% | 2273 |
| 2016-17 | 25% | 2273 |
| Total | 100% | 9093 |

- 10.7 JSEB also prays to the Hon'ble Commission to allow reasonable interest on the outstanding regulatory asset on First In First Out (FIFO) principle from the year of accrual of the cumulative losses for the period FY 2003-04 to FY 2011-12.

Resource Gap funding from Government of Jharkhand

- 10.8 In consideration of extent of accumulated revenue gap over the period 2003-04 to 2011-12 and the expected year-on-year increase in the cost of supply (CoS) in the near future, JSEB is of the view that recovering the entire amount of regulatory asset proposed from retail tariffs would be difficult and would demand sharp increase in tariff.
- 10.9 Also, JSEB is expected to have a revenue gap of over 704 crores at the proposed tariffs in the year 2011-12. Due to lower tariff levels with respect to the actual cost of supply, JSEB has not been able to meet even its power purchase expenses which have accumulated to a significant value over the period. In such case, even after the proposed increase in tariffs, JSEB would still continue to operate under immense financial stress with above stated revenue gap which need to be covered.
- 10.10 The Bihar State Electricity Regulatory Commission has approved Bihar State Electricity Boards (BSEB) ARR of 3581.07 crores for 2010-11 with a resource gap/grant from the Government of Bihar to the tune of Rs.1080 crores, while the balance is proposed to be met through revenues from sale of power at the approved tariff. It is also worthwhile to note that the approved average tariff including the impact of approved FPPCA for BSEB for 2010-11 is much higher than that approved for JSEB and still BSEB is getting resource gap funding.
- 10.11 The JSEB was also a part of the BSEB in the erstwhile State of Bihar prior to separation of the State of Jharkhand in 2000 and suffers from similar legacy issues. While the JSEB is making all efforts to improve operational efficiencies, consistent increase in retail tariffs that reflect the prudent cost of supply and an alternative mechanism for recovery of the accumulated revenue gap are core to the achievement of

financial viability of the JSEB.

- 10.12 JSEB prays to the Hon'ble Commission to approve a resource gap funding of Rs.1080 crores from the Government of Jharkhand in accordance with the provisions under Section 65 of the Electricity Act, 2003, in line with resource gap funding made available to BSEB. The JSEB shall use Rs.706 crores from such support for meeting the ARR for 2011-12 and remaining portion of the subsidy support shall be treated as recovery against the accumulated revenue gap and shall be used for retiring accumulated outstanding dues of various power generators and other old liabilities.

A11: TARIFF PROPOSALS**Summary of Tariff Proposals**

11.1 The tariff proposals elaborated for each of the tariff categories is summarized below vis-à-vis the existing tariff.

Table 67: Summary of Existing & Proposed Tariff

| Consumer Category | Existing Tariff | | Proposed Tariff | |
|--|--|---------------------------|---|---------------------------|
| | Fixed Charge | Energy Charge (Rs./kWh) | Fixed Charge | Energy Charge (Rs./kWh) |
| DS-I (a), Kutir Jyoti (Unmetered) | Rs.30 Per Connection Per Month | Nil | Rs.50 Per Connection Per Month | Nil |
| DS-I (a), Kutir Jyoti (Metered) | | 1.1 | Rs.20 per connection per month | 1.1 (0-50 units) |
| | | | | 2.0 (Above 50 units) |
| Ds-I (b), Other Rural Domestic Connections (Unmetered) | Rs.72 Per Connection Per Month | Nil | Rs.200 Per Connection Per Month | Nil |
| Ds-I (b), Other Rural Domestic Connections (Metered) | | 1.1 | Fixed Charge of Rs. 50/ connection per month | 2.10 (0 – 200 units) |
| | | | | 2.90 (Above 200 units) |
| DS-II | Rs.25 Per Connection Per Month | 1.50 (0-200 units) | Rs.60 Per Connection Per Month | 2.95 (0-200 units) |
| | Rs.30 Per Connection Per Month | 1.90 (Above 200 units) | Rs.70 Per Connection Per Month | 3.95 (Above 200 units) |
| DS- III | Rs.50 Per Connection Per Month | 1.90 | Rs.100 Per Connection Per Month | 3.95 |
| DS HT | Rs.40 Per kVA/ Month | 1.65 | Rs.80 Per kVA/ Month | 3.75 |
| NDS-I, Metered | | 1.35 | Rs. 100 per connection per month | 2.50 (0 – 100 units) |
| | | | | 4.00 (Above 100 units) |
| NDS-I unmetered | Rs.120 Per Connection Per Month upto 1 kW | Nil | Rs.300 Per Connection Per Month upto 1 kW | Nil |
| | AND Rs.50 per kW per month for each additional 1 kW or part thereof | | AND Rs.100 per kW per month for each additional 1 kW or part thereof | |
| NDS-II | Rs.110 Per kW Per Month or part thereof | 3.95 | Rs.195 Per kW Per Month or part thereof | 5.50 |
| LTIS | Rs.75 per HP per | 3.5 | Rs.120 Per HP per | 4.80 |

| Consumer Category | Existing Tariff | | Proposed Tariff | |
|----------------------|--|-------------------------|--|-------------------------|
| | Fixed Charge | Energy Charge (Rs./kWh) | Fixed Charge | Energy Charge (Rs./kWh) |
| | month | | Month | |
| IAS- I Metered | Nil | 0.5 | Rs.25 per HP per month | 1.00 |
| IAS - I Unmetered | Rs.50 per HP/month | Nil | Rs.100 per HP/month | Nil |
| IAS- II Metered | Nil | 0.75 | Rs.100 per HP/Month | 4.00 |
| IAS - II Unmetered | Rs.200 per HP per month | Nil | Rs.500 per HP/month | Nil |
| High Tension Service | Rs.165 per kVA per month | 4.35 | Rs.250 per kVA/month | 5.10 |
| HT Special Service | Rs.330 per kVA per month | 2.5 | Same as HTS (Tariff category merger proposed) | |
| RTS | Rs.180 per kVA/month | 4.5 | Rs.300 per kVA/month | 5.25 |
| SS-I | Rs.25 per connection per month | 3.5 | Rs.150 per kW per month | 6.50 |
| SS – II | Rs.110 per 100 watt lamp. and In addition. Rs. 25 would be charged for each additional 50 watt | | Rs.250 per 100 watt lamp. and In addition Rs.100 would be charged for each additional 50 watts | |
| REC | Nil | 0.70 | Nil | 1.50 |
| MES | Rs.160 per kVA per month | 3.0 | Rs. 240 per kVA per month | 4.50 |

11.2 Category wise tariff proposals along with explanations are provided in this chapter for consideration of the Hon'ble Commission.

Domestic Service (DS)**Applicability**

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

This schedule shall apply to private residential premises for domestic use for household electric appliances such as Radios, Fans, Televisions, Desert Coolers, Air Conditioner, etc. and including Motors pumps for lifting water up to 1 BHP for domestic purposes and other household electrical appliances not covered under any other schedule.

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

Category of Services

- a) Domestic Service – DS-1(a): For Kutir Jyoti Connection only for connected load up to 100 Watt for Rural Areas.
- b) Domestic Service – DS-I (b): - For rural areas not covered by area indicated under DS-II and for connected load not exceeding 2 KW.
- c) Domestic Service – (DS-II): - For Urban areas covered by notified Area Committee / municipality / Municipal Corporation / All District Town / All sub-divisional Town / All Block Headquarters / Industrial Area / contiguous sub-urban area all market places urban or rural and for connected load not exceeding 4KW.
- d) Domestic Service – (DS – III):-For Urban areas covered by notified Area Committee / municipality / municipal Corporation / All District Town / All sub-divisional Town / All Block Headquarters / Industrial Area / contiguous sub-urban area all market places urban or rural and for connected load exceeding 4KW.
- e) Domestic service – HT (DS – HT) (Optional): - This Schedule shall apply for Domestic Connection in Housing Colonies / Housing Complex / Houses of multi storied buildings purely for residential use, with power supply at 11KV voltage level and load above 75 KW.

Service Character

- i) For DS-I (a): AC, 50 Cycles, Single phase at 230 volts for Kutir Jyoti connection for load below 100 KW
- ii) For DS-I (b): AC, 50 Cycles, Single Phase at 230 Volts for load below 2 KW.

- iii) For DS-II: AC, 50 Cycles, Single Phase at 230 Volts for installed load up to 4 KW.
- iv) For DS-III: AC, 50 Cycles, three phase at 400 Volts for installed load exceeding 4 KW.

Tariff:

| Consumer Category | Fixed Charge | | Energy Charge | |
|---|---------------------------------|--------------------------------|-------------------------------|------|
| | Rate | Unit | Rate | |
| DS-I (a), Kutir Jyoti Connections, metered | Rs. 20 per connection per month | Rs./ kWh (0-50 units) | 1.10 | |
| | | Rs./kWh (Above 50 units) | 2.00 | |
| DS-I (a), Kutir Jyoti Connections, unmetered | Rs.50 Per Connection Per Month | Rs./kWh | NA | |
| DS – I (b)- other rural domestic consumers, metered | Rs.50 Per Connection Per Month | Rs./ kWh (0-200 units) | 2.10 | |
| | | Rs./kWh (Above 200 units) | 2.90 | |
| DS - I (b)- other rural domestic consumers, unmetered | Rs.200 Per Connection Per Month | N/A | N/A | |
| DS-II | Rs.60 Per Connection Per Month | Rs./kWh (0-200 Units) | 2.95 | |
| | | Rs.70 Per Connection Per Month | Rs./kWh (200 Units and above) | 3.95 |
| DS – III | Rs.100 Per Connection Per Month | Rs./kWh | 3.95 | |
| DS HT | Rs.80 Per kVA Per Month | Rs./kWh | 3.75 | |

Delayed Payment Surcharge

For Domestic Service category, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof.

Summary of changes proposed to Domestic Service (DS tariff)

- 11.3 In Service Character, item (i) the load limit for Kutir Jyoti connections has been increased from 0.03 kW as in the approved tariff to 100 W. This has been proposed to remove anomaly with respect to the load specified in the Category of Services, item (a)..
- 11.4 JSEB serves a large rural consumer base, amongst which a significant number of consumers fall in the Below Poverty Line (BPL) category. This set of consumers is extremely poor and cannot afford electricity at the rates which are being levied on the

domestic consumers in urban areas. However, in today's time, electricity has become an essential commodity for every common man and its role in improving the social and economic upliftment of the underprivileged cannot be gainsaid. Denying electricity to any citizen is tantamount to limiting the growth prospects of the entire family. JSEB completely understands this and hence in order to ensure the availability of electricity even to people falling in the lowest economical strata, JSEB has ensured connectivity of many remote villages on its network.

- 11.5 As per the directions given by the Hon'ble Commission, JSEB is also providing connections to all the BPL consumers in two categories namely DS 1(a) metered and DS 1(a) unmetered (for loads up to 100 W).
- 11.6 The monthly billing allowed by the Hon'ble Commission for these two categories as per the tariff order for FY 2010-11 is as under:

| Consumer Category | Fixed Charge | Energy Charge |
|-------------------|-----------------|------------------|
| DS 1(a) metered | - | Rs.1.10 per unit |
| DS 1(a) unmetered | Rs.30 per month | - |

- 11.7 JSEB would also like to draw the attention of the Hon'ble Commission to the high T&D losses being observed in the rural feeders which primarily feed the domestic load falling under DS 1(a) category or DS 1(b) category. Based on the billing data of JSEB, it has been observed that the T&D losses reported on many of the feeders that feed primarily rural load is as high as 78%.
- 11.8 In light of the above conditions, JSEB prays that the Hon'ble Commission increases the monthly fixed charges for the DS1(a) Kutir Jyoti Unmetered consumers to Rs.50 per connection per month.
- 11.9 Tariff hike has been proposed in order to move the retail tariffs for the category closer to the Cost of Supply and for reducing the overall revenue gap for the JSEB.
- 11.10 It may be noted that the domestic category tariffs and each of the sub-categories in the State of Jharkhand, as specified for the license area of JSEB, are amongst the lowest in the country and hence an upward revision is required for bridging the revenue gap of the JSEB. JSEB submits below the tariff applicable to urban domestic connections in various states.

Table 68: Comparison of existing domestic urban metered tariffs with approved tariffs in other States as per the applicable recent tariff orders

| State | Applicable Fixed Charges (Domestic) | Applicable Energy Charges (Domestic) |
|-------|---|---|
| Bihar | DS-II (Metered) Fixed Charges: Single phase: Up to 5 kW: - First kw-Rs.30/ month/connection - Addl. kW-Rs.10/- kW or part thereof per month. Three Phase 5 kW and above: | DS-II (Metered) Energy charges (paise per unit): 1-100 units: 220 101-200 units: 270 201-300 units: 325 Above 300 units: 405 |

| State | Applicable Fixed Charges (Domestic) | Applicable Energy Charges (Domestic) |
|----------------|---|--|
| | <ul style="list-style-type: none"> - 5 kW-Rs.200/ month/connection - Addl. kW-Rs.10/per kW or part thereof per month | Note: Additional FPPCA of 69 paisa/ unit applicable |
| Madhya Pradesh | Fixed charge: No fixed charges | Energy charges (paise per unit): Up to 50 units: 315 51 to 100 units: 360 101 to 200 units 435 Above 200 units 450 |
| Gujarat | Fixed charge: Upto and including 2 kW:Rs.5/- per month Above 2 to 4 kW: Rs. 15/- per month Above 4 to 6 kW: Rs.30/- per month Above 6 kW: Rs.45/- per month | Energy charges (paise per unit): Upto 50 units: 220 Next 50 units: 250 Next 100 units: 310 Next 100 units: 370 Above 300 units: 430 |
| Andhra Pradesh | Fixed charge: No fixed charges | Energy charges (paise per unit): 0-50 units: 145 51-100 Units: 280 101-200 Units: 305 201-300 Units: 475 Above 300 Units: 550 |
| Punjab | Fixed charges: | Energy charges (paise per unit): Upto 100 units: 311 101 to 300 units: 452 Above 300 units: 478 Monthly minimum charges: Loads upto 100 KW: Rs.38/KW Loads exceeding 100 KW: Rs.34/KVA |
| Haryana | Fixed charges: No fixed charges | Energy Charges: Upto 40 units: 263 41 to 300 units: 375 301 to 500 units: 455 501 and above units: 490 Monthly minimum charges: Rs. 80 per kW or part thereof FSA as applicable |
| Chhattisgarh | Fixed charges: 0 - 200 units: 90 0 - 500 units: 100 0 - 700 units: 120 0 - Above 700 units: 150 | Energy Charges: 0 - 200 units: 70 0 - 500 units: 90 0 - 700 units: 125 0 – Above 700 units: 150 Monthly minimum charges: Single phase connections: Rs.30/- p.m. Three phase connection: Rs.100/- p.m. |
| Karnataka | Fixed charges: For the first KW: Rs.20/- per KW For every additional KW: Rs.30/- per KW | Energy Charges: 31 to 100 units: 290 101 to 200 units: 390 201 to 300 units: 460 301 to 400 units: 495 Above 400 units: 590 |

| State | Applicable Fixed Charges (Domestic) | Applicable Energy Charges (Domestic) |
|---------------|--------------------------------------|--|
| Uttar Pradesh | Fixed charges: Rs. 65.00/kW/Month | Energy Charges: Upto 200 units: 345 Above 200 units: 380 |

Non-Domestic Service (NDS)

Applicability

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

Category of Services

Non-Domestic Service (NDS)–I, Rural. For Rural Area not covered by area indicated for NDS– II and for connected load not exceeding 2 KW.

Non-Domestic Service (NDS) – II, Urban. For Urban Areas covered by Notified Areas Committee / municipality / Municipal Corporation / All District Town / All Sub-divisional Town / All Block Hqrs. / Industrial Area and Contiguous Sub-urban area, market place rural or urban and for connected load up to 75KW. This schedule shall also apply to commercial consumer of rural area having connected load above 2 KW.

Service Character

NDS – I: - AC 50 Cycles, Single phase at 230 Volts for loads up to 2 kW

NDS - II: - AC 50 Cycles, Single phase at 230 Volts or Three Phase at 400 Volts for load exceeding 2 kW and up to 75 kW

Tariff:

| Consumer Category | Fixed Charge | | Energy Charge | |
|-------------------|---|-------------------------------|---------------|--|
| | Rate | Unit | Rate | |
| NDS – I, <=2 kW | Rs. 100 per connection per month | Rs./ kWh (0-100 units) | 2.50 | |
| | | Rs./ kWh (above 100 units) | 4.00 | |
| NDS-I, unmetered | Rs.300 Per Connection Per Month upto 1 kW | Rs./kWh | | |
| | AND Rs.100 per month/per | | | |

| Consumer Category | Fixed Charge | | Energy Charge | |
|-------------------|-------------------------------|---------|---------------|--|
| | Rate | Unit | Rate | |
| | additional kW or part thereof | | | |
| NDS – II | Rs.195 Per kW Per Month | Rs./kWh | 5.50 | |

Delayed Payment Surcharge

For Non-Domestic Service category, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof.

Installation of shunt capacitors for NDS-II

11.11 All NDS-II consumers having aggregate inductive load greater than 3 HP and, shall install capacitors of required KVAR rating provided in the following table:

Table 69: Ratings of capacitors for inductive load

| Rating of individual Inductive Load in HP | kVAR rating of LT capacitors |
|---|------------------------------|
| 3 to 5 | 1 |
| 5 to 7.5 | 2 |
| 7.5 to 10 | 3 |
| 10 to 15 | 4 |
| 15 to 20 | 6 |
| 20 to 30 | 7 |
| 30 to 40 | 100 |
| 40 to 50 | 10 – 15 |
| 50 to 100 | 20 – 30 |

11.12 All such consumers shall be levied a surcharge at 5% on the total billed amount charge (metered or flat), till they have installed the required capacitors.

11.13 The utility shall not release any new LT connections having aggregate inductive load greater than 5 HP/ 4 KW unless the capacitors of suitable rating are installed.

Summary of changes proposed to NDS tariff

11.14 Tariff hike has been proposed in order to move the retail tariffs for the category closer to the Cost of Supply and for reducing the overall revenue gap for the JSEB.

11.15 JSEB submits below a comparison of non-domestic/ commercial category which illustrates the lower levels of tariffs in the State for the information of the Hon'ble Commission:

Table 70: Comparison of existing Non-domestic/ Commercial tariffs with approved tariffs in other States as per the applicable recent tariff orders

| State | Applicable Fixed Charges (Commercial) | Applicable Energy Charges (Commercial) |
|----------------|--|---|
| Bihar | NDS – II (Metered) Fixed Charges - Single phase: Rs.140 /kW or part thereof upto 5 Kw - Three Phase: Rs.170/kW or part thereof for loads 5 kW and above | NDS – II (Metered) Energy charges (paise per unit): 1-100 units: 425 101-200 units: 455 Above 200 units: 485 Note: Additional FPPCA of 69 paise/ unit applicable Subject to a monthly minimum charge of 50 units/kW or part thereof |
| Madhya Pradesh | Fixed charge: Rural areas: 40 per kW Urban areas: 60 per kW | Energy charges (paise per unit): Uniform energy charges: 455 |
| Gujarat | Fixed charge: Upto and including 2 kW: Rs.50/- per month Above 2 to 4 kW: Rs.100/- per month Above 4 kW to 6 kW: Rs.150/- per month Above 6 kW: Rs.200/- per month | Energy charges (paise per unit): For the first 50 units per month: 360 For the next 100 units per month: 420 For the next 150 units per month: 480 For the remaining units per month: 490 |
| Andhra Pradesh | Fixed charge: No fixed charges | Energy charges (paise per unit): First 50 Units/month: 385 Above 50 Units/ month: 620 |
| Punjab | Fixed charges: No fixed charges | Energy charges (paise per unit): Uniform energy charges: 519 Monthly minimum charges: For loads upto 100 KW Rs.136/KW or part thereof For loads exceeding 100 KW Rs.122/KVA or part thereof |
| Haryana | Fixed charges: Rs.130 per kW of connected load for loads above 20 kW. | Energy Charges: For loads less than 20kW: 440 For loads more than 20kW: 460 Monthly minimum charges: Rs. 240 per kW per month or part thereof FAS as applicable can be claimed. Currently average FSA at the rate of 20 paise per unit being claimed. |
| Chhattisgarh | Fixed charges: Rs. 50 per kW per month | Energy Charges: 0 - 100 units: 275 0 - 500 units: 325 0 - above 500 units: 375 |
| Karnataka | Fixed charges: Rs. 35 per kW per month | Energy Charges: For 0 - 50 units: 520 Above 50 units: 655 |
| Uttar Pradesh | Fixed charges: Rs. 115.00 / kW/ Month | Energy Charges: Uniform energy charges of 495 paise per unit Monthly minimum charges: Rs. 345 per kW per |

| State | Applicable Fixed Charges (Commercial) | Applicable Energy Charges (Commercial) |
|-------|---------------------------------------|--|
| | | month or part thereof |

Low Tension Industrial & Medium Power Service (LTIS)

Applicability

This schedule shall apply to all industrial units for a load of less than or equal to 100 KVA (or equivalent in terms of HP or KW). The equivalent HP for 100 KVA shall be 114 HP and the equivalent KW for 100 KVA shall be 85 KW.

The total installed load shall not exceed the sanctioned load.

Category of Services

LTIS – AC, 50 Cycles, Single Phase supply at 230 Volts or 3 Phase Supply at 400 volts for use of electricity energy Demand Based tariff upto 100 KVA and under Installation based tariff for sanctioned load upto equivalent HP of 100 KVA.

Tariff:

| Consumer Category | Fixed Charge | | Energy Charge | |
|-------------------|----------------------|----------|---------------|--|
| | Rate | Unit | Rate | |
| LTIS | Rs.120 per HP/ month | Rs./ kWh | 4.80 | |

All consumers under this category and opting for Demand Based tariff shall be required to pay Demand charges per KVA at the rate applicable to HT consumers drawing power at 11 KV. The billing demand will be the maximum demand recorded during the month or 75% of the sanctioned load, whichever is higher. All consumers under this category and opting for Installation based tariff shall be required to pay fixed charges per HP on the sanctioned load as per the applicable tariff rates for this category.

Delayed Payment Surcharge

For Low tension industrial and medium power category, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof.

Power factor penalty

Power Factor Penalty shall 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 0.1 fall below 0.60 to 0.30 (up to and including 0.30) shall be levied on demand and energy charges.

Power factor rebate

Power Factor Rebate shall 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 charge shall be applicable.

Installation of shunt capacitors

- 11.16 All consumers having aggregate inductive load greater than 3 HP and above, shall install capacitors of required KVAR rating provided in the following table:

Table 71: Ratings of capacitors for inductive load

| Rating of individual Inductive Load in HP | kVAR rating of LT capacitors |
|---|------------------------------|
| 3 to 5 | 1 |
| 5 to 7.5 | 2 |
| 7.5 to 10 | 3 |
| 10 to 15 | 4 |
| 15 to 20 | 6 |
| 20 to 30 | 7 |
| 30 to 40 | 100 |
| 40 to 50 | 10 – 15 |
| 50 to 100 | 20 – 30 |

- 11.17 All such consumers shall be levied a surcharge at 5% on the total billed amount charge (metered or flat), till they have installed the required capacitors.
- 11.18 The utility shall not release any new LT connections having aggregate inductive load greater than 5 HP/ 4 KW unless the capacitors of suitable rating are installed.
- 11.19 The utility shall not release any new LTIS connections having aggregate inductive load greater than 5 HP/ kVA unless the capacitors of suitable rating are installed.

Summary of changes proposed to LTIS tariff

- 11.20 Tariff hike has been proposed in order to move the retail tariffs for the category closer to the Cost of Supply and for reducing the overall revenue gap for the JSEB.

Irrigation & Agriculture Service (IAS)

Applicability

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

Category of Services

IAS – I – For private tube wells and private lift irrigation schemes.

IAS – II – For State Tube-wells and State lift Irrigation schemes.

Service Character:

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

Tariff:

| Consumer Category | Fixed Charge | | Energy Charge | |
|----------------------|-------------------------|---------|---------------|------|
| | Rate | Unit | Rate | |
| IAS - I (Metered) | Rs. 25 per HP per month | Rs./kWh | | 1.00 |
| IAS – I (Unmetered) | Rs.100 per HP/month | Rs./kWh | | NIL |
| IAS - II (Metered) | Rs.100 per HP/month | Rs./kWh | | 4.00 |
| IAS – II (Unmetered) | Rs.500 per HP/month | Rs./kW | | NIL |

Delayed Payment Surcharge

For Irrigation and agriculture service category, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof.

Power factor penalty

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 0.1 fall below 0.60 to 0.30 (up to and including 0.30) shall be levied on demand and energy charges.

Power factor rebate

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.

Summary of changes proposed to IAS tariff

- 11.21 Tariff hike has been proposed in order to move the retail tariffs for the category closer to the Cost of Supply and for reducing the overall revenue gap for the JSEB.

High Tension Voltage Supply Service (HTS)

Applicability

The schedule shall apply for all consumers including induction/ arc furnaces having contract demand above 100 KVA.

This tariff schedule shall also apply to all consumers who have a contract demand of 300 kVA and more for induction/ arc furnace under the HTSS tariff earlier.

Service Character

| Service character | Contract Demand |
|--------------------------------------|-------------------|
| 50 Cycles, 3 Phase at 6.6 KV / 11 KV | 100 KVA to 1 MVA |
| 50 Cycles, 3 Phase at 33 KV | 1 MVA to 10 MVA |
| 50 Cycles, 3 Phase at 132 KV | 7.5 MVA to 40 MVA |
| 50 Cycles, 3 Phase at 220 KV | 15 MVA to 150 MVA |
| 50 Cycles, 3 Phase at 400 KV | 30 MVA and above |

Tariff:

| Consumer Category | Demand Charge | Energy Charge | | Annual Minimum Guarantee* |
|-------------------|----------------------|---------------|------|---------------------------|
| | Rate | Unit | Rate | @ Load factor(%) |
| HTS – 11KV | Rs.250 per kVA/month | Rs./kWh | 5.10 | 25% |
| HTS – 33KV | Rs.250 per kVA/month | Rs./kWh | 5.10 | 30% |
| HTS – 132KV | Rs.250 per kVA/month | Rs./kWh | 5.10 | 45% |
| HTS – 220 KV | Rs.250 per kVA/month | Rs./kWh | 5.10 | 50% |
| HTS – 400 KV | Rs.250 per kVA/month | Rs./kWh | 5.10 | 60% |

For billing demand shall be the maximum demand recorded during the month or 85% of contract demand whichever is higher.

Voltage Rebate:

Voltage rebate to the HTS consumers shall be applicable as given below:

| Consumer Category | Voltage Rebate |
|-------------------|----------------|
| HTS – 33KV | 3.00% |
| HTS – 132KV | 5.00% |
| HTS – 220KV | 5.50% |
| HTS – 400KV | 6.00% |

Load Factor Rebate:

Load Factor rebate to the HT Consumers is proposed as given below:

| Consumer Category | Voltage Rebate |
|-------------------|----------------|
| 40-60% | Nil |
| 60-70% | 7.5% |
| 70-100% | 10% |

Delayed Payment Surcharge

For High tension service category, the Delayed Payment Surcharge will be charged on a weekly basis at the rate of 0.4% per week.

Power factor penalty

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 0.1 fall below 0.60 to 0.30 (up to and including 0.30) shall be levied on demand and energy charges.

Power factor rebate

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

ToD Tariff for HTS Consumers

TOD tariff proposed for HTS Consumers is given below:

Off Peak Hours: 10:00 PM to 06:00 AM: 85% of normal rate of energy charge.

Peak Hours: 06:00 AM to 10:00 AM & 06:00 PM to 10:00 PM: 120% of normal rate of energy charge.

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

Summary of changes proposed to HTS tariff

- 11.22 Tariff hike has been proposed in order to move the retail tariffs for the category closer to the Cost of Supply and for reducing the overall revenue gap for the JSEB.
- 11.23 The JSEB has proposed abolition of the HTSS category and its merger into the HTS category.
- 11.24 Induction/arc furnace type of loads pump in lot of harmonics in the grid. Also, in the undivided Bihar, rampant theft was detected amongst induction furnace consumers and many theft cases were reported against them. Many of these cases are still

pending.

- 11.25 Considering the particular kind of load encountered in these connections and high incidence of theft in these consumers, BSEB mooted a proposal for devising a special tariff for consumers having induction/arc furnace kind of loads.
- 11.26 Consequently, the Induction Furnace (HTSS) Tariff was first introduced in the year 1999 by BSEB which was made effective from 1st September 1999. The said tariff was introduced by a consensus between the BSEB and the Bihar Steel Manufacturer Association. It was notified vide Letter no. Rev/TAR-IF/2694/99-/633 dated 24.09.1999, which was subsequently published in Bihar gazette vide notification no. Com/TAR-IF-903/2000/122 dated 15.03.2000. To overcome loss due to theft of energy by induction furnace consumers due care was taken to recover at least the minimum guaranteed charge at 32% Load Factor.

In this tariff, the demand charge was fixed much higher and unit charge was reduced substantially to avoid tendency of theft by the Induction Furnace consumers. Moreover, the demand charge was levied on 100% of the Contract Demand or recorded maximum demand, whichever was higher, whereas as per the HTS tariff the demand charge was levied on 75% of the Contract Demand or recorded Maximum Demand, whichever was higher. Besides, the capacity of Induction Furnace was linked with certain minimum power demand. The impact of HTSS tariff introduced in the year 1999 was such that the total revenue generated was higher than that of HTS tariff. For example the consumer having load of 2 MVA running at 40% Load Factor was to pay Rs. 17,89,600/= under HTSS Tariff (Energy Charge- Rs.1/unit, Demand Charge- Rs.650/KVA, M.M.C.- Rs. 850/KVA) as against Rs. 16,85,364 /= under HTS Tariff (Energy Charge- Rs.1.72/unit, Demand Charge- Rs.115/KVA, Fuel Surcharge – Rs. 1.37/Unit, M.M.C.- at 30% Load Factor).

- 11.27 The original tariff of the category was fixed as provided in the table below:

Table 72: HTSS Tariff History

| Tariff | Tariff in 1999 | Tariff revised in 2003 | Tariff revised in 2009 |
|-------------------------|--------------------------|--------------------------|------------------------|
| Energy charges | Rs.1 per unit | Rs.2.5 per unit | Rs.2.5 per unit |
| Fixed charges | Rs.650 per kVA per month | Rs.300 per kVA per month | Rs.330 per kVA |
| Monthly minimum charges | Rs.850 per kVA per month | Rs.400 per kVA per month | Nil |

- 11.28 The connected load of the consumer in this category was computed based on the tonnage of the induction furnace and the conversion factor adopted was 600 kVA per ton of induction furnace capacity.
- 11.29 The high demand charge fixed herein was intended to ensure that BSEB was shielded from theft of power by these consumers and was able to recover a significant portion of its costs through the demand charges. However, upon frequent representations by the consumers in this category, the tariff was revised to levels provided in the above table.

- 11.30 In addition to the above changes in the fixed and energy charges, the determination of the connected load for the purpose of calculation of demand charges was delinked from the capacity of the installed furnace and the minimum load factor requirement was also done away with, again causing significant reduction in the demand raised by JSEB.
- 11.31 As is evident from the above, in an ideal 'no theft' environment the decrease in fixed charges was offset by the increase in energy charges. However, in cases where the consumers were resorting to theft, JSEB was incurring huge losses due to this kind of tariff structure.
- 11.32 After introduction of Tariff Order 2003-04, the unit charge of HTSS tariff was enhanced to Rs. 2.50/unit and Demand Charge was reduced to Rs.300/KVA. On the other hand, both unit charge and demand charge of HTS tariff was enhanced to Rs. 4/unit and Rs. 140/KVA respectively. Due to this the revenue generated under HTSS Tariff was reduced in comparison with HTS Tariff. The revenue generated under HTSS Tariff was Rs.18,24,000, whereas the revenue generated under HTS Tariff was Rs. 21,68,400/-.

The Gap of revenue generated between the class of consumers i.e. HTS and HTSS has been further widened after enactment of Tariff Order 2010-11. In the Tariff Order 2010-11, the unit charge of HTSS Tariff remained the same and the demand charge has been increased to Rs. 330/KVA from Rs.300/KVA. But the chargeable demand has been fixed on 75% of C.D. or M.D., whichever is higher. Moreover, the capacity of Induction Furnace has been de-linked with the minimum power demand. As a result, the revenue generated at HTSS tariff comes as Rs. 17,19,000/- whereas that from HTS tariff is Rs. 23,77,260/-. The average tariff rate of HTSS consumer come as Rs.3.51/unit which is even less than the average cost of supply of Rs. 3.57/KWH. It is clear that the average tariff rate of HTSS tariff is being subsidized in place of cross subsidizing other categories. A comparison Chart of the expected monthly billing of a consumer as per the different tariff orders is provided hereunder:

Table 73: Comparison of impact of tariff changes in HTSS and HTS categories

| Tariff Order | Particulars | HTSS | HTS |
|---|---------------------------------------|--------------|---------------|
| Monthly bill as per tariff in 1999 | Demand charge (in Rs.) | 13,00,000 | 1,72,500 |
| | Energy charges (in Rs.) | 4,89,600 | 8,42,112 |
| | Fuel Surcharge (in Rs.) | - | 6,70,752 |
| | Total (in Rs.) | 17,89,600 | 16,85,364 |
| | Average tariff rate (Rs./unit) | 3.65 | 3.44 |
| Monthly bill as per tariff in 2003-04 | Demand charge (in Rs.) | 6,00,000 | 2,10,000 |
| | Energy charges (in Rs.) | 12,24,000 | 19,58,400 |
| | Total (in Rs.) | 18,24,000 | 21,68,400 |
| | Average tariff rate (Rs./unit) | 3.72 | 4.43 |
| Percentage increase/decrease in comparison to previous tariff | | 1.92% | 28.78% |
| Monthly bill as per tariff in 2010-11 | Demand charge (in Rs.) | 4,95,000 | 2,47,500 |

| Tariff Order | Particulars | HTSS | HTS |
|---|---------------------------------------|---------------|--------------|
| | Energy charges (in Rs.) | 12,24,000 | 21,29,760 |
| | Total (in Rs.) | 17,19,000 | 23,77,260 |
| | Average tariff rate (Rs./unit) | 3.51 | 4.85 |
| Percentage increase/decrease in comparison to previous tariff | | -5.65% | 9.48% |

- 11.33 As the Hon'ble Commission would notice, the per unit cost of HTSS, which was more than the per unit cost of HTS category in 1999, has reduced in comparison of the tariff of 1999 by 3.84%. On the other hand the tariff of HTS category has increased by almost 40.99% in the last decade and is much higher than the HTSS category tariff applicable currently. HTS and HTSS categories are looked upon as the prime subsidizing categories amongst the customer base of JSEB.
- 11.34 The wholesale price index for electricity in the same period has increased from 165.3 to 275.7, an overall increase of 40.04%. Hence even as per the normal economic growth, the tariff for HTSS category should have grown by at-least this degree. The stagnation witnessed in the tariff for HTSS category has caused huge financial loss to JSEB and it is requested that the same may be rectified by a correction in the tariff of HTSS category.
- 11.35 JSEB would like to bring to the notice of the Hon'ble Commission that the level of service offered by JSEB to both HTS and HTSS categories is the same. Hence such discrimination between the two categories in terms of tariff would eventually lead to discontent in the HTS customer base which is the largest source of revenue for JSEB today. Hence JSEB requests the Hon'ble Commission to merge the two categories and prescribe the same tariff for both.
- 11.36 Another prayer taken by JSEB is in regard to the consumers who are operating rolling mills. It is to be noticed by the Hon'ble Commission that an induction furnace is normally accompanied by a rolling mill which use the molten metal from the induction furnace for rolling the same into the desired form of sheets/pipes/bars as required. Earlier, the rolling mills were considered to fall under HTS category & were being billed under the same. However the last tariff order passed by the Hon'ble Commission is silent on the treatment of the rolling mill consumers. Consequently many owners of the mills have requested for connection in the HTSS category and have raised many disputes in the matter. However, as explained above, releasing connections to rolling mills in the HTS category would lead to additional financial losses to JSEB which would eventually be passed on to the complete consumer base. Merging the two categories, i.e. HTS and HTSS would also resolve this problem.
- 11.37 Therefore, it is felt by JSEB that the intent with which the HTSS category was created no longer holds any relevance and continuation of this category would cause financial losses to the board. Continuing with this category is causing undue complexity in the billing system of JSEB and also introducing inherent discrimination of the induction/arc furnace consumers with other HT consumers.

11.38 In view of all the above facts, JSEB submits to the Hon'ble Commission that the HTSS be eliminated and be merged with the existent HT category and suitable norms be defined for determination of connected load of these consumers such that the same is linked to the capacity of the induction furnace. It may also be noted that the clause 26 of the Regulation on terms and conditions of determination of tariff also stipulates that the tariff structure may be rationalized on a regular basis and similarly placed consumers be categorized in the same category and hence JSEB requests that these two consumers categories be shifted to the same category.

11.39 It is also submitted that the HT Industrial tariffs in the State are significantly lower than that in the neighboring States. An illustration of the HT Industrial tariffs in select States is submitted below for the information of the Commission.

Table 74: Comparison of existing HT Industrial tariffs with approved tariffs in other States as per the applicable recent tariff orders

| State | Applicable Fixed Charges (HT Industrial) | Applicable Energy Charges (HT Industrial) |
|----------------|---|---|
| Bihar | Fixed Charges: HTS – I (11 kV/6.6 kV): Rs. 220/ kVA/ M HTS – II (33 kV): Rs. 220/ kVA/ M HTS – III (132 kV): Rs. 220/ kVA/ M HTSS (33 kV/11 kV): Rs. 700/ kVA/ M | Energy Charges: HTS – I (11 kV/6.6 kV): 423 paisa/ unit HTS – II (33 kV): 415 paisa/ unit HTS – III (132 kV): 410 paisa/ unit HTSS (33 kV/11 kV): 205 paisa/ unit Note: Additional FPPCA of 69 paisa/ unit applicable |
| Madhya Pradesh | Fixed charge: 11 KV supply: 180 33 KV supply: 280 132 KV supply: 375 220 KV supply: 400 | Energy charges (paise per unit): Upto 50% load factor: 11 KV supply: 450 33 KV supply: 427 132 KV supply: 395 220 KV supply: 380 Above 50% load factor: 11 KV supply: 360 33 KV supply: 325 132 KV supply: 310 220 KV supply: 305 |
| Gujarat | Fixed charge (kVA based billing): For first 1000 kVA of billing demand: Rs.173/- per kVA per month For billing demand in excess of 1000 kVA: Rs.260/- per kVA per month | Energy charges (paise per unit): 420 Paise per Unit Time of Day tariff: Additional 75 Paise per Unit chargeable during peak hours under ToD tariff |
| Andhra Pradesh | Fixed charge: 11 KV supply: 195 33 KV supply: 230 132 kV and above: 250 | Energy charges (paise per unit): 11 KV supply: 320 33 KV supply: 295 132 kV and above: 270 |
| Punjab | Fixed charges: No fixed charges applicable | Energy charges (paise per unit): Uniform energy charges of 458 paise per unit Monthly minimum charges: Monthly minimum charges at the rate of Rs. 133 per kVA per month |

| State | Applicable Fixed Charges (HT Industrial) | Applicable Energy Charges (HT Industrial) |
|---------------|---|---|
| Haryana | Fixed charges (kVA based billing): Rs.120 per kVA per month | Energy Charges (paise per unit): 11 KV supply: 415 33 KV supply: 403 66kV or 132 kV supply: 391 For 220 kV supply: 383 FAS as applicable can be claimed. Currently average FSA at the rate of 20 paise per unit being claimed. |
| Chhattisgarh | Fixed charges (kVA based billing): 11 KV supply: 320 per kVA per month 33 KV supply: 310 per kVA per month | Energy Charges (paise per unit): 11 KV supply: 290 33 KV supply: 280 Time of Day (ToD) tariff applicable as under: Peak hours: 130% of normal energy charges Off peak hours: 85% of normal energy charges |
| Karnataka | Fixed charges: Rs. 180 per kVA per month of billing demand | Energy Charges (paise per unit): For the first one lakh units: 430 For the balance units: 465 ToD tariff applicable as under: Peak hours: Additional 80 paise/ unit Off peak hours: Rebate of 80 paise/ unit |
| Uttar Pradesh | Fixed charges: 11 KV supply: 230 per kVA per month 33 KV supply: 220 per kVA per month 132 kV and above: 200 per kVA per month | Energy Charges (paise per kVAH): 11 KV supply: 460 33 KV supply: 385 132 kV and above: 375 |

Railway Traction Service (RTS)

Applicability

This tariff schedule shall apply for use of railway traction only.

Service Character

- i) AC, 50 cycles, single phase at 25 KV or 132 KV

Tariff:

| Consumer Category | Demand Charge | | Energy Charge | |
|-------------------|----------------------|---------|---------------|--|
| | Rate | Unit | Rate | |
| RTS | Rs.300 per kVA/month | Rs./kWh | 5.25 | |

For billing demand shall be the maximum demand recorded during the month or 85% of contract demand whichever is higher.

Maximum Demand for RTS

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

Delayed Payment Surcharge

For Railway Traction service category, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof.

Power Factor Penalty

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 0.1 fall below 0.60 to 0.30 (up to and including 0.30) shall be levied on demand and energy charges.

Power Factor Rebate

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.

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

Summary of changes proposed to Railway Traction Service (RTS Tariff)

11.40 Tariff hike has been proposed in order to move the retail tariffs for the category closer

to the Cost of Supply and for reducing the overall revenue gap for the JSEB.

Street Light Service (SS)

Applicability

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

Category of Services

S.S-I: Metered Street Light Service

S.S-II: Unmetered Street Light Service

Service Character

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

Tariff:

| Consumer Category | Fixed Charge | | Energy Charge | |
|-------------------|--|---------|---------------|--|
| | Rate | Unit | Rate | |
| SS I (Metered) | Rs.150 per kW per month | Rs./kWH | 6.5 | |
| SS II (Unmetered) | Rs.250 per 100 watts per month AND Additional Rs.100 per month per additional 50 W | Rs./kWH | NIL | |

Delayed Payment Surcharge

For Street light service category, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof.

Summary of changes proposed to Street light Service (SS tariff)

11.41 Tariff hike has been proposed in order to move the retail tariffs for the category closer to the Cost of Supply and for reducing the overall revenue gap for the JSEB.

Rural Electric Co-operative (REC)

Applicability

This tariff schedule shall apply for use in Electric Co-operatives (licensee) for supply at 33 kV or 11kV. It also includes village Panchayats where domestic and non-domestic rural tariff is not applicable. It shall also be applicable to rural franchisees who can receive power at this tariff and bill to its consumers at the applicable retail tariffs.

Service Character

- i) AC, 50 cycles, Three phase at 11 kV or 33 kV

Tariff:

| Consumer Category | Fixed Charge | | Energy Charge | |
|-------------------|--------------|---------|---------------|--|
| | Rate | Unit | Rate | |
| REC | NA | Rs./kWH | 1.50 | |

Delayed Payment Surcharge

For REC service category, the delayed payment surcharge shall be at the rate of 1.5% per month and part thereof.

Revenue Subsidy/ Support from State Government

The difference between the per unit approved energy charge for REC category and the average Cost of Supply approved (by the Hon'ble Commission) shall be revenue subsidy/ support from the State Government.

Responsibility for collection of Electricity Duty

The REC consumer shall charge the Electricity Duty at applicable rate and remit the same to JSEB.

Summary of changes proposed to Rural Electric Co-operative Service (REC tariff)

- 11.42 Tariff hike has been proposed in order to move the retail tariffs for the category closer to the Cost of Supply and for reducing the overall revenue gap for the JSEB.
- 11.43 The JSEB has proposed revenue subsidy/ support from the State Government on taking cognizance of the tripartite agreement between the Rural Electrification Corporation Limited, the Government of Jharkhand and the JSEB dated July 22, 2005. The State Government of Jharkhand has agreed to providing revenue subsidy to JSEB in all areas where rural franchisee schemes are implemented.

Bulk Supply to Military Engineering Service (MES)

Applicability

This tariff schedule shall apply to Military Engineering Services (MES) for a mixed load in defence cantonment and related area.

Category of Services

MES for supply to bulk supply to military engineering services/cantonment areas.

Service Character

- i) AC, 50 cycles, Three phase at 11 kV.

Tariff:

| Consumer Category | Demand Charge | | Energy Charge | |
|-------------------|----------------------|---------|---------------|------|
| | Rate | Unit | Rate | Unit |
| MES | Rs.240 per kVA/month | Rs./kWH | 4.50 | |

For billing demand shall be the maximum demand recorded during the month or 85% of contract whichever is higher.

Delayed Payment Surcharge

For Military Engineering service category, the Delayed Payment Surcharge will be at the rate of 1.5% per month and part thereof.

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

Summary of changes proposed to MES Service

- 11.44 Tariff hike has been proposed in order to move the retail tariffs for the category closer to the Cost of Supply and for reducing the overall revenue gap for the JSEB.

A12: PROPOSED TERMS & CONDITIONS OF TARIFF**Connected load at different voltage levels**

- 12.1 Currently the regulation of terms and conditions on determination of tariff has no specific provision on the minimum and maximum load of a HT consumer that may be connected to the grid at a particular voltage level. Consequently any consumer may apply for connection of a very high load at a relatively low voltage (eg. 5 MVA load at 11 kV level). Such connections may require tapping of the 11 kV feeders at different locations. If such tapping is undertaken, it may introduce significant grid destabilization. Consequently, the complete system of JSEB will have to bear the effects of such connections including increased line losses.
- 12.2 While releasing higher loads at lower voltages adds to the technical losses, in instances where higher voltages are opted for by certain consumers with low connected loads/ demand appropriate metering of such connections becomes a challenge. The average/ minimum current drawn by such consumers in certain cases may or may not reach the threshold values of the meter/ metering systems installed. It may be noted that there are inherent error margins in meters and metering devices such as CT/ PT and the same may result in significant/ unrealizable meter readings when the current is much below the rated current of the measuring equipments.
- 12.3 Similarly the regulation also does not specify any minimum load requirements for getting connected to 33 kV and above levels. Any consumer eligible to get a connection on HT level can chose, based on his discretion, the voltage level that he wants to get connected on. JSEB feels that this situation also entails significant technical hurdles in providing small connections at 33kV and above levels. However in case such applications come to JSEB, JSEB would be forced to provide connections in accordance with chapter 6 of the Jharkhand Electricity Supply Code.
- 12.4 In light of the technical difficulties encountered in providing such connections, JSEB requests the Hon'ble Commission to specify the minimum and maximum load requirements for getting connected at a particular voltage level. JSEB proposes the following minimum and maximum loads for connections at each voltage level:

| Voltage Level | Minimum Connected load | Maximum Connected Load |
|---------------|------------------------|------------------------|
| LT | 0.01 kW | 100 kVA |
| 11 kV | 75 kVA | 1 MVA |
| 33 kV | 1 MVA | 10 MVA |
| 132 kV | 7.5 MVA | 40 MVA |
| 220 kV | 15 MVA | 150 MVA |
| 400 kV | 30 MVA | And above |

- 12.5 The above shall be made applicable for all new connections after enforcement of new tariff.

Penalty for exceeding contract demand

12.6 JSEB humbly states that the order issued by the Hon'ble Commission is silent on the imposition of penalty for exceeding the contract demand in case of any consumer category. Although the impact of individual consumers exceeding their contracted demand value is not significant in case of most consumer categories, but high value consumer categories like LTIS, HT, HTSS and MES have a significant bearing on the congestion of the network.

12.7 In the tariff order for 2006-07, the Hon'ble Commission had approved penalty for exceeding contract demand for the HTS and the HTSS category as shown below:

“Additional charges for maximum demand in excess of the contracted demand: if in any month the recorded maximum demand of the consumer exceeds his contracted demand (with Licensee), the entire consumption shall be billed at:

For HT consumers:

1. Demand charge = Rs.150/ kVA
2. Energy Charge = Rs. 3.90 per kWh per month

For HTSS Consumers:

3. Demand charge = Rs. 290/ kVA
4. Energy Charge = Rs. 3.90 per kWh per month

Further, the consumer shall not be eligible for LF rebate and Voltage rebate during the month in which his demand exceeded the contract.”

12.8 The Commission had approved penalty to the tune of additional Rs.10/ kVA in demand charge and 10 paisa/ unit for entire consumption for HTS category and Rs.15/ kVA of demand charge and 10 paisa/ unit for entire consumption for HTSS.

12.9 Several SERC's have allowed charging of penalties for load violation by consumers. The below table provides details of penalties imposed in other states:

Table 75: State wise comparison of penal charges for violation of contract demand

| Sl. | State | Penal charges* |
|-----|----------------|--|
| 1 | Bihar | 2 times the normal charges for demand in excess of contract demand |
| 2 | Chattisgarh | 1.5 times the normal charges for demand in excess of contract demand |
| 3 | Haryana | 1.5 times the normal charges for demand in excess of contract demand |
| 4 | Madhya Pradesh | 2 times the normal charges for demand in excess of contract demand |
| 5 | Uttar Pradesh | 2 times the normal charges for demand in excess of contract demand |

**Charges are levied only if the actual demand exceeds 110% of the contracted demand*

- 12.10 Currently due to non-imposition of penalties on exceeding contract demand, consumers do not have any incentive in regulating their demand. Consequently it is frequently observed that consumers exceed their contracted demand.
- 12.11 In view of the above, JSEB requests the Hon'ble Commission to specify the penalties to be levied on consumers in case they exceed their contract demand on all consumers where actual MDI is found to be in excess of the sanctioned/ contract demand and the same is established through an appropriate metering system with the provision for recording MDI in the tariff order for 2011-12.
- 12.12 JSEB proposes that a surcharge of 5% on the demand charges and energy charges be allowed on defaulting consumers found exceeding contract demand. No rebate of any kind shall be allowed to such consumer in that month.

Minimum Contract Demand requirements

- 12.13 Jharkhand State Electricity Board while submitting tariff petition 2003-04 had submitted various special terms and conditions of supply in para 11.0. It had mentioned about Maximum Demand which is quoted hereunder:

“Maximum Demand: For the first twelve months of service of new point of supply to DSHT/HT/EHT/RTS consumers, the maximum demand charges for the month will be based on the actual maximum demand for that month. In the case of transfer of existing connection resulting in a fresh agreement with the transfer(s) the benefit of charges based on actual maximum demand on the first twelve months of service will be available to the transferee (for that first twelve months only from the date of first connection).”

- 12.14 For the period after first 12 months there was provision in the previous tariff for charging monthly maximum demand charge as per appropriate tariff based on actual maximum demand of that month or 75 percent of the contract demand, whichever is higher.
- 12.15 The same provision exists in the agreement with all such consumers under the clause 4(c) of HT Agreement.
- 12.16 Likewise, Jharkhand State Electricity Board was levying demand charges based on 100% contract demand with effect from the date of connection on HTSS consumers in view of the tariff given in 1999 for HTSS consumers.
- 12.17 The Hon'ble JSERC while addressing “Terms and conditions of supply” in para 5.30 at page 123 of tariff order 2003-04 has observed that *“The Jharkhand State Electricity Board has submitted a number of clauses of the existing terms and conditions of supply for the consideration of the Commission. The Commission has dealt with power factor surcharge (rebate and penalty) and delayed payment surcharge in this section. The Jharkhand State Electricity Board has submitted a number of other clauses, while, the other would have to be dealt with at a larger stage. This is due to the reasons that a detailed and in-depth analysis of the issues involved is herewith required and hence they have not been dealt with in this tariff order”*.

- 12.18 In view of the aforesaid observation, the Hon'ble Commission has dealt with only Delayed Payment Surcharge, Power Factor Penalty and Power Factor Rebate only under the heading "Terms and conditions of supply" of tariff order 2003-04 at page 148. Under clause 1.4 of the terms and conditions of supply the Hon'ble Commission has categorically mentioned that other terms and conditions shall remain the same as existing in the State.
- 12.19 Thereafter at no point of time the Hon'ble Commission has put any restriction to charge maximum demand based on the actual maximum demand of that month or 75% whichever is higher. Jharkhand State Electricity Board in view of the said provision of the tariff as well as provisions of clause 4(c) of the HT agreements is levying maximum demand charge as per appropriate tariff from respective consumers after first 12 months based on the actual maximum demand of that month or 75% of contracted demand whichever is higher.
- 12.20 However, JSEB would like to highlight the fact that in any state, high value consumers (HT, Railway Traction, NDS etc) are the ones who are responsible for the majority of demand on the network. Hence in order to ensure efficient and optimum utilization of the network resources the actual demand of these consumers needs to be very proactively monitored and assessed. Also, in case of these consumers, the network resources allotted for them cannot be used for other consumers even if they are not utilizing their full contracted demand.
- 12.21 This leads to inefficient use of the network infrastructure and hence indirectly contributes to the increase in cost to supply for all consumer categories. Hence JSEB submits that provision for minimum demand charges should be encouraged by the Hon'ble Commission in order to ensure that the cost of network infrastructure being dedicatedly used for these consumers is recovered only from the high value HT and other consumers alone.
- 12.22 To avoid distortion of the loading conditions of the network, imposition of minimum contract demand charges is a common practice in many states as may be seen in the comparative table provided on the next page. In view of the same, JSEB requests the Hon'ble Commission to allow the minimum demand charges as under:

Table 76: Proposed billing demand

| Applicability | Billing demand |
|---------------|--|
| HT/ HTSS | Maximum demand recorded during the month or 85% of the contract demand, whichever is higher. In case high actual demand is recorded for three continuous months, the same shall be treated as the new contract demand for the purpose of billing of future months. |

Table 77: Comparison of state-wise imposition of minimum demand obligation

| Sl. | State | Utilities | Tariff Order | Category | Applicability | Billing Demand |
|-----|----------------|--|--------------|-----------------------------|---|--|
| 1. | Bihar | BSEB | FY09 | HTS – I (11 kV/6.6 kV) | Contract Demand of 75 KVA –1500 KVA | Maximum demand recorded during the month or 85% of the contract demand whichever is higher |
| | | | | HTS – II (33 kV) | Contract Demand of 1000 KVA –10000 KVA | |
| | | | | HTS – III (132 kV) | Contract Demand of minimum 7.5 MVA. | |
| | | | | HTSS (33 kV/11 kV) | Contract Demand of 300 kVA and more for induction furnace loads | Maximum demand recorded during the month or the contract demand whichever is higher |
| 2 | Chhattisgarh | CSPDCL | FY10 | All EHV and HV | | Maximum demand recorded during the billing month or 75% of the contract demand |
| 3 | Madhya Pradesh | <ul style="list-style-type: none"> • West Discom • East Discom • Central Discom | FY11 | All HT | | Maximum demand recorded during the month or 90% of the contract demand whichever is higher |
| 4 | J&K | J&K PDD | FY11 | HT Industrial Supply | All energy consumed in factory, offices, stores, canteen, compound lighting, etc. and residential use therein | Maximum demand recorded during the billing month or 75% of the contract demand |
| | | | | General Purpose Bulk Supply | All non-industrial consumers having mixed type of load greater than 100 kW. This includes domestic consumers, offices, educational/technical institutions, religious institutions, residential colonies, commercial Establishments etc. | |
| 5 | Karnataka | BESCOM MESCOM HESCOM GESCOM | FY09 | All HT | | Maximum demand recorded during the billing month or 75% of the contract demand |

Point of Supply

12.23 Power supply shall normally be provided at a single point for the entire premises. In certain categories like coal mines power may be supplied at more than one point on request of consumer subject to technical feasibility. But in such cases metering and billing shall be done separately for each point.

Tariff for Temporary Connections

12.24 Temporary tariff is proposed to be equivalent to 1.5 times of the applicable fixed and energy charges for temporary connections falling in each prescribed tariff category with all other terms and conditions of tariff remaining the same.

12.25 Temporary connections shall be made to pay consumption security deposit equivalent to 45 days of sale of power which shall be based on the assessment formula (LDHF) prescribed by the Commission.

12.26 Temporary connections shall initially be provided for a period of up to 45 days which can be extended to six months on approval from the JSEB.

Dishonored Cheques

12.27 In the event of dishonoured cheque for payment against a particular bill, the JSEB shall charge an interest at the rate of 2.5% per month on unpaid amount from the due date of payment till the time the amount is entirely paid.

Stopped/ defective meters

12.28 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 noted below:

Table 78: Load factor for provisional billing in case of stopped/ defective meters

| Consumer category | Load factor |
|----------------------------------|-------------|
| Domestic & Religious Institution | 0.10 |
| Non-Domestic | 0.20 |
| LTIS/ PHED LT | 0.15 |
| DS-HT | 0.15 |
| HTS | |
| 11 KV/ PHED | 0.25 |
| 33 KV/ PHED | 0.30 |
| 132/220/400 KV | 0.50 |
| HTSS | 0.50 |
| RTS | 0.25 |

- 12.29 The consumption of the consumer recorded in twelve months recorded after installation of a meter, the provisional average bill raised earlier shall be compared and the higher of the two shall be taken as final bill during the period of meter being defective.

Resale of energy

- 12.30 No consumer shall be allowed to resell the electricity purchased from the JSEB to any other person/ entity. Defaulters shall be subject to immediate disconnection of supply.

Release of new connections

- 12.31 The JSEB shall not provide any new connections without appropriate meter. The tariff for un-metered connections shall be applicable only to the existing un-metered connections, until they are metered.

kVAh Billing

- 12.32 Calculation of power factor rebate and penalty is often mired with issues such as metering & billing complications and disputes. Several SERCs have introduced kVAh billing which has built in mechanism for incentivizing good power factor and disincentivizing poor power factor. Energy charges are billed directly on kVAh tariffs thus reducing the complication of capturing both power factor and energy (kWh) consumption for the purpose of billing.
- 12.33 It is proposed that for all three phase LT consumers (except domestic) as well as HT consumers where appropriate meters for recording kVAh consumption are installed, billing of energy charges shall be done on the basis of the kVAh energy recorded in such meters and at a tariff which is determined by dividing the applicable kWh tariff for the applicable category multiplied by 0.85.

$$\text{kVAh Energy Charge} = (\text{kWh Energy Charge}) \times 0.85$$

- 12.34 In all cases where the billing is done on kVAh basis, the prescribed power factor penalty and power factor rebate shall not be applicable.
- 12.35 All other terms and conditions of tariff shall remain same as prescribed in the tariff schedule for the applicable category.
- 12.36 JSEB shall endeavor to install appropriate meters on all consumers proposed to be covered under the KVAH billing.

Installation of shunt capacitors

- 12.37 All consumers having aggregate inductive load greater than 5 HP/ 4 kW and above (except domestic and street lights), shall install capacitors of required KVAR rating provided in the following table:

Table 79: Ratings of capacitors for inductive load

| Rating of individual Inductive Load in HP | kVAR rating of LT capacitors |
|---|------------------------------|
| 3 to 5 | 1 |
| 5 to 7.5 | 2 |
| 7.5 to 10 | 3 |
| 10 to 15 | 4 |
| 15 to 20 | 6 |
| 20 to 30 | 7 |
| 30 to 40 | 100 |
| 40 to 50 | 10 – 15 |
| 50 to 100 | 20 – 30 |

12.38 All such consumers shall be levied a surcharge at 5% on the total billed amount charge (metered or flat), till they have installed the required capacitors.

12.39 The utility shall not release any new LT connections having aggregate inductive load greater than 5 HP/ 4 KW (except domestic and street light) unless the capacitors of suitable rating are installed.

Transformer Capacity

12.40 The transformer capacity of all HT consumers (DS-HT, HTS, HTSS etc.) shall in no case be more than 150% of the contract demand.

12.41 If any consumer is found violating this provision, his service connection shall be disconnected after serving 15 days notice and in addition to the above, the consumer shall be liable to pay the demand in proportion to contract demand commensurate with the capacity of the installed transformer.

Installation of Circuit Breaker & ELCB

12.42 No new connection to the type of installation indicated below shall be given unless a linked switch or circuit breaker and Earth leakage Circuit breaker of appropriate ratings are installed. The consumer shall install ELCB + MCB device (with sealing arrangement) manufactured by Standard Manufacturers and approved by the concerned JSEB official. Appropriate ratings of ELCB + MCBs for the different type of loads are as follows:

Table 80: Ratings ELCB + MCB device

| Load | Rating of ELCB + MCB device to be installed |
|--------------|---|
| Upto 6 KW | 16A, 3 Ph. 4 Wire |
| Upto 9 KW | 20A, 3 Ph. 4 Wire |
| Upto 10 KW | 25A, 3 Ph. 4 Wire |
| Upto 11 KW | 32A, 3 Ph. 4 Wire |
| Upto 15 KW | 40A, 3 Ph. 4 Wire |
| Upto 37.5 KW | 63A, 3 Ph. 4 Wire |

| Load | Rating of ELCB + MCB device to be installed |
|---------------|---|
| Above 37.5 KW | As per direction of JSEB official/ in-charge of power Supply of the Area. |

12.43 The applicability of installation of MCB and ELCB shall be:

- (a) Consumers with a load of above 5 kW connected at 250/ 230 volts LT supply;
- (b) Consumers connected at 400/ 440 volts; and
- (c) On all installation of 3.3 KV/6.6 KV or exceeding 6.6 KV voltage, VCB with over current and earth fault relays of appropriate rating as per direction of JSEB.

12.44 For existing consumers', where such devices as mentioned above have not been installed a surcharge at the rate of 1 percent of the billed amount shall be charged and shall continue to be charged till such time the consumer installs the device.

Electricity Duty

12.45 In addition to the charges laid down in the tariff approved by the Hon'ble Commission, State Electricity Duty as per provisions laid down by the State Government, as amended from time to time shall be levied on the consumer.

12.46 The total Electricity Duty chargeable and realisable from a consumer every year will be subject to adjustment as per final assessment made by the Commercial Taxes Department of the State Government on the basis of rate notified by the Govt. of Jharkhand from time to time.

Conversion factors

12.47 Wherever necessary, the following conversion factors shall be adopted

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

Fuel & Power Purchase Cost Adjustment

12.48 Fuel & Power purchase cost adjustment (FPPCA) charge shall be charged from time to time on approval by the Hon'ble Commission for all consumer categories, except rural domestic and non-domestic consumers.

A13: SCHEDULE OF MISCELLANEOUS CHARGES PROPOSED

- 13.1 JSEB has proposed for revision in miscellaneous charges as provided against each item listed below, to be implemented along with the tariff order for 2011-12
- 13.2 JSEB prays to the Hon'ble Commission to approve the proposed revision in miscellaneous charges.

Table 81: Miscellaneous charges proposed

| Sl. | Purpose | Scale of Charges. | Manner in which charges will be realized. | Remarks. |
|-----|---|---|--|--|
| 1. | Application fee | 1. For agricultural service and street light service Rs. 15/- per application. 2. For domestic and commercial service Rs. 25 & Rs. 50/- per application respectively. 3. Other categories of low tension supply Rs. 500/- per application. 4. For HTS other than HTSS, EHT and RTS supply Rs. 2000/- per application. 5. For HTSS, EHTS & RTS supply Rs. 2000/- | Payable in cash in advance alongwith the application. | Application should be given in standard requisition form of the Board which will be supplied free of cost. |
| 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. | 1. For agriculture service Rs. 25/- per revision. 2. Domestic and commercial service Rs. 50 per revision. 3. Other category of low tension supply Rs. 100/- per revision. 4. For H.T. supply Rs. 300/- per revision. | Payable in cash in advance along with the intimation for revision. | |
| 3. | Testing of consumers' installation. | First test inspection fee of Rs. 100/- but should any further test and inspection be necessitated by faults in the installation or by not compliance with the conditions of supply for each extra test or inspection Rs. 100/-. | Payable in cash in advance along with the request for testing. | |
| 4. | Meter test when accuracy disputed by a consumer. | 1. Single phase Rs. 200 per meter 2. Three phase whole current Rs. 500 per meter 3. CT Operated meter with CT Rs. 1000 | To be deposited in cash in advance. If the meter under dispute is found defective within the meaning of Indian | |

| Sl. | Purpose | Scale of Charges. | Manner in which charges will be realized. | Remarks. |
|-----|---|--|--|----------|
| | | 4. Trivector meter or Special type of meter with CT's and CTPT set Rs. 2000 per meter. | Electricity Rules 1958 the amount of advance will be refunded and if it is proved to be correct within the permissible limits laid down in Indian Electricity Rules, 1956 the amount will not be refunded. | |
| 5. | Removing of meter | 1. Single phase meter Rs. 100 per meter. | | |
| | | 2. Three phase meter Rs. 200 per meter | | |
| | | 3. CT operated / Trivector or special type meter Rs. 1000 per meter. | | |
| 6. | Refixing of meter | 1. Single phase meter Rs. 100 per meter. | Payable in cash in advance along with the request by the consumer. | |
| | | 2. Three phase meter Rs. 200 per meter | | |
| | | 3. CT operated / Trivector or special type meter Rs. 1000 per meter. | | |
| 7 | Testing of meter and metering equipment not belonging to the Board. | 1 phase meter Rs. 50/- | | |
| | | 3 Phase whole current meter Rs. 100/- | | |
| | | LTCT meter Rs. 200/- | | |
| | | LTCT Trivector meter Rs. 500/- | | |
| | | HT Trivector meter Rs. 500/- | | |
| | | Ring type LTCT Rs. 50/- per piece | | |
| | | CTPT Set Rs. 1000/= for 11 KV and Rs. 1500/= for 25KV/ 33KV/ 132KV | | |
| 8 | Changing of meter / meter equipment on the request of the consumer. | Single phase Rs. 100 per meter | Payable in cash in advance along with the request by the consumer | |
| | | Three phase whole current meter Rs. 500 per meter | | |
| | | Trivector or special type meter Rs. 2000 per meter. | | |
| | | LTCT meter Rs. 1000 | | |
| 9. | Attending of fuse of call of consumer's premises from the pole . | Rs. 50/- per call for 1 Phase and Rs. 100/- per call for 3 Phase. | Payable with energy bill. | |

| Sl. | Purpose | Scale of Charges. | Manner in which charges will be realized. | Remarks. |
|-----|---------------|---|--|----------|
| 10 | Disconnection | <p><u>At OH/UG Mains.</u></p> <ul style="list-style-type: none"> - DS - single phase supply Rs. 50 /- - 3 phase supply Rs. 100/- - NDS – single phase supply Rs. 200/- - 3 phase supply Rs. 400/- - SS – Single phase supply or 3 phase supply Rs. 500/- - IAS – single phase supply Rs. 50/- - 3 phase supply 100/- - LTIS – single phase Rs. 500/- - 3 phase supply Rs. 1000/- - HT/EHT– 3 phase supply Rs. 5,000/- - HTSS– 3 phase supply Rs. 10,000/- | Payable in cash in advance along with the request by the consumer. | |
| 11 | Reconnection | <p><u>At OH/UG Mains.</u></p> <ul style="list-style-type: none"> - DS - single phase supply Rs. 50 /- - 3 phase supply Rs. 100/- - NDS – single phase supply Rs. 200/- - 3 phase supply Rs. 400/- - SS – Single phase supply or 3 phase supply Rs. 500/- - IAS – single phase supply Rs. 50/- - 3 phase supply 100/- - LTIS – single phase Rs. 500/- - 3 phase supply Rs. 1000/- - HT/EHT– 3 phase supply Rs. 5,000/- - HTSS– 3 phase supply Rs. 10,000/- | Payable in cash in advance along with the request by the consumer. | |

A14: COMPLIANCE TO DIRECTIVES

14.1 It is submitted that the JSEB has made concerted efforts to comply with the various directives given by the Hon'ble Commission in the tariff orders for the years 2003-04, 2006-07 and 2010-11. The status of compliance against each of the directives is provided in this chapter.

Directives given in the Tariff Order for 2003-04

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission |
|-----|--|--|
| 1. | <p>Metering and Kutir Jyoti scheme</p> <p>The Hon'ble Commission directed the Board to submit an action plan for complete metering and not to issue any new connection without a meter from the date of issue of tariff order for FY 2003-04.</p> <p>With regards to Kutir Jyoti (KJ) the Board was directed to undertake strict measures to check the consumption level in KJ and to bring all Consumers withdrawing more power than the permissible level to the next domestic category.</p> | <p>In compliance to the directive given by the Hon'ble Commission, the JSEB has released connections under the Kutir Jyoti/ BPL category are only being given with meters.</p> <p>The following is submitted in this regard:</p> <ul style="list-style-type: none"> - Connections to BPL consumers under the Kutir Jyoti category under the RGGVY scheme are being released only with meters. - The JSEB has released 4,36,106 connections under the scheme so far . All connections have been released with meters. - The JSEB has also purchased additional 50,000 meters for replacement of defective meters. Out of the same 5,000 meters have been allotted for replacement against Kutir Jyoti connections in the first phase. More meters are being purchased to achieve complete metering. - "Incentive Scheme" for replacement of meters was run for three month in which several thousands of consumers got their defective/ burnt meters replaced. |
| 2. | <p>Performance of PTPS Substation</p> <p>The Hon'ble Commission directed the Board to undertake necessary steps to reduce SHR and increase the PLF to its optimal level and to separately account the consumption in the nearby areas of PTPS and estimate auxiliary consumption net of this level. The Hon'ble Commission also directed the Board to step up its supervision to reduce the coal transit losses.</p> <p>The Board was further directed To submit an action plan within three months for proper fuel management system to improve the efficiency of plant.</p> | <p>In compliance to the directive given by the Hon'ble Commission, the JSEB has assessed the cost of R&M for restoration of the various units of the PTPS are summarized below:</p> <ul style="list-style-type: none"> - Unit 1: 50 MW: Under shut down due to jamming of rotor.: Cost of restoration Rs. 5.3 Crs. - Unit 2: 50 MW: Under shut down due to boiler explosion.: Cost of restoration Rs. 5 Crs. - Unit 3: 50 MW: Is planned to be phased out in accordance with CEA recommendation. - Unit 4: 50 MW: Running: Cost of restoration Rs. 3 Crs. - Unit 5: Is planned to be phased out in accordance with CEA recommendation. - Unit 6: 100 MW: Running with one boiler: Cost of restoration Rs. 64 Crs. - Unit 7: 110 MW: Under shut down since 30.09.2010 due to earth fault in stator: Cost of restoration Rs. 271 Crs. - Unit 8: 110 MW: Under shut down since August '03. M/s Evonik is consultant. : Heavy investment is required for restoration, decision on the same is yet to be taken. - Unit 9 & 10: 110 MW each: Damaged in fire incident on 10.08.06. Restoration is being done: Cost of restoration Rs. 331.11 Crs. |

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission |
|-----|---|--|
| | | <p>The total restoration/ R&M cost thus stands at Rs.1045.41 crs. JSEB has already commenced work against Units 9 & 10 and the same are expected to be completed by February, 2012 and October, 2011 respectively.</p> <p>The CEA has already recommended retirement of units 3 & 5. The JSEB to phase out these units with effect from April, 2012.</p> <p>In view of the above, JSEB prays to the Hon'ble Commission to calculate the PLF based only on the operational units of the plant, that is, units 1, 2, 4, 6, 7 and 8 only.</p> |
| 3. | <p>Evacuating 100% power from TVNL Station</p> <p>The Hon'ble Commission directed the Board to undertake necessary capital and R&M expenditure to augment its transmission capacity for evacuating 100% power from TVNL station, and an action plan in this regard was to be submitted to the Hon'ble Commission within one month from the date of issue order for FY 2003-04.</p> | <p>The TVNL has awarded the construction of 400 kV bays at TTPS to Power Grid Corporation of India Limited (PGCIL). With the completion of this work, the evacuation of this power at 400 KV at TTPS would start.</p> |

Directives given in the Tariff Order for 2006-07

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission | | | | | | | | | | |
|------------------|---|--|------|----------------|---------|--------|---------|--------|---------|--------|------------------|--------|
| 1. | <p>Sales Estimates and Projections</p> <p>The Hon'ble Commission directed the JSEB to undertake a detailed study for load research and demand forecast in order to correctly workout its short term and long term energy requirement</p> | <p>It is submitted that the JSEB had engaged a consultant in compliance to this directive given by the Hon'ble Commission. However, the findings in the report submitted by the consultant were found to be inappropriate for using the same for the purpose of projections of power purchase in the submissions being made to the Hon'ble Commission. JSEB observed that there were gross variations in the projections made by the consultant with the actual.</p> <p>However, in the process of streamlining the accounting procedure, the JSEB has started collecting monthly sales/ revenue data from the computerized billing agencies appointed for each of the circles. The annual forecast being submitted in this petition for the year 2011-12 are estimated to be fairly accurate.</p> <p>JSEB is in the process of appointing another consultant for putting in place a process for long-term and short-term demand forecast for enabling a planned approach to power purchase.</p> | | | | | | | | | | |
| 2. | <p>Circle level category-wise consumption</p> <p>The Hon'ble Commission directed the Licensee to collect and submit the data on number of hours supplied per week to the HTS consumers on a quarterly basis. The Hon'ble Commission also directed the licensee that in the next tariff petition, the licensee should provide category-wise and slab-wise data on sales, number of consumers and connected load and detailed calculations of its revenue estimates with the next tariff petition.</p> | <p>The estimated provisional Circle wise – Category wise consumption & load for the FY 09-10 & 10-11 have already been submitted to the Hon'ble Commission by the JSEB on November 30, 2010.</p> | | | | | | | | | | |
| 3. | <p>T&D Loss Estimate</p> <p>The Hon'ble Commission directed the licensee to formulate a task force for supervising the T&D loss in the state. The Hon'ble Commission also directed the Licensee to carry out energy audit of its system and provide quarterly reports to the Hon'ble Commission regarding the progress of energy audit, action taken to reduce T&D loss and results achieved. The Licensee was also directed to reduce its T&D loss by 4% every</p> | <p>The overall T&D loss level including external losses beyond the State boundary estimated by JSEB for the last 4years is summarized in the table below for information of the Hon'ble Commission:</p> <table border="1" data-bbox="798 1758 1279 1975"> <thead> <tr> <th>Year</th> <th>T&D losses (%)</th> </tr> </thead> <tbody> <tr> <td>2007-08</td> <td>42.73%</td> </tr> <tr> <td>2008-09</td> <td>42.79%</td> </tr> <tr> <td>2009-10</td> <td>36.51%</td> </tr> <tr> <td>2010-11 (Sep'10)</td> <td>34.92%</td> </tr> </tbody> </table> | Year | T&D losses (%) | 2007-08 | 42.73% | 2008-09 | 42.79% | 2009-10 | 36.51% | 2010-11 (Sep'10) | 34.92% |
| Year | T&D losses (%) | | | | | | | | | | | |
| 2007-08 | 42.73% | | | | | | | | | | | |
| 2008-09 | 42.79% | | | | | | | | | | | |
| 2009-10 | 36.51% | | | | | | | | | | | |
| 2010-11 (Sep'10) | 34.92% | | | | | | | | | | | |

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission |
|-----|--|--|
| | year till normative T&D loss level is reached. | <p>As can be seen from the table above, the T&D losses in the JSEB's system have reduced by over 13.51% since 2005-06. This reduction is significantly better than the overall T&D loss reduction achieved at the national level during the same period.</p> <p>The above outlined loss reduction has taken place only due to the persistent efforts made by the JSEB. The arrangement put in place by the JSEB for monitoring and reduction of T&D losses are:</p> <ul style="list-style-type: none"> - Anti Power Theft Cell(s): The JSEB has deployed a team of dedicated officers at the headquarters as well as at the field level for in the respective Anti Power Theft Cells. These teams have been making surprise raids at consumer premises on a routine basis. From July, 2010 onwards 1/ 2 days are declared as Antipower Theft Day in every month and raids are being conducted on those days throughout the State. - Remote Metering Cell (RMC): The JSEB has established a Remote Metering Cell at its Headquarters. All the HT consumers have already been provided with digital tri-vector meters with modems and SIM cards for remote reading capability. The RMC on a regular basis takes readings from these AMR devices for study of the load/ consumption pattern, tamper reports etc. In the second phase, the JSEB has planned to extend the reading facility to all consumers under the LTIS category. Installation of AMR devices has already been completed for 2,000 LTIS consumers; the process for installation of such devices against the remaining LTIS consumers is under progress. - R-APDRP: Tenders have already been floated for several items under the Part A of the R-APDRP i.e. implementation of IT systems for establishment of baseline parameters. The main works which are being covered under the Part-A include the following: <ul style="list-style-type: none"> • Installation of boundary meters (at urban periphery of the covered towns); • Installation of feeder meters in covered areas; • Installation of DTR meters; • Consumer indexing; <p>Completion of the above works under the Part-A of the R-APDRP scheme will enable automated energy auditing at the feeder/ DT level in the covered areas/ towns.</p> <p>The JSEB shall be able to identify the specific loss making areas/ pockets once such reports are available for directing concerted action at the field level for reduction of theft/ loss of energy.</p> <p>The JSEB shall begin submission of feeder/ DT wise loss reports to the Hon'ble Commission once the IT implementation is completed.</p> <p>Further to implementation of the Part-A, the JSEB shall commence work on Part-B which will include undertaking actual network up-gradation/ augmentation/ improvement projects which will be aimed at reducing losses and improving the quality of supply. The DRP's for Part-B of the R-APDRP</p> |

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission |
|-----|--|--|
| | | are under preparation. |
| 4. | <p>Metering Plan</p> <p>The Hon'ble Commission directed the licensee to formulate and submit a metering plan within a period of three months from the date of issue of order.</p> <p>The Hon'ble Commission also directed the licensee to report the number of nonperforming /defective meters category-wise in the system and an action to replace all such meters with in a period of three months.</p> | <p>In compliance to the directives issued by the Hon'ble Commission, the JSEB has established a metering plan which includes the following elements:</p> <p>(A) Metering of un-metered connections:</p> <ul style="list-style-type: none"> - Connections to BPL consumers under the Kutir Jyoti category under the RGGVY scheme are being released only with meters. - The JSEB has released 4,36,106 connections under the scheme so far . All connections have been released with meters. - The JSEB has also purchased 50,000 meters for replacement of defective meters. Out of the same 5,000 meters have been allotted for installation in rural areas against Kutir Jyoti connections in the first phase. - The JSEB is targeting metering of all consumers including domestic/ commercial and the Irrigation & Agricultural categories by March, 2012. <p>(B) Replacement of defective meters:</p> <ul style="list-style-type: none"> - The JSEB has approximately 80,000 defective meters in the urban areas which are planned to be replaced by December, 2011. - The JSEB has launched incentive schemes for encouraging consumers to get burnt/ defective/ stopped meters replaced. In response to the same, 3806 meters were received from consumers, which have already been replaced. |
| 5. | <p>Feasibility Study for ToD tariff implementation</p> <p>The Hon'ble Commission directed JSEB to conduct a study on the feasibility (including requirement of metering infrastructure) and potential savings that will accrue from the introduction of ToD tariffs for categories of LT industrial consumers.</p> | <p>The JSEB is in the process of appointing consultants for undertaking the study on feasibility of Time-of-Day (ToD) tariff implementation in its license area. The JSEB shall submit the report which is targeted to be completed by June, 2011.</p> |
| 6. | <p>Cost of Supply study</p> <p>The Hon'ble Commission directed the licensee to carry out appropriate studies to determine category wise and voltage wise T&D losses and cost of supply and submit it to the Hon'ble Commission within a period of six months from the date of issue of order.</p> | <p>The JSEB is in the process of appointing consultants for undertaking the study on category wise/ voltage wise Cost-of-Supply (CoS). The JSEB shall submit the report which is targeted to be completed by September, 2011.</p> |
| 7. | <p>Performance of Self owned power plants</p> | |

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission |
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| | <p>The Hon'ble Commission directed the licensee to undertake necessary measures for increasing the PLF to its optimal level and to reduce SHR from the existing level and appropriately benchmark the working units with plants of similar background and age.</p> <p>The Hon'ble Commission directed the Licensee to step up its supervision to reduce the transit loss.</p> <p>The Hon'ble Commission directed the Licensee to look into the matter of silting immediately and resolve the conflicts, if any, on priority to improve generation from this plant.</p> | <p>In compliance to the directive given by the Hon'ble Commission, the JSEB has assessed the cost of R&M for restoration of the various units of the PTPS are summarized below:</p> <ul style="list-style-type: none"> - Unit 1: 50 MW: Under shut down due to jamming of rotor.: Cost of restoration Rs. 5.3 Crs. - Unit 2: 50 MW: Under shut down due to boiler explosion.: Cost of restoration Rs. 5 Crs. - Unit 3: 50 MW: Is planned to be phased out in accordance with the recommendation of the CEA. - Unit 4: 50 MW: Running: Cost of restoration Rs. 3 Crs. - Unit 5: Is planned to be phased out in accordance with the recommendation of the CEA. - Unit 6: 100 MW: Running with one boiler.: Cost of restoration Rs. 64 Crs. - Unit 7: 110 MW: Under shut down since 30.09.2010 due to earth fault in stator: Cost of restoration Rs. 271 Crs. - Unit 8: 110 MW: Under shut down since August '03. M/s Evonik is consultant. : Cost of restoration Rs. 256 Crs. - Unit 9 & 10: 110 MW each: Damaged in fire incident on 10.08.06. Restoration is being done.: Cost of restoration Rs. 331.11 Crs. <p>The total restoration/ R&M cost thus stands at Rs.1045.41 crs. JSEB has already commenced work against Units 9 & 10 and the same is expected to be completed by February, 2012 and October, 2011 respectively.</p> <p>The CEA has already recommended retirement of units 3 & 5. The JSEB is yet to take a decision on the retirement of the units in accordance to the recommendations of the CEA. In case, it is decided that these units shall be retired, the R&M expenses estimate will not be incurred by the JSEB.</p> <p>In view of the above, JSEB prays to the Hon'ble Commission to calculate the PLF based only on the operational units of the plant, that is, units 1, 2, 4, 6 and 7.</p> <p>A comparison of the efficiency levels of the PTPS along with those allowed for the Barauni (BTPS) by the Hon'ble Bihar Electricity Regulatory Commission have been elaborated in the Chapter on True Up provided in this petition earlier.</p> <p>PUT ON SIKIDRI</p> <p>The JSEB has no control over the availability of water which is grossly dependent on rains. Waterways department make available water only after ensuring adequate drinking water for months together.</p> |
| 8. | <p>Power Purchase and UI Sale</p> <p>The Hon'ble Commission directed the Licensee to first meet the need of its consumers and resort to UI</p> | <p>The JSEB has fully complied with the directive given by the Hon'ble Commission. It is submitted that the JSEB has never resorted to load shedding/ restricted any load for enhancing UI</p> |

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission |
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| | <p>sale only in case of zero load shedding and zero power outage situations.</p> <p>The Hon'ble Commission also directed the Licensee to post the following information on its website every month:</p> <ol style="list-style-type: none"> Month Energy Purchased Electricity bill on account of energy purchased Hydel and Thermal generation Energy sold Energy billed Revenue collected Energy sold under UI Amount received under UI | <p>sale. Rather, UI sale is an outcome of the availability of contracted power by the generation stations and actual drawal of power by consumers.</p> <p>Regarding posting of information on website, JSEB's website is likely to be activated in the month of January, 2011 after which the required information may be uploaded.</p> |
| 9. | <p>Actuarial Studies</p> <p>The Commission directed the Licensee to provide details of actuarial studies being undertaken by it with the next tariff petition, as any revision in the terminal benefits would have to be based on the same.</p> | <p>In compliance to the directive given by the Hon'ble Commission, the JSEB had earlier appointed an independent Actuarial and LIC for conducting actuarial studies for the JSEB. However, the same has resulted in no outcome so far despite persistent pursuance by the JSEB. The JSEB intends terminate the contracts awarded earlier for the work and award fresh contract to a new agency. The progress on appointment of the new Actuarial shall be reported to the Hon'ble Commission by March, 2012.</p> |
| 10. | <p>Capitalization and Asset Registers</p> <p>The Hon'ble Commission directed the Licensee to declare its capitalization policy and to provide the details regarding CWIP in the next tariff petition.</p> <p>The Commission therefore, directs the Licensee to provide data related to fixed assets and maintain an asset register classifying assets on the basis of appendix II of, JSERC Regulations, 2004.</p> | <p>The JSEB has been following the prescribed accounting policies for capitalization of expenses of capital nature. In accordance with the same any capital expenditure against any particular work is accounted as capital work in progress (CWIP) until the same is commissioned/ put to use.</p> <p>The JSEB in compliance to the directives issued by the Hon'ble Commission in its previous tariff order has streamlined its annual accounts. The annual accounts upto FY 2009-10 have already been approved by the board of the JSEB and are at different stages of progress of being audited by the CAG.</p> <p>The JSEB has already formulated its capitalization policy, which has been circulated to the field offices for compliance. JSEB has formed committee's for physical verification stores and emphasis is being given to proper record keeping. The task of physical verification of stores has already been completed for some places.</p> <p>The Capital Works in Progress (CWIP) both opening and closing values are provided in the annual accounts for each year and have been used for the purpose of determination of aggregate revenue</p> |

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission |
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| | | <p>requirement in the this petition.</p> <p>It is submitted that the JSEB was formed after the bifurcation of the BSEB on formation of the separate State of Jharkhand and the asset registers have not been maintained at the field offices for long.</p> <p>The JSEB in compliance to the directives of the Hon'ble Commission has issued firm instructions to all its concerned field offices. It is to be noted that as the process is being streamlined by the JSEB, the results of the same may take some time. The JSEB shall submit status on the creation/ progress on the issue of asset registers every six months.</p> |
| 11. | <p>Audited Accounts</p> <p>The Hon'ble Commission directed the Licensee to submit the audited annual accounts and asset registers for the previous years with detailed explanation and clarification. The Hon'ble Commission also directed the Licensee to submit both of these along with the next tariff petition otherwise the Hon'ble Commission in view of data uncertainty will not allow any return on equity in the next tariff Order.</p> | <p>The JSEB in compliance to the directives issued by the Hon'ble Commission in its previous tariff order has streamlined its annual accounts. The annual accounts upto FY 2009-10 have already been approved by the board of the JSEB and are at different stages of progress of being audited by the CAG.</p> <p>It may be noted that the case of JSEB being a board constituted under the provisions of the Electricity Supply Act, 1948 is not comparable to other utilities which are companies registered under the Companies Act, 1956 wherein the companies are at the liberty to appoint Statutory Auditors.</p> <p>The Section 69, Clause 2 of the Electricity Supply Act, 1948 which mandates audit by CAG/ CAG appointed auditor is reproduced below for reference:</p> <p><i>'The accounts of the Board shall be audited by the Comptroller and Auditor-General of India or by such person as he may authorize in this behalf and any expenditure incurred by him in connection with such audit shall be payable by the Board to the Comptroller and Auditor-General of India.'</i></p> <p>- Section 69, Clause 2 of the Electricity Supply Act, 1948</p> <p>Therefore, the CAG is the sole auditor for the JSEB which is considered to be a time consuming process. The Annual Accounts/ Restated Annual Accounts have already been submitted to the CAG after due approval of the JSEB's Board.</p> <p>JSEB's annual accounts for the years 2001-02 and 2003-04 have already been audited by the CAG and the audit reports with broad and fair view certificate have been received. The audit for 2003-04 is currently on. Pr. AG has been requested to depute multiple teams to expedite audit to which he has agreed. It is expected that a lot of progress shall be made in auditing by March, 2011.</p> <p>The JSEB prays to the Hon'ble Commission to consider the Annual Accounts submitted, duly approved by the Board of the JSEB and submitted to the CAG for audit, for the purpose of true-up of the Aggregate Revenue Requirement of the JSEB</p> |

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission |
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| | | from FY2003-04 onwards. |
| 12. | <p>Delayed Payment Surcharge</p> <p>The Hon'ble Commission directed the JSEB to make all efforts to collect the DPS promptly and also maintain complete records of the same, which should be submitted along with the next tariff petition.</p> | <p>The JSEB in compliance to the directives given by the Commission has been making concerted efforts for recovery of Delayed Payment Surcharge from consumers. However, it is submitted that a large portion of the DPS is on account of long-pending/ disputed bills of certain consumers most of which either pertain to Government installations or consumers who have gone to courts. Therefore, the overall collection against the same has remained negligible against over the years.</p> <p>The JSEB is in the process of introducing spot billing and also revamping its entire billing system. The JSEB intends to make provision in the billing system for accounting for payments against DPS separately. The same shall be made available to the Hon'ble Commission subsequent to revamping of the billing system.</p> |
| 13. | <p>Standard of Performance</p> <p>The Commission directed JSEB to implement the Standards of Performance Regulations by 1st January 2008 and submit the compliance report to the Commission thereafter. If the Licensee fails to implement this, the energy charge for all categories may be reduced by 2.5% from that date.</p> | <p>In compliance to the directive given , the JSEB has implemented the Standards of Performance, Regulations issued by the Hon'ble Commission. The following are submitted in this regard:</p> <ul style="list-style-type: none"> - The JSEB has set-up fuse call centre's at each circle level which registers the complaints of consumers and intimates respective JEE/ AEE's for corrective action. The reports of the fuse call center's for each circle have already been submitted to the Hon'ble Commission along with the communication dated November 30, 2010. - It is further submitted that the JSEB is resolving consumer grievances within the timeframe specified in the SoP, Regulations and no consumer so far has submitted any claim for non-compliance against any of the standards mentioned therein. - The JSEB also as per its existing procedures for measurement of compliance levels has reported 100% compliance against the standards mentioned in the SoP Regulations and has accordingly not paid any compensation due to its failure so far nor any consumer has claimed for any compensation from the Board. - Thus, the terms and conditions of the SoP, Regulations are being duly complied by the JSEB. - Customer care meets at 13 circles on November 15, 2010 was organized, several complaints were heard and resolved on the spot. - Computerized complaint registration and monitoring system shall be made functional in Ranchi from January, 2011 which will be replicated to other cities. <p>The JSEB also intends to put in place elaborate IT based systems for measuring and monitoring of compliance against the standards prescribed in the SoP, Regulations. Putting in place requisite systems for measurement and reporting will take time and also involve costs. The Hon'ble Commission may allow a budget of</p> |

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission |
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| | | Rs.50 crores, provisionally in the ARR for FY 2011-12 specifically to enable JSEB in invest in such systems. The same can be trued up in the subsequent years. |
| 14. | <p>Rural Consumers</p> <p>The Commission directed JSEB to undertake a cost of service study specifically for rural consumers, in order to determine the level of specific subsidies and support needed for incentivizing the rural.</p> | <p>The JSEB is clubbing determination of CoS for rural consumers as a separate task in the overall CoS study which is proposed to be conducted through appointment of consultants which has already been elaborated earlier.</p> |
| 15. | <p>Rural Electric Co-operative (Bulk Supply)</p> <p>The Commission directed the Licensee to send the details of Rural Electric Co-operative category (Bulk Supply) to all potential rural consumers especially to Village Panchayats and then assess whether this category should be continued in future or not.</p> | <p>The JSEB has instructed its field officials to share and discuss the details of the Rural Electric Co-operative category tariff with potential rural consumers/ village panchayats.</p> <p>JSEB is of the view that due to high level of losses in the rural feeders/ areas across the State, consumers do not appear to be welcoming the tariff approved by the Hon'ble Commission at the approved discounts with respect to the individual connections under the DS-1/ Kutir Jyoti category.</p> <p>It is proposed that a higher discount on the Rural Electric Co-operative (Bulk Supply) category as proposed in the tariff petition will encourage consumers to shift under the new category introduced by the Hon'ble Commission. The JSEB has also proposed Government Subsidy for this tariff in accordance with the tripartite agreement entered into between the State Government, the REC and the JSEB.</p> |
| 16. | <p>High Tension Service and EHTS Category</p> <p>The Commission directed the JSEB to provide details of number of consumers, connected /sanctioned load, number of hours of supply and revenue generated through minimum charges for this category in FY 2004-05, FY 2005-06, FY 2006-07 and FY 2007-08 (April-June 2007) for Extra High Tension Service (at 132 kV) within two months of the issue of the order. The Commission may revise the applicable minimum charge to this category thereafter.</p> | <p>The JSEB in compliance to the directive given by the Hon'ble Commission has already submitted the requisite information in its communication dated November 30, 2010.</p> |

Directives given in the Tariff Order for 2010-11

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission |
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| 1. | <p>Complaint Redressal Mechanism</p> <p>The Hon'ble Commission directed the JSEB to implement the complaint redressal mechanism at the grass root level within six month of the issue of this Order and submit the compliance report to the Commission within the time frame.</p> | <p>The JSEB has planned to establish a compliant redressal mechanism in its license area. The copy of the plan/ formulation has already been submitted to the Hon'ble Commission in the communication dated November 30, 2010.</p> <p>“Computerized complaints registration and monitoring system” based on toll free numbers is being started in Ranchi from January 1, 2011. The same will be replicated in other areas of the JSEB during the next six months.</p> |
| 2. | <p>Consumer Grievance Redressal Forum (CGRF)</p> <p>The Hon'ble Commission directs the JSEB to set-up new unit(s) of CGRF within six months of the issue of this Order.</p> | <p>In compliance to the directive/ order given by the Hon'ble Appellate Tribunal of Electricity and as communicated by the Hon'ble JSERC, the JSEB is in the process of establishing four (4) more VUSNF, besides one already operational at Ranchi.</p> <p>The JSEB intends to complete the process of creation of the additional four VUSNF's by July, 2011.</p> |
| 3. | <p>Bill Payment Mechanism</p> <p>The Hon'ble Commission directed the JSEB to initiate the drop-box facility for bill deposition and also develop a plan for online payment of bills. The JSEB should also tie-up with various Banks for availing the facility of collection of payments through Banks. The compliance in this respect is to be reported within six months of the issue of the Order.</p> | <p>In compliance to the directive given by the Hon'ble Commission, the JSEB has initiated the process of installation of state-of-the-art ATP (Any Time Payment) machines based on latest technology. JSEB has already installed 6 ATPs in Ranchi at selected populated places. Installation of 4 ATPs in Jamshepur is in process. On validation of consumer response to the new ATP machines being installed, the same would be extended throughout the State.</p> <p>Besides the ATP based collection avenue, collection through Banks and Post Offices are already in place and the JSEB consumers can opt to make payments through any of these avenues.</p> <p>Drop box facilities has been introduced in Ranchi and is being extended to other parts.</p> <p>The JSEB in compliance to the directives given by the Hon'ble Commission has also extended the facility of EFT/ NGFT payment for HT consumers.</p> <p>The JSEB has developed its own website with huge server capacity to facilitate online bill payments. This is expected to be launched by February, 2011.</p> <p>Also, provision for collection of cheque from the consumers at the spot itself in case of spot billing.</p> |

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission |
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| 4. | <p>Billing related issues</p> <p>The licensee is directed to develop a comprehensive metering plan.</p> <p>The licensee should also ensure that it strengthens its metering, billing and collection mechanism, especially in the loss affected areas.</p> | <p>In order to achieve 100% metering, JSEB has purchased single phase meters and is installing them on a war footing basis. Further, tenders for other types of meters are in process. JSEB also a double discount based voluntary scheme for meter replacement. In this process, thousands of meters have been installed and in 2011, the whole metering process will be completed.</p> <p>Taking cognizance of the directive given by the Hon'ble Commission the JSEB has initiated the process of introduction of Spot Billing, the bids received the same are in the finalization stage.</p> <p>It is expected that the issues in the present billing system with substantially get reduced to acceptable/ negligible levels under the new spot billing finalized for Ranchi, Jamshedpur, Dhanbad and Dumka area boards. It is being rolled out from January/ February, 2011.</p> <p>In addition to correct billing, spot billing will also facilitate reduction of the time consumed in the billing process, as the bills would get delivered to the consumes at the time of meter reading itself.</p> |
| 5. | <p>Timely Energisation of new connection</p> <p>The JSEB should take all the steps to implement the standards of performance and ensure the new connections are given on time as per the Standards of Performance Regulations, 2005.</p> | <p>In compliance to this directive, the JSEB has apprised its concerned field officials regarding the Clause 6 of Supply Code issued by the Hon'ble Commission. All officials have been instructed to ensure compliance against the timelines prescribed therein.</p> <p>During three month long camps in September – November, 2010, new connection forms were being accepted and sanctioned then and there following due process.</p> <p>JSEB has received reports from its field offices that the same is being complied with. However, as a matter of practice the JSEB has been repeatedly instructing its field officials to comply with the said regulation and also report if there is any exception along with detailed reasoning for the same.</p> |
| 6. | <p>Camps for providing new connections in uncovered areas</p> <p>The Hon'ble Commission directed the JSEB to ensure that it conducts survey of such areas, develops a marketing and awareness program for such areas and provide new connections through special camps. The Hon'ble Commission directs the licensee to develop an action plan for the above and</p> | <p>It is submitted that the JSEB is already undertaking mass scale electrification and release of connections to rural/ BPL consumers under the RGGVY scheme which is presently under implementation.</p> <p>In compliance to the directive given by the Hon'ble Commission the JSEB had in the recent past organized three months camps for "Load Disclosure Scheme", which was a multipurpose camp and</p> |

| Sl. | Directive issued by the Hon'ble Commission | JSEB's submission |
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| | submit the same to the Hon'ble Commission within six months of the Order. | <p>consumers were allowed/ encouraged to submit applications for new connections also.</p> <p>In view of the good response received in the camps organized, the JSEB intends to continue the process of organizing camps in identified areas on a regular basis.</p> |
| 7. | <p>Data adequacy in next Tariff Petition and audit of accounts</p> <p>The Hon'ble Commission directs the licensee to come up with the next tariff petition for FY 2011-12, after removing the various data deficiencies highlighted in this Tariff Order along with the audited account of FY 2009-10 and the latest information for FY 2010-11.</p> <p>The Hon'ble Commission also directs the licensee to ensure submission of subsequent ARR & Tariff filings for the ensuing years by 1st November every year.</p> | <p>In compliance to the directive given by the Hon'ble Commission, the JSEB has taken utmost care for eliminating data deficiencies in this tariff petition.</p> <p>It may be noted that the case of JSEB being a board constituted under the provisions of the Electricity Supply Act, 1948 is not comparable to other utilities which are companies registered under the Companies Act, 1956 wherein the companies are at the liberty to appoint Statutory Auditors.</p> <p>The Section 69, Clause 2 of the Electricity Supply Act, 1948 which mandates audit by CAG/ CAG appointed auditor is reproduced below for reference:</p> <p><i>'The accounts of the Board shall be audited by the Comptroller and Auditor-General of India or by such person as he may authorize in this behalf and any expenditure incurred by him in connection with such audit shall be payable by the Board to the Comptroller and Auditor-General of India.'</i></p> <p>- Section 69, Clause 2 of the Electricity Supply Act, 1948</p> <p>Therefore, the CAG is the sole auditor for the JSEB which is considered to be a time consuming process. The Annual Accounts/ Restated Annual Accounts have already been submitted to the CAG after due approval of the JSEB's Board.</p> <p>JSEB's annual accounts for the years 2001-02 and 2003-04 have already been audited by the CAG and the audit reports with broad and fair view certificate have been received. The audit for 2003-04 is currently on. Pr. AG has been requested to depute multiple teams to expedite audit to which he has agreed. It is expected that a lot of progress shall be made in auditing by March, 2011.</p> <p>Accordingly, the JSEB prays to the Hon'ble Commission to consider the Annual Accounts submitted, duly approved by the Board of the JSEB and submitted to the CAG for audit, for the purpose of true-up of the Aggregate Revenue Requirement of the JSEB from FY2003-04 onwards.</p> |