

**BEFORE
HON'BLE JHARKHAND STATE ELECTRICITY
REGULATORY COMMISSION,
PETITION
FOR
TRUE-UP FOR FY 2011-12, ANNUAL REVENUE
REQUIREMENT FOR FY 2012-13, MYT FOR CONTROL
PERIOD FY 2013-14 TO FY 2015-16
&
TARIFF DETERMINATION FOR
FY 2013-14
FOR DISTRIBUTION FUNCTION**



**JHARKHAND STATE ELECTRICITY BOARD
JHARKHAND**

Submitted to



JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION,

Ranchi



Petition for True-up for FY 2011-12, APR for FY 2012-13 & MYT Petition for the Control Period and Tariff Proposal for FY 2013-14 – JSEB (Distribution)

BEFORE THE JHARKHAND STATE ELECTRICITY REGULATORY COMMISSION, RANCHI

Filing No.....

Case No.....

IN THE MATTER OF:

Filing of the Petition for True-up for FY 2011-12, Annual Performance Review (APR) for FY 2012-13, Multi-Year Tariff petition (MYT) for control period FY 2013-14 to FY 2015-16 and Tariff Proposal for FY 2013-14 for the Licensee under Section 45, 46, 61, 62, 64 and 86 of the Electricity Act, 2003 and as per the regulations of Jharkhand State Electricity Regulatory Commission (JSERC) (Terms And Conditions For Distribution Tariff) Regulation, 2010.

AND

IN THE MATTER OF:

JHARKHAND STATE ELECTRICITY BOARD (hereinafter referred to as "JSEB" or "THE BOARD" which shall mean for the purpose of this petition the "Licensee"), having its registered office at DHURWA, HEC, RANCHI

The Petitioner respectfully submits as under: -

1. Jharkhand State Electricity Board (hereinafter referred to as the "Petitioner" or "JSEB" or "Board" was constituted on March 10, 2001 under Section 5 of the Electricity (Supply) Act, 1948 as a result of the bifurcation of the erstwhile State of Bihar. Before that, the Bihar State Electricity Board (BSEB) was the predominant entity entrusted with the task of generating, transmitting and supplying power in the State. The Board has been engaged in electricity generation, transmission, distribution and related activities in the state of Jharkhand. Presently, the Board is functioning as two entities, i.e. State Transmission Utility (STU) and a Distribution Licensee.



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2. Pursuant to the enactment of the Electricity Act, 2003, JSEB is required to submit its Aggregate Revenue Requirement (ARR) for control period and Tariff Petitions as per procedures outlined in section 61, 62 and 64, of Electricity Act 2003, and the governing Regulations thereof.
3. The present petition is filed with the Hon'ble Commission for true-up of Aggregate Revenue Requirement (ARR) for the FY 2011-12; Review of the revised estimated ARR for FY 2012-13; approval of the projected ARR for Control period FY 2013-14, 2014-15 & 2015-16 as per the Electricity Act, 2003, as per the provisions of the Regulations issued by the Hon'ble Jharkhand State Electricity Regulatory Commission (JSEB) (Terms and Conditions For Determination of Distribution Tariff) Regulations, 2010, for the area under its operation.
4. JSEB along with this petition is submitting the Regulatory formats with data & information to an extent applicable and would make available any further information/ additional data required by the Hon'ble Commission during the course of MYT & tariff determination process.

Prayers to the Commission:

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

- Examine the proposal submitted by the petitioner in the enclosed petition for a justified dispensation.
- Consider the revised values/ figures submitted by JSEB in **(MYT Petition)** for each year of the Control Period.
- Pass suitable orders with respect of the ARR for each year of the Control Period (FY 2014, FY 2015, FY 2016) amounting to **Rs. 5449.69 Crs, Rs. 6892.71 Crs & Rs. 8323.22 Crs** along with the relevant financial parameters proposed in the petition by JSEB.
- JSEB may also be permitted to propose suitable changes to the respective ARR, prior to the final approval by the Hon'ble Commission. JSEB believes that such an



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approach would go a long way towards providing a fair treatment to all the stakeholders and may eliminate the need for a review or clarification.

- Condone the delay in filing of the MYT Petition, if any and requests Hon'ble Commission to accept the petition for processing;
- Pass such orders, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.
- 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.

Jharkhand State Electricity Board
Petitioner

Ranchi

Dated: _____ 2013



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List of Abbreviations

| Sr. No | Abbreviations | Descriptions |
|--------|---------------|---|
| 1. | A&G | Administrative and General |
| 2. | APR | Annual Performance Review |
| 3. | ARR | Aggregate Revenue Requirement |
| 4. | AS | Accounting Standard |
| 5. | CAGR | Compound Annual Growth Rate |
| 6. | CAPEX | Capital Expenditure |
| 7. | CERC | Central Electricity Regulatory Commission |
| 8. | CGRF | Consumer Grievance Redressal Forum |
| 9. | CGS | Central Generating Station |
| 10. | CoS | Cost of Supply/ Service |
| 11. | CPPs | Captive Power Plants |
| 12. | Crs | Crores |
| 13. | CWIP | Capital Work in Progress |
| 14. | Discom | Distribution Companies |
| 15. | DPS | Delayed Payment Surcharge |
| 16. | DS | Domestic Service |
| 17. | DSHT | Domestic Service High Tension |
| 18. | DTC | Distribution Transformer |
| 19. | DVC | Damodar Valley Corporation |
| 20. | EA/The Act | The Electricity Act 2003 |
| 21. | F&A | Finance & Accounts |
| 22. | FAS | Finance Accounting System |
| 23. | FOR | Forum of Regulators |
| 24. | FY | Financial Year |
| 25. | GFA | Gross Fixed Assets |
| 26. | Gol | Government of India |
| 27. | HP | Horse Power |
| 28. | HR | Human Resource |
| 29. | HT | High Tension |
| 30. | IPP | Independent Power Producers |
| 31. | JSERC | Jharkhand State Electricity Regulatory Commission |
| 32. | KV | Kilo Volt |



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| Sr. No | Abbreviations | Descriptions |
|--------|---------------|-------------------------------|
| 33. | kVA | Kilo Volt Ampere |
| 34. | kVAh | Kilo Volt Ampere Hour |
| 35. | kW | Kilo Watt |
| 36. | kWh | Kilo Watt Hour |
| 37. | LF | Load Factor |
| 38. | LT | Low Tension |
| 39. | MD | Maximum Demand |
| 40. | MOD | Merit Order Despatch |
| 41. | MoP | Ministry of Power |
| 42. | MOU | Memorandum of Understanding |
| 43. | MU | Million Units (Million kWh) |
| 44. | MVA | Mega Volt Ampere |
| 45. | MW | Mega Watt |
| 46. | MYT | Multi Year Tariff |
| 47. | NEP | National Electricity Policy |
| 48. | NTP | National Tariff Policy |
| 49. | O&M | Operation & Maintenance |
| 50. | PF | Provident Fund |
| 51. | PLR | Prime Lending Rate |
| 52. | PPA | Power Purchase Agreement |
| 53. | PSD | Power Service Division |
| 54. | REC | Renewable Energy Certificate |
| 55. | R&M | Repair and Maintenance |
| 56. | ROE | Return on Equity |
| 57. | RPO | Renewable Purchase Obligation |
| 58. | Rs | Rupees |
| 59. | SBI | State Bank of India |
| 60. | SLM | Straight Line Method |
| 61. | T&D | Transmission and Distribution |
| 62. | w.e.f | With effect from |
| 63. | Y-o-Y | Year on Year |



1. INTRODUCTION

1.1 Background

1.1.1 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.

1.1.2 Presently, the Board is functioning as two entities i.e. State Transmission Utility (STU) and a Licensee. This petition for True up, APR, MYT and Tariff Proposal is being submitted by the Distribution Licensee.

1.1.3 **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.

1.1.4 The Hon’ble Commission on 1st November 2010 issued JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 (hereinafter referred as JSERC Tariff Regulations 2010) which is applicable for Transition period from 1st April 2011 to 31st March 2013 and Control Period from 1st April 2013 to 31st March 2016 for elements of ARR such as Distribution Loss, RoE and Interest rate etc. In line with the same, JSEB is filing its ARR and Tariff Petition for consideration of the Hon’ble Commission in the formats laid down for providing information relating to past, current and future performance.

1.1.5 In line with the provisions of Tariff Regulations 2004 and Tariff Regulations 2010 issued by the Hon’ble Commission, the licensee has to file with the Commission, a tariff with statements containing the expected revenue from the tariff charges including miscellaneous charges and other charges, if any, for the ensuing financial year. The statement should also include the current approved tariff and charges



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including the miscellaneous charges along with details and explanations of assumptions made.

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

- Provisions of Electricity Act 2003;
- Provisions of the National Electricity Policy;
- Provisions of the National Tariff Policy;
- Principles laid down in the JSERC (Terms and Conditions for Determining Distribution Tariff), Regulations, 2004;
- Principles laid down in the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2010 for transition period from April 2011 to March 2013 and Control Period from April 2013 to March 2016;

1.1.7 JSEB has filed the present petition for approval of the Annual Revenue Requirement (ARR) and Determination of Tariff for FY 2013-14. This Petition also includes True-up for FY 2011-12 based upon the provisional accounts, as well as the Review of the performance for the year FY 2012-13 based on the projections over the performance of previous year. In addition to this, JSEB is also submitting the MYT Petition for Control Period (FY 2013-14 to FY 2015-16) along with the tariff determination for the year FY 2013-14.



2. OVERALL APPROACH FOR PRESENT FILING

2.1 Present Approach

2.1.1 The Hon'ble Commission on 1st November 2010 has notified the JSERC Tariff Regulations 2010 which is also applicable for transition period from 1st April 2011 to 31st March 2013 for elements of ARR such as Distribution Loss, RoE and Interest rate etc. In line with the same, JSEB is filing its ARR and Tariff Petition for consideration of the Hon'ble Commission in the formats laid down for providing information relating to past, current and future performance. The key aspects of the approach to the filing are discussed below:

2.2 Regulations on Terms & Conditions of Tariff

2.2.1 The Hon'ble Commission in JSERC Tariff Regulations 2010 has laid down the principles of ARR as well as the methodology to determine the tariff to be charged to the consumers under the MYT Framework. As per **Regulation 11.1** of the JSERC Tariff Regulations 2010; Performance review and adjustment of variations of the Licensees for years before the Transition Period shall be considered during the Transition Period (i.e. from 1st April 2011 – 31st March 2013). Hence, JSEB hereby submits its true up for the year FY 2011-12, APR for FY 2012-13 for its Distribution Function.

2.2.2 As per **Regulation 5.1** of JSERC Tariff Regulations 2010, the MYT framework shall be based on the Business Plan of JSEB for the entire Control Period. JSEB has already submitted its Business Plan for the Control Period, i.e. FY 2013-14 to FY 2015-16 to the Hon'ble Commission. Further, the Licensee has to file for an application for approval of retail supply ARR and wheeling ARR for each year of the Control Period.

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



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2.3 Data/Information for APR

2.3.1 This petition contains the truing-up of the ARR of FY 2011-12, figures of which are based upon the provisional annual accounts. The APR of FY 2012-13 is based upon the projections over the previous year data and actual available information. The MYT projections for the year FY 2013-14 to FY 2015-16 have been projected mainly based on Business Plan submissions.

2.4 Allocation of O&M Expenses, Interest and Finance Charges & Non Tariff Income for FY 2011-12 for JSEB

2.4.1 It is submitted to the Hon'ble Commission that allocation of O&M Expenses , Interest and Finance charges and Non Tariff Income for the Board for FY 2011-12 has been shown below-

Table 1: Allocation

| Parameters | Allocation for Distribution |
|-------------------|---|
| A&G Expense | i) The actual expense as evident from Trial Balance of provisional accounts for FY 2011-12. <i>Add-</i> ii) Common costs which have been allocated based on the %age of actual A&G expense for Distribution function over the total A&G for all functions |
| R&M Expense | i) The actual expense as evident from Trial Balance of provisional accounts for FY 2011-12. <i>Add-</i> ii) Common costs which have been allocated based on the %age of actual R&M expense for Distribution function over the total R&M for all functions |
| Employee Expense | i) The actual expense as evident from Trial Balance of provisional accounts for FY 2011-12. <i>Add-</i> ii) Common costs which have been allocated based on the %age of actual Employee expense for Distribution function over the total Employee Expenses for all functions |
| Interest on Loan | i) The actual expense as evident from Trial Balance of provisional accounts for FY 2011-12. <i>Add-</i> ii) Common costs which have been allocated based on the %age of actual Interest & Finance Charges for Distribution function over the total Interest & Finance Charges for all functions |
| Non Tariff Income | i) The actual income as evident from Trial Balance of provisional accounts for FY 2011-12. <i>Add-</i> |



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ii) Common income which have been allocated based on the %age of actual NTI for Distribution function over the total NTI for all functions

2.4.2 Further computation of the above allocation is shown below-

Table 2: Allocation of O&M Expenses

| O&M | G(T) | G(H) | T | D | JSEB |
|-------------------|---------------|--------------|--------------|---------------|---------------|
| A&G Expenses | 20.23 | 1.00 | 3.46 | 34.87 | 59.57 |
| R&M Expenses | 12.59 | 2.62 | 10.11 | 27.05 | 52.38 |
| Employee Expenses | 69.31 | 9.44 | 28.57 | 178.71 | 286.04 |
| Total | 102.14 | 13.06 | 42.15 | 240.64 | 397.99 |

Table 3: Allocation of Non Tariff Income

| Particulars | G(T) | G(H) | T | D | Common |
|-----------------------------|-------------|-------------|-------------|--------------|--------|
| NTI | 3.92 | 0.05 | 3.44 | 191.17 | 12.68 |
| Less : 90 % DPS | | | | 156.43 | |
| NTI after DPS | 3.92 | 0.05 | 3.44 | 34.74 | 12.68 |
| Allocation % | 9.29% | 0.12% | 8.16% | 82.43% | |
| NTI after allocation | 5.09 | 0.06 | 4.47 | 45.20 | |

Table 4: Allocation of Interest & Finance Charges

| Particulars | G(T) | G(H) | T | D | Common | JSEB |
|-----------------------------|--------------|-------------|--------------|---------------|--------|---------------|
| IFC | 2.85 | 0.50 | 6.97 | 48.24 | 480.52 | 539.09 |
| Allocation % | 4.87% | 0.85% | 11.90% | 82.38% | | |
| NTI after allocation | 26.25 | 4.60 | 64.16 | 444.07 | | 539.09 |



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| Sr. | Elements of ARR | Assumption in FY 2012-13 | Assumption in Control Period |
|-----|---------------------|--|--|
| 1 | Distribution Loss | In accordance with the actual power purchase till November FY 2012-13, projected sales quantum for FY 2012-13 and expected loss for remaining four months for FY 2012-13; | In accordance with the JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2010; |
| 2 | Power Purchase | <p>Non-Renewable: As per existing and expected new Power Purchase cost and demand in the licensed area;</p> <p>Renewable: Purchase of Renewable Energy Certificates (RECs) to meet RPO Obligations of 4% (Solar @1.00% and Non-Solar @3.00%);</p> | <p>Non-Renewable: As per JSERC (Renewable Purchase Obligation and its Compliance- First Amendment) Regulations, 2012;</p> <p>Renewable: Purchase of Renewable Energy Certificates (RECs) to meet RPO Obligations of - 4% (Solar @1.00% and Non-Solar @3.00% for FY 2013-14) - 5% (Solar @1.50% and Non-Solar @3.50% for FY 2013-14) - 6% (Solar @2.00% and Non-Solar @4.00% for FY 2013-14)</p> |
| 3 | O&M Cost | <p>Employee Expenses: Escalated by Inflation Factor of 8.64% over FY 2011-12;</p> <p>A&G: Escalated by Inflation Factor of 8.64% over FY 2011-12;</p> <p>R&M Expenses: In Proportion of the <i>Opening</i> GFA for the Distribution function;</p> | In accordance with the JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2010; |
| 4 | Capital Expenditure | As per capital expenditure planned by the petitioner and carried forward schemes of previous year; | As per capital expenditure planned by the petitioner and carried forward schemes of previous year; |



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| Sr. | Elements of ARR | Assumption in FY 2012-13 | Assumption in Control Period |
|-----|------------------------------|--|--|
| 5 | Capitalisation | In accordance with the projected expenditure on existing and new schemes. | In accordance with the projected expenditure on existing and new schemes. |
| 6 | Debt-Equity Ratio | In the ratio of 70:30 as specified by the Hon'ble Commission JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2010; | In the ratio of 70:30 as specified by the Hon'ble Commission JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2010; |
| 7 | Depreciation | As per JSERC (Terms and Conditions for Distribution Tariff) Regulations 2010. | As per JSERC (Terms and Conditions for Distribution Tariff) Regulations 2010. |
| 8 | Interest on Loans | As specified in JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2010 i.e. Interest rate to be taken as SBI PLR as on 1 st April of the FY | As specified in JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2010 i.e. Interest rate to be taken as SBI PLR as on 1 st April of the FY |
| 9 | Interest on Security Deposit | As per specified by the Commission in 'Jharkhand Electricity Supply Code Regulations, 2005'. | As per specified by the Commission in 'Jharkhand Electricity Supply Code Regulations, 2005'. |
| 10 | Return on Equity | As per JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2010 i.e. 15.5% (post tax), 22.94% (pre-tax) | As per JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2010 i.e. 15.5% (post tax), 22.94% (pre-tax) |
| 11 | Non Tariff Income | Disaggregated based on the nature of the income that is attributable to each function. | Disaggregated based on the nature of the income that is attributable to each function. |
| 13 | Revenue Projections | As per tariffs approved by Commission in FY 2012-13 T.O. | In accordance with projected sales and proposed tariff for FY 14. |



Petition for True-up for FY 2011-12, APR for FY 2012-13 & MYT Petition for the Control Period and Tariff Proposal for FY 2013-14 – JSEB (Distribution)

3. TRUING UP FOR FY 2011-12

3.1 Background

3.1.1 JSEB in its previous petitions had submitted the provisional figures of ARR for the year FY 2011-12. Now, JSEB in this chapter submits the actual performance based on the provisional accounts for true up. This chapter summarizes each of the components of ARR for FY 2011-12 and requests the Hon'ble Commission to true - up the ARR for FY 2011-12 and the resultant gap to be recovered through tariffs to be determined for FY 2013-14.

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

3.2 Sales

3.2.1 The Hon'ble Commission had approved total sales for FY 2011-12 at **7,195.80** MUs, however the actual sales for FY 2011-12 are **6,498.19 MUs**. The category wise details for FY 2011-12 have been shown in the below for perusal of the Hon'ble Commission

Table 5: Sales for FY 2011-12

| Description | FY 2011-12 | |
|--------------------|-----------------|-----------------|
| | Approved | Provisional |
| Domestic | 3063.42 | 2483.32 |
| Non Domestic | 372.03 | 339.84 |
| Low Tension | 163.75 | 193.36 |
| Irrigation | 70.43 | 64.78 |
| HT Service | 2292.07 | 1560.18 |
| HT Special Service | | 632.66 |
| Street Light | 158.66 | 131.69 |
| Railway | 653.47 | 641.20 |
| MES | 16.63 | 15.74 |
| Interstate Sales | 405.53 | 435.41 |
| Total | 7,195.99 | 6,498.19 |

3.2.2 The Hon'ble Commission is requested to approve the sales for FY 2011-12 at **6,498.19 MUs**.

3.3 Energy Balance

3.3.1 The Energy Balance for FY 2011-12 is provided in the table below.



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Table 6 : Energy Balance for FY 2011-12

| Particulars | Actual |
|--|-----------------|
| Power Purchase from Outside JSEB Boundary | 4,653.38 |
| Loss in external systems (%) | 3.04% |
| MU's lost in external system | 141.46 |
| Net Outside State Power Purchase | 4,511.91 |
| Energy Input Directly to State Transmission System | 1,047.83 |
| Own Generation | 634.95 |
| UI Payable | 228.06 |
| Energy available for onward transmission | 6,422.76 |
| Transmission loss (%) | 5.00% |
| Transmission loss (MUs) | 321.14 |
| Net Energy Sent to Distribution (MUs) | 6,101.62 |
| Direct input at distribution voltage (33 kV + 11 kV) | 3,423.98 |
| Total Energy Available | 9,525.60 |
| Inter state sales (MUs) | 435.41 |
| Sales (MUs) | 6,498.19 |
| Distribution loss (MUs) | 3,027.41 |
| Distribution loss (%) | 31.78% |
| Overall T&D Losses | 34.94% |

3.3.2 As seen from the table, the transmission loss for FY 2011-12 is 5% and the distribution loss comes out to be around **31.78%**. The overall T&D loss comes out to be around **34.94%** for FY 2011-12.

3.3.3 Although, the distribution loss is high, JSEB time and again has been putting efforts in order to reduce the same.

3.3.4 Some of the efforts undertaken have been highlighted below-

3.3.4.1 Introduction of input based **Urban Franchisees** in 2 circles (Ranchi & Jamshedpur). The franchisees have already been appointed by transparent bidding process.

3.3.4.2 The distribution infrastructure will be maintained by the franchisees and will be continuously monitored by the Board, thus it is expected that losses shall be curtailed to a great extent.

3.3.4.3 Introduction of Collection based **Rural Franchisees** in 12 subdivisions of JSEB's license area. This will help in improving collection efficiency to great extent.



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3.3.4.4 Also, R-APDRP work is currently underway in 30 towns and benefits shall accrue to JSEB in a very near future.

3.3.5 Some of the other initiatives to reduce T&D losses are stated below

- Tele-metering for HT and LT industrial consumers
- Conversion of LT line into Arial Bunch Cable (ABC)
- Energy accounting and audit under R-APDRP scheme
- Routine maintenance of distribution transformers and power transformers to control technical loss;
- Tightening of jumpers at power substations
- Replacement of gas kit to avoid oil flow from transformer on regular basis
- Strengthening of HT and LT Lines
- Shortening of LT lines by providing additional pole between the span to maintain HT-LT ratio.

3.3.6 Also some of the other efforts to reduce distribution losses undertaken by petitioner are by metering of consumers, introduction of AMR/ Remote Metering, introducing spot billing, undertaking network up-gradation/ improvement projects

3.3.7 Further, in order to meet the demand, JSEB has been procuring power from various sources viz NTPC, NHPC, PTC & Own Generation (Patratu & Sikhidri) etc.

3.3.8 It is requested to the Hon'ble Commission to kindly approve the energy balance for FY 2011-12 as per actual figures.

3.4 Power Purchase Cost

3.4.1 For the year FY 2011-12, JSEB has procured power from various sources viz Central Sector and from other sources such as DVC, TVNL & WBSEB etc. The power purchase quantum from outside JSEB boundary is around **4,653.38 MUs** for the year FY 2011-12.

3.4.2 The net energy available for onward transmission is **6,422.76 MUs** which includes energy of around **635 MUs** from JSEB's own generation for FY 2011-12.



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3.4.3 Thus, the total power purchase quantum excluding own generation for the year FY 2011-12 for the distribution function is **9,353.25 MUs** as against **9,333.95 MUs** approved by Hon'ble Commission.

3.4.4 It can be seen that power procured by JSEB is more than what had been approved by the Hon'ble Commission on account of the growing demand which needs to be catered and JSEB is trying their best to ensure that consumers are provided with uninterrupted and reliable power supply. The table below shows the power purchase quantum for the year FY 2011-12-

Table 7 : Power Purchase Quantum for FY 2011-12

| Power Purchase for FY 2011-12 (MUs) | | |
|--|-------------------|-----------------------------|
| Particulars | Approved | Prov. Annual Account |
| | FY 2011-12 | FY 2011-12 |
| NTPC | | |
| Farrakka | 901.77 | 890.89 |
| Khalagaon I | 204.48 | 204.48 |
| Talcher | 539.09 | 549.96 |
| Khalagaon II | 125.01 | 125.01 |
| Total | 1,770.35 | 1,770.34 |
| NHPC | | |
| Rangit | 45.48 | 45.48 |
| Teesta | 310.59 | 311.79 |
| Total | 356.07 | 357.27 |
| PTC | | |
| Chukha | 184.11 | 184.11 |
| Tala | 390.41 | 390.41 |
| Total | 574.52 | 574.51 |
| Total Central Sector | 2,700.94 | 2,702.13 |
| DVC | 3,300.12 | 3,412.45 |
| WBSEB | 51.92 | 11.17 |
| TVNL | 2,164.66 | 2,043.60 |
| DVC STOA | 877.68 | 879.12 |
| PGCIL | - | - |
| Posoco (ERLDC) | - | - |
| UI Payable | 207.35 | 228.06 |
| PTC STOA | 28.00 | 48.45 |
| NVVN STOA | | 3.28 |
| Solar | - | 0.36 |
| Banking of Power (PTC) | | 24.64 |
| Others | 3.28 | - |
| RPO | | - |
| Total Purchase | 9,333.95 | 9,353.25 |
| Own Generation | 600.95 | 634.95 |
| Net Power Generation | 9,934.90 | 9,988.20 |
| Disincentive for non achievement of T&D loss | 1,146.07 | - |
| Power Purchase allowed | 8,788.83 | 9,988.20 |



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3.4.5 The power purchase cost for the **9,353.25 MUs** works out to be **Rs. 3,051.77 Crs** (as per provisional accounts) as against **Rs. 2,824.90 Crs** approved for the year FY 2011-12. The average Power Purchase rate as per the annual accounts comes to around **Rs. 3.26 /unit** for FY 2011-12. The table below shows the power purchase cost for the year FY 2011-12:

Table 8 : Power Purchase Cost for FY 2011-12

| Power Purchase for FY 2011-12 (Rs.Crs) | | |
|---|-------------------|-----------------------------|
| Particulars | Approved | Prov. Annual Account |
| | FY 2011-12 | FY 2011-12 |
| NTPC | | |
| Farrakka | 447.83 | 377.74 |
| Kahalgaon I | 93.56 | 78.24 |
| Talcher | 156.13 | 156.01 |
| Kahalgaon II | 54.28 | 48.12 |
| Total | 751.80 | 660.12 |
| NHPC | | |
| Rangit | 6.92 | 60.26 |
| Teesta | 41.63 | |
| Total | 48.55 | 60.26 |
| PTC | | |
| Chukha | 33.95 | 118.15 |
| Tala | 71.84 | |
| Total | 105.79 | 118.15 |
| Total Central Sector | 906.14 | 838.52 |
| DVC | 1,451.55 | 1,554.47 |
| WBSEB | 37.14 | 8.53 |
| TVNL | 517.35 | 488.42 |
| DVC STOA | 243.12 | |
| PGCIL | 74.90 | |
| Posoco (ERLDC) | 17.26 | 19.75 |
| UI Payable | (31.03) | 76.41 |
| PTC STOA | 10.00 | |
| NVVN STOA | - | 1.30 |
| Solar | - | 0.65 |
| Banking of Power (PTC) | | |
| Others | 1.28 | |
| RPO | - | |
| Transmission Charges | | 63.72 |
| Total Purchase | 3,227.71 | 3,051.77 |
| Disincentive for non achievement of T&D loss | 402.81 | - |
| Total Power Purchase Cost | 2,824.90 | 3,051.77 |



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3.4.6 The increase in Power Purchase cost is mainly due to increase in coal prices. The Hon'ble Commission is requested to approve the Power Purchase Cost for the FY 2011-12 at **Rs. 3,051.77 Crs** which is based on the provisional annual accounts.

3.5 Operation & Maintenance Expenses

3.5.1 Operation & Maintenance Expenses consists of three elements viz Employee Expenses, A&G Expense and R&M Expense:

- Employee expenses comprise of salaries, dearness allowance, bonus, terminal benefits in the form of pension & gratuity, leave encashment and staff welfare expenses
- Administrative expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.
- Repairs and Maintenance Expenses go towards the day to day upkeep of the distribution network of the Board and form an integral part of the Board's efforts towards reliable and quality power supply as also in the reduction of losses in the system.

3.5.2 The **Employee Expense** for the whole of JSEB for the year FY 2011-12 is around Rs. **286.04 Crs** as per the annual accounts. For the allocation of employee expense, JSEB has allocated the Employee Expense as per **Clause 2.4 of Chapter 2** of this petition.

3.5.3 Hence, the employee expense for Distribution function of JSEB works out to be **Rs. 178.71 Crs**. Similarly, for **A&G expense & R&M expenses** the same methodology is used as per **Clause 2.4 of Chapter 2** of this petition. Thus A&G expense for Distribution function for FY 2011-12 comes to **Rs. 34.87 Crs** and R&M expense for Distribution function for FY 2011-12 comes out at **27.05 Crs**.

3.5.4 Based on the foregoing paragraphs, O&M expense for the Distribution Function for FY 2011-12 has been calculated at **Rs. 240.64 Crs** as against **Rs. 324.31 Crs** approved by the Hon'ble Commission which is shown in the table below:



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Table 9 : O&M Expense for Distribution for FY 2011-12

| O&M Expense | | |
|------------------|---------------|----------------------|
| Particulars | Approved | Prov. Annual Account |
| | FY 2011-12 | FY 2011-12 |
| Employee Expense | 265.44 | 178.71 |
| A&G Expense | 33.24 | 34.87 |
| R&M Expense | 25.63 | 27.05 |
| Total | 324.31 | 240.64 |

3.5.5 The Hon'ble Commission is requested to approve the O&M Expenses for the Distribution Function FY 2011-12 at **Rs. 240.64 Crores** which is based on Provisional Annual Accounts of JSEB and the methodology adopted.

3.6 CWIP, GFA and Depreciation

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

Table 10 : CWIP, GFA and Depreciation for FY 2011-12

| CWIP for FY 2011-12 | | |
|------------------------|-----------------|----------------------|
| Particulars | Approved | Prov. Annual Account |
| | FY 2011-12 | FY 2011-12 |
| Opening CWIP | 891.51 | 1,256.54 |
| Add: Capex during year | 977.85 | 122.41 |
| Total CWIP | 1,869.36 | 1,378.95 |
| Less: Trfd to GFA | 467.34 | 75.95 |
| Closing CWIP | 1,402.02 | 1,303.00 |

3.6.2 As seen from the table above, the closing CWIP differs from that approved by the Hon'ble Commission as the Capital Expenditure incurred during the year FY 2011-12 is around **Rs. 122.41 Crs.** This Capex pertains to the expenses carried under the Annual Development, R-APDRP and RGGVY for the year FY 2011-12.

3.6.3 The depreciation has been calculated on Straight Line Method as prescribed in the Tariff Regulations issued by Hon'ble Commission. The depreciation for the Distribution Function comes to around Rs. **85.95 Crs.** The average rate of depreciation as a percentage of the Opening GFA for the year FY 2011-12 works out to 7%.



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Table 11 : GFA of Distribution Function for FY 2011-12

| GFA & Depreciation (Rs.Crs) | | |
|-----------------------------|------------|----------------------|
| Particulars | Approved | Prov. Annual Account |
| | FY 2011-12 | FY 2011-12 |
| Opening GFA | 1,155.73 | 1,155.73 |
| Addition: from CWIP | 467.34 | 75.95 |
| Closing GFA | 1,623.07 | 1,231.68 |
| Depreciation | 48.52 | 85.95 |
| Rate of Depreciation | 3% | 7% |

3.7 Interest and Finance Charges

3.7.1 JSEB has categorized interest on loan, interest on working capital and interest on security under this head.

3.8 Interest on Loan

3.8.1 The Hon'ble Commission had considered average balance of Normative Loan for the distribution function at **Rs. 227 Crs.** The deemed repayments for normative loans had been considered equivalent of the net depreciation cost of the financial year and the deemed additions during the year as the balancing figure.

Table 12 : Interest on loan for FY 2011-12

| Interest on Loan (Rs.Crs) | | |
|---------------------------|------------|----------------------|
| Particulars | Approved | Prov. Annual Account |
| | FY 2011-12 | FY 2011-12 |
| Interest Amount | 13.90 | 444.07 |

3.8.2 However the petitioner would like to submit to the Hon'ble Commission that the actual interest on Loan for the petitioner computes at Rs. **444.07 Crs.** as per provisional accounts for FY 2011-12. The allocation for interest on Loan is done as per **Clause 2.4** of the **Chapter 2** of this petition.

3.8.3 The Hon'ble Commission is requested to approve the amount of **Rs. 444.07 Crs** as Normative Interest Amount as shown above.



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3.9 Interest on Security Deposit

3.9.1 The security deposit in JSEB pertains to the distribution functions wholly. The provision for Interest on Security Deposit for FY 2011-12 has been made based on the prevailing RBI Bank Rate. This is in accordance with Jharkhand Electricity Supply Code Regulations, 2005. However, the RBI Bank Rate upto 15th Feb 2012 is 6.00% per annum and the RBI Bank Rate upto 31st March 2012 is at 9.50%. Accordingly, JSEB has calculated Interest on Security Deposit considering the mentioned rates at **Rs. 21.82 Crs** for FY 2011-12.

Table 13 : Interest on Security Deposit for FY 2011-12

| Interest on Security Deposit (Rs. Crs) | | |
|--|--------------|----------------------|
| Particulars | Approved | Prov. Annual Account |
| | FY 2011-12 | FY 2011-12 |
| Opening Security Deposit | | 221.70 |
| Security Deposit received | | 34.05 |
| Closing Security Deposit | | 255.75 |
| Average Security Deposit | | 238.72 |
| Rate of Interest : Bank Rate upto 15 Feb | 6% | 6% |
| Int. on Sec Deposit upto 15th Feb | - | 12.56 |
| Rate of Interest : Bank Rate upto 31st Mar | 9.50% | 9.50% |
| Int. on Sec Deposit upto 31st Mar | - | 2.80 |
| | | |
| Interest on Security Deposit | 14.50 | 15.35 |

3.9.2 The Hon'ble Commission is requested to approve Interest on Security Deposit computed at **Rs. 15.35 Crs** for the year FY 2011-12.

3.10 Interest on Working Capital

3.10.1 The petitioner has computed Interest on Working Capital as per **Clause 6.26** of Distribution Tariff Regulations 2010 which reads –

“Working capital for the Distribution Business of electricity for the Transition Period shall consist of:

- a) *One-twelfth of the amount of Operation and Maintenance expenses for such financial year; plus*
- b) *Maintenance spares at 1% of Opening GFA; plus*



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c) Two months equivalent of the expected revenue from sale of electricity at the prevailing tariffs; minus

d) Amount held as security deposits under clause (a) and clause (b) of subsection (1) of Section 47 of the Act from consumers and Distribution System Users; minus

e) One month equivalent of cost of power purchased, based on the annual power procurement plan”

3.10.2 Accordingly, Interest on Working capital for FY 2011-12 for distribution function computes at Rs. **9.83** Crs , the details have been furnished below-

Table 14: Interest on Working Capital

| Interest on Working Capital (Rs.Crs) | | |
|--|------------|----------------------|
| Particulars | Approved | Prov. Annual Account |
| | FY 2011-12 | FY 2011-12 |
| O&M Expenses (1 Month) | | 20.05 |
| Maintenance Spares (1% of Opening GFA) | | 11.56 |
| Expected Revenue at Existing Tariff (2 Months) | | 638.72 |
| Less: | | |
| Power Purchase Cost (1 Month) | | 254.31 |
| Security Deposit | | 238.72 |
| Total Working Capital | - | 177.30 |
| Rate of Interest on Working Capital | 13% | 13% |
| Total Interest on Working Capital | - | 23.05 |

3.11 Interest and Finance Charges

3.11.1 Accordingly, the total Interest and Finance Charges for FY 2011 -12 are tabulated as below

Table 15 : Interest and Finance Charges for FY 2011-12

| Interest on Finance Charges (Rs.Crs) | | |
|---|--------------|----------------------|
| Particulars | Approved | Prov. Annual Account |
| | FY 2011-12 | FY 2011-12 |
| Interest on Actual Loan | 13.90 | 444.07 |
| Interest on Working Capital | - | 23.05 |
| Interest on Security Deposit | 14.50 | 15.35 |
| Total Interest & Finance Charges | 28.40 | 482.48 |



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3.11.2 It is requested to the Hon'ble Commission to approve the Interest and Finance Charges amounting to **Rs. 482.48 Crs** for FY 2011-12 in true-up process.

3.12 Reasonable Rate of Return on Equity

3.12.1 As per the Distribution Tariff Regulations 2010, the Return on Equity for the Transition Period shall be considered at 15.5% (post tax). In line with the regulation, JSEB has computed the Return on Equity considering a rate of return at 15.5% as approved by the Hon'ble Commission in its Tariff order.

3.12.2 The opening equity has been considered as approved by the Hon'ble Commission in its Tariff Order. The closing equity has been considered at 30% of GFA less the Consumer Contribution. The Return on Equity approved by the Hon'ble Commission in its Tariff Order and as computed by JSEB for FY 2011-12 is summarised in the table below:

Table 16 : Reasonable Rate of Return for FY 2011-12

| Return on Equity (Rs.Crs) | | |
|---------------------------|---------------|----------------------|
| Particulars | Approved | Prov. Annual Account |
| | FY 2011-12 | FY 2011-12 |
| Opening Equity | 80.76 | 80.76 |
| Additions during the year | 124.49 | 53.97 |
| Closing Equity | 205.25 | 134.73 |
| Average Equity | 143.00 | 107.74 |
| Return on Equity (%) | 15.50% | 15.50% |
| Total | 22.17 | 16.70 |

3.12.3 The Hon'ble Commission is requested to approve the RoE for Distribution function at **Rs. 16.70 Crs.**

3.13 Non Tariff Income

3.13.1 The Non-Tariff Income includes Delayed Payment Surcharge, interest on staff loans, income from investment, income from trading, interest from banks etc. The amount of Non-Tariff Income for FY 2011-12 for the Distribution Function, as per provisional annual accounts is **Rs. 45.20 Crs** as against **Rs. 239.72 Crs** approved by the Hon'ble Commission.



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3.13.2 While working out the Non Tariff Income, JSEB has disaggregated the Non Tariff Income based on the nature of the income that is attributable to each function. The details have been provided in the **Clause 2.4** of **Chapter 2** of this petition.

3.13.3 It is requested to the Hon'ble Commission to kindly approve the same for FY 2011-12.

3.14 Summarized ARR and Revenue Gap for FY 2011-12

3.14.1 Based on the foregoing paragraphs, the ARR for the Distribution Function of JSEB for FY 2011-12 is shown in the table below:

Table 17 : Aggregate Revenue Requirement for FY 2011-12

| ARR for Distribution Business | | |
|--------------------------------------|-------------------|-----------------------------|
| Particulars | Approved | Prov. Annual Account |
| | FY 2011-12 | FY 2011-12 |
| Power Purchase Expense | 2,824.90 | 3,051.77 |
| O&M Expense | 324.31 | 240.64 |
| <i>Employee Expense</i> | 265.44 | 178.71 |
| <i>A&G Expense</i> | 33.24 | 34.87 |
| <i>R&M Expense</i> | 25.63 | 27.05 |
| Interest and Finance Charges | 28.40 | 482.48 |
| Depreciation | 48.52 | 85.95 |
| Less: Disincentive for T&D Loss | - | - |
| Total Expenditure | 3,226.13 | 3,860.84 |
| Add: Reasonable Return on Equity | 22.17 | 16.70 |
| Less: Non Tariff Income | 239.72 | 45.20 |
| Aggregate Revenue Requirement | 3,008.58 | 3,832.34 |

3.15 Total ARR for JSEB

3.15.1 The revenue from sale of power to the consumers is around **Rs. 2,122.64 Crs** (exclusive of Inter State Sales) as per the annual accounts for FY 2011-12.

3.15.2 Also, **Clause 7.66** of the Tariff Order reads-

“The Commission has not computed the revenue gap for the Petitioner for FY 2011-12 on provisional basis. The revenue gap for FY 2011-12 along with the carrying cost, shall be computed and allowed by the Commission in the tariff for the next financial



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year when the audited accounts for FY 2011-12 are made available by the Petitioner.”

3.15.3 The petitioner feels that it has been deprived of the revenue it was eligible in earlier years due to which there has been revenue gap in the true-up process. Accordingly petitioner hereby claims the carrying cost on the unrecovered revenue gap for FY 2011-12.

Table 18: Computation of Carrying Cost for FY 2011-12

| Particulars | Months | Rate | Rs. Crs |
|----------------------------|--------|--------|----------|
| Revenue Gap for FY 2011-12 | | | 2,013.37 |
| Interest for FY 2012-13 | 12.00 | 14.75% | 296.97 |

3.15.4 The Hon’ble Commission is requested to allow the revenue gap of Rs. **2013.37** Crs for FY 2011-12 including Carrying Cost thereof at **Rs. 296.97 Crs.**

3.15.5 Further, the ARR for the whole of JSEB and the resultant gap is shown in the following table for FY 2011-12:

Table 19 : Aggregate Revenue Requirement - JSEB for FY 2011-12

| ARR for JSEB | | |
|---------------------------------------|-----------------|----------------------|
| Particulars | Approved | Prov. Annual Account |
| | FY 2011-12 | FY 2011-12 |
| Generation ARR (Thermal) | 245.92 | 238.65 |
| Generation ARR (Hydro) | 19.43 | 22.27 |
| Transmission ARR | 133.12 | 148.83 |
| Distribution ARR | 3,008.58 | 3,832.34 |
| Total ARR | 3,407.05 | 4,242.09 |
| Revenue from Sale of Power | 2,468.67 | 2,122.64 |
| | | |
| Revenue from inter-state sales | 83.13 | 106.08 |
| Revenue Gap | 855.25 | 2,013.37 |
| Carrying Cost | | 296.97 |
| Total Gap | | 2,310.34 |



4. PERFORMANCE REVIEW OF FY 2012-13

4.1 Background

4.1.1 JSEB in this chapter submits the performance based on the performance of JSEB for the corresponding year. This chapter summarizes each of the components of ARR for FY 2012-13 and requests the Hon'ble Commission to review the performance for FY 2012-13 and the resultant gap to be recovered through tariffs to be determined for FY 2013-14.

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

4.2 Sales

4.2.1 The petitioner has estimated category-wise sales for FY 2012-13 by analyzing the past trends of consumption of different category of consumers.

4.2.2 It has been observed from the past experience that the trend analysis based on historical data has proved to be reasonably accurate for estimating the load, number of consumers and energy consumption. In light of the above, the petitioner has estimated the above for various consumer categories primarily based on the CAGR trends observed during past years. Wherever the trend has seemed unreasonable or unsustainable, the growth factors have been appropriately modified by JSEB, to arrive at more realistic projections.

4.2.3 The petitioner has thereafter applied category wise growth rates derived from the trend analysis on the actual sales figures on for the FY 2011-12 to project the category-wise sales figures for FY 2012-13, and this method has been continued to derive the sales figure till FY 2015-16. For all the categories, the petitioner has considered Compounded Annual Growth Rate (CAGR).

4.2.4 The Table below shows details of Sales for various categories of consumers as per methodology enumerated above.



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| Description | FY 2012-13 |
|--------------------|------------|
| Domestic | 3,335.00 |
| Non Domestic | 428.00 |
| Low Tension | 149.72 |
| Irrigation | 72.89 |
| HT Service | 1,627.00 |
| HT Special Service | 674.93 |
| Street Light | 216.39 |
| Railway | 681.92 |
| MES | 14.15 |
| Total | 7,200.00 |

4.3 Consumers & Connected Load

4.3.1 JSEB has estimated number of consumers for FY 2012-13 based on the actual increase in number of consumers during first eight months of the FY 2012-13 and also considering the applications being processed during the balance four months of the FY 2012-13.

4.3.2 The details of the estimated category wise number of consumers for FY 2012-13 have been shown in the table below

| Description | FY 2012-13 |
|--------------------|------------|
| Domestic | 2153261 |
| Non Domestic | 132851 |
| Low Tension | 13407 |
| Irrigation | 29853 |
| HT Service | 1565 |
| HT Special Service | 54 |
| Street Light | 532 |
| Railway | 13 |
| MES | 7 |
| Total | 2331543 |

4.3.3 Based on the addition of new consumers during first eight months of the FY 2012-13 and the pending load for release, the category wise connected load is provided in the table below for FY 2012-13.



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| Description | FY 2012-13 |
|--------------------|----------------|
| Domestic | 2331000 |
| Non Domestic | 380100 |
| Low Tension | 295916 |
| Irrigation | 42997 |
| HT Service | 590558 |
| HT Special Service | 145734 |
| Street Light | 21681 |
| Railway | 186007 |
| MES | 5848 |
| Total | 3999841 |

4.4 Energy Balance

- 4.4.1 As seen from the table below, the transmission loss for FY 2011-12 is estimated at 5% and the distribution loss is estimated to be around **25.70%**. The overall T&D loss is estimated to be around **29.39%** for FY 2012-13.
- 4.4.2 Further, in order to meet the demand, JSEB has been procuring power from various sources viz NTPC, NHPC, PTC & Own Generation (Patratu & Sikhidri) etc.
- 4.4.3 It is requested to the Hon'ble Commission to kindly approve the energy balance for FY 2011-12 as per actual figures.

Table 20 : Energy Balance for FY 2012-13

| <i>Particulars</i> | <i>Estimated</i> |
|--|------------------|
| Power Purchase from Outside JSEB Boundary | 4,714.69 |
| Loss in external systems (%) | 3.04% |
| MU's lost in external system | 143.33 |
| Net Outside State Power Purchase | 4,571.37 |
| Energy Input Directly to State Transmission System | 1,204.23 |
| Own Generation | 549.66 |
| UI Payable | 50.00 |
| Energy available for onward transmission | 6,375.26 |
| Transmission loss (%) | 5.00% |
| Transmission loss (MUs) | 318.76 |
| Net Energy Sent to Distribution (MUs) | 6,056.49 |
| Direct input at distribution voltage (33 kV + 11 kV) | 3,678.48 |
| Total Energy Available | 9,734.98 |
| Inter state sales (MUs) | |
| Sales (MUs) | 7,200.00 |
| Distribution loss (MUs) | 2,534.98 |
| Distribution loss (%) | 26.04% |
| Overall T&D Losses | 29.39% |



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4.4.4 It is requested to the Hon'ble Commission to kindly approve the energy balance for FY 2012-13 as per revised estimates.

4.5 Power Purchase Cost

4.5.1 For the year FY 2012-13, The Board has firm allocations of power from thermal power plants of NTPC, TVNL and DVC, Hydel Power Plants of NHPC and through PTC. In addition to these sources, the Petitioner also has an interconnection point with the WBSEB from where it draws power and it also has a short-term allocation of 100 MW from DVC which is available on Round the Clock (RTC) basis.

4.5.2 The power purchase quantum from outside JSEB boundary is estimated at around **4,714.69 MUs** for the year FY 2012-13.

4.5.3 The net energy available for onward transmission is estimated at **6,375.26 MUs** which includes energy of around **549.66 MUs** from JSEB's own generation for FY 2011-12.

4.5.4 Thus, the total power purchase quantum excluding own generation for the year FY 2011-12 for the distribution function is estimated at **9,648.38 MUs**.

4.5.5 It can be seen that power procured by JSEB is more than what had been approved by the Hon'ble Commission on account of the growing demand which needs to be catered and JSEB is trying their best to ensure that consumers are provided with uninterrupted and reliable power supply.

4.5.6 It is submitted to the Hon'ble Commission that the cost of power from each source for the FY 2012-13 has been based on the actual cost incurred/bills received for the period April'2012 to November'2012 and for the remaining four months the projections has been made based on the growth in power purchase;

4.5.7 The table below shows the power purchase quantum for the year FY 2012-13



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Table 21 : Power Purchase Quantum for FY 2012-13

| Power Purchase for FY 2012-13 (MUs) | | | |
|--|------------------|------------------|-------------------|
| Particulars | Projected | Approved | Revised Est. |
| | FY 2012-13 | FY 2012-13 | FY 2012-13 (Prov) |
| NTPC | | | |
| Farrakka | 1,340.63 | | 940.91 |
| Khalagaon I | 517.18 | | 163.03 |
| Khalagaon II | 231.15 | | 124.47 |
| Talcher | 791.17 | | 452.40 |
| Farrakka III | - | - | 183.78 |
| Total | 2,880.13 | 2,587.82 | 1,864.58 |
| NHPC | | | |
| Rangit | 40.44 | 40.44 | 45.36 |
| Teesta | 293.21 | 293.21 | 315.31 |
| Total | 333.65 | 333.65 | 360.67 |
| PTC | | | |
| Chukha | 318.89 | 257.89 | 190.51 |
| Tala | 408.68 | 408.68 | 399.54 |
| Total | 727.57 | 666.57 | 590.05 |
| Total Central Sector | 3,941.35 | 3,588.04 | 2,815.30 |
| DVC | 3,378.67 | 3,378.67 | 3,624.79 |
| WBSEB | - | - | 38.31 |
| TVNL | 2,344.76 | 2,344.76 | 2,200.00 |
| DVC (ST) | 877.68 | 877.68 | 876.75 |
| PTC (ST) | | 61.00 | 71.71 |
| PGCIL | - | - | - |
| Posoco (ERLDC) | - | - | |
| UI Payable | 237.11 | - | 50.00 |
| Solar | 107.22 | 143.85 | 15.38 |
| Banking | | | (44.84) |
| Others | 324.93 | 3.28 | 0.97 |
| Other Renewables | | 529.00 | |
| Total Purchase | 11,211.72 | 10,926.28 | 9,648.38 |
| Own Generation | - | 906.45 | 549.66 |
| Net Power Purchase (including own generation) | 11,211.72 | 11,832.73 | 10,198.04 |
| UI Recievable | - | | 401.22 |
| Power Purchase allowed | 11,211.72 | 10,112.90 | 9,796.82 |

4.5.8 The power purchase cost for the **9,796.82 MUs** works out to be **Rs. 3,791.37 Crs** as against **Rs. 3717 Crs** approved for the year FY 2012-13. The unit Power Purchase rate is estimated at **Rs. 3.87/unit** for the year FY 2012-13. The table below shows the power purchase cost for the year FY 2012-13:



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Table 22 : Power Purchase Cost for FY 2012-13

| Power Purchase (Rs.Crs) | | | |
|---|-----------------|-----------------|-----------------|
| Particulars | Projected | Approved | Revised Est. |
| | FY 2012-13 | FY 2012-13 | FY 2012-13 |
| NTPC | | | |
| Farrakka | 919.09 | 665.77 | 399.89 |
| Khalagaon I | 397.91 | 236.64 | 61.95 |
| Khalagaon II | 129.89 | 100.36 | 48.29 |
| Talcher | 301.73 | 242.88 | 122.56 |
| Farrakka III | - | - | 85.45 |
| Total | 1,748.62 | 1,245.65 | 718.14 |
| NHPC | | | |
| Rangit | 5.56 | 5.56 | 16.33 |
| Teesta | 34.81 | 34.81 | 94.59 |
| Total | 40.37 | 40.37 | 110.92 |
| PTC | | | |
| Chukha | 53.40 | 50.41 | 30.29 |
| Tala | 75.00 | 79.71 | 80.71 |
| Total | 128.40 | 130.12 | 111.00 |
| Total Central Sector | 1,917.39 | 1,416.14 | 940.06 |
| DVC | 1,882.00 | 1,575.27 | 1,594.91 |
| WBSEB | - | - | 28.84 |
| TVNL | 605.00 | 594.02 | 770.00 |
| DVC (ST) | 243.00 | 243.12 | 363.85 |
| PTC (ST) | - | 23.09 | 30.49 |
| PGCIL | 99.00 | 98.95 | 102.31 |
| Posoco (ERLDC) | 26.00 | 26.28 | 1.58 |
| UI Payable | 53.00 | - | 5.89 |
| Solar | 59.00 | 79.12 | 28.19 |
| Banking | | | 0.30 |
| Others | 162.28 | 265.85 | 0.47 |
| DVC Open Access Charges | | | 23.03 |
| Total Purchase Cost | 5,046.67 | 4,321.84 | 3,889.93 |
| Own Generation | - | - | |
| Power Purchase (including own generation) | - | - | 3,889.93 |
| UI Recievable | - | | 98.56 |
| Net Power Purchase allowed | 5,046.67 | 3,717.37 | 3,791.37 |

4.5.9 The Hon'ble Commission is requested to approve the Power Purchase Cost for the FY 2012-13 at Rs. **3,791.37 Crs** which is based on the estimates.



4.6 Operation & Maintenance Expenses

4.6.1 Operation & Maintenance Expenses consists of three elements viz Employee Expenses, A&G Expense and R&M Expense:

- Employee expenses comprise of salaries, dearness allowance, bonus, terminal benefits in the form of pension & gratuity, leave encashment and staff welfare expenses
- Administrative expenses mainly comprise of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.
- Repairs and Maintenance Expenses go towards the day to day upkeep of the distribution network of the Company and form an integral part of the Company's efforts towards reliable and quality power supply as also in the reduction of losses in the system.

4.6.2 The Employee Expense for the Distribution function of JSEB for the year FY 2012-13 is estimated at around **Rs. 194.15 Crs** after applying escalation rate of **8.64%** over FY 2011-12.

4.6.3 Similarly, for A&G expense the same methodology is used, i.e. applying escalation rate of **8.64%** over A&G expenses of FY 2011-12 as per provisional accounts. The A&G expense for FY 2012-13 computes to be at **Rs. 37.89 Crs**.

4.6.4 However, the R&M expense has been calculated on the basis of opening GFA for each of the basic function area. The opening GFA for JSEB as per the accounts is **Rs. 2501 Crs**. Accordingly, the R&M expense for the year FY 2012-13 comes out to **Rs. 29.80 Crs**. This methodology of calculating R&M on the basis of opening GFA is in line with the principle adopted by the Hon'ble Commission.

4.6.5 Based on the foregoing paragraphs, O&M expense for the Distribution Function for FY 2012-13 has been calculated at **Rs. 261.85 Crs** as against **Rs. 246.10 Crs** approved by the Hon'ble Commission which is shown in the table below:



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Table 23 : O&M Expense for Distribution for FY 2012-13

| O&M Expense | | | |
|------------------|---------------|---------------|---------------|
| Particulars | Projected | Approved | Revised Est. |
| | FY 2012-13 | FY 2012-13 | FY 2012-13 |
| Employee Expense | 277.25 | 174.07 | 194.15 |
| A&G Expense | 36.43 | 36.04 | 37.89 |
| R&M Expense | 64.47 | 35.99 | 29.80 |
| Total | 378.15 | 246.10 | 261.85 |

4.6.6 The Hon'ble Commission is requested to approve the O&M Expenses for the Distribution Function FY 2012-13 as per revised estimates.

4.7 CWIP, GFA and Depreciation

4.7.1 The Capital Work In Progress (CWIP), Gross Fixed Asset (GFA) and Depreciation are shown in the section below. The depreciation is calculated on the basis of closing GFA for the year FY 2012-13. JSEB has considered the average depreciation rate for the last 5 years and accordingly the depreciation expense has been arrived at. The average rate of depreciation for each of the assets is worked out in the table below:

Table 24 : Depreciation Rates

| Particulars | FY 08 | FY 09 | FY 10 | FY 11 | FY 12 | Average |
|---------------------------|--------|-------|-------|-------|-------|---------|
| Land and land rights | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Building | 2.24% | 1.50% | 1.53% | 1.64% | 1.22% | 1.73% |
| Hydraulic Works | 1.69% | 1.72% | 1.67% | 1.75% | 1.35% | 1.71% |
| Others Civil Works | -7.96% | 1.15% | 1.43% | 1.52% | 1.19% | -0.97% |
| Plant and Machinery | 2.84% | 2.88% | 3.03% | 2.65% | 2.49% | 2.85% |
| Lines and Cable Net Works | 3.86% | 3.87% | 4.00% | 3.46% | 3.95% | 3.80% |
| Vehicles | 3.84% | 1.46% | 1.69% | 4.79% | 3.10% | 2.95% |
| Furniture and Fixture | 4.13% | 4.13% | 5.10% | 5.73% | 5.34% | 4.77% |
| Office Equipment | 3.42% | 3.09% | 3.96% | 4.48% | 4.07% | 3.74% |
| Spare Units/Service Units | 3.53% | 3.69% | 3.66% | 3.72% | 3.51% | 3.65% |

4.7.2 Accordingly, the depreciation for the year FY 2012-13 is calculated on the basis of the average rates. The addition from CWIP is calculated in line with the methodology adopted by the Hon'ble Commission, i.e. 25% of the opening CWIP and the Capex incurred during the year. The Capex incurred during the year pertains to expenses carried out under Tribal Sub Plan, Scheduled Cast Sub Plan, R-APDRP and schemes under RGGVY. The Capex carried out for the year FY 2012-13 is as follows:



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Table 25 : Capex for FY 2012-13

| Summary of Capex for FY 2012-13 | | Rs. Cr |
|--|--|---------------|
| Work Carried out under Tribal Sub Plan | | 31 |
| Work Carried out under Scheduled Cast Sub Plan | | 14 |
| Work Carried out under Others Sub Plan | | 258 |
| New Schemes (R-APDRP) | | 203 |
| Revised Schemes | | 23 |
| Schemes under RGGVY | | 2,678 |
| Total | | 3,208 |

4.7.3 The table below shows the CWIP, GFA and depreciation for FY 2012-13.

Table 26 : CWIP, GFA and Depreciation for FY 2012-13

| GFA & Depreciation (Rs.Crs) | | |
|--|-------------------|---------------------|
| Particulars | Approved | Revised Est. |
| | FY 2012-13 | FY 2012-13 |
| Opening GFA | 1,623.07 | 1,231.68 |
| Addition from CWIP | 626.26 | 1,127.57 |
| Closing GFA | 2,249.33 | 2,359.26 |
| Depreciation | 67.72 | 72.58 |

4.7.4 As seen from the above table; the Depreciation is on the higher side. This is due to high number of additions during the year FY 2012-13.

4.7.5 The following table depicts the source wise funding based on the principles in JSERC Tariff Regulations 2010.

Table 27 : Debt – Equity Component for FY 2012-13

| Debt & Equity Component (Rs.Crs) | | |
|--|-------------------|---------------------|
| Particulars | Approved | Revised Est. |
| | FY 2012-13 | FY 2012-13 |
| Gross fixed assets | 2,249.33 | 2,359.26 |
| Less:Accumulated Depreciation | 318.49 | 287.60 |
| Net Fixed Assets | 1,930.84 | 2,071.65 |
| Sources | | |
| Consumer Contribution | 982.10 | 782.60 |
| Equity [30% * (GFA - Contribution)] | 380.17 | 473.00 |
| Debt [70% of (GFA - Consumer Contribution) - Accumulated Depn] | 568.57 | 816.06 |



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4.8 Interest on Loan

- 4.8.1 Regulation 6.24 of JSERC (Terms & Conditions for Determination of Distribution of Tariff) provides for **Interest on Loan** to be calculated loan wise for the existing loans as specified in the Regulations 6.18 & 6.19.
- 4.8.2 The Hon'ble Commission had adopted the methodology of computation of normative loan for FY 2012-13 as per above stated regulations.
- 4.8.3 However, the Interest and Finance charges for the distribution function have been calculated separately for the existing loans and loans to be taken for the proposed capital works by the petitioner. The interest calculation for new loans has been done assuming an interest rate of 13% and a repayment period of 10 years. For the existing loans the same is based on actual terms and conditions of the loans.
- 4.8.4 Further, as per the Regulations, the interest during capitalization has been deducted from the total interest costs and a debt equity ratio of 70:30 has been assumed for calculating the interest costs.
- 4.8.5 The segregation of the existing loans into the three functions has been done based on the purpose for which the same were taken by the JSEB and only the interest costs associated with the distribution function have been considered for estimating the interest and finance charges.
- 4.8.6 As far as the new loans are concerned, interest costs have been estimated only for the debt part of each loan. Based on the above methodology, the interest costs for FY 2012-13 are as under:

Table 28 : Interest on loan for FY 2012-13

| Interest and finance charges | 2012-13 |
|-------------------------------------|----------------|
| Interest on new loans | 377.64 |
| Interest on existing loans | 431.49 |
| Less interest during capitalization | 295.81 |
| Net interest | 513.32 |
| Interest considered @70% | 359.32 |

- 4.8.7 The Hon'ble Commission is requested to approve the amount of **Rs. 359.32 Crs** as Normative Interest Amount as shown above.



4.9 Interest on Security Deposit

4.9.1 The security deposit in JSEB pertains to the distribution functions wholly. The provision for Interest on Security Deposit for FY 2012-13 has been made based on the prevailing RBI Bank Rate. This is in accordance with Jharkhand Electricity Supply Code Regulations, 2005. Accordingly, JSEB has calculated Interest on Security Deposit considering the mentioned rates for FY 2012-13.

Table 29 : Interest on Security Deposit for FY 2012-13

| Interest on Security Deposit (Rs. Crs) | | | |
|--|------------|------------|--------------|
| Particulars | Projected | Approved | Revised Est. |
| | FY 2012-13 | FY 2012-13 | FY 2012-13 |
| Opening Security Deposit | | | 255.75 |
| Security Deposit received | | | 38.86 |
| Closing Security Deposit | | | 294.61 |
| Average Security Deposit | 220 | | 275.18 |
| Rate of Interest : Bank Rate upto 15 Mar | 9.00% | 9.00% | 9.00% |
| Interest on Security Deposit | 19.78 | 16.26 | 24.77 |

4.9.2 The security deposit additions for the control period is calculated in proportion to increase in consumer base for the corresponding year. The Hon'ble Commission is requested to approve Interest on Security Deposit computed at **Rs. 24.77 Crs** for the year FY 2012-13.

4.10 Interest on Working Capital

4.10.1 The petitioner has computed Interest on Working Capital as per **Clause 6.26** of Distribution Tariff Regulations 2010 which reads –

“Working capital for the Distribution Business of electricity for the Transition Period shall consist of:

c) One-twelfth of the amount of Operation and Maintenance expenses for such financial year; plus

d) Maintenance spares at 1% of Opening GFA; plus



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c) Two months equivalent of the expected revenue from sale of electricity at the prevailing tariffs; minus

d) Amount held as security deposits under clause (a) and clause (b) of subsection (1) of Section 47 of the Act from consumers and Distribution System Users; minus

e) One month equivalent of cost of power purchased, based on the annual power procurement plan”

4.10.2 Accordingly, Interest on Working capital for FY 2012-13 for distribution function computes at Rs. **4.27** Crs , the details have been furnished below-

Table 30: Interest on Working Capital

| Interest on Working Capital (Rs.Crs) | | | |
|--|---------------|------------|---------------|
| Particulars | Projected | Approved | Revised Est. |
| | FY 2012-13 | FY 2012-13 | FY 2012-13 |
| O&M Expenses (1 Month) | 31.51 | - | 21.82 |
| Maintenance Spares (1% of Opening GFA) | 16.68 | - | 12.32 |
| Expected Revenue at Existing Tariff (2 Months) | 983.65 | - | 677.15 |
| Less: | | | |
| Power Purchase Cost (1 Month) | 420.56 | - | 287.26 |
| Security Deposit | 219.83 | - | 275.18 |
| Total Working Capital | 391.45 | - | 148.84 |
| Rate of Interest on Working Capital | 14.75% | 14.75% | 14.75% |
| Total Interest on Working Capital | 57.74 | - | 21.95 |

4.11 Interest and Finance Charges

4.11.1 Accordingly, the total Interest and Finance Charges for FY 2012 -13 are tabulated as below:

Table 31 : Interest and Finance Charges for FY 2012-13

| Interest on Finance Charges (Rs.Crs) | | |
|---|--------------|---------------|
| Particulars | Approved | Revised Est. |
| | FY 2012-13 | FY 2012-13 |
| Interest on Loan | 58.72 | 359.32 |
| Interest on Working Capital | - | 22.51 |
| Interest on Security Deposit | 16.26 | 24.77 |
| Total Interest & Finance Charges | 74.98 | 406.60 |

4.11.2 It is requested to the Hon'ble Commission to approve the Interest and Finance Charges amounting to Rs. **406.60** Crs for FY 2012-13 in the APR process.



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4.12 Reasonable Rate of Return on Equity

4.12.1 As per the Distribution Tariff Regulations 2010, the Return on Equity for the Transition Period shall be considered at 15.5% (post tax). In line with the regulation, JSEB has computed the Return on Equity considering a rate of return at 15.5% as approved by the Hon’ble Commission in its Tariff order.

4.12.2 The Return on Equity approved by the Hon’ble Commission in its Tariff Order and as computed by JSEB for FY 2012-13 is being summarised in the table below:

Table 32 : Reasonable Rate of Return for FY 2012-13

| Return on Equity (Rs.Crs) | | | |
|---------------------------|---------------|---------------|---------------|
| Particulars | Projected | Approved | Revised Est. |
| | FY 2012-13 | FY 2012-13 | FY 2012-13 |
| Opening Equity | | 205.25 | 134.73 |
| Additions during the year | | 174.92 | 338.27 |
| Closing Equity | | 380.17 | 473.00 |
| Average Equity | | 292.71 | 303.86 |
| Return on Equity (%) | 15.50% | 15.50% | 15.50% |
| Total | 112.58 | 45.37 | 47.10 |

4.12.3 The Hon’ble Commission is requested to approve the RoE for Distribution function at **Rs. 47.10 Crs.**

4.13 Non Tariff Income

4.13.1 The Non-Tariff Income includes Delayed Payment Surcharge, interest on staff loans, income from investment, income from trading, interest from banks etc. The Delayed Payment Surcharge has been calculated on the basis of realizable DPS at 10% of the total DPS.

4.13.2 While working out the Non Tariff Income, JSEB has adopted the similar methodology used by Hon’ble Commission in its previous tariff orders, i.e. the Non Tariff Income is disaggregated based on the nature of the income that is attributable to each function. The Non Tariff Income for FY 2012-13 is **Rs. 51.35 Crs** as against **Rs. 223.13 Crs** approved by the Hon’ble Commission. The table below shows the Non Tariff Income for Distribution Function for FY 2012-13.



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Table 33 : Non Tariff Income for FY 2012-13

| Non Tariff Income (Rs.Crs) | | | |
|--|--------------|---------------|--------------|
| Particulars | Projected | Approved | Revised Est. |
| | FY 2012-13 | FY 2012-13 | FY 2012-13 |
| Interest on Staff Loan & Advance | - | - | 0.00 |
| Income from Investment (F.D) | 4.51 | 4.51 | 18.63 |
| Interest on loans and advances to licensee | 0.03 | 0.03 | - |
| 10% D.P.S from Consumer | 22.84 | 185.47 | 18.25 |
| Interest on advance to Supplier/Contractor | 0.27 | 0.27 | 0.42 |
| Interest from Bank (Other than F.D) | 0.47 | 0.47 | 1.02 |
| Income from trading | 0.41 | 0.41 | 0.63 |
| Income from staff Welfare Activities | 0.01 | 0.01 | 0.00 |
| Miscellaneous Receipt. | 25.90 | 25.90 | 12.39 |
| Meter Rent | 6.06 | 6.06 | - |
| Miscellaneous Charges from Consumers | (2.51) | - | - |
| Total | 57.99 | 223.13 | 51.35 |

4.13.3 It is requested to the Hon'ble Commission to kindly approve Non Tariff Income as per Revised Estimate for FY 2012-13.

4.14 Summarized ARR and Revenue Gap for FY 2012-13

4.14.1 Based on the foregoing paragraphs, the ARR for the Distribution Function of JSEB for FY 2012-13 is shown in the table below:

Table 34 : Aggregate Revenue Requirement for FY 2012-13

| ARR for Distribution Business | | |
|--------------------------------------|-----------------|-----------------|
| Particulars | Approved | Revised Est. |
| | FY 2012-13 | FY 2012-13 |
| Power Purchase Expense | 3,717.37 | 3,791.37 |
| O&M Expense | 246.10 | 261.85 |
| <i>Employee Expense</i> | 174.07 | 194.15 |
| <i>A&G Expense</i> | 36.04 | 37.89 |
| <i>R&M Expense</i> | 35.99 | 29.80 |
| Interest and Finance Charges | 74.98 | 412.18 |
| Depreciation | 67.72 | 72.58 |
| Provision for bad and doubtful debts | - | |
| Less: Disincentive for T&D Loss | | |
| Total Expenditure | 4,106.17 | 4,537.98 |
| Add: Reasonable Return on Equity | 45.37 | 47.10 |
| Less: Non Tariff Income | 223.13 | 51.35 |
| Aggregate Revenue Requirement | 3,928.41 | 4,533.73 |



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4.15 Total ARR for JSEB

4.15.1 The revenue from sale of power to the consumers is around **Rs. 2,884.80 Crs.** It may be noted that the new tariffs were applicable from 1st Aug 2012; hence, the revenue from sale of power comprises of Revenues from sale of power for Apr 2012 – Jul 2012 as per previous tariff and the subsequent period, i.e. Aug 2012 – Mar 2013 as per revised tariffs.

4.15.2 Further, the ARR for the whole of JSEB and the resultant gap is shown in the table for FY 2012-13:

Table 35 : Aggregate Revenue Requirement - JSEB for FY 2012-13

| ARR for JSEB | | |
|---------------------------------------|-----------------|-----------------|
| Particulars | Approved | Revised Est. |
| | FY 2012-13 | FY 2012-13 |
| Generation ARR (Thermal) | 296.58 | 296.58 |
| Generation ARR (Hydro) | 16.93 | 16.93 |
| Transmission ARR | 184.91 | 207.52 |
| Distribution ARR | 3,928.41 | 4,533.73 |
| Total ARR | 4,426.83 | 5,054.75 |
| Revenue from Sale of Power | 2,826.99 | 2,884.80 |
| | | |
| Revenue from inter-state sales | 123.00 | |
| Revenue Gap | 1,476.84 | 2,169.95 |
| Resource Gap | 1,000.00 | |
| Net Gap | 476.84 | 2,169.95 |

4.15.3 The Hon'ble Commission is requested to approve the Gap as showcased above.



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5. ARR DETERMINATION FOR CONTROL PERIOD (FY 14 – FY 16)

5.1 Introduction

5.1.1 This chapter elucidates the Annual Revenue Requirement for the Control Period. The projections under the various heads in this chapter are based on the JSERC (Terms & Conditions for Determination of Tariff) Regulations 2010. JSEB would like to submit that the projections made in the business plan were based on past trends as historical trend method has proved to be a reasonably accurate and well accepted method for estimating the load, number of consumers and energy consumption. Hence, JSEB has adopted the similar projections for Sales as well as the Power Procurement Plan as submitted in the Business Plan, i.e. based on the CAGR trend for the last 5 years

5.2 Approach for Sales Projection

5.2.1 JSEB has seen a significant growth in sales from FY 06 to FY 11. The CAGR for various categories is shown in the table below:

Table 36 : Consumer Category wise Sales

| Description | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 5 Yr. CAGR |
|--------------------|----------|----------|----------|----------|----------|----------|------------|
| Domestic | 905.78 | 1,104.69 | 1,370.28 | 1,615.23 | 2,256.03 | 2,500.40 | 23% |
| Commercial | 160.91 | 184.6 | 214.35 | 239.45 | 265.74 | 323.53 | 15% |
| Public Lighting | 80.22 | 83 | 71.59 | 76.73 | 120.67 | 141.61 | 12% |
| Irrigation | 59.27 | 72.26 | 72.42 | 68.79 | 65.72 | 68.43 | 3% |
| Public Water Works | 69.28 | 65.21 | 70.21 | 63.82 | 72.21 | 75.58 | 2% |
| Industrial L.T. | 98.38 | 117.6 | 123.58 | 137.57 | 145.85 | 150.42 | 9% |
| Industrial H.T. | 1,563.28 | 1,643.37 | 1,791.44 | 1,851.65 | 1,962.93 | 2,150.45 | 7% |
| Railway | 444.33 | 471.29 | 531.46 | 616.6 | 603.23 | 612.78 | 7% |
| Total | 3,381.46 | 3,742.04 | 4,245.32 | 4,669.85 | 5,492.36 | 6,023.22 | |

Table 37: Category-wise CAGR of Units Sold

| Categories | 5-year CAGR | 4-year CAGR | 3-year CAGR | 2-year CAGR | 1-year CAGR |
|--------------------|-------------|-------------|-------------|-------------|-------------|
| Domestic | 23% | 23% | 22% | 24% | 11% |
| Commercial | 15% | 15% | 15% | 16% | 22% |
| Public Lighting | 12% | 14% | 26% | 36% | 17% |
| Irrigation | 3% | -1% | -2% | 0% | 4% |
| Public Water Works | 2% | 4% | 2% | 9% | 5% |
| Industrial L.T. | 9% | 6% | 7% | 5% | 3% |
| Industrial H.T. | 7% | 7% | 6% | 8% | 10% |
| Railway | 7% | 7% | 5% | 0% | 2% |



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5.2.2 The break-up of the category-wise number of consumers and the CAGRs for different periods is as below:

Table 38: Trend of category-wise No. of Consumers

| Description | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 5 Yr. CAGR |
|-----------------|----------------|------------------|------------------|------------------|------------------|------------------|------------|
| Domestic | 869,762 | 959,790 | 1,040,067 | 1,114,294 | 1,322,317 | 1,529,714 | 12% |
| Commercial | 73,041 | 78,994 | 88,249 | 91,488 | 99,835 | 110,923 | 9% |
| Public Lighting | 745 | 744 | 361 | 407 | 587 | 514 | -7% |
| Irrigation | 10,417 | 12,625 | 14,843 | 18,264 | 20,343 | 22,545 | 17% |
| PWW | 299 | 255 | 314 | 365 | 431 | 380 | 5% |
| Industrial L.T. | 7,743 | 8,463 | 9,756 | 10,421 | 10,803 | 12,293 | 10% |
| Industrial H.T. | 860 | 927 | 1,003 | 1,074 | 1,125 | 1,227 | 7% |
| Railway | 8 | 8 | 6 | 9 | 13 | 13 | 10% |
| Total | 962,875 | 1,061,806 | 1,154,599 | 1,236,322 | 1,455,454 | 1,677,609 | |

Table 39: Category-wise CAGR of No. of consumer

| Categories | 5-year CAGR | 4-year CAGR | 3-year CAGR | 2-year CAGR | 1-year CAGR |
|--------------------|-------------|-------------|-------------|-------------|-------------|
| Domestic | 12% | 12% | 14% | 17% | 16% |
| Commercial | 9% | 9% | 8% | 10% | 11% |
| Public Lighting | -7% | -9% | 12% | 12% | -12% |
| Irrigation | 17% | 16% | 15% | 11% | 11% |
| Public Water Works | 5% | 10% | 7% | 2% | -12% |
| Industrial L.T. | 10% | 10% | 8% | 9% | 14% |
| Industrial H.T. | 7% | 7% | 7% | 7% | 9% |
| Railway | 10% | 13% | 29% | 20% | 0% |

5.2.3 The Table below shows the basis for the projections of Sales and No. of Consumers for various categories of consumers as enumerated above. Growth rates for projections of individual categories for FY 2013-14 to FY 2015-16 have been assumed based on past CAGR of various years and same has been applied.



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5.2.4 The Board has adopted a consistent approach in projection of energy sales and number of consumers. The value of CAGR used for different category of consumers for projecting No. of Consumers and sales is as detailed below:

Table 40: Category wise CAGR considered for projections

| Categories as per Tariff Schedule of JSEB | Categories used for projecting CAGR as per Annual Account | CAGR used for projecting No of Consumers | CAGR used for projecting Energy Sales |
|---|---|--|---------------------------------------|
| Domestic | Domestic | 12.0% | 17.6% |
| Non domestic | Commercial | 8.7% | 15.0% |
| Low Tension | Industrial L.T. | 9.7% | 8.9% |
| Irrigation & Agricultural | Irrigation | 16.7% | 2.9% |
| High Tension Service | Industrial H.T. | 7.4% | 6.6% |
| HT Special Service | Industrial H.T. | 7.4% | 6.6% |
| Railway Traction | Railway | 10.2% | 6.6% |
| Street Light Service | Public Lighting | 0% | 12.0% |
| MES | Industrial H.T. | 7.4% | 6.6% |

5.2.5 The projected number of consumers and connected load for FY 2013-14 to FY 2015-16 for each of the consumer/ tariff categories are provided in the table below.

Table 41: Projected Number of Consumers and Connected Load

| Categories | Number of Consumers | | | Connected Load ('000 kW/HP) | | |
|-----------------------|---------------------|----------------|----------------|-----------------------------|----------------|----------------|
| | FY 14 | FY 15 | FY 16 | FY 14 | FY 15 | FY 16 |
| Domestic | 2647879 | 2964423 | 3318808 | 2668870 | 3044932 | 3474497 |
| Non domestic | 141341 | 153659 | 28330 | 432176 | 490895 | 557593 |
| Low Tension | 16222 | 17793 | 19517 | 339683 | 389923 | 447594 |
| IAS (Agri.) | 35829 | 41812 | 48793 | 60779 | 68412 | 77003 |
| HT Service | 1942 | 2085 | 2238 | 641925 | 697759 | 758450 |
| HT-special Service | 39 | 41 | 45 | 281293 | 305760 | 332355 |
| Railway Traction | 17 | 19 | 21 | 187698 | 189403 | 191124 |
| Street Light. Service | 514 | 514 | 514 | 25786 | 30668 | 36474 |
| MES | 7 | 7 | 7 | 9064 | 9853 | 10710 |
| Overall/ Total | 2843790 | 3180353 | 3418272 | 4647273 | 5227605 | 5885800 |

5.2.6 The projected sales for FY 2013-14 to FY 2015-16 for each of the consumer/ tariff categories are provided in the table below.



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Table 42: Projected Sales (MU)

| Categories | FY 14 | FY 15 | FY 16 |
|---------------------------|-------------|-------------|--------------|
| Domestic | 3923 | 4615 | 5428 |
| Non domestic | 488 | 557 | 636 |
| Low Tension | 194 | 211 | 230 |
| Irrigation & Agricultural | 75 | 77 | 79 |
| HT Service | 1913 | 2039 | 2173 |
| HT-special Service | 764 | 814 | 867 |
| Railway Traction | 743 | 792 | 845 |
| Street Light. Service | 199 | 223 | 250 |
| MES | 19 | 20 | 21 |
| Overall/ Total | 8318 | 9349 | 10531 |

5.3 Demand Projections / Energy Requirement

5.3.1 The projection for demand has been arrived by grossing up the above consumption projections with distribution loss trajectory provided by the Commission in Distribution Tariff Regulations 2010. The distribution loss trajectory as per applicable regulations is as under:

Table 43 : Distribution Loss Trajectory

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

5.3.2 The above losses are applied on all the respective consumer categories. In line with the Abraham Committee Report on Loss Reduction Targets; JSEB has proposed an annual reduction of 2% with respect to T&D loss. The same has been covered under Para 7.26 of the Business Plan under the heading T&D Losses.

5.3.3 In line with the methodology explained in the Business Plan; JSEB has worked out the Energy Balance for the Control Period:

5.3.4 However the petitioner would like to submit that projections made on account of “Own Generation” in Business Plan have been revised in this MYT Petition and accordingly request the Hon’ble Commission to approve the same.



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Table 44 : Energy Balance during the Control Period

| Particulars | FY 2013-14 | FY 2014-15 | FY 2015-16 |
|--|------------------|------------------|------------------|
| | Projections | Projections | Projections |
| Power Purchase from Outside JSEB Boundary | 4,851.95 | 5,577.64 | 6,397.46 |
| Loss in external systems (%) | 3.04% | 3.04% | 3.04% |
| MU's lost in external system | 147.50 | 169.56 | 194.48 |
| Net Outside State Power Purchase | 4,704.45 | 5,408.08 | 6,202.98 |
| Energy Input Directly to State Transmission System | 1,232.72 | 1,289.22 | 1,348.72 |
| Own Generation | 1,270.00 | 1,270.00 | 1,270.00 |
| UI Payable | - | - | - |
| UI Sale/ Receivable | - | - | - |
| Energy available for onward transmission | 7,207.17 | 7,967.30 | 8,821.70 |
| Transmission loss (%) | 5% | 5% | 5% |
| Transmission loss (MUs) | 360.36 | 398.36 | 441.08 |
| Net Energy Sent to Distribution (MUs) | 6,846.81 | 7,568.93 | 8,380.61 |
| Direct input at distribution voltage (33 kV) | 4,080.00 | 4,371.00 | 4,705.00 |
| Total Energy Available for Distribution | 10,926.81 | 11,939.93 | 13,085.61 |
| Total Energy Requirement | 11,434.67 | 12,507.86 | 13,721.18 |
| Sales (MUs) | 8,317.82 | 9,348.63 | 10,530.56 |
| Distribution loss (MUs) | 2,608.99 | 2,591.30 | 2,555.05 |
| Distribution loss (%) | 23.88% | 21.70% | 19.53% |
| Overall T&D Loss | 27.26% | 25.26% | 23.25% |

5.4 Estimation of ARR

5.4.1 The components for the calculation of Aggregate Revenue Requirement for the Control Period FY 2013-14 to FY 2015-16 are as follows:

- Power Purchase Cost.
- Operation & Maintenance Cost.
- Interest on Loan and Financial Charges.
- Depreciation.
- Return on Equity.
- Non Tariff Income.

5.5 Power Purchase Expense

5.5.1 JSEB plans to procure power from the current existing sources as has been mentioned in earlier sections. In addition to the existing sources, JSEB proposes to procure power from Rangit IV in the year FY 2015-16. Further, JSEB plans to procure power from solar and other non-renewable sources for the control period in compliance of the renewable purchase obligation put forth under JSERC (Renewable Purchase Obligations and its Compliance – First Amendment) Regulations, 2012.



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- 5.5.2 The petitioner shall like to submit to the Hon'ble Commission that to compute power purchase expenses for Control Period, the per unit rate power purchase rate for FY 2012-13 has been escalated by 5 year CAGR% of FY 2012-13 over FY 2007-08.
- 5.5.3 The petitioner would further like to submit that this growth trend of increase in per unit cost from different power purchase sources has been considered as it signifies the best possible projections as per the experience of the petitioner and latest per unit cost of various power purchase sources. Also, wherever the trend has seemed unreasonable or unsustainable, the growth factors have been appropriately modified by JSEB, to arrive at more realistic projections.
- 5.5.4 Further it is also taken care of that the fuel mix of the petitioner is skewed towards the coal based sources.
- 5.5.5 The transmission charges for PGCIL and ERLDC for control period have been computed by applying moderate escalation over transmission charges as stated in Latest Order by Eastern Regional Power Committee on Regional Transmission Accounts for total charges payable on account of Generation and Withdrawal by beneficiaries in Jharkhand.
- 5.5.6 The renewable purchase obligation targets for the control period is shown in the table below:

Table 45 : RPO targets for FY 2013-14 to FY 2015-16

| Year | Solar | Non-Solar | Total |
|---------|-------|-----------|-------|
| 2013-14 | 1.00% | 3.00% | 4.00% |
| 2014-15 | 1.50% | 3.50% | 5.00% |
| 2015-16 | 2.00% | 4.00% | 6.00% |

- 5.5.7 Accordingly, the Power Purchase Quantum (MUs) for the Control Period, i.e. FY 2013-14 to FY 2015-16 is showcased in the table below:



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Table 46 : Power Purchase Quantum for FY 2013-14 to FY 2015-16

| Power Purchase (MUs) | | | |
|--|------------------|------------------|------------------|
| Particulars | Projections | Projections | Projections |
| | FY 2013-14 | FY 2014-15 | FY 2015-16 |
| NTPC | | | |
| Farrakka | 1,142.00 | 1,154.00 | 1,154.00 |
| Khalagaon I | 218.00 | 240.00 | 280.00 |
| Khalagaon II | 174.00 | 184.00 | 184.00 |
| Talcher | 600.00 | 627.00 | 655.00 |
| Barh | - | 329.00 | 824.00 |
| Farrakka III | 200.00 | 334.86 | 379.18 |
| Total | 2,334.00 | 2,868.86 | 3,476.18 |
| NHPC | | | |
| Rangit | 45.00 | 45.00 | 45.00 |
| Teesta | 295.00 | 295.00 | 295.00 |
| Rangit - IV | - | - | 153.00 |
| Total | 340.00 | 340.00 | 493.00 |
| PTC | | | |
| Chukha | 195.00 | 195.00 | 195.00 |
| Tala | 390.00 | 390.00 | 390.00 |
| Total | 585.00 | 585.00 | 585.00 |
| Total Central Sector | 3,259.00 | 3,793.86 | 4,554.18 |
| DVC | 3,692.00 | 3,844.00 | 4,002.00 |
| WBSEB | - | - | - |
| TVNL | 2,157.00 | 2,270.00 | 2,389.00 |
| DVC (ST) | 668.67 | 803.00 | 803.00 |
| Open Market/Traders | - | - | - |
| PTC (ST) | - | - | - |
| PGCIL | | | |
| Posoco (ERLDC) | | | |
| UI Payable | - | - | - |
| Solar | 97.00 | 158.00 | 234.00 |
| Others | - | - | - |
| Renewable | 291.00 | 369.00 | 469.00 |
| Total Purchase | 10,164.67 | 11,237.86 | 12,451.18 |
| Own Generation | 1,270.00 | 1,270.00 | 1,270.00 |
| Net Power Purchase (including own generation) | 11,434.67 | 12,507.86 | 13,721.18 |
| Disincentive for non-achievement of T&D loss | | | |
| Power Purchase allowed | 11,434.67 | 12,507.86 | 13,721.18 |

5.5.8 The Power Purchase cost for the power purchase sources above is shown in the following table:



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Table 47 : Power Purchase Cost for FY 2013-14 to FY 2015-16

| Power Purchase (Rs.Crs) | | | |
|---|-----------------|-----------------|-----------------|
| Particulars | Projections | Projections | Projections |
| | FY 2013-14 | FY 2014-15 | FY 2015-16 |
| NTPC | | | |
| Farrakka | 567.38 | 670.24 | 783.51 |
| Khalagaon I | 94.90 | 119.69 | 159.97 |
| Khalagaon II | 77.34 | 93.69 | 107.33 |
| Talcher | 189.74 | 231.44 | 282.21 |
| Barh | - | 139.83 | 350.20 |
| Farrakka III | 107.58 | 208.37 | 246.47 |
| Total | 1,036.93 | 1,463.25 | 1,929.68 |
| NHPC | | | |
| Rangit | 16.20 | 21.61 | 21.61 |
| Teesta | 88.50 | 108.25 | 119.73 |
| Rangit IV | - | - | 55.08 |
| Total | 104.70 | 129.86 | 196.41 |
| PTC | | | |
| Chukha | 31.00 | 37.52 | 41.27 |
| Tala | 78.78 | 95.32 | 104.86 |
| Total | 109.78 | 132.84 | 146.12 |
| Total Central Sector | 1,251.42 | 1,725.95 | 2,272.22 |
| DVC | 1,624.48 | 2,005.64 | 2,273.81 |
| WBSEB | - | - | - |
| TVNL | 754.95 | 957.92 | 1,106.98 |
| DVC (ST) | 302.83 | 395.17 | 430.32 |
| Open Market/Traders | - | - | - |
| DVC Open Access Charges | 25.33 | 27.87 | 30.65 |
| PGCIL | 141.33 | 161.27 | 183.79 |
| Posoco (ERLDC) | 1.74 | 1.91 | 2.10 |
| UI Payable | - | - | - |
| Solar | 176.98 | 85.34 | 126.39 |
| Others | - | - | - |
| Renewables | 145.50 | 184.50 | 234.50 |
| Total Purchase Cost | 4,424.57 | 5,545.57 | 6,660.76 |
| Own Generation | | | |
| Net Power Purchase (including own generation) | | | |
| Disincentive for non-achievement of T&D loss | | | |
| Power Purchase allowed | 4,424.57 | 5,545.57 | 6,660.76 |

5.5.9 The per unit power purchase cost comes to Rs. **4.35** /unit, Rs. **4.93** /unit and Rs. **5.35** /unit for the years FY 2013-14, FY 2014-15 and FY 2015-16 respectively.



5.6 O&M Expense

5.6.1 Operation and Maintenance Expenses includes salaries, wages, Administrative & General Expenses and Repairs & Maintenance Expenses.

5.6.2 As per Regulation 6.8 of JSERC (Terms & Conditions of Determination of Distribution Tariff) Regulations, 2010; O&M Expenses shall be determined by the following formula:

“7.36 The O&M expenses permissible towards ARR of each year of the Control Period shall be approved based on the formula shown below:

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

Where,

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

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

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

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

5.6.3 Computation of Inflation Factor

As per Regulation 6.9 (c), Inflation Factor is calculated as

$$\mathbf{INDX_n = 0.55*CPI_n + 0.45*WPI_n}$$

Note 1: For the purpose of estimation, the same INDX_n/INDX_{n-1} value shall be used for all years of the control period. However, the Commission will consider the actual values in the INDX_n/INDX_{n-1} at the end of each year during the Annual Performance Review exercise and true up the employee cost and A&G expenses on account of this variation, for the Control Period;



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In line with the above formula, the inflation factor for the Control Period works out to be as follows:

Table 48 : Inflation Factor for WPI & CPI

WPI Inflation

| Month/Year | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Average | Increase |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|--------------|
| FY 2012-13 | 163.50 | 163.90 | 164.20 | | | | | | | | | | | |
| FY 2011-12 | 152.10 | 152.40 | 153.10 | 154.20 | 154.90 | 156.20 | 157.00 | 157.40 | 157.30 | 158.70 | 159.30 | 161.00 | 156.13 | 8.94% |
| FY 2010-11 | 138.60 | 139.10 | 139.80 | 141.00 | 141.10 | 142.00 | 142.90 | 143.80 | 146.00 | 148.00 | 148.10 | 149.50 | 143.33 | |

CPI Inflation

| Month/Year | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec | Jan | Feb | Mar | Average | Increase |
|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------------|--------------|
| FY 2012-13 | 205.00 | 206.00 | | | | | | | | | | | | |
| FY 2011-12 | 186.00 | 187.00 | 189.00 | 193.00 | 194.00 | 197.00 | 198.00 | 199.00 | 197.00 | 198.00 | 199.00 | 201.00 | 194.83 | 8.39% |
| FY 2010-11 | 170.00 | 172.00 | 174.00 | 178.00 | 178.00 | 179.00 | 181.00 | 182.00 | 185.00 | 188.00 | 185.00 | 185.00 | 179.75 | |

The combined inflation factor after the weightages to CPI and WPI inflationary increases is provided in the table below:

Table 49 : Combined Inflation Factor for Control Period

| Period | WPI | CPI |
|--|--------------|--------------|
| Increase of FY 2011-12 Index over FY 2010-11 | 8.94% | 8.39% |
| Weightage | 0.45 | 0.55 |
| Weighted Index | 4.02% | 4.62% |
| Combined Inflation | 8.64% | |

5.6.4 Repairs and Maintenance Expenses

As per Regulation 6.9 (a), **Repair & Maintenance** cost is to be calculated as follows:

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

Where,

- ‘K’ is a constant (expressed in %) governing the relationship between R&M costs and Gross Fixed Assets (GFA) and will be calculated based on the % of R&M to GFA of the preceding year of the Base Year;
- ‘GFA’ is the opening value of the gross fixed asset of the n^{th} year;



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5.6.5 'K' Factor

5.6.5.1 The Commission has provided in the regulation to compute R&M expenses in relation to the Gross Fixed Assets and by arriving at the 'K' Factor as per the figures of FY 2011-12 i.e. preceding year of base year (FY 2012-13). It is pertinent to note that even when there is no increase in GFA, there shall be an increase in R&M expenses on the account of normal inflation which is not factored by the Hon'ble Commission in the Distribution Tariff Regulations 2010. Thus, **JSEB** requests that ***inflation*** should be allowed along with the 'K' Factor while allowing R&M expenses for the Control Period, i.e. FY 2013-14 to FY 2015-16.

5.6.5.2 The Tariff Regulations also need to make provision for statutory increases like wages & labour charges, service tax levy, taxes & duties etc while allowing the R&M expenses for the period FY 2013-14 to FY 2015-16. It is submitted that such kind of increases have direct impact on the expenses of the company which are not in the control of the company.

5.6.5.3 In order to take care of the impact of inflation and statutory levies etc, 'K' factor needs to be based on the year FY 2011-12 including inflation for future period and JSEB requests the Hon'ble Commission to kindly consider the same.

5.6.5.4 As stated in the regulation, 'K' is a constant (expressed in %) governing the relationship between R&M costs and Gross Fixed Assets (GFA) and will be calculated based on the % of R&M to GFA of the preceding year of the Base Year; hence 'K' factor for the control period shall be on the basis of the 'K' factor calculated for FY 2011-12 (being the preceding year of the base year, i.e. FY 2012-13).

Table 50: Calculation of 'K' Factor

| <i>Details</i> | <i>FY 2011-12</i> |
|-------------------------------------|-------------------|
| R&M Expense for FY 2011-12 for JSEB | 52.38 |
| Opening GFA for FY 2011-12 for JSEB | 2,351.60 |
| <i>K Factor</i> | 2.23% |

5.6.5.5 'K' Factor including Inflation factor for the Control Period works out as follows:



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Table 51: 'K' Factor for Control Period

| Particulars | FY 13 – 14 | FY 14 – 15 | FY 15 – 16 |
|-------------------------------|------------|------------|------------|
| K' Factor including Inflation | 2.67% | 2.92% | 3.20% |

5.7 Employee Expenses

As per Regulation 6.9 (b), **Employee cost** of the licensee is calculated as follows:

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

Where,

- $INDX_n$ is the Inflation factor to be used for indexing the employee cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year before the base year;
- G_n is the Increase in Employee Expenses in n^{th} year due to increase in consumer base/ load growth. Value of G for each year of the Control Period shall be determined by the Commission in the MYT Tariff order based on Licensee's filing, benchmarking with the efficient utilities, actual cost incurred by the licensee due to increase in consumer base/load growth in past, and any other factor considered appropriate by the Commission;

5.7.1 Accordingly, the petitioner has escalated employee expenses of the base year (FY 2012-13) by inflation factor of **8.64%** for the subsequent years for projecting the employee expenses for JSEB;

5.7.2 It has been assumed that the ratio of the number of employees will not witness significant variation over the control period and hence the current ratio of employees (for FY 2011-12) in each function has been assumed to continue for the entire control period. Accordingly, the employee expenses projected for JSEB as a



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whole have been segregated into transmission and distribution assuming the same ratio;

5.8 Administrative & General Expenses

5.8.1 The Administrative & General (A&G) Expenses consists of Billing & Collection expenses, legal & Regulatory fees, Bank charges, Advertisement, rates, taxes and consultancy fees. The A&G expenses for the control period have been computed as per JSERC Distribution Tariff Regulations, 2010.

5.9 Net Operation & Maintenance Expenses

5.9.1 Based on the foregoing paragraphs, the net O&M expenses for the control period are as follows:

Table 52 : O&M Expense for FY 2013-14 to FY 2015-16

| O&M Expense for Control Period | | | |
|--------------------------------|---------------|---------------|---------------|
| Particulars | Projections | Projections | Projections |
| | FY 2013-14 | FY 2014-15 | FY 2015-16 |
| Employee Expense | 206.06 | 223.86 | 243.20 |
| A&G Expense | 42.91 | 46.62 | 50.65 |
| R&M Expense | 62.02 | 105.88 | 162.91 |
| Total | 310.99 | 376.36 | 456.76 |

5.10 Capital Expenditure Schemes

5.10.1 JSEB time and again has been taking efforts to strengthen their distribution network and shall continue to do so. Going by the historical trends, JSEB envisages that the power consumption shall be more in the coming years due to increase in demand. In order to cater to the increasing demand; JSEB has set up investment plan till the end of the control period.

5.10.2 The table below shows the details of the scheme for the control period to be undertaken by JSEB:



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Table 53 : Capex for the year FY 2013-14

| Sl. | Name of Work | Unit | Total Quantity | Unit Rate (in lacs) | Amount (in Crs) |
|-----|---|--------|----------------|------------------------|--------------------|
| 1 | Construction of New P/S/S | | | | |
| | (a) P/S/S | Nos. | 15 | 110 | 17 |
| | (b) 33 kV line | Km | 200 | 7 | 13 |
| | (c) Civil Work | LS | 700 | 1 | 7 |
| 2 | Stay Extension of 33 KV Line | Km | 200 | 7 | 13 |
| 3 | Rehabilitation of 33 KV line | Km | 400 | 5 | 20 |
| 4 | Augmentation of 33/11 KV P/S/S | | | | |
| | 5 MVA to 10 MVA | Nos. | 20 | 42 | 8 |
| | 3.15 MVA to 5 MVA | Nos. | 30 | 23 | 7 |
| 5 | Construction of 11 kV new line | Km | 500 | 2 | 8 |
| 6 | Stay Extension of 11 KV line | Km | 500 | 2 | 8 |
| 7 | Construction of LT line & Stay Extension of LT line | Km | 500 | 1 | 6 |
| 8 | Installation of D/S/S | | | | |
| | (a) 200 KVA | Nos. | 300 | 2 | 6 |
| | (b) 100 KVA | Nos. | 600 | 1 | 7 |
| | (c)63 KVA | Nos. | 300 | 1 | 3 |
| 9 | Augmentation of D/S/S | | | | |
| | (a) 200 to 500 KVA | Nos. | 50 | 4 | 2 |
| | (b)100 to 200 KVA | Nos. | 300 | 2 | 6 |
| | (c)63 to 100 KVA | Nos. | 250 | 1 | 2 |
| 10 | Service Connection | | | | |
| | DS & CS | Nos. | 60,000 | 0 | 3 |
| | LTIs | Nos. | 10,000 | 0 | 6 |
| 11 | MRT Establishment of improvement | LS | 4 | 57 | 2 |
| 12 | Establishment/Improvement of transformer repair workshop | LS | 6 | 45 | 3 |
| 13 | System improvement (Provision of VCB, AB Switch, transformer oil filter machine, vehicle with hydraulic ladder, XLPE Cable with joining kit, meter (LTCT, 3 - phase & single phase). AB Cable, replacement of | LS/Rs. | 1 | 1,300 | 13 |



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| Sl. | Name of Work | Unit | Total Quantity | Unit Rate | Amount |
|-----|---|--------|----------------|-----------|------------|
| | | | | (in lacs) | (in Crs) |
| | conductor by higher sizes and provision of guarding lacing (in 33 KV, 11KV, and LT lines) conversion of single phase line into 3 phase line under RGGVY | | | | |
| 14 | Capital Maintenance (Replacement of Burnt Transformer) | | | | |
| | (a) 200KVA | Nos. | 500 | 2 | 10 |
| | (b) 100 KVA | Nos. | 700 | 1 | 7 |
| | (c) 63 KVA | Nos. | 600 | 1 | 5 |
| 15 | Civil Works i.e. renovation & new construction in existing P/S/S | LS/Rs. | 700 | 1 | 7 |
| | Grand Total | | | | 189 |

Table 54 : Capex for the year FY 2014-15

| Sl. | Name of Work | Unit | Total Quantity | Unit Rate | Amount |
|-----|---|------|----------------|-----------|----------|
| | | | | in lacs | (in Crs) |
| | Construction of New P/S/S | | | | |
| 1 | (a) P/S/S | Nos. | 12 | 110 | 13 |
| | (b) 33 kV line | Km | 250 | 7 | 16 |
| | (c) Civil Work | LS | 350 | 1 | 4 |
| 2 | Stay Extension of 33 KV Line | Km | 300 | 7 | 20 |
| 3 | Rehabilitation of 33 KV line | Km | 200 | 5 | 10 |
| | Augmentation of 33/11 KV P/S/S | | | | |
| 4 | 5 MVA to 10 MVA | Nos. | 30 | 42 | 13 |
| | 3.15 MVA to 5 MVA | Nos. | 35 | 23 | 8 |
| 5 | Construction of 11 kV new line | Km | 500 | 2 | 8 |
| 6 | Stay Extension of 11 KV line | Km | 750 | 2 | 12 |
| 7 | Construction of LT line & Stay Extension of LT line | Km | 750 | 1 | 9 |
| | Installation of D/S/S | | | | |
| 8 | (a) 200 KVA | Nos. | 200 | 2 | 4 |
| | (b) 100 KVA | Nos. | 500 | 1 | 6 |
| | (c)63 KVA | Nos. | 250 | 1 | 3 |
| 9 | Augmentation of D/S/S | | | | |
| | (a) 200 to 500 KVA | Nos. | 40 | 4 | 2 |



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| Sl. | Name of Work | Unit | Total Quantity | Unit Rate | Amount |
|-----|---|--------|----------------|-----------|------------|
| | | | | in lacs | (in Crs) |
| | (b)100 to 200 KVA | Nos. | 300 | 2 | 6 |
| | (c)63 to 100 KVA | Nos. | 300 | 1 | 3 |
| 10 | Service Connection | | | | |
| | DS & CS | Nos. | 55,000 | 0 | 3 |
| | LTIs | Nos. | 8,000 | 0 | 5 |
| 11 | MRT Establishment of improvement (Equipments with tools & plants) | LS | 3 | 57 | 2 |
| 12 | Establishment/Improvement of transformer repair workshop (TRW) | LS | 3 | 45 | 1 |
| 13 | System improvement (Provision of VCB, AB Switch, transformer oil filter machine, vehicle with hydraulic ladder, XLPE Cable with joining kit, meter (LTCT, 3 - phase & single phase). AB Cable, replacement of conductor by higher sizes and provision of guarding lacing (in 33 KV, 11KV, and LT lines) conversion of single phase line into 3 phase line under RGGVY | LS/Rs. | 1 | 1,200 | 12 |
| 14 | Capital Maintenance (Replacement of Burnt Transformer) | | | | |
| | (a) 200KVA | Nos. | 400 | 2 | 8 |
| | (b) 100 KVA | Nos. | 500 | 1 | 5 |
| | (c) 63 KVA | Nos. | 250 | 1 | 2 |
| 15 | Civil Works i.e. renovation & new construction in existing P/S/S | LS/Rs. | 700 | 1 | 7 |
| | Grand Total | | | | 179 |

Table 55 : Capex for the year FY 2015-16

| Sl. | Name of Work | Unit | Total Quantity | Unit Rate | Amount |
|-----|---------------------------|------|----------------|-----------|----------|
| | | | | (in lacs) | (in Crs) |
| 1 | Construction of New P/S/S | | | | |
| | (a) P/S/S | Nos. | 10 | 110 | 11 |
| | (b) 33 kV line | Km | 200 | 7 | 13 |
| | (c) Civil Work | LS | 250 | 1 | 3 |



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| Sl. | Name of Work | Unit | Total Quantity | Unit Rate (in lacs) | Amount (in Crs) |
|-----|---|--------|----------------|------------------------|--------------------|
| 2 | Stay Extension of 33 KV Line | Km | 200 | 7 | 13 |
| 3 | Rehabilitation of 33 KV line | Km | 250 | 5 | 13 |
| 4 | Augmentation of 33/11 KV P/S/S | | | | |
| | 5 MVA to 10 MVA | Nos. | 20 | 42 | 8 |
| | 3.15 MVA to 5 MVA | Nos. | 25 | 23 | 6 |
| 5 | Construction of 11 kv new line | Km | 500 | 2 | 8 |
| 6 | Stay Extension of 11 KV line | Km | 700 | 2 | 11 |
| 7 | Construction of LT line & Stay Extension of LT line | Km | 500 | 1 | 6 |
| 8 | Installation of D/S/S | | | | |
| | (a) 200 KVA | Nos. | 200 | 2 | 4 |
| | (b) 100 KVA | Nos. | 500 | 1 | 6 |
| | (c) 63 KVA | Nos. | 250 | 1 | 3 |
| 9 | Augmentation of D/S/S | | | | |
| | (a) 200 to 500 KVA | Nos. | 25 | 4 | 1 |
| | (b) 100 to 200 KVA | Nos. | 300 | 2 | 6 |
| | (c) 63 to 100 KVA | Nos. | 300 | 1 | 3 |
| 10 | Service Connection | | | | |
| | DS & CS | Nos. | 60,000 | 0 | 3 |
| | LTIs | Nos. | 10,000 | 0 | 6 |
| 11 | MRT Establishment of improvement (Equipment with tools & plants) | LS | 4 | 57 | 2 |
| 12 | Establishment/Improvement of transformer repair workshop (TRW) | LS | 3 | 45 | 1 |
| 13 | System improvement (Provision of VCB, AB Switch, transformer oil filter machine, vehicle with hydraulic ladder, XLPE Cable with joining kit, meter (LTCT, 3 - phase & single phase). AB Cable, replacement of conductor by higher sizes and provision of guarding lacing (in 33 KV, 11KV, and LT lines) conversion of single phase line into 3 phase line under RGGVY | LS/Rs. | 1 | 1,500 | 15 |
| 14 | Capital Maintenance (Replacement of Burnt Transformer) | | | | |
| | (a) 200KVA | Nos. | 500 | 2 | 10 |



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| Sl. | Name of Work | Unit | Total Quantity | Unit Rate (in lacs) | Amount (in Crs) |
|-----|--|--------|----------------|------------------------|--------------------|
| | (b) 100 KVA | Nos. | 700 | 1 | 7 |
| | (c) 63 KVA | Nos. | 250 | 1 | 2 |
| 15 | Civil Works i.e. renovation & new construction in existing P/S/S | LS/Rs. | 800 | 1 | 8 |
| | Grand Total | | | | 168 |

5.10.3 JSEB also plans to carry out expenditure under R – APDRP Part B. Under this scheme, JSEB plans to undertake investment in system strengthening and improvement. The total Capex undertaken during the control period is shown in the table below:

Table 56 : Summary of Capex for the Control Period

| Summary of Capex for Control Period | FY 14 | FY 15 | FY 16 |
|-------------------------------------|------------|------------|------------|
| Capex | 189 | 179 | 168 |
| Schemes under R-APDRP - B | 500 | 600 | 600 |
| Total | 689 | 779 | 768 |

5.11 GFA & Depreciation

5.11.1 Based on the Capital expenditure discussed above, JSEB proposes to capitalize the assets during the Control Period. In line with the methodology adopted by the Hon'ble Commission; JSEB proposes to capitalize 25% of total opening CWIP and the Capex during the year. The table below provides the summary of the capital expenditure and capitalisation for control period:

Table 57 : Summary of Capex & Capitalization during the Control Period

| CWIP for Control Period | | | |
|-------------------------|-----------------|-----------------|-----------------|
| Particulars | Projections | Projections | Projections |
| | FY 2013-14 | FY 2014-15 | FY 2015-16 |
| Opening CWIP | 3,382.72 | 2,723.67 | 1,960.03 |
| Add: Capex during year | 689.18 | 779.45 | 768.12 |
| Total CWIP | 4,071.90 | 3,503.12 | 2,728.15 |
| Less: Trfd to GFA | 1,348.23 | 1,543.09 | 1,735.12 |
| Closing CWIP | 2,723.67 | 1,960.03 | 993.03 |

5.11.2 Based on the closing GFA, the depreciation has been calculated for the entire control period. JSEB would like to submit that the asset base is increasing every year and



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JSEB has considered the average depreciation rate for the last 5 years and accordingly the depreciation expense has been arrived at. The average rate of depreciation for each of the assets is worked out in the table below:

Table 58 : Depreciation Rates

| Particulars | FY 08 | FY 09 | FY 10 | FY 11 | FY 12 | Average |
|---------------------------|--------|-------|-------|-------|-------|---------|
| Land and land rights | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| Building | 2.24% | 1.50% | 1.53% | 1.64% | 1.22% | 1.73% |
| Hydraulic Works | 1.69% | 1.72% | 1.67% | 1.75% | 1.35% | 1.71% |
| Others Civil Works | -7.96% | 1.15% | 1.43% | 1.52% | 1.19% | -0.97% |
| Plant and Machinery | 2.84% | 2.88% | 3.03% | 2.65% | 2.49% | 2.85% |
| Lines and Cable Net Works | 3.86% | 3.87% | 4.00% | 3.46% | 3.95% | 3.80% |
| Vehicles | 3.84% | 1.46% | 1.69% | 4.79% | 3.10% | 2.95% |
| Furniture and Fixture | 4.13% | 4.13% | 5.10% | 5.73% | 5.34% | 4.77% |
| Office Equipment | 3.42% | 3.09% | 3.96% | 4.48% | 4.07% | 3.74% |
| Spare Units/Service Units | 3.53% | 3.69% | 3.66% | 3.72% | 3.51% | 3.65% |

5.11.3 Based on the above depreciation rates, the depreciation expense on the closing GFA is calculated as follows:

Table 59 : Depreciation Expense for FY 2013-14 to FY 2015-16

| Particulars | FY 14 | FY 15 | FY 16 |
|---------------------------|---------------|---------------|---------------|
| Closing GFA | 3,707 | 5,251 | 6,986 |
| Land and land rights | 0.00 | 0.00 | 0.00 |
| Building | 2.78 | 3.94 | 5.24 |
| Hydraulic Works | 1.24 | 1.76 | 2.34 |
| Others Civil Works | -0.25 | -0.35 | -0.47 |
| Plant and Machinery | 46.61 | 66.01 | 87.82 |
| Lines and Cable Net Works | 61.75 | 87.45 | 116.35 |
| Vehicles | 0.23 | 0.32 | 0.43 |
| Furniture and Fixture | 0.33 | 0.47 | 0.63 |
| Office Equipment | 0.25 | 0.36 | 0.47 |
| Spare Units/Service Units | 1.12 | 1.58 | 2.10 |
| Total | 114.06 | 161.53 | 214.92 |

5.11.4 The Hon'ble Commission is requested to approve the Depreciation as submitted for the Control Period.



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5.12 Interest and Finance Charge

5.12.1 JSEB would like to submit that it has considered Interest on Normative Loan, Interest on Working Capital and Interest on Security Deposit under Interest and Finance Charge.

5.12.2 Interest on Loan

5.12.3 The Interest and Finance charges for the distribution function have been calculated separately for the existing loans and loans to be taken for the proposed capital works by the petitioner. The interest calculation for new loans has been done assuming an interest rate of 13% and a repayment period of 10 years. For the existing loans the same is based on actual terms and conditions of the loans.

5.12.4 Further, as per the regulations, the interest during capitalization has been deducted from the total interest costs and a debt equity ratio of 70:30 has been assumed for calculating the interest costs.

5.12.5 The segregation of the existing loans into the three functions has been done based on the purpose for which the same were taken by the JSEB and only the interest costs associated with the distribution function have been considered for estimating the interest and finance charges.

5.12.6 As far as the new loans are concerned, interest costs have been estimated only for the debt part of each loan. Based on the above methodology, the interest costs for FY Control Period are as under:

Table 60 : Interest on Loan for FY 2013-14 to FY 2015-16

| Interest and finance charges | 2013-14 | 2014-15 | 2015-16 |
|-------------------------------------|---------|---------|----------|
| Interest on new loans | 665.87 | 743.10 | 784.26 |
| Interest on existing loans | 436.69 | 442.30 | 448.90 |
| Less interest during capitalization | 415.75 | 323.33 | 210.83 |
| Net interest | 686.44 | 862.07 | 1,022.33 |
| Interest considered @70% | 480.51 | 603.45 | 715.63 |

5.12.6.1 The Hon'ble Commission is requested to approve the Interest amount for the Control Period as projected in the above table.



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5.12.7 Interest on Working Capital

5.12.7.1 Regulation 6.26 of JSERC (Terms & Conditions for determination for distribution tariff) Regulations 2010 provides for Interest on Working Capital.

5.12.7.2 Interest on Working Capital is computed as follows:

- a) *One-twelfth of the amount of Operation and Maintenance expenses for such financial year; plus*
- b) *Maintenance spares at 1% of Opening GFA; plus*
- c) *Two months equivalent of the expected revenue from sale of*
- d) *electricity at the prevailing tariffs; minus*
- e) *Amount held as security deposits under clause (a) and clause (b) of subsection (1) of Section 47 of the Act from consumers and Distribution System Users; minus*
- f) *One month equivalent of cost of power purchased, based on the annual power procurement plan.*

5.12.7.3 Thus, in line with the aforementioned regulation, JSEB has worked the Interest on Working Capital as follows:

Table 61 : Interest on Working Capital for FY 2013-14 to FY 2015-16

| Interest on Working Capital (Rs.Crs) | | | |
|--|---------------|---------------|---------------|
| Particulars | Projections | Projections | Projections |
| | FY 2013-14 | FY 2014-15 | FY 2015-16 |
| O&M Expenses (1 Month) | 25.92 | 31.36 | 38.06 |
| Maintenance Spares (1% of Opening GFA) | 23.59 | 37.07 | 52.51 |
| Expected Revenue at Existing Tariff (2 Months) | 855.49 | 1,070.02 | 1,299.03 |
| Less: | | | |
| Power Purchase Cost (1 Month) | 342.65 | 423.24 | 511.52 |
| Security Deposit | 316.40 | 362.68 | 589.36 |
| Total Working Capital | 245.95 | 352.54 | 288.71 |
| Rate of Interest on Working Capital | 14.75% | 14.75% | 14.75% |
| Total Interest on Working Capital | 36.28 | 52.00 | 42.59 |

5.12.7.4 The Hon'ble Commission is requested to approve the Interest on Working Capital as worked out in the table above.

5.12.8 Interest on Security Deposit



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5.12.8.1 Regulation 6.48 of JSERC (Terms & Conditions for Determination of Distribution Tariff) 2010 provides for claim of Interest on Security Deposit. The relevant regulation is produced herein

6.48 Interest paid on consumer security deposits shall be as specified by the Commission in 'Jharkhand Electricity Supply Code Regulations, 2005' as amended from time to time.

5.12.8.2 Further, JSERC (Electricity Supply Code) Regulations 2005 also provides for Interest on Security Deposit to be paid on the prevalent bank rate of RBI. The relevant extract is reproduced hereunder:

10.6. The Distribution Licensee shall pay interest on the amount of security deposit by the consumer at a rate prevalent to bank rate of the Reserve Bank of India.

5.12.8.3 The prevailing rate notified by RBI is **9.0%** and the copy of the notification is provided at

5.12.8.4 The petitioner has computed security deposit additions for the control period in proportion to increase in consumer base for that relevant year. As per the RBI letter dated 19th April 2012; the Bank rate is considered at 9.00% during the Control Period. The Interest on Security Deposit is computed in the table below:

Table 62 : Interest on Security Deposit for FY 2013-14 to FY 2015-16

| Interest on Security Deposit (Rs. Crs) | | | |
|--|---------------|---------------|---------------|
| Particulars | Projections | Projections | Projections |
| | FY 2013-14 | FY 2014-15 | FY 2015-16 |
| Opening Security Deposit | 294.61 | 338.19 | 387.18 |
| Security Deposit received | 43.58 | 48.98 | 55.18 |
| Closing Security Deposit | 338.19 | 387.18 | 442.35 |
| Average Security Deposit | 316.40 | 362.68 | 414.76 |
| Rate of Interest : Bank Rate upto 15 Mar | 9.00% | 9.00% | 9.00% |
| Interest on Security Deposit | 28.48 | 32.64 | 37.33 |

5.12.8.5 It is requested to the Hon'ble Commission to approve the Interest on Security Deposit as shown in the table above.



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5.12.9 Based on the foregoing paragraphs, the Interest and Finance Charges for the distribution function is shown in the table below and the Hon'ble Commission is requested to approve the same.

Table 63 : Interest & Finance Charges for FY 2013-14 to FY 2015-16

| Interest on Finance Charges (Rs.Crs) | | | |
|---|---------------|---------------|---------------|
| Particulars | Projections | Projections | Projections |
| | FY 2013-14 | FY 2014-15 | FY 2015-16 |
| Interest on Loan | 480.63 | 603.45 | 715.63 |
| Interest on Working Capital | 36.28 | 52.00 | 42.59 |
| Interest on Security Deposit | 28.48 | 32.64 | 37.33 |
| Total Interest & Finance Charges | 545.38 | 688.09 | 795.54 |

5.13 Return on Equity

5.13.1 As per Regulation 6.21 of JSERC (Terms & Conditions for Determination of Distribution Tariff) 2010; the return on equity for the Control Period shall be 15.5% (post tax). The relevant regulation is as under:

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

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

The regulation related to tax on income is extracted below for reference:

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

5.13.2 Thus, in line with the regulation; JSEB has calculated the RoE for the control period. The RoE for the MYT control period is shown in the table below:



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Table 64 : Return on Equity for Distribution for Control Period

| Return on Equity (Rs.Crs) | | | |
|---------------------------|---------------|-----------------|-----------------|
| Particulars | Projections | Projections | Projections |
| | FY 2013-14 | FY 2014-15 | FY 2015-16 |
| Opening Equity | 473.00 | 877.47 | 1,340.39 |
| Additions during the year | 404.47 | 462.93 | 520.54 |
| Closing Equity | 877.47 | 1,340.39 | 1,860.93 |
| Average Equity | 675.23 | 1,108.93 | 1,600.66 |
| Return on Equity (%) | 15.50% | 15.50% | 15.50% |
| Total | 104.66 | 171.88 | 248.10 |

5.13.3 The Hon'ble Commission is requested to approve the RoE as projected for the Control Period.

5.14 Non Tariff Income

5.14.1 Regulation 6.49 of JSERC (Terms & Conditions for determination of Tariff) 2010 provides for Non Tariff Income.

5.14.2 As mentioned in the earlier sections, Non Tariff Income comprises of metre rent, Delayed Payment Surcharge, Interest from Bank. The projection showcased in the table below is in line with the methodology adopted by the Hon'ble Commission.

Table 65 : Non Tariff Income for Control Period

| Non Tariff Income (Rs.Crs) | | | |
|--|--------------|--------------|--------------|
| Particulars | Projections | Projections | Projections |
| | FY 2013-14 | FY 2014-15 | FY 2015-16 |
| Interest on Staff Loan & Advance | 0.00 | 0.00 | 0.00 |
| Income from Investment (F.D) | 19.56 | 20.54 | 21.57 |
| Interest on loans and advances to licensee | - | - | - |
| D.P.S from Consumer | 19.16 | 20.12 | 21.13 |
| Interest on advance to Supplier/Contractor | 0.44 | 0.46 | 0.49 |
| Interest from Bank (Other than F.D) | 1.07 | 1.12 | 1.18 |
| Income from trading | 0.66 | 0.70 | 0.73 |
| Income from staff Welfare Activities | 0.00 | 0.00 | 0.00 |
| Miscellaneous Receipt. | 13.01 | 13.66 | 14.34 |
| Meter Rent | - | - | - |
| Miscellaneous Charges from Consumers | - | - | - |
| Total | 53.92 | 56.61 | 59.44 |



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5.15 Annual Revenue Requirement

5.15.1 Based on the foregoing paragraphs, the ARR for the Control Period i.e. FY 2013-14 to FY 2015-16 is shown in the table below:

Table 66 : ARR for Distribution for Control Period

| ARR for Distribution Business | | | |
|--------------------------------------|--------------------|--------------------|--------------------|
| Particulars | Projections | Projections | Projections |
| | FY 2013-14 | FY 2014-15 | FY 2015-16 |
| Power Purchase Expense | 4,424.57 | 5,545.57 | 6,660.76 |
| O&M Expense | 310.99 | 376.36 | 456.76 |
| <i>Employee Expense</i> | 206.06 | 223.86 | 243.20 |
| <i>A&G Expense</i> | 42.91 | 46.62 | 50.65 |
| <i>R&M Expense</i> | 62.02 | 105.88 | 162.91 |
| Interest and Finance Charges | 549.32 | 693.97 | 802.13 |
| Depreciation | 114.06 | 161.53 | 214.92 |
| Total Expenditure | 5,398.94 | 6,777.44 | 8,134.56 |
| Add: Reasonable Return on Equity | 104.66 | 171.88 | 248.10 |
| Less: Non Tariff Income | 53.92 | 56.61 | 59.44 |
| Aggregate Revenue Requirement | 5,449.69 | 6,892.71 | 8,323.22 |



6. SEGREGATION INTO WHEELING AND RETAIL SUPPLY BUSINESS

6.1 Introduction

6.1.1 JSEB in its Business Plan has stated that it still has not segregated accounts for Distribution and Retail Supply (Wires) Business. The relevant regulation of JSERC (Terms & Conditions for determination of tariff) Regulations 2010 is reproduced hereunder:

“5.7 The Business Plan shall be filed separately for the Retail Supply and Wheeling Business. As specified in clause 5.5 of these regulations, in absence of segregated accounts for the two businesses, the Licensee shall prepare an allocation statement and submit the same with the business plan;”

6.1.2 As submitted in Para 9.3 of the Business Plan, JSEB has segregated employee costs and A&G costs equally among the wheeling business and supply business. But since most of the existing fixed assets as well as the planned addition in the fixed assets during the control period would belong to the wheeling business, the segregation of cost items dependent on the GFA should be done in a manner which allocates majority of those cost heads to the wheeling business. Accordingly, JSEB has allocated 90% of depreciation costs, interest and finance charges and return on equity to the wheeling business. The costs allocated to the wheeling business, as worked on this basis are as under:

Table 67 : Costs allocated to Wheeling Business (Rs. Cr)

| Particulars | Allocation to Wheeling (%) | FY 2012-13 | FY 2013-14 | FY 2014-15 | FY 2015-16 |
|------------------------------|----------------------------|------------|------------|------------|------------|
| Employee Expense | 50% | 97.08 | 103.03 | 111.93 | 121.60 |
| A&G Expense | 100% | 37.89 | 42.91 | 46.62 | 50.65 |
| R&M Expense | 50% | 14.90 | 31.01 | 52.94 | 81.45 |
| Depreciation charges | 90% | 65.32 | 102.66 | 145.38 | 193.42 |
| Interest and finance charges | 90% | 370.96 | 494.39 | 624.58 | 721.91 |
| Return on equity | 90% | 42.39 | 94.19 | 154.70 | 223.29 |
| Non-tariff income | 0% | - | - | - | - |



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Table 68 : Costs allocated to Retail Supply Business (Rs. Cr)

| Particulars | Allocation to Retail Supply Business (%) | FY 2012-13 | FY 2013-14 | FY 2014-15 | FY 2015-16 |
|------------------------------|--|------------|------------|------------|------------|
| Employee Expense | 50.00% | 97.08 | 103.03 | 111.93 | 121.60 |
| A&G Expense | 0.00% | - | - | - | - |
| R&M Expense | 50.00% | 14.90 | 31.01 | 52.94 | 81.45 |
| Depreciation charges | 10.00% | 7.26 | 11.41 | 16.15 | 21.49 |
| Interest and finance charges | 10.00% | 40.66 | 54.54 | 68.81 | 79.55 |
| Return on equity | 10.00% | 4.71 | 10.47 | 17.19 | 24.81 |
| Non-tariff income | 100.00% | 51.35 | 53.92 | 56.61 | 59.44 |



7. TARIFF PROPOSAL FOR FY 2013-14

7.1 Revenue Gap for FY 2011-12

7.1.1 As discussed in Section 3.15, the final revenue gap for FY 2011-12 under trueing up process is **Rs. 2,310.34 Crs** based on provisional accounts for JSEB.

7.2 Revenue Gap for FY 2012-13

7.2.1 As discussed in Section 4.15, the pure revenue gap for FY 2012-13 based on revised estimates is **Rs. 2169.95 Crs**.

7.3 Revenue Gap for FY 2013-14

7.3.1 Based on the revised submissions, the projected ARR for FY 2013-14 is tabulated under:

Table 69 : ARR for FY 2013-14

| Particulars | Projections |
|--------------------------------------|-----------------|
| | FY 2013-14 |
| Power Purchase Expense | 4,424.57 |
| O&M Expense | 310.99 |
| <i>Employee Expense</i> | 206.06 |
| <i>A&G Expense</i> | 42.91 |
| <i>R&M Expense</i> | 62.02 |
| Interest and Finance Charges | 549.32 |
| Depreciation | 114.06 |
| | |
| Total Expenditure | 5,398.94 |
| Add: Reasonable Return on Equity | 104.66 |
| Less: Non Tariff Income | 53.92 |
| Aggregate Revenue Requirement | 5,449.69 |

7.3.2 Considering the Gap from the three functions viz Generation, Transmission and Distribution, the pure gap / (surplus) has been arrived at by considering the existing tariff for FY 2013-14. The sales considered for calculating the revenue at existing tariff is considered as submitted under section 7.31 of the Business Plan submitted. The table below shows the pure gap for FY 2013-14.



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Table 70 : Pure Gap for FY 2013-14

| Particulars | Proposed |
|---|-----------------|
| | FY 2013-14 |
| Generation ARR (Thermal) | 483.66 |
| Generation ARR (Hydro) | 21.76 |
| Transmission ARR | 339.99 |
| Distribution ARR | 5,449.69 |
| Total Revenue Requirement for FY13-14 | 6,295.10 |
| <i>Revenue from Sale of Power at Existing Tariff</i> | 3,502.44 |
| Pure Revenue Gap FY 2013-14 at Existing Tariff | 2,792.66 |

7.3.3 The computation of cumulative revenue gap / (surplus) for FY 2013-14 is computed in the table below:

Table 71 : Pure Gap for FY 2013-14

| Particulars | Approved in T.O.FY13 | Proposed |
|--|----------------------|------------------|
| Revenue Gap / (Surplus) for past years from FY04 to FY11 | (448.37) | (448.37) |
| Revenue Gap / (Surplus) for FY2011-12 | 405.24 | 2,310.34 |
| Revenue Gap / (Surplus) for FY2012-13 | 491.42 | 2,169.95 |
| Cumulative Revenue Gap / (Surplus) upto FY2012-13 | 448.30 | 4,031.93 |
| ARR for FY 2013-14 | | 6,295.10 |
| Total Revenue Requirement for FY 2013-14 | | 10,327.02 |
| Less: Total Revenue at Existing Tariff for FY13-14 | | 3,502.44 |
| Total Gap at Existing Tariff | | 6,824.59 |
| Less: Additional Revenue from Proposed Tariff | | 690.51 |
| Balance Gap proposed to be C/f | | 6,134.08 |

7.4 Proposal to meet the Revenue Gap

7.4.1 JSEB in this petition has cited that fuel costs have been the main reason for increase in the expenses. Hence, the Revenue Gap has increased substantially. This increase in fuel prices is mainly attributable to increasing coal prices due to which tariffs are further expected to rise in near future.

7.4.2 The petitioner proposes to meet the partial revenue gap through tariff increase and partial gap through creation of Regulatory Asset. Thus it requests Hon'ble



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Commission to approve the revenue gap without leaving any portion of the gap of any financial year.

7.4.3 Based on the proposed tariff discussed in next Chapter, the revenue at proposed tariffs for FY 2013-14 from various categories of consumers is summarized in the table below:

Table 72 : Revenue at Proposed Tariffs for FY 2013-14

| CATEGORY | Sales | Energy- Charge | Fixed Charge | Meter Rent | Power Factor Surcharge | Fuel Surcharge | AMG | Other Charges | Assesment |
|--------------------------------------|-----------------|-----------------|---------------|-------------|------------------------|----------------|---------------|---------------|-----------------|
| Domestic | 3,923.00 | 1,113.64 | 216.60 | 0.00 | 0.03 | 0.00 | 0.00 | 4.06 | 1,334.34 |
| DS-I (a) | 373.76 | 59.80 | 59.10 | - | 0.00 | - | - | 0.06 | 118.96 |
| DS-I (b) | 615.47 | 113.86 | 79.34 | - | 0.00 | - | - | 0.06 | 193.27 |
| DS-II, < = 4 KW -Total | | | | | | | | | |
| 0-200 | 2,395.18 | 730.53 | 68.01 | - | 0.01 | - | - | 0.64 | 799.17 |
| 201 -500 | 89.98 | 31.49 | 3.24 | - | 0.00 | - | - | 0.13 | 34.86 |
| 500 & above | 87.60 | 32.85 | 1.20 | - | - | - | - | - | 34.05 |
| DS- III, Above 4 KW | 350.49 | 141.95 | 4.90 | - | 0.01 | - | - | 1.27 | 148.13 |
| DS HT | 10.52 | 3.16 | 0.81 | - | 0.02 | - | - | 1.91 | 5.89 |
| Non Domestic | 488.00 | 215.45 | 116.12 | 0.00 | 0.53 | 0.00 | 0.00 | 9.36 | 341.47 |
| NDS-I, <= 2 KW | 101.47 | 20.80 | 1.18 | - | 0.10 | - | - | 1.81 | 23.89 |
| NDS-I unmetered | 32.62 | - | - | - | 0.18 | - | - | 3.16 | 3.34 |
| NDS-II, >2 KW to 75 KW | 353.91 | 194.65 | 114.95 | - | 0.25 | - | - | 4.39 | 314.24 |
| Low Tension | 194.00 | 101.85 | 84.92 | - | 1.84 | - | - | 4.01 | 192.62 |
| LTIS-I | 194.00 | 101.85 | 84.92 | - | 1.84 | - | - | 4.01 | 192.62 |
| PWW LT | - | - | - | - | - | - | - | - | - |
| Irrigation & Agricultural | 75.00 | 4.63 | 6.33 | - | - | - | (0.02) | 0.01 | 10.94 |
| IAS- I | 39.89 | 3.99 | - | - | - | - | - | - | 3.99 |
| IAS - I Unmetered | 26.59 | - | 2.06 | - | - | - | - | - | 2.06 |
| IAS- II | 5.11 | 0.64 | - | - | - | - | - | - | 0.64 |
| Agriculture - IAS - II (Unmetered) | 3.41 | - | 4.26 | - | - | - | - | - | 4.26 |
| High Tension Service | 1,913.00 | 1,138.24 | 184.41 | 0.00 | 2.39 | 0.00 | 0.00 | 1.48 | 1,326.52 |
| 11 KV | 1,035.05 | 615.86 | 109.00 | - | 1.35 | - | - | 0.38 | 726.59 |
| 33 KV | 676.90 | 402.75 | 58.98 | - | 0.36 | - | - | 0.65 | 462.74 |
| 132 KV | 201.05 | 119.62 | 16.43 | - | 0.68 | - | - | 0.45 | 137.19 |
| HT Special S | 764.00 | 309.42 | 136.10 | - | 1.38 | - | - | 1.70 | 448.60 |
| 11 KV | 59.47 | 24.09 | 13.25 | - | 0.80 | - | - | 0.80 | 38.94 |
| 33 KV | 704.53 | 285.33 | 122.85 | - | 0.58 | - | - | 0.90 | 409.66 |
| 132 KV | - | - | - | - | - | - | - | - | 0.00 |
| Traction | 743.00 | 464.38 | 52.03 | - | 0.14 | - | - | 0.01 | 516.55 |
| RTS | 743.00 | 464.38 | 52.03 | - | 0.14 | - | - | 0.01 | 516.55 |
| Street Light Service | 199.00 | 3.37 | 5.75 | - | - | - | - | - | 9.13 |
| SS-I | 6.82 | 3.37 | 0.26 | - | - | - | - | - | 3.64 |
| SS - II | 192.18 | - | 5.49 | - | - | - | - | - | 5.49 |
| MES | 19.00 | 9.22 | 2.72 | - | - | - | - | - | 11.93 |
| GRAND TOTAL | 8,318.00 | 3,360.19 | 804.98 | - | 6.31 | - | (0.02) | 21.48 | 4,192.94 |

7.4.4 Based on the foregoing paragraphs, the details of revenue gap, proposed tariff increase, revenue gap met and unrecovered revenue gap is summarized in the following table:



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Table 73 : Unrecovered Revenue Gap for FY 2013-14

| Particulars | Proposed |
|--|-----------------|
| Total Revenue Requirement for FY 2013-14 including Past gap/recoveries | 10,327.02 |
| Less: Revenue at Existing Tariff for FY 2013-14 | 3,502.44 |
| Total Gap at Existing Tariff including Past recoveries | 6,824.59 |
| % Increase required in Tariff to meet full revenue gap | 194.85% |
| % Increase in Proposed Tariffs | 19.72% |
| Revenue from Proposed Tariff | 4,192.95 |
| % of Revenue Gap met from Proposed Tariff Increase | 40.60% |
| Unmet Revenue Gap | 6,134.08 |
| Unmet Revenue Gap % | 59.40% |

7.5 Creation of Regulatory Asset

- 7.5.1 JSEB is of the view that a tariff increase to cover the cumulative revenue gap for the period FY 2011-12 to FY 2012-13 and gap proposed for FY 2013-14 which are assessed at Rs. **6,134.08** Cr. will lead to a tariff shock to its consumers.
- 7.5.2 JSEB proposes creation of regulatory asset for the cumulative gap of Rs. **6,134.08** Crs. since the same has not been covered for at the proposed tariff. The regulatory gap thus created may be gradually allowed in the retails tariffs for the JSEB in the subsequent years. JSEB proposes recovery of the regulatory asset from retail tariffs during the period FY 2014-15 to FY 2018-19 as per the phasing provided in the table below:



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Table 74: Proposed Phasing for Recovery of Regulatory Asset (Rs. Crs)

| <i>Financial Year</i> | <i>Percentage of Regulatory Asset Allowed</i> | <i>Amount proposed to be passed in ARR (Rs. Crs)</i> |
|-----------------------|---|--|
| FY 2014-15 | 20% | 1,226.82 |
| FY 2015-16 | 20% | 1,226.82 |
| FY 2016-17 | 20% | 1,226.82 |
| FY 2017-18 | 20% | 1,226.82 |
| FY 2018-19 | 20% | 1,226.82 |
| Total | 100% | 6,134.08 |

7.5.3 Accordingly, the Board prays to the Hon^{ble} Commission to allow reasonable interest on the outstanding regulatory asset from the year of accrual of the cumulative losses for the period FY 2011-12 to FY 2012-13 and for FY 2013-14.



8. PROPOSED TARIFF SCHEDULE

8.1 Tariff Philosophy

Proposed Changes in Tariff Schedule/ Terms and Conditions of Supply

- 8.1.1 **Load Factor Penalty:** It is proposed that HT consumers having load factor less than 30% continuously for 3 months would not be allowed to draw power during peak hours. In the event that during inspection if such consumers (barring essential services) continuously having load factor below 30% is found drawing power in the peak hours, their connection shall be disconnected forthwith.
- 8.1.2 **Load Factor Rebate:** As per the existing practice in other states, load factor rebate is offered only on energy charges for consumption recorded over and above the cut-off limits for load factor rebate. For example, if the load factor of a consumer is 75% in a month then the rebate is offered only on the 15% additional load factor achieved over and above the limit of 60% and only the additional consumption is rewarded through rebate.
- 8.1.3 However, the current order of the Commission requires that the rebate be offered on the energy as well as demand charges. JSEB would like to make a humble submission that calculation of rebate on demand charges is not possible as per the current methodology which was clarified by the Hon'ble Commission in the tariff order for FY2003-04.
- 8.1.4 Hence, it is prayed that the load factor rebate should be made applicable only on the energy charges alone thus keeping it simple. The petitioner has tried to refer to some of the tariff orders of other state utilities wherein the rebate is allowed on Energy Charges only.



Extract from UP Discom Tariff Order FY 2012-13

7. LOAD FACTOR REBATE:

For any excess consumption over the defined kVAh per KVA (of maximum demand recorded) as defined in the table below, a graded rebate is provided on the energy charges for such excess consumption. This rebate will be available on monthly basis and will be given to the consumer for each slab.

| Description | Rebate on Energy charges |
|--|--|
| For all consumption over 288 kVAh per kVA up to 432 kVAh per kVA per month | 7.5% on the consumption over 288 kVAh / kVA / month and up to 432 kVAh / kVA / month |
| For all consumption over 432 kVAh per kVA up to 504 kVAh per kVA per month | 7.5% as applicable in first slab <i>plus</i> 10% on the consumption over 432 kVAh / kVA / month and up to 504 kVAh / kVA / month |
| For all consumption in excess of 504 kVAh per kVA per month | 7.5% as applicable in first slab <i>plus</i> 10% as applicable in second slab <i>plus</i> 20% on the consumption over 504 kVAh / kVA / month |

Note: Consumer with arrears shall not be eligible for above rebate. In case the consumer has obtained an order of stay from a court or any other statutory authority, the amount of load factor rebate for which the consumer is eligible in respect of the amount of the bill shall be calculated and the same shall accrue to the account of the consumer. However, the actual credit thereof shall not be given to the consumer in his monthly bill until the case relating to the dispute regarding arrear is finally decided by the competent court / statutory authority.



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Extract from Orissa Tariff Order FY 2012-13:

**Slab rate of energy charges for HT & EHT consumers
(Paise per unit)**

| Load Factor (%) | HT | EHT |
|-----------------|-----|-----|
| Upto 50% | 495 | 490 |
| > 50% = < 60% | 450 | 445 |
| > 60% | 395 | 390 |

Extract from MSEDCL Tariff Order FY 2012-13:

Load Factor Incentive

Consumers having load factor over 75% upto 85% will be entitled to a rebate of 0.75% on the Energy Charges for every percentage point increase in load factor from 75% to 85%. Consumers having a load factor over 85 % will be entitled to rebate of 1% on the Energy Charges for every percentage point increase in load factor from 85%. The total rebate under this head will be subject to a ceiling of 15% of the Energy Charges for that consumer. This incentive is limited to HT I, HT II and HT IX categories only. Further, the load factor rebate will be available only if the consumer has no arrears with MSEDCL, and payment is made within seven days from the date of the bill. However, this incentive will be applicable to consumers where payment of arrears in installments has been granted by MSEDCL, and the same is being made as scheduled. MSEDCL has to take a commercial decision on the issue of how to determine the time frame for which the payments should have been made as scheduled, in order to be eligible for the Load Factor incentive.



Extract from WBSEDCL Tariff Order FY 2012-13

8.2.1 Load Factor Rebate/ Surcharge:

8.2.1.1 In order to reduce the overall system T&D loss and to flatten the load curve by improving the existing system load factor of WBSEDCL, the voltage-wise graded load factor rebate applicable for the EHV and HV industrial consumers and L&MV industrial consumer under rate (B-ID) will be as per the following table:

LOAD FACTOR REBATE (Paise / kWh)

| For the Year 2012-13 | | | | |
|---------------------------|-----------|----------------|-------|-------------|
| Range of Load Factor (LF) | | Supply Voltage | | |
| | | Below 33 kV | 33 kV | Above 33 kV |
| Above 55% | Up to 60% | 1 | 2 | 3 |
| Above 60% | Up to 65% | 7 | 8 | 9 |
| Above 65% | Up to 70% | 14 | 29 | 39 |
| Above 70% | Up to 75% | 20 | 35 | 45 |
| Above 75% | Up to 80% | 25 | 40 | 50 |
| Above 80% | Up to 85% | 30 | 45 | 55 |
| Above 85% | Up to 90% | 35 | 50 | 60 |
| Above 90% | Up to 92% | 40 | 55 | 65 |
| Above 92% | Up to 95% | 45 | 60 | 70 |
| Above 95% | | 50 | 65 | 75 |

Based on the aforementioned reasons and the precedence in Maharashtra, Orissa, Uttar Pradesh and West Bengal, and the impracticality of applying load factor rebate to demand charges, the Hon'ble Commission is requested to approve load factor rebate to be based on energy charges and not on both energy and demand charges.

8.1.5 **Voltage Rebate:** In case of voltage rebate approved by the Hon'ble Commission, the intent of the voltage rebate was to induce HT consumers to get connections on a higher voltage level. In case of HT consumers, although the energy charges are the same for all consumers but consumers who have taken a connection at a higher voltage level are given a rebate in accordance with their voltage level.



- 8.1.5.1 This was because the T&D losses at higher voltage are less and hence the benefits of the same can be shared with the consumers. However, the benefits of higher voltages are only in terms of savings in energy alone and there is no impact on demand. As regards to the fixed charges, the maintenance cost for HT lines are higher compared to lower voltage lines.
- 8.1.5.2 Hence offering voltage rebate on demand as well as energy charges is not logical. Hence in light of the above facts JSEB prays to the Hon'ble Commission to redefine the applicability of the voltage rebate to be applicable only on the energy charges and not on both demand and energy charges.
- 8.1.6 **Power Factor Penalty:** It is proposed that 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 3% for every 0.01 fall below 0.60 to 0.30 (up to and including 0.30) shall be levied only on energy charges.
- 8.1.6.1 Further, power factor below 0.30 is undesirable and the consumer must install shunt capacitors immediately, failing which their line will be disconnected after clear 15 days disconnection notice.
- 8.1.6.2 Further, in Tariff Order for 2012-13, the Hon'ble Commission has approved power factor penalty/rebate on both demand and energy charges. The petitioner proposes that Power Factor Penalty/ Rebate may please be allowed only on Energy Charges and *NOT* on both Demand & Energy Charges.
- 8.1.6.3 Power Factor Rebate: It is proposed that rebate shall be offered to consumers maintaining power factor above 0.90. A rebate equivalent to 1% would be applicable for power factor above 90% and 2% (cumulative) for power factor above 95% on energy charges.
- 8.1.7 **Distinct Categorization of Rolling Mills and other associated operation with Induction Furnace under HTS:** It is proposed that Hon'ble Commission may please consider Rolling mills and other associated operations exclusively under HTS category. In case there are any combined operation where rolling mills/other associated operations occur with induction furnace under the same premise, then separate metering arrangements as well as boundary separation of the



operations must be done to segregate the units consumed exclusively for induction furnace and rolling mills/other associated operations.

8.1.8 Tariff Approval for Temporary Supply: The Hon'ble Commission has earlier approved tariff for temporary supply in Tariff Order 2011-12. However, the same was missed in Tariff Order 2012-13. The Petitioner requests the Hon'ble Commission to approve tariff for temporary supply in the current order. The proposed tariff for such category is provided in Section **8.15**.

8.1.9 Separate category for Seasonal Supply: The Petitioner proposes to introduce tariff for seasonal supply. The proposed tariff for such category is provided in Section **8.16**.

8.1.10 Penalty for exceeding Contract Demand: Hon'ble Commission had approved the additional demand charges for the demand being exceeded by the consumer over his contract demand under Clause I of 'Terms and Conditions of Supply' in tariff order 2012-13. The penalty proposed is 1.5 times of existing normal rates for the demand exceeding the contract demand.

8.1.10.1 It is proposed that the present clause of penalty is applicable only when actual demand exceeds 110% of the contract demand and furthermore penalty is levied on the demand recorded over and above 110% of contract demand. The petitioner would like to submit that present clause affects the petitioner when the two consumers exceed same % of demand but have different contract demand/ actual demands. For Example, Consumer 'A' has 100 KVA of contract demand and the recorded actual demand is 113 kVA. The variation is 13% however the penalty in this case would be on 3 kVA (13%-10%). Consumer 'B' has 8000 kVA of contract demand and the recorded actual demand is 9040 kVA. The variation is 13% however the penalty in this case would be on 240 kVA (13%-10%).



- 8.1.10.2 It may be noted that for consumer 'B' having higher contract demand, the same percentage increase exceeding contract demand is very high at 1040 KVA compared to consumer 'A' with relatively lower contract load. Therefore, for these consumers with higher contract load, whenever they exceed their contract load the burden of short term purchase on the petitioner is very high.
- 8.1.10.3 As such considering same example in the proposed scenario, the penalty should be levied on 13 kVA (i.e 13% of CD) for Consumer 'A' and 1040 kVA (i.e 13% of CD) for Consumer 'B'. It is submitted that such approach would act towards optimising/restricting load from the consumers' end and at the same time ensure that the Licensee is de-burdened from unscheduled consumption and system is also unaffected.
- 8.1.11 **Metering facility:** It is proposed that all HTS & HTSS consumers should have demand recording facility @ 15 minutes time integration. This will enable utility to manage its load profile during power restrictions. This will also enable Petitioner to match the profile/ scheduling with the SLDC/ ERLDC and assist in energy accounting. It may be noted that Regional Energy Accounting (REA) and other power drawal & scheduling are done on 15 minutes time block.
- 8.1.12 **NOC for Switchover to other licensee:** It is proposed by the petitioner that any consumers switching over to the other licensee shall have to compulsorily clear off all the dues and obtain 'No Objection Certificate' (NOC) mandatorily, failing which energy bills shall be generated based on the contract demand or maximum demand during last six months, whichever is higher despite power supply being disrupted. Penalty for exceeding contract demand shall also be applicable.
- 8.1.13 **Removal of Clause 13 from HT Agreement:** JSEB earlier submitted a review petition to the Hon'ble Commission regarding removal of clause 13 from HT Agreement. However, no decision has been arrived at so far. Therefore, the Petitioner would like to resubmit its request for removal of Clause 13 from the HT agreement.

“Clause 13” of the HT Agreement is reproduced hereunder



*“If at any time the consumer is prevented from receiving or using the electric energy to be supplied under this agreement either in whole or in part due to strike, riots, fire, floods, explosion, act of God or any other case reasonable beyond control or if the Board is prevented from supplying or unable to supply such electric energy owing to any or all of the causes mentioned above than demand charge and **guaranteed energy charge set out in the schedule shall be reduced in proportion to the ability of the consumers to take or the Board to supply such power** and the decision of the Chief Engineer, Jharkhand State Electricity Board, in this respect shall be final.”*

The Petitioner requests the Commission to notice that the minimum guaranteed charges are presently not applicable to the consumers and as such the requirement to adjust or proportionately reduce such charges based on the ability of the consumer to take or the Board to supply energy as highlighted in the excerpt above doesn't reasonably fit into the agreement. As such, the petitioner requests that the said clause be removed.

8.2 Tariff related Issues

- 8.2.1 The Petitioner submits that the tariffs of the Petitioner in the license area have been very low as compared to other licensees in the country with similar area, load profile and consumer mix.
- 8.2.2 The distribution losses are also on higher side whereas the Hon'ble Commission has approved loss trajectory in Tariff Regulations 2010 on lower side without considering actual power sector scenario of the State utility. The losses have further been affected with issues related to collection efficiency. The Hon'ble Commission has also not allowed provision/ write-off of actual bad-debts which is allowed by other State Commissions.
- 8.2.3 The state has been suffering from quality, reliable and continuous power generation from state power generating utilities resulting into higher purchases from other sources. Increasing costs and declining revenues have widened the revenue gap in past few years for distribution function. The present tariffs are insufficient to match these costs of services. The petitioner would like to highlight the recent coal shortage and resultant price increases issues which has further aggravated the revenue gap issues.



8.2.4 The petitioner also notes that the Hon'ble Commission ought to revise certain terms and conditions of supply considering practical issues of the petitioner. The petitioner humbly requests Hon'ble Commission to align the categorisation and terms and conditions of supply.

8.2.5 The petitioner has proposed the tariffs to meet the revenue gap. The petitioner would also like to refer to the APTEL Judgement in OP No.1 of 2011 dated 11th November 2011 wherein the Hon'ble Tribunal has ruled as under:

“65 (iv) In determination of ARR/tariff, the revenue gaps ought not to be left and Regulatory Asset should not be created as a matter of course except where it is justifiable, in accordance with the Tariff Policy and the Regulations. The recovery of the Regulatory Asset should be time bound and within a period not exceeding three years at the most and preferably within Control Period. Carrying cost of the Regulatory Asset should be allowed to the utilities in the ARR of the year in which the Regulatory Assets are created to avoid problem of cash flow to the distribution licensee.”

8.2.6 The petitioner has been deprived of the revenue requirement / legitimate claims at proper time due to which the revenue gap has increased/ has been increasing and accumulated over the years. There have been certain claims of the petitioner which are not approved as per audited accounts for the past true-ups.

8.2.7 The petitioner would also like to submit that the revenue gap has increased or revenue at revised tariff is approved at higher side as Rebates/ discounts/ load factor for HT Consumers have not been considered by Hon'ble Commission while processing tariff order. The petitioner requests that Hon'ble Commission may kindly consider the effect of rebates/ discounts / load factor in this tariff order while computing revenue from sale of power.



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Proposed Tariff Schedule

8.3 Summary of Category Wise Tariffs

| CATEGORY | Units for Fixed Charges | Existing (FY 2012-13) | | Proposed (FY 2013-14) | |
|--|-------------------------|--------------------------|----------------------------|--------------------------|-------------------------------|
| | | Fixed Charges | Energy Charge (Rs./kwh) | Fixed Charges | Energy Charge (Rs./kwh) |
| Domestic | | | | | |
| DS-I (a), Kutir Jyoti (metered) (0-50) | Rs/ Conn/Month | 15.00 | 1.20 | 25.00 | 1.50 |
| DS-I (a), Kutir Jyoti (metered) (50-100) | Rs/ Conn/Month | 15.00 | 1.20 | 25.00 | 1.60 |
| DS-I (a), Kutir Jyoti (Unmetered) | Rs/ Conn/Month | 40.00 | - | 105.00 | - |
| DS-I (b), metered (0-200) | Rs/ Conn/Month | 25.00 | 1.40 | 35.00 | 1.75 |
| DS-I (b), metered (above 200) | Rs/ Conn/Month | 25.00 | 1.50 | 40.00 | 1.95 |
| DS-I (b), unmetered | Rs/ Conn/Month | 100.00 | - | 155.00 | - |
| DS-II, < = 4 KW -Total | | | | | |
| 0-200 | Rs/ Conn/Month | 40.00 | 2.40 | 60.00 | 3.05 |
| 201 -500 | Rs/ Conn/Month | 60.00 | 2.90 | 75.00 | 3.50 |
| 500 & above | Rs/ Conn/Month | - | - | 100.00 | 3.75 |
| DS- III, Above 4 KW | Rs/ Conn/Month | 100.00 | 3.00 | 150.00 | 4.05 |
| DS HT | Rs/KVA/Month | 75.00 | 2.60 | 100.00 | 3.00 |
| Non Domestic | | | | | |



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| CATEGORY | Units for Fixed Charges | Existing (FY 2012-13) | | Proposed (FY 2013-14) | |
|--|-------------------------|--|------|---|------|
| | | | | | |
| NDS-I, <= 2 KW | Rs/ Conn/Month | 30.00 | 1.75 | 40.00 | 2.05 |
| NDS-I, metered (<= 2 kW) (above 100) | Rs/ Conn/Month | 30.00 | 1.75 | 45.00 | 2.05 |
| NDS-I, unmetered (<= 2 KW) | Rs/ kW/Month | 175 upto 1 kW | - | 200 upto 1 KW | - |
| | Rs/ kW/Month | 60 per additional 1kW or part thereof | - | 75 per additional 1kW or part thereof | - |
| NDS-II | Rs/ kW/Month | 175.00 | 5.25 | 205.00 | 5.50 |
| NDS-III | Rs/ Conn/Month | 150.00 | 6.00 | - | - |
| NDS-III (proposed) | Rs/ kW/Month | 150.00 | 6.00 | 205.00 | 7.00 |
| Low Tension | | | | | |
| LTIS (installation based Tariff) | Rs/HP/month | 130.00 | 4.90 | 175.00 | 5.25 |
| LTIS (Demand based Tariff) | Rs/kVA/month | 235.00 | 4.90 | 285.00 | 5.25 |
| Irrigation & Agricultural | | | | | |
| IAS- I | Rs/HP/month | Nil | 0.60 | - | 1.00 |
| IAS - I Unmetered | Rs/HP/month | 70.00 | Nil | 100.00 | - |
| IAS- II | Rs/HP/month | Nil | 1.00 | - | 1.25 |
| Agriculture - IAS - II (Unmetered) | Rs/HP/month | 280.00 | Nil | 500.00 | - |
| High Tension Service | | | | | |
| 11 KV | Rs/kVA/month | 235.00 | 5.40 | 285.00 | 5.95 |



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| CATEGORY | Units for Fixed Charges | Existing (FY 2012-13) | | Proposed (FY 2013-14) | |
|-----------------------------|-------------------------|--|-------------|--|-------------|
| | | | | | |
| 33 KV | Rs/kVA/month | 235.00 | 5.40 | 285.00 | 5.95 |
| 132 KV | Rs/kVA/month | 235.00 | 5.40 | 285.00 | 5.95 |
| HT Special S | | | | | |
| 11 KV | Rs/kVA/month | 410.00 | 3.25 | 480.00 | 4.05 |
| 33 KV | Rs/kVA/month | 410.00 | 3.25 | 480.00 | 4.05 |
| 132 KV | Rs/kVA/month | 410.00 | 3.25 | 480.00 | 4.05 |
| Traction | | | | | |
| RTS | Rs/kVA/month | 220.00 | 5.40 | 275.00 | 6.25 |
| Street Light Service | | | | | |
| SS-I | Rs/ Conn/Month | 35.00 | 4.45 | 75.00 | 4.95 |
| SS - II | Rs/ Conn/Month | Rs.140 per 100 watt lamp and Rs. 30 for every additional 50 watt and part thereof; | - | Rs.200 per 100 watt lamp and Rs. 50 for every additional 50 watt and part thereof; | - |
| MES | Rs/kVA/month | 205.00 | 4.05 | 250.00 | 4.85 |



8.4 Domestic Service (DS)

8.4.1 *Applicability:*

- Domestic Service–I, Domestic Service–II, Domestic Service–III and Domestic Service HT
- This schedule shall apply to all residential premises for domestic use for household electric appliances such as Radios, Fans, Televisions, Desert Coolers, Air Conditioner, etc. and including Motors pumps for lifting water for domestic purposes and other household electrical appliances not covered under any other schedule.
- This rate is also applicable for supply to religious institutions such as Temples, Gurudwaras, Mosques, Church and Burial/ Crematorium grounds and other recognised charitable institutions, where no rental or fees are charged whatsoever. If any fee or rentals are charged, such institution will be charged under Non domestic category.
- Rural drinking water schemes which are managed by Panchayats and User's Co-operatives are also included under this Category and corresponding Tariff would be charged depending upon the load of Pumping motors as applicable to the DS category.

8.4.2 *Category of Services*

- Domestic Service – DS-1 (a): For Kutir Jyoti Connection only for connected load up to 100 Watt for Rural Areas.
- Domestic Service – DS-I (b): For rural areas not covered by area indicated under DS-II for connected load up to 2 kW, including rural drinking water schemes having motor Pumps with load up to 2 kW.
- 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 up to 4 kW, including rural drinking



water schemes having motor pumps with load above 2 kW but not exceeding 4 kW.

- Domestic Service – DS-III: For Urban areas covered by notified Area Committee / municipality / Municipal Corporation / All District Town / All sub-divisional Town / All Block Headquarters / Industrial Area / contiguous sub-urban area all market places urban or rural and for connected load exceeding 4 kW and up to 85.044 KW, including rural drinking water schemes having motor pumps with load exceeding 4 kW.
- Domestic service – HT (DS – HT): This Schedule shall apply for Domestic Connection in Housing Colonies / Housing Complex / Houses of multi storied buildings purely for residential use for single point metered supply, with power supply at 11 kV voltage level and load above 85.044 kW.

8.4.3 **Service Character**

- For DS-I (a): AC, 50 Cycles, Single phase at 230 volts for Kutir Jyoti connection for load up to 100 Watt.
- For DS-I (b): AC, 50 Cycles; Single Phase at 230 Volts for load up to 2 kW.
- For DS-II: AC, 50 Cycles, Single Phase at 230 Volts for installed load up to 4 kW.
- For DS-III: AC, 50 Cycles; Three Phase at 400 Volts for installed load exceeding 4 kW and up to 85.044 KW.
- For DS-HT: AC, 50 Cycles, at 11 kV for installed load above 85.044 kW.



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Table 75 : Existing and Proposed Tariff – DS

| Consumer Category | Fixed Charges | | | Energy Charges | | |
|--|----------------|----------|----------|----------------|----------|----------|
| | Unit | Existing | Proposed | Unit | Existing | Proposed |
| Domestic | | | | | | |
| DS-I (a), Kutir Jyoti (metered) (0-50) | Rs/ Conn/Month | 15.00 | 25.00 | Rs/kWh | 1.20 | 1.50 |
| DS-I (a), Kutir Jyoti (metered) (50-100) | Rs/ Conn/Month | 15.00 | 25.00 | Rs/kWh | 1.20 | 1.60 |
| DS-I (a), Kutir Jyoti (Unmetered) | Rs/ Conn/Month | 40.00 | 105.00 | Rs/kWh | - | - |
| DS-I (b), metered (0-200) | Rs/ Conn/Month | 25.00 | 35.00 | Rs/kWh | 1.40 | 1.75 |
| DS-I (b), metered (above 200) | Rs/ Conn/Month | 25.00 | 40.00 | Rs/kWh | 1.50 | 1.95 |
| DS-I (b), unmetered | Rs/ Conn/Month | 100.00 | 155.00 | Rs/kWh | - | - |
| DS-II, <= 4KW | | | | | | |
| 0-200 | Rs/ Conn/Month | 40.00 | 60.00 | Rs/kWh | 2.40 | 3.05 |
| 201-500 | Rs/ Conn/Month | 60.00 | 75.00 | Rs/kWh | 2.90 | 3.50 |
| 500 & above | Rs/ Conn/Month | | 100.00 | | | 3.75 |
| DS-III, Above 4 KW | Rs/ Conn/Month | 100.00 | 150.00 | Rs/kWh | 3.00 | 4.05 |
| DS HT | Rs/KVA/Month | 75.00 | 100.00 | Rs/kWh | 2.60 | 3.00 |

8.4.4 Delayed Payment Surcharge:

In accordance with **Clause IV of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition .

8.4.5 Summary of changes proposed to Domestic Service (DS tariff)

- 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 has ensured connectivity of many remote villages on its network.
- 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).



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- 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.
- 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 whereas justifiable.
- 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 76 Comparison of Existing DS tariff with other approved tariffs in other States

| State | Applicable Fixed Charges (Domestic) | Applicable Energy Charges (Domestic) |
|------------------------------|--|---|
| BSEB (TO dt 30.3.2012) | DS-II (Metered) Single phase: Up to 7 kW: - First kw-Rs.50/ month/connection - Addl. kW-Rs.15/- kW or part thereof per month. Three Phase 5 kW and above: - 5 kW-Rs.230/ month/connection - Addl. kW-Rs.15/per kW or part thereof per month | DS-II (Metered) Energy charges (paise per unit): 1-100 units: 260 101-200 units: 320 201-300 units: 385 Above 300 units: 490 |
| 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 | Energy charges (paise per unit): Upto 50 units: 295 Next 50 units: 335 Next 150 units: 400 |



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| State | Applicable Fixed Charges (Domestic) | Applicable Energy Charges (Domestic) |
|----------------|--|---|
| | <p>month</p> <p>Above 4 to 6 kW: Rs.30/- per month</p> <p>Above 6 kW: Rs.45/- per month</p> | Above 250 units: 490 |
| Andhra Pradesh | <p>Fixed charge:</p> <p>No fixed charges</p> | <p>Energy charges (paise per unit):</p> <p>0-50 units: 145</p> <p>51-100 Units: 260</p> <p>101-200 Units: 360</p> <p>201-300 Units: 575</p> <p>301-500 Units: 675</p> <p>Above 500 Units: 725</p> |
| Punjab | <p>Fixed charges:</p> | <p>Energy charges (paise per unit):</p> <p>Upto 100 units: 311</p> <p>101 to 300 units: 452</p> <p>Above 300 units: 478</p> <p>Monthly minimum charges:</p> <p>Loads upto 100 KW: Rs.38/KW</p> <p>Loads exceeding 100 KW: Rs.34/KVA</p> |
| Haryana | <p>Fixed charge:</p> <p>No fixed charges</p> | <p>Energy Charges:</p> <p>Upto 40 units: 263</p> <p>41 to 300 units: 375</p> <p>301 to 500 units: 455</p> <p>501 and above units: 490</p> <p>Monthly minimum charges:</p> <p>Rs. 80 per kW or part thereof</p> <p>FSA as applicable</p> |
| Karnataka | <p>Fixed charges:</p> <p>For the first KW: Rs.20/- per KW</p> <p>For every additional KW: Rs.30/- per KW</p> | <p>Energy Charges:</p> <p>31 to 100 units: 290</p> <p>101 to 200 units: 390</p> <p>201 to 300 units: 460</p> <p>301 to 400 units: 495</p> <p>Above 400 units: 590</p> |
| Uttar Pradesh | <p>Fixed charges:</p> <p>Rs. 65.00/kW/Month</p> | <p>Energy Charges:</p> <p>Upto 200 units: 345</p> |



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| State | Applicable Fixed Charges (Domestic) | Applicable Energy Charges (Domestic) |
|------------------------------|--|---|
| | | Above 200 units: 380 |
| Maharashtra | Fixed Charges: Single Phase: Rs. 40/month Three Phase: Rs. 130/month | Energy Charges: 0 to 100 units: 336 101-300 units: 605 301-500 units: 792 501-1000 units: 878 Above 1000 units: 950 |
| West Bengal (TODT 1.12.2012) | Domestic (Urban) Fixed Charge – Rs.10 | Domestic (Urban) Energy Charges (paise per unit): First 75 : 446 Next 75: 503 Next 150: 586 Next 150: 640 Next 450: 660 Above 900: 810 |
| Orissa (TODT 23.3.2012) | Domestic (Urban) Fixed Charge – Rs.15 | Domestic (Urban) Energy Charges (paise per unit): 0-50 units : 220 51-200 units : 390 201- 400 units : 490 >400 units : 530 |

8.5 Non Domestic Service (NDS)

8.5.1 *Applicability:*

- This schedule shall apply to all consumers, using electrical energy for light, fan and power loads for non-domestic purposes like shops, hospitals (govt. or private), nursing homes, clinics, dispensaries, restaurants, hotels, clubs, guest houses, marriage houses, public halls, show rooms, workshops, central air-conditioning units, offices (govt. or private), commercial establishments, cinemas, X-ray plants, schools and colleges (govt. or private), boarding/ lodging houses, libraries (govt. or private), research institutes (govt. or private), railway stations, fuel – oil stations, service stations (including vehicle service stations), All India Radio / T.V. installations, printing presses, commercial trusts / societies, Museums, poultry farms, banks, theatres, common facilities in multi-storied



commercial office/buildings, Dharmshalas, and such other installations not covered under any other tariff schedule.

8.5.2 *Category of Services*

- **Non-Domestic Service (NDS)–I, Rural:** For Rural Areas not covered by area indicated for NDS-II and for connected load up to 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 & Contiguous Sub-urban area, market place rural or urban & connected load up to 85.044 KW (100 kVA), except for categories covered under NDS-III. This schedule shall also apply to commercial consumer of rural area having connected load above 2 kW.
- **Non-Domestic Service (NDS)-III:** For electricity supply availed through separate (independent) connections for the purpose of advertisements, hoardings and other conspicuous consumption such as external flood light, displays, neon signs at public places (roads, railway stations, airports etc.), departmental stores, commercial establishments, malls, multiplexes, theatres, clubs, hotels and other such entertainment/ leisure establishments.

8.5.3 *Service Character*

- NDS – I: AC 50 Cycles, Single phase at 230 Volts for load up to 2 kW
- NDS - II: AC 50 Cycles, Single phase at 230 Volts or Three Phases at 400 Volts for load exceeding 2 kW and up to 85.044 kW
- NDS- III: AC 50 Cycles, Single phase at 230 Volts for loads up to 2 kW & AC 50 Cycles, Three Phase at 400 Volts for load exceeding 2 kW.



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Table 77: Existing and Proposed Tariff

| Consumer Category | Fixed Charges | | | Energy Charges | | |
|--------------------------------------|----------------|---------------------------------------|---------------------------------------|----------------|----------|----------|
| | Unit | Existing | Proposed | Unit | Existing | Proposed |
| NDS-I, metered (<= 2 kW) (0-100) | Rs/ Conn/Month | 30 | 40.00 | Rs/kWh | 1.75 | 2.05 |
| NDS-I, metered (<= 2 kW) (above 100) | Rs/ Conn/Month | 30 | 45.00 | Rs/kWh | 1.75 | 2.05 |
| NDS-I, unmetered (<= 2 kW) | Rs/ kW/Month | 175 upto 1 kW | 200 upto 1 kW | Rs/kWh | - | |
| | Rs/ kW/Month | 60 per additional 1kW or part thereof | 75 per additional 1kW or part thereof | Rs/kWh | - | |
| NDS-II | Rs/ kW/Month | 175 | 205.00 | Rs/kWh | 5.25 | 5.50 |
| NDS-III (existing) | Rs/ Conn/Month | 150 | - | Rs/kWh | 6.00 | - |
| NDS-III (proposed) | Rs/ kW/Month | - | 205.00 | Rs/kWh | 6.00 | 7.00 |

8.5.4 Delayed Payment Surcharge:

In accordance with **Clause IV of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition .

8.5.5 Installation of Shunt capacitors:

In accordance with **Clause VII of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

For existing consumer, the Petitioner should first serve one month's notice to all such consumers who do not have or have defective shunt capacitors. In case the consumers does not get the capacitor installed/replaced within the notice period, the consumer shall be levied a surcharge at 5% on the total billed amount charge (metered or flat), till they have installed the required capacitors. No new connection shall be released for any consumer having aggregate inductive load greater than 3 HP (2.2 kW) unless the capacitors of suitable rating are installed. As for new consumer, the consumer shall declare the details of the reactive energy capacitor to be used as per **Clause VII of Terms & Conditions of Supply** and reasonable capacitor should first be installed at the time of release of connection failing which connection shall not be released.

8.5.6 Summary of changes proposed to NDS tariff

- 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.



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- The fixed charges approved in tariff order 2012-13 for the NDS III consumers is Rs. 150 **per connection per month** and the energy charges at Rs. 6/kwh. The fixed charges for NDS III category is proposed to be based on per KW/month since the fixed charges of preceding category (i.e NDS II) is similarly based (Rs. 175/kW/month).
- Existing consumer under NDS II shall be directed to avail connection for advertisements, hoardings, and other conspicuous consumption as detailed in Section **8.5.2** (applicability of NDS III category) etc. separately under distinct point of supply and metering arrangement.
- 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 78: Tariff for Commercial Category

| State | Applicable Fixed Charges (Commercial) | Applicable Energy Charges (Commercial) |
|------------------------------|--|--|
| BSEB (TO dt 30.3.2012) | NDS – II (Metered) Sanctioned Load upto 70 kW Fixed Charges - Single phase: Rs.180 /kW or part thereof upto 7 kW - Three Phase: Rs.200/kW or part thereof for loads 5 kW and above | NDS – II (Metered) Energy charges (paise per unit): 1-100 units: 470 101-200 units: 500 Above 200 units: 540 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 | Non – RGP: First 10 kW – Rs. 30/kW Next 30 kW – Rs. 55/kW LTMD: For first 40 kW of billing demand – Rs. 65/kW/month | For installation having contracted load up to and including 10kW: for entire consumption during the month – 400 paise/unit For installation having contracted load exceeding 10kW: for entire |



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| State | Applicable Fixed Charges (Commercial) | Applicable Energy Charges (Commercial) |
|----------------|--|--|
| | <p>Next 20 kW of billing demand – Rs. 100/kW/month</p> <p>Above 60 kW of billing demand – Rs. 165/kW/month</p> <p>For billing demand in excess of the contract demand – Rs. 210/kW</p> | <p>consumption during the month – 430 paise/unit</p> |
| Andhra Pradesh | <p>Fixed charge: No fixed charges</p> | <p>Energy charges (paise per unit): First 50 Units/month: 385 51 - 100 Units/ month: 600 > 100 Units/month: 700</p> |
| Punjab | <p>Fixed charges: No fixed charges</p> | <p>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</p> |
| Haryana | <p>Fixed charges: Rs.130 per kW of connected load for loads above 20 kW.</p> | <p>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.</p> |
| Chhattisgarh | <p>0 – 100 Units: Rs. 2.50/kWh 101 – 500 Units: Rs. 3.00/kWh 501 Units & Above: Rs. 3.75/kWh</p> <p>Minimum Fixed Charge: Single Phase: Rs. 50 per month</p> | <p>Energy Charges: 0 – 100 Units: Rs. 1.50/kWh 101 – 500 Units: Rs. 1.80/kWh 501 Units & Above: Rs. 2.10/kWh</p> |



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| State | Applicable Fixed Charges (Commercial) | Applicable Energy Charges (Commercial) |
|-------------------------------|---|--|
| 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 month or part thereof |
| Maharashtra | 0 – 20 kW: Rs. 190/month (entire consumption) > 20 kW and ≤ 50 kW: Rs. 190/month > 50 kW: Rs. 190/month | 0 – 20 kW: Rs. 5.85/unit (0-200 units) : Rs. 8.38/unit (> 200 units) > 20 kW and ≤ 50 kW: Rs. 190/month > 50 kW: Rs. 190/month |
| West Bengal (TO dt 1.12.2012) | Commercial (Urban) Fixed Charge – Rs.12 | Commercial (Urban) Energy Charges (paise per unit): First 180 : 551 Next 120: 669 Next 150: 729 Next 450: 768 Above 900: 812 |
| Orissa (TO dt 23.3.2012) | Commercial general Purpose <110 kVA Fixed Charge – Rs.25 | Commercial general Purpose <110 kVA Energy Charges (paise per unit): 0-100 units : 500 101-300 units : 610 >300 units : 680 |



8.6 Low Tension Industrial & Medium Power Service (LTIS)

8.6.1 *Applicability:*

- This schedule shall apply to all industrial units applying for a load of less than or equal to 100 kVA (or equivalent in terms of HP or kW).
- The equivalent HP for 100 kVA shall be 114 HP and the equivalent kW for 100 kVA shall be 85.044 kW.
- The total installed load shall not exceed the sanctioned load.

8.6.2 *Service Character:*

- AC, 50 Cycles, Single Phase supply at 230 Volts or 3 Phase Supply at 400 volts. Demand Based tariff/Installation based tariff for sanctioned load up to 85.044 kW/114 HP/100 kVA.

Table 79: Existing & Proposed Tariff for LTIS

| Consumer Category | Fixed Charges | | | Energy Charges | | |
|----------------------------------|---------------|----------|----------|----------------|----------|----------|
| | Unit | Existing | Proposed | Unit | Existing | Proposed |
| LTIS (Installation based Tariff) | Rs/HP/month | 130.00 | 175.00 | (Rs/Kwh) | 4.90 | 5.25 |
| LTIS (Demand based Tariff) | Rs/kVA/month | 235.00 | 285.00 | (Rs/Kwh) | 4.90 | 5.25 |

8.6.3 *Installation Based Tariff:*

- All consumers under this category and opting for Installation based tariff shall be required to pay fixed charges per HP as per the applicable tariff rates for this category. If the inspecting officer during the inspection of a premises finds excess load (more than 114 HP) then the inspecting officer has to serve one month notice to the consumer for regularisation of excess load (above 114 HP). After the expiry of the said one month, the inspecting officer will inspect the premises again and if he still finds un-regularized load in the premises, the consumer shall be shifted to HT category. The new agreement has to be entered into immediately and until such time of execution of revised agreement, JSEB shall charge tariff as per HTS category.

8.6.4 *Demand Based Tariff:*



- All consumers under this category and opting for Demand Based tariff shall be required to pay Demand charges per kVA at the rate applicable to HT consumers drawing power at 11 kV. The restriction of connected load will not apply to consumers opting for Demand Based Tariff. The billing demand shall be the maximum demand recorded during the month or 75% of sanctioned load whichever is higher. In case actual demand is recorded at more than 100 kVA in any month, the same shall be treated as the new contract demand for the purpose of billing of future months and the consumer will have to get into a new Agreement under the HTS category for the revised contracted demand with the Petitioner within a period of 30 days as per the terms and conditions of HT supply. In case the consumer fails to execute new agreement under HTS category, he shall be charged at 2 times the normal tariff applicable to HTS consumers.

8.6.5 *Delayed Payment Surcharge:*

In accordance with **Clause IV of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.6.6 *Power Factor Penalty/ Rebate:*

In accordance with **Clause II of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.6.7 *Installation of Shunt Capacitors:*

In accordance with **Clause VII of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.6.8 *Summary of changes proposed to LTIS tariff*

- 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 JSEB.
- The billing demand shall be the maximum demand recorded during the month or 75% of sanctioned load whichever is higher.

8.7 *Irrigation & Agriculture Service (IAS)*

8.7.1 *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



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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.

8.7.2 Service Category:

- IAS – I: For private tube wells and private lift irrigation schemes.
- IAS – II: For State Tube-wells and State lift Irrigation schemes.

8.7.3 Service Character:

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

Table 80: Existing & Proposed Tariff for IAS

| Consumer Category | Fixed Charges | | | Energy Charges | | |
|---------------------------------|---------------|----------|----------|----------------|----------|----------|
| | Unit | Existing | Proposed | Unit | Existing | Proposed |
| Irrigation & Agricultural (IAS) | | | | | | |
| IAS-I (metered) | Rs/HP/month | Nil | | (Rs/Kwh) | 0.60 | 1.00 |
| IAS-I (unmetered) | Rs/HP/month | 70.00 | 100.00 | (Rs/Kwh) | Nil | |
| IAS-II (metered) | Rs/HP/month | Nil | | (Rs/Kwh) | 1.00 | 1.25 |
| Agriculture- IAS-II (unmetered) | Rs/HP/month | 280.00 | 500.00 | (Rs/Kwh) | Nil | |

8.7.4 Delayed Payment Surcharge:

In accordance with **Clause IV of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition .

8.7.5 Power Factor Penalty/ Rebate:

In accordance with **Clause II of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.7.6 Installation of Shunt Capacitors

In accordance with **Clause VII of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.7.7 Summary of changes proposed to IAS tariff

- 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.



8.8 High Tension Voltage Supply Service (HTS)

8.8.1 **Applicability:**

- The schedule shall apply for consumers having contract demand above 100 kVA including consumers having rolling mills.

8.8.2 **Service Character:**

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

8.8.3 **Existing & Proposed Tariff:**

Table 81: Existing & Proposed Tariff for HTS

| Consumer Category | Fixed Charges | | | Energy Charges | | |
|-------------------|---------------|----------|----------|----------------|----------|----------|
| | Unit | Existing | Proposed | Unit | Existing | Proposed |
| HTS-11kV | Rs/kVA/month | 235.00 | 285.00 | (Rs/Kwh) | 5.40 | 5.95 |
| HTS-33kV | Rs/kVA/month | 235.00 | 285.00 | (Rs/Kwh) | 5.40 | 5.95 |
| HTS-132kV | Rs/kVA/month | 235.00 | 285.00 | (Rs/Kwh) | 5.40 | 5.95 |

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

8.8.4 **Delayed Payment Surcharge:**

- For High tension service category, the Delayed Payment Surcharge will be charged on a weekly basis at the rate of 0.5% per week and part thereof. The due date for making payment of energy bills or other charges shall be 21 days from the date of issuance of bill. In case, the licensee defaults in generating and delivering bills on monthly basis, DPS will not be charged for the period of default by Licensee.

8.8.5 **Power Factor Penalty/ Rebate:**

In accordance with **Clause II of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.8.6 **Voltage Rebate**

In accordance with **Clause V of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.8.7 **Load Factor Rebate**



In accordance with **Clause VI of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.8.8 TOD Tariff for HTS category

In accordance with **Clause VIII of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.8.9 Comparison of HT tariff of other states

Table 82: Comparison of HT Industrial in other states

| State | Applicable Fixed Charges (HT Industrial) | Applicable Energy Charges (HT Industrial) |
|---------------------------|---|--|
| BSEB (TO dt 30.3.2012) | <p>Fixed Charges:</p> <p>HTS – I (11 kV/6.6 kV) with Min CD 75 kVA and Max CD 1500 kVA : Rs. 270/ kVA/ Month</p> <p>HTS – II (33 kV) with Min CD 1000 kVA and Max CD 15000 kVA: Rs. 270/ kVA/ Month</p> <p>HTS – III (132 kV) with Min CD 7.5 MVA : Rs. 270/ kVA/ Month</p> <p>HTSS – (33/11 kV) who have CD of 300 kVA and more induction furnace incl Ferro Alloys: Rs. 700/ kVA/ Month</p> | <p>Energy Charges:</p> <p>HTS – I (11 kV/6.6 kV): 535 paisa/ unit</p> <p>HTS – II (33 kV): 520 paisa/ unit</p> <p>HTS – III (132 kV): 510 paisa/ unit</p> <p>HTSS (33 kV/11 kV): 270 paisa/ unit</p> |
| Madhya Pradesh | <p>Fixed charge:</p> <p>11 KV supply: 180</p> <p>33 KV supply: 280</p> <p>132 KV supply: 375</p> <p>220 KV supply: 400</p> | <p>Energy charges (paise per unit):</p> <p>Up to 50% load factor:</p> <p>11 KV supply: 450</p> <p>33 KV supply: 427</p> <p>132 KV supply: 395</p> <p>220 KV supply: 380</p> <p>Above 50% load factor:</p> <p>11 KV supply: 360</p> |



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| State | Applicable Fixed Charges (HT Industrial) | Applicable Energy Charges (HT Industrial) |
|----------------|---|---|
| | | <p>33 KV supply: 325 132 KV supply: 310 220 KV supply: 305</p> |
| Gujarat | <p>For first 500 kVA of billing demand: Rs. 100/kVA/month For next 500 kVA of billing demand: Rs. 200/kVA/month For billing demand in excess of 1000 kVA: Rs. 270/kVA/month</p> | <p>Up to 500 kVA of billing demand: 400 ps/unit For next 2000 kVA of billing demand: 420 ps/unit For billing demand in excess of 2500 kVA: 430 ps/unit</p> |
| Andhra Pradesh | <p>132 kV and above: Rs. 250/kVA/month 33 kV: Rs. 250/kVA/month 11 kV: 250/kVA/month</p> | <p>132 kV and above: 397 33 kV: 437 11 kV: 480</p> |
| Punjab | <p>Fixed charges: No fixed charges applicable</p> | <p>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</p> |
| Haryana | <p>Fixed charges (kVA based billing): Rs.120 per kVA per month</p> | <p>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.</p> |



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| State | Applicable Fixed Charges (HT Industrial) | Applicable Energy Charges (HT Industrial) |
|-------------------------------|--|---|
| Chhattisgarh | 11 KV supply: 260 per kVA per month 33 KV supply: 250 per kVA per month | 11 KV supply: 3.90 per unit 33 KV supply: 3.80 per unit |
| 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 |
| Maharashtra | Continuous Industry (on express feeder): Rs. 190/kVA/month Non-continuous Industry (not on express feeder): Rs. 190/kVA/month Seasonal Industry: 190/kVA/month | Continuous Industry (on express feeder): Rs. 7.01/unit Non-continuous Industry (not on express feeder): Rs. 6.33/unit Seasonal Industry: Rs. 7.79/unit |
| West Bengal (TO dt 1.12.2012) | Industries HT Consumers all levels – Rs.317/kVA/Month | Industries Energy Charges (paise per unit): HT 11 kV - 648 (average) HT 33 kV - 618 (average) HT 132 kV - 616 (average) HT 220 kV: |



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| State | Applicable Fixed Charges (HT Industrial) | Applicable Energy Charges (HT Industrial) | | | | | | | | | | | | | | | | | | |
|--------------------------|--|---|---------------------|-----------|-----|---------------------|-----------|-----|---------------------|-----------|-----|---------------------|-----------|-----|---------------------|-----------|-----|---------------------|-----------|-----|
| | | <table border="1"> <tr> <td>06.00 hrs-17.00 hrs</td> <td>All Units</td> <td>536</td> </tr> <tr> <td>17.00 hrs-23.00 hrs</td> <td>All Units</td> <td>750</td> </tr> <tr> <td>23.00 hrs-06.00 hrs</td> <td>All Units</td> <td>354</td> </tr> </table> <p style="text-align: center;">HT 400 kV:</p> <table border="1"> <tr> <td>06.00 hrs-17.00 hrs</td> <td>All Units</td> <td>516</td> </tr> <tr> <td>17.00 hrs-23.00 hrs</td> <td>All Units</td> <td>722</td> </tr> <tr> <td>23.00 hrs-06.00 hrs</td> <td>All Units</td> <td>341</td> </tr> </table> | 06.00 hrs-17.00 hrs | All Units | 536 | 17.00 hrs-23.00 hrs | All Units | 750 | 23.00 hrs-06.00 hrs | All Units | 354 | 06.00 hrs-17.00 hrs | All Units | 516 | 17.00 hrs-23.00 hrs | All Units | 722 | 23.00 hrs-06.00 hrs | All Units | 341 |
| 06.00 hrs-17.00 hrs | All Units | 536 | | | | | | | | | | | | | | | | | | |
| 17.00 hrs-23.00 hrs | All Units | 750 | | | | | | | | | | | | | | | | | | |
| 23.00 hrs-06.00 hrs | All Units | 354 | | | | | | | | | | | | | | | | | | |
| 06.00 hrs-17.00 hrs | All Units | 516 | | | | | | | | | | | | | | | | | | |
| 17.00 hrs-23.00 hrs | All Units | 722 | | | | | | | | | | | | | | | | | | |
| 23.00 hrs-06.00 hrs | All Units | 341 | | | | | | | | | | | | | | | | | | |
| Orissa (TO dt 23.3.2012) | Industries HT Consumers all levels – Rs.250/kVA/Month | Industries Energy Charges (paise per unit): <table border="1"> <thead> <tr> <th>Load Factor (%)</th> <th>HT</th> <th>EHT</th> </tr> </thead> <tbody> <tr> <td>Upto 50%</td> <td>495</td> <td>490</td> </tr> <tr> <td>> 50% = < 60%</td> <td>450</td> <td>445</td> </tr> <tr> <td>> 60%</td> <td>395</td> <td>390</td> </tr> </tbody> </table> | Load Factor (%) | HT | EHT | Upto 50% | 495 | 490 | > 50% = < 60% | 450 | 445 | > 60% | 395 | 390 | | | | | | |
| Load Factor (%) | HT | EHT | | | | | | | | | | | | | | | | | | |
| Upto 50% | 495 | 490 | | | | | | | | | | | | | | | | | | |
| > 50% = < 60% | 450 | 445 | | | | | | | | | | | | | | | | | | |
| > 60% | 395 | 390 | | | | | | | | | | | | | | | | | | |

8.9 HT Special Service (HTSS)

8.9.1 *Applicability:*

- This tariff schedule shall apply to all consumers who have a contracted demand of 300 KVA and more for induction/arc Furnace. In case of induction/arc furnace consumers (applicable for existing and new consumers), the contract demand shall be based on the total capacity of the induction/arc furnace and the equipment calculated on the basis of measurement. This tariff schedule will not apply to casting units having induction furnace of melting capacity of 500 Kg or below.

8.9.2 *Service Character:*

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

8.9.3 *Existing & Proposed Tariff:*



Table 83: Existing & Proposed Tariff for HTSS

| Consumer Category | Fixed Charges | | | Energy Charges | | |
|-------------------|---------------|--------|----------|----------------|------|----------|
| | HTSS | Unit | Existing | Proposed | Unit | Existing |
| HTSS-11kV | Rs/kVA/month | 410.00 | 480.00 | (Rs/Kwh) | 3.25 | 4.05 |
| HTSS-33kV | Rs/kVA/month | 410.00 | 480.00 | (Rs/Kwh) | 3.25 | 4.05 |
| HTSS-132kV | Rs/kVA/month | 410.00 | 480.00 | (Rs/Kwh) | 3.25 | 4.05 |

Note: The billing demand shall be the maximum demand recorded during the month or 75% of contract demand whichever is higher. The penalty on exceeding billing demand will be applicable in accordance with Clause I of Terms & Conditions of Supply as provided in Section 14 of this Tariff Order.

8.9.4 Delayed Payment Surcharge:

- For High tension service category, the Delayed Payment Surcharge will be charged on a weekly basis at the rate of 0.4% per week. The due date for making payment of energy bills or other charges shall be 21 days from the date of issuance of bill. In case, the licensee defaults in generating and delivering bills on monthly basis, DPS will not be charged for the period of default by Licensee.

8.9.5 Power Factor Penalty/ Rebate:

In accordance with **Clause II of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.9.6 Voltage Rebate

In accordance with **Clause V of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.9.7 Load Factor Rebate

In accordance with **Clause VI of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.10 Railway Traction Service (RTS)

8.10.1 Applicability

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

8.10.2 Service Character:

- AC, 50 cycles, Single phase at 25 kV or 132 kV.

8.10.3 Existing & Proposed Tariff:



Table 84: Existing & Proposed Tariff for RTS

| Consumer Category | Fixed Charges | | | Energy Charges | | |
|-------------------|---------------|----------|----------|----------------|----------|----------|
| | Unit | Existing | Proposed | Unit | Existing | Proposed |
| RTS | Rs/kVA/month | 220.00 | 275.00 | (Rs/Kwh) | 5.40 | 6.25 |

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

8.10.4 **Maximum Demand for RTS**

- The demand charge shall be applied on maximum demand recorded or 85% of the contract demands whichever is higher at any fifteen minutes time block for which the meter installed should have 15 minutes integration time.

8.10.5 **Delayed Payment Surcharge:**

In accordance with **Clause IV of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition .

8.10.6 **Power Factor Penalty/ Rebate:**

In accordance with **Clause II of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.11 **Street Light Service (SS)**

8.11.1 **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.

8.11.2 **Service Character:**

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

8.11.3 **Category of Service:**

- S.S-I: Metered Street Light Service
- S.S-II: Unmetered Street Light Service

8.11.4 **Service Character:**

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



8.11.5 Existing & Proposed tariff:

Table 85: Existing & Proposed Tariff for SS-I & SS-II

| Consumer Category | Fixed Charges | | | Energy Charges | | |
|----------------------|----------------|--|--|----------------|----------|----------|
| | Unit | Existing | Proposed | Unit | Existing | Proposed |
| Street light Service | | | | | | |
| SS-I (Metered) | Rs/ Conn/Month | 35.00 | 75.00 | (Rs/Kwh) | 4.45 | 4.95 |
| SS-II (Unmetered) | Rs/ Conn/Month | Rs.140 per 100 watt lamp and Rs. 30 for every additional 50 watt and part thereof; | Rs.200 per 100 watt lamp and Rs. 50 for every additional 50 watt and part thereof; | (Rs/Kwh) | - | |

8.11.6 Delayed Payment Surcharge:

In accordance with **Clause IV of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition .

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

- 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.

8.12 Rural Electric Co-operative (REC)/a Small Housing Group (SHG)

8.12.1 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.

8.12.2 Service Character:

- AC, 50 cycles, three phase at 11 kV or 33 kV.

8.12.3 Existing & Proposed Tariff:

Table 86: Existing & Proposed Tariff for REC

| Consumer Category | Energy Charges | | |
|-------------------|----------------|----------|----------|
| | Unit | Existing | Proposed |
| REC | (Rs/Kwh) | 0.90 | 1.25 |



8.12.4 *Delayed Payment Surcharge:*

In accordance with **Clause IV of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition .

8.12.5 *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.

8.12.6 *Responsibility for collection of Electricity Duty:*

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

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

- 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.
- 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 provide revenue subsidy to JSEB in all areas where rural franchisee schemes are implemented.

8.13 Bulk Supply to Military Engineering Service (MES)

8.13.1 *Applicability*

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

8.13.2 *Category of Services*

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

8.13.3 *Service Character*

- AC, 50 cycles, three phase at 11 kV.

8.13.4 *Existing & Proposed Tariff:*



Table 87: Existing & Proposed Tariff for MES

| Consumer Category | Fixed Charges | | | Energy Charges | | |
|-------------------|---------------|----------|----------|----------------|----------|----------|
| | Unit | Existing | Proposed | Unit | Existing | Proposed |
| MES | Rs/kVA/month | 205.00 | 250.00 | (Rs/Kwh) | 4.05 | 4.85 |

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

8.13.5 **Delayed Payment Surcharge:**

In accordance with **Clause IV of Terms & Conditions of Supply** as provided in **Section 9** of this Tariff Petition.

8.13.6 **Summary of changes proposed to MES Service**

- 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.

New Categories Proposed in present MYT tariff proposal

8.14 Supply to Consumers having Captive Power Generating facility

8.14.1 Definitions

“Captive generating plant” or “Captive Power plant” (CPP) means a power plant set up by any person to generate electricity primarily for his own use and includes a power plant set up by any co-operative society or association of persons for generating electricity primarily for use of members of such cooperative society or association;

A power plant shall be identified as a Captive Power Plant only if it satisfies the conditions contained in clause 3 (1) (a) and 3 (1) (b) of the Electricity Rules, 2005 notified by the Ministry of Power, Government of India, on 8th June 2005, reproduced as under:

3(1) No power plant shall qualify as a ‘captive generating plant’ under section 9 read with clause (8) of section 2 of the Act unless-

(a) in case of a power plant-

(i). not less than twenty six percent of the ownership is held by the captive user(s), and



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(ii). not less than fifty one percent of the aggregate electricity generated in such plant, determined on an annual basis, is consumed for the captive use

Provided that in case of power plant set up by registered cooperative society, the conditions mentioned under paragraphs at (i) and (ii) above shall be satisfied collectively by the members of the cooperative society:

Provided further that in case of association of persons, the captive user(s) shall hold not less than twenty six percent of the ownership of the plant in aggregate and such captive user(s) shall consume not less than fifty one percent of the electricity generated, determined on an annual basis, in proportion to their shares in ownership of the power plant within a variation not exceeding ten percent;

(b) in case of a generating station owned by a company formed as special purpose vehicle for such generating station, a unit or units of such generating station identified for captive use and not the entire generating station identified for captive use and not the entire generating station satisfy(s) the conditions contained in paragraphs (i) and (ii) of sub-clause (a) above including-

Explanation: -

(1) The electricity required to be consumed by captive users shall be determined with reference to such generating unit or units in aggregate identified for captive use and not with reference to generating station as a whole; and

(2) The equity shares to be held by the captive user (s) in the generating station shall not be less than twenty six percent of the proportionate of the equity of the company related to the generating unit or units identified as the captive generating plant.

3(2) It shall be the obligation of the captive users to ensure that the consumption by the Captive Users at the percentages mentioned in sub-clauses (a) and (b) of sub-rule (1) above is maintained and in case the minimum percentage of captive use is not complied with in any year, the entire electricity generated shall be treated as if it is a supply of electricity by a generating company.

Explanation: (1) For the purpose of this rule

a. "Annual Basis" shall be determined based on a financial year;



b. “Captive User” shall mean the end user of the electricity generated in a Captive Generating Plant and the term “Captive Use” shall be construed accordingly;

c. “Ownership” in relation to a generating station or power plant set up by a company or any other body corporate shall mean the equity share capital with voting rights. In other cases ownership shall mean proprietary interest and control over the generating station or power plant;

d. “Special Purpose Vehicle” shall mean a legal entity owning, operating and maintaining a generating station and with no other business or activity to be engaged in by the legal entity.

8.14.2 **Applicability**

- This tariff schedule shall apply to all the Captive Power Plants who are having installed capacity of 1 MW and above and connected to the state grid and are either supplying power to the petitioner or drawing power from the petitioner to meet their load requirements.
- This schedule shall also apply to the CPPs who have signed agreements earlier and are having partial generation facility to meet its power requirement and not covered elsewhere in tariff schedule. The earlier provisions of the agreement related to billing shall not be applicable after the above categorisation is in force. All these consumers will have to enter into agreement for the contract demand required from the petitioner.
- The provisions of the ‘Jharkhand State Electricity Regulatory Commission (Utilization of Surplus Capacity of Captive Power Plants based on conventional fuel) Regulation, 2010’ shall be applicable for the CPP having surplus capacity who are supplying power to the petitioner and drawing power from the petitioner as standby/ emergency requirement.
- The Petitioner would like to submit to the Hon’ble Commission that the load requirement of the industrial units to which these CPPs are meant to supply power are higher than the capacity of the CPP and therefore continuous power is being drawn from JSEB grid by these CPPs.

8.14.3 **Service Character:**

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



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8.14.4 Applicable tariff:

| Sr. No | Period of Supply | Demand Charges (Rs/kVA) | Energy Charges (Rs/kVA) |
|-----------|--|---|---|
| 1 | CPP with Surplus Power and Supplying to Petitioner | | |
| | - Standby Support up to 1008 hours | Pro-rated HT Industrial consumer Contract Demand tariff at corresponding voltage | 1.5 times of the HT Industrial consumer Energy charges at corresponding voltage |
| | - Standby Support beyond 1008 hours | Demand Charges equivalent to Temporary category for HT consumers as proposed in this petition | Energy Charges equivalent to Temporary category for HT consumers as proposed in this petition |
| 2 | CPP with Partial availability and Drawing power from Petitioner | | |
| a. | Contract demand excluding stand-by demand | Similar to the HT Industrial consumer Demand charges at corresponding voltage | Similar to the HT Industrial consumer Energy charges at corresponding voltage |
| b. | Stand-by Contracted Demand | | |
| | Standby Support up to 1008 hours | Pro-rated HT Industrial consumer Contract Demand tariff at corresponding voltage | 1.5 times of the HT Industrial consumer Energy charges at corresponding voltage |
| | Standby Support beyond 1008 hours | Demand Charges equivalent to Temporary category for HT consumers as proposed in this petition | Energy Charges equivalent to Temporary category for HT consumers as proposed in this petition |

Note: Wherever an agreement for Stand-by support exists between the Captive User and the Licensee of his area of supply, the Captive User shall be required to pay to the Licensee a fixed charge of Rs. 35 per kVA per month, applied on the capacity contracted under Stand-by support with the Licensee.

8.14.5 Other Terms and Conditions:

- **CPP with Surplus Power and Supplying to Petitioner**

The terms and conditions specified in the JSERC (Utilization of Surplus Capacity of Captive Power Plants based on conventional fuel) Regulation, 2010' shall be applicable.



The other terms and conditions such as penalty for exceeding contract demand, power factor surcharge/incentives, rebates etc shall be applicable as similar to Industrial consumers connected at relevant voltage level as far as they are in consistence and in line with the above regulations.

- **CPP with Partial availability and Drawing power from Petitioner**

The CPP consumer not providing any surplus power to the Licensee and drawing energy continuously shall have to maintain 2 contracted demand

- i) Contract demand excluding any stand-by demand
- ii) Stand-by contracted demand

The contract demand not including any stand by demand shall be charged at corresponding HTS tariff as approved in the tariff order.

Once the normal contract demand (i.e CD excluding stand by demand) is exceeded, the additional demand shall be treated as stand-by demand and all terms and conditions of JSERC (Utilization of Surplus Capacity of Captive Power Plants based on conventional fuel) Regulation, 2010 shall be applicable. For the purpose of segregating the units consumed under each applicable tariff (i.e HTS and Stand by consumption), prorated segregation shall be applicable based on the time during which the normal contract demand was exceeded during the month as measured and read through remote meters.

For example, suppose Consumer 'A' has normal contract demand of 5 MVA for which he draws power continuously. Further, Consumer 'A' has stand-by contract demand of 20 MVA. If the contract demand reached 18 MVA for 30 minutes during the month and the total units recorded during those 30 minutes is 3000 units, then the number of units chargeable under normal contract demand shall be calculated as below –

$$(3000 * 5 / 18) \text{ units}$$

The units chargeable under stand-by contract demand shall be calculated as below –

$$(3000 * 13 / 18) \text{ units}$$



Load factor rebate shall be calculated considering the prorated units consumed for normal contract demand as provided above.

8.14.6 All disputes and complaints shall be referred to the Commission for resolution, which shall decide the dispute after affording an opportunity to the concerned parties to represent their respective points of view. The decisions of the Commission shall be binding on all parties.

8.14.7 The Captive User cannot avail Stand-by support for more than five (5) times in a financial year, with no more than one (1) requisition in any billing month.

8.14.8 The maximum demand that can be contracted under Stand-by support by such Captive Users shall not be more than the total rated capacity of all the generating units of the Captive User's CPP as per **Section 8.18 of JSERC, (Utilization Of Surplus Capacity Of Captive Power Plants Based On Conventional Fuel) Regulations 2010**. Any additional demand shall not come under the purview of the aforesaid regulations. Separate agreement shall have to be undertaken by any consumer for any demand over and above the contract demand for CPP stand-by support.

8.14.9 The demand charges shall be applied on the maximum demand at any 15 minutes time block covered under Stand-by period subject to minimum of 90% of the contract demand. The Stand-by period for this purpose shall be reckoned maximum up to 1008 hours (42 days) in any financial year. The energy charges shall be applied on the total energy consumed across all time-blocks covered under the Stand-by period.

8.14.10 In case the recorded maximum demand at the CPP premises exceeds the stand-by contract demand, the excess demand recorded shall be billed for at 2 times the demand charges.

8.15 Temporary Supply

8.15.1 Applicability

This tariff shall apply for connections being temporary in nature for period of less than one year. The applicability shall be as given in the respective category tariff rate schedule. Temporary supply cannot be claimed by a prospective consumer



as a matter of right but will normally be arranged by the Board when a requisition is made giving due notice subject to technical feasibility and in accordance with electricity supply code issued by the Commission.

8.15.2 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.

8.15.3 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.

8.15.4 Temporary connections shall initially be provided for a period of up to 45 days which can be extended on month to month basis upto six months.

8.16 Seasonal Supply (LT and HT)

- Seasonal supply shall be given to any consumer on written request to the Board subject to the following conditions.

| Sr. No | Period of Supply | Tariff Rate - LT | Tariff Rate - HT |
|--------|--|------------------------------------|------------------------------------|
| 1 | Upto 3 consecutive months in a year | Appropriate tariff plus 30 percent | Appropriate tariff plus 30 percent |
| 2 | More than 3 consecutive months and upto 6 consecutive months in a year | Appropriate tariff plus 20 percent | Appropriate tariff plus 20 percent |
| 3 | More than 6 consecutive months and upto 9 consecutive months in a year | Appropriate tariff plus 15 percent | Appropriate tariff plus 15 percent |

- The meter rent and other charges as provided in the appropriate tariff are applicable to seasonal loads and would be charged extra for the entire period of supply.



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- The supply would be disconnected after the end of the period unless the consumer wants the supply to be continued. Any reconnection charges have to be borne by the consumer.
- Consumer proposing to avail seasonal supply shall sign an agreement with the Board to avail power supply for the maximum period provided in Supply Code.
- The consumers must avail supply in terms of whole calendar month continuously.
- The consumer is required to apply for seasonal supply and pay initial cost and security deposit as an applicant for normal electricity supply as per provisions of supply code.
- The consumer shall ensure payment of monthly energy bills within 7 days of its receipt. The supply will be disconnected if payment is not made on due date.



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8.17 Schedule for Miscellaneous Charges:

| Sr. No. | Purpose | Scale of charges (Rs.) | Manner in which payment will be realized |
|----------|--|--------------------------------|---|
| 1 | Application fee | | |
| | Agriculture | 10 | Application should be given in standard requisition form of the Board which will be provided free of cost. Payable in cash in advance along with the intimation |
| | Street light | 50 | |
| | Domestic | 15(Kutir Jyoti) 20 (Others) | |
| | Commercial | 50 | |
| | Other LT Categories | 100 | |
| | HTS | 200 | |
| | HTSS, EHTS, RTS | 200 | |
| 2 | Revision of estimate when a consumer intimates changes in his requirement subsequent to the preparation of service connection estimate based on his original application | | |
| | Agriculture | 10 | Payable in cash in advance along with the intimation for revision |
| | Domestic | 30 | |
| | Commercial | 30 | |
| | Other LT Categories | 50 | |
| | HT Supply | 150 | |
| 3 | Testing of Consumer Installation | | |
| | First test and inspection free of charge but should any further test and inspection be necessitated by faults in the installation or by not compliance with the conditions of supply for each extra test or inspection | 250 | Payable in cash in advance along with the request or testing |
| | Meter Rent | | |
| 5 | DS Category except DS I | | Payable with energy bill |
| | Single Phase - | Rs. 10 per month | |
| | Three Phase | Rs. 30 per month | |
| | NDS | | |



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| Sr. No. | Purpose | Scale of charges (Rs.) | Manner in which payment will be realized |
|----------|--|------------------------|--|
| | Single Phase | Rs. 10 per month | Meter rent shall be charged @ Rs. 200 per month in case of CT/ PT operated meter for LT Supply. |
| | Three Phase | Rs. 30 per month | |
| | LTIS | | |
| | Single Phase | Rs. 25 per month | |
| | Three Phase | Rs. 75 per month | |
| | HTS & HTSS | | |
| | 11 kV LT side | Rs. 500 per month | |
| | 11 kV HT side | Rs. 1000 per month | |
| | 33 kV LT side | Rs. 500 per month | |
| | 33 kV HT side | Rs. 2000 per month | |
| | 132 kV | Rs. 5000 per month | |
| | RTS | Rs. 1500 per month | |
| 6 | Transformer Rent | | |
| | Upto 200 kVA | Rs. 1000 per month | Payable in cash in advance |
| | Above 200 kVA | Rs. 1500 per month | |
| 7 | Meter test when accuracy disputed by consumer | | |
| | Single Phase | 50 | To be deposited in cash in advance. If the meter is found defective within the meaning of the Indian Electricity Rules 1956, |
| | Three Phase | 200 | |



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| Sr. No. | Purpose | Scale of charges (Rs.) | Manner in which payment will be realized |
|-----------|---|------------------------|---|
| | Trivector/special type meter | 650 | the amount of advance will be refunded and if it is proved to be correct within the permissible limits laid down in the Rules, the amount will not be refunded. |
| 8 | Removing/Refixing the meter | | |
| | Single Phase | 50 | Payable in cash in advance along with the intimation for revision |
| | Three Phase | 200 | |
| | Trivector/special type meter | 500 | |
| 9 | Changing of meter /meter equipment/fixing of sub meter on the request of the consumer/fixing of submeter | | |
| | Single Phase | 50 | Payable in cash in advance along with the intimation for revision |
| | Three Phase | 150 | |
| | Trivector/special type meter | 500 | |
| 10 | Resealing of meter when seals are found broken | | |
| | Single Phase | 25 | Payable with energy bill |
| | Three Phase | 50 | |
| | Trivector/special type meter | 200 | |
| 11 | Replacement of meter card, if lost or damaged by consumer | 10 | Payable with energy bill |
| 12 | Fuse call – Replacement | | |
| | Board fuse due to fault of consumer | 15 | Payable with energy bill |
| | Consumer Fuse | 15 | |
| 13 | Disconnection/Reconnection | | |
| | Single Phase | 30 | Payable in cash in advance along with the request by the consumer. If the same consumer is reconnected/ disconnected within 12 months of the last disconnection/ reconnection, 50% will be added to the charges |
| | Three Phase | 100 | |
| | LT Industrial Supply | 350 | |
| | HT Supply | 500 | |
| 14 | Security Deposit | | As per clause 10.0 of the JSERC (Electricity Supply code) Regulations, 2005 |



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| Sr. No. | Purpose | Scale of charges (Rs.) | Manner in which payment will be realized |
|---------|------------------|------------------------|---|
| 15 | Electricity Duty | | As per provisions laid down by the State Govt. And subject to adjustment as per final assessment made by the Commercial Taxes Department of the State Govt. |



9. TERMS AND CONDITIONS OF SUPPLY

The petitioner is hereby submitting following terms and conditions of supply besides terms and conditions provided in the JSERC (Electricity Supply Code), Regulations, 2005, for kind perusal of the Hon'ble Commission.

Clause I: Penalty for exceeding Billing/ Contract Demand

In case the consumer's actual recorded demand exceeds 110% of the contract demand, then normal demand charge will be applicable up to 110% of contract demand. However, once the consumer surpasses the 110% threshold, then penal tariff shall be applicable @ 1.5% of existing charges for the demand over and above the contract demand (i.e 100%) and NOT on the demand exceeding 110%.

Further, in case any consumer exceeds the Contract Demand on more than three occasions in a calendar year, the highest demand so recorded would be treated as the revised contract demand.

In case actual demand is higher than the contract demand for three continuous months, the maximum demand of the last three months shall be treated as the new contract demand for the purpose of billing of future months and the consumer will have to get into a new agreement for the revised contract demand with the licensee within the period defined by the Licensee and communicated to the consumer failing which the consumer will be charged @ 2 times of the demand charges as long as the consumer does not enter the agreement.

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

In case the consumer fails to respond within 15 days, the licensee would have the right to initiate enhancement of load as per the last recorded contract demand. While, in case the consumer provides an undertaking that the actual demand shall not exceed the contract



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demand again for a period of at least six months from the last billing, the licensee shall continue to bill the consumer as per the existing contract demand and billing demand.

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

Clause II: Power factor Penalty/Rebate

Power Factor Penalty:

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

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

Consumer with power factor of less than 0.30 must install shunt capacitors immediately, failing which their line will be disconnected with 15 days clear notice.

Power Factor Rebate:

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

In case average power factor as maintained by the consumer is more than 90%, a rebate of 1% and if power factor is more than 95%, a rebate of 2% (cumulative rebate) on energy charges shall be applicable.

Clause III: Electricity Duty

The charges in this tariff schedule do not include charges on account of Electricity Duty/ Surcharge to the consumers under the Jharkhand Electricity Duty Act, 1948 and the rules framed thereunder and as amended from time to time and any other Statutory levy which may take effect from time to time after making corrections for the loss in the distribution system.

Clause IV: Delayed Payment Surcharge



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In case the electricity bills are not paid within the due date mentioned on the bill, delayed payment charges of 2 percent per month or part thereof on the total electricity bill (including Taxes and Duties) shall be levied on the bill amount. The due date for making payment of energy bills or other charges shall be fifteen days from the date of issuance of bill for LT Domestic, Commercial and Agricultural and twenty one days from issuance of bill for all other categories. In case, the licensee defaults in generating and delivering bills on timely basis, DPS will not be charged for the period of default by licensee.

Clause V: Voltage Rebate

Voltage rebate will be applicable on energy charges as given below:

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

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

Clause VI: Load Factor Rebate

Load Factor rebate will be applicable on energy charges as given below:

| Consumer Category | Load Factor Rebate |
|-------------------|--------------------|
| 40 - 60 % | Nil |
| 60 - 70% | 7.50% |
| 70 - 100% | 10% |

Note:

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



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Load Factor Penalty: HT consumers having load factor less than 30% continuously for 3 months would not be allowed to draw power during peak hours. Based on the TOD metering data, such consumers continuously having load factor below 30% shall be charged @1.5 times of applicable tariff for the energy consumed during peak hours.

Clause VII: Installation of Shunt capacitors

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

| Rating of individual Inductive Load in HP | kVAR rating of LT capacitors |
|---|------------------------------|
| 3 to 5 | 1 |
| 5 to 7.5 | 2 |
| 5.6 to 10 | 3 |
| 10 to 15 | 4 |
| 15 to 20 | 6 |
| 20 to 30 | 7 |
| 30 to 40 | 10 |
| 40 to 50 | 10 – 20 |
| 50 to 100 | 20-30 |

For existing consumer, the Petitioner should first serve one month’s notice to all such consumers who do not have or have defective shunt capacitors. In case the consumers does not get the capacitor installed/replaced within the notice period, the consumer shall be levied a surcharge at 5% on the total billed amount charge (metered or flat), till they have installed the required capacitors.

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

Clause VIII: TOD Tariff

TOD tariff proposed shall be applicable as follows-

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



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- Normal Hours: 10:00 AM to 6:00 PM
- Peak Hours: 06:00 AM to 10:00 AM & 06:00 PM to 10:00 PM: 120% of normal rate of energy charge.

Clause IX: Other Terms & Conditions

Connected load at different voltage 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. 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:

Table 88: Connected load allowable at different 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 | Above 30 MVA |

Point of Supply

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

Further, in case of Rolling Mills and Induction Furnace, and for NDS II consumers with non-separate advertisement/hoarding/conspicuous consumption as per Section 8.3.2 the point of supply shall be separate



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Installation of Circuit Breakers and ELCB

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 89: Ratings for ELCB and MCBs

| Load | Rating of ELCB + MCB Device |
|---------------|--|
| 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 |
| Above 37.5 kW | As per direction of JSEB official/ in-charge of power Supply of the Area |

The applicability of installation of MCB and ELCB shall be:

- Consumers with a load of above 5 kW connected at 250/ 230 volts LT supply;
- Consumers connected at 400/ 440 volts; and
- 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.

For existing consumers, where such devices as mentioned above have not been installed a surcharge at the rate of 5 percent of the billed amount shall be charged and shall continue to be charged till such time the consumer installs the device.

Dishonored Cheques

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

Stopped/ defective meters



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

| Consumer Category | Load Factor |
|----------------------------------|-------------|
| Domestic & Religious Institution | .20 |
| Non-Domestic | .30 |
| LTIS/ PHED LT | .30 |
| DS-HT | .20 |
| HTS | |
| 11 KV | .30 |
| 33 KV | .40 |
| 132/200 KV/400 kV | .50 |
| HTSS | .50 |
| RTS | .30 |

The Consumer should furnish usage details of their continuous load/shift wise load/otherwise.

Sale of energy

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

Release of new connections

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

Conversion factors

The following shall be the conversion factors, as and where applicable: (PF=0.85):

1 Kilowatt (KW) = 1.176 Kilovolt ampere (kVA)

1 Kilowatt (KW) = 1 / 0.746 Horse Power (HP)

1 Horse Power (1 HP) = 0.878 Kilovolt ampere (KVA)



Disputed Bills

In case of disputed bill, the consumer would be liable to pay their dues based on last 6 month's consumption pattern which will be subsequently adjusted if found erroneous against future bills.

Additional - Terms & Conditions of Supply

1. **Accounting of Partial payment** - All payment made by consumers in full or part shall be adjusted in the following order of priority:

- Statutory taxes and duties on current consumption
- Arrear of Statutory taxes and duties
- Delayed payment surcharge
- Balance of arrears
- Balance of current bill

2. Transformer Capacity

- The transformer capacity of HT consumer shall not be more than 150% of the contract demand, consumer found to be utilizing transformer of higher capacity than admissible for his contracted load, will fall under malpractice.
- If standard capacity is not available for exact requirement then relaxation in transformer capacity upto 10% extra can be allowed in individual cases on request.

3. Charges to Tatkal Connections (Optional)

If the any consumer (other than High Tension and Railway) opts for availing connection under tatkal scheme, the Board shall release the tatkal connection to such consumer with the following conditions:

- The Tatkal connections shall be released by JSEB within a week subject to feasibility
- Two (2) times of the following charges approved under head miscellaneous and general charges will be taken from the consumers willing to avail tatkal connection:



Petition for True-up for FY 2011-12, APR for FY 2012-13 & MYT Petition for the Control Period and Tariff Proposal for FY 2013-14 – JSEB (Distribution)

- Application fees for new connection, and;
 - Supervision, labour and establishment charge for service connection
- In case JSEB fails to release connection within this time limit, JSEB will refund the additional amount claimed to the consumer in the first energy bill.
4. The Fixed charges, minimum charges, demand charges, meter rent and the slabs of consumption of energy for energy charges mentioned shall not be subject to any adjustment on account of existence of any broken period within billing period arising from consumer supply being connected or disconnected any time within the duration of billing period for any reason.
- 5. Metering on LT side of Consumers Transformer**
As per Regulation 54 of OERC Distribution (Conditions of Supply) Code, 2004 Transformer loss, as computed below has to be added to the consumption as per meter reading.

Energy loss = $(730 \times \text{rating of the transformer KVA}) / 100$.

Loss in demand = 1% of the rating of the transformer in KVA (for two part tariff)



10. COMPLIANCE TO DIRECTIVES GIVEN BY JSERC

The Hon'ble Commission in its Tariff Order for FY 2012-13 has laid down new directives to be complied by JSEB. The directives as provided by the Hon'ble Commission and the status of the said directives are replied in a single submission/response as below:

10.1 Strengthening of transmission and distribution network:

The Board has already entered into the agreement with Power Grid Corporation of India Limited (PGCIL) as consultant to expand the transmission line and construction of Grid Sub-Station at Santhal Pargana area as well as Palamu area. Mentionable that at present these areas depend on power supply from Bihar (Sone Nagar & Sultanganj). This work will be completed within 18-20 months and thereafter there will be no scarcity of power in these areas. Similarly, distribution network is going to be strengthened based on the regular inspection of lines and transformer as directed by Hon'ble Commission.

10.2 Safety Measures:

The Board has started taking action for implementation of safety measures of the network to avoid any accident. All field officers have been directed to designate cross over lines, lines passing over ponds, etc. to avoid accidents.

10.3 Energy Audit and T&D loss reduction plan:

The JSEB is all set to carry energy audit and T&D loss plan through R-APDRP as well as through rural franchisee. Part B of R-APDRP will be completed within coming years will be able to monitor power flow online and it will also help in detecting theft pockets. Two areas of the State namely Jamshedpur Circle and Ranchi Circle have already been selected for Distribution Franchisee and progress in this regards is on.

10.4 SOP Implementation:

JSEB has been able to prepare its website where all required data will be place in a phased manner. Presently, the status of distribution transformers can be seen at www.jseb.in. As regards to fuse call, line breakdown, etc. are concerned the field staffs are available to take up the work 24X7 to maintain power supply smoothly.



10.5 Power Procurement Plan:

The Board will submit the power procurement plan for short term/long term to Hon'ble Commission as desired. However, it would be appreciated that power surplus/deficit depends at large on the self generation as well as generation from TVNL. As soon as any unit of TVNL goes under breakdown there is a crisis of around 200 MW power in the State outside the DVC command area and under such circumstances the Board goes ahead for short term procurement.

10.6 Metering Plan:

The Board submits that most of the unmetered connections are in the rural areas. The urban area meters if found defective are immediately replaced. Metering all consumers in the rural areas is a challenge to JSEB, however, meters are being purchased in phases for achieving 100% metering. It is hoped that the metering in rural areas will be completed within three years.

10.7 Bill Payment Mechanism:

On the direction of Hon'ble Commission, the Board has taken serious step to facilitate the consumer to deposit their billed amount in counter and ATP machines. Presently 10 ATP machines – 6 in Ranchi & 4 in Dhanbad, is installed and another 30 such machines with latest technology is likely to be installed within coming six months. The Board is, as directed by Hon'ble Commission, organizing camps not only for addressing the grievances of the consumers but also for payment of bills, release of new service connections. Thus, the Board is heading towards facilitating convenience.



Petition for True-up for FY 2011-12, APR for FY 2012-13 & MYT Petition for the Control Period and Tariff Proposal for FY 2013-14 – JSEB (Distribution)

Annexure 1: RBI Bank Rate Letter



भारतीय रिज़र्व बैंक
RESERVE BANK OF INDIA
www.rbi.org.in

RBI/2011-12/515

DBOD.No.Ret.BC.96 /12.01.001/2011-12

April 19, 2012

All Scheduled Commercial Banks

Dear Sir,

Bank Rate

As announced in the [Monetary Policy Statement 2012-13](#), the Bank Rate stands adjusted by 50 basis points from 9.50 per cent to 9.00 per cent with effect from April 17, 2012.

2. All penal interest rates on shortfall in reserve requirements, which are specifically linked to the Bank Rate, also stand revised as indicated in Annex.
3. Please acknowledge receipt.

Yours faithfully

(Murlī Radhakrishnan)
Chief General Manager

Encl: as above

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