

# **Jharkhand State Electricity Regulatory Commission**



Order on  
Approval of Business Plan and MYT Petition for the Control  
Period from FY 2021-22 to FY 2025-26  
and  
Tariff Determination for FY 2021-22  
for  
Tata Steel Limited (TSL)

Ranchi  
November 24, 2022



## CONTENTS

<b>CONTENTS.....</b>	<b>2</b>
<b>LIST OF ABBREVIATIONS .....</b>	<b>5</b>
<b>LIST OF TABLES .....</b>	<b>6</b>
<b>A 1 INTRODUCTION.....</b>	<b>10</b>
Jharkhand State Electricity Regulatory Commission.....	10
The Petitioner-Tata Steel Limited .....	12
The Petitioner’s Prayers .....	12
Scope of the Present Order.....	13
<b>A 2 PROCEDURAL HISTORY.....</b>	<b>14</b>
Background .....	14
Information Gaps in the Petition .....	15
Inviting Public Comments/Suggestions .....	15
Submission of Comments/Suggestions and Conduct of Public Hearing .....	16
<b>A 3 BRIEF FACTS OF THE PETITION.....</b>	<b>17</b>
MYT Business Plan.....	17
MYT Tariff Petition .....	22
<b>A 4 PUBLIC CONSULTATION PROCESS .....</b>	<b>24</b>
Increase in Tariff .....	24
Connection to Consumers .....	25
Increase of Provisional Connection Limit.....	25
Tariff applicability difference .....	26
Difference in Tariff of TSL and JUSCO .....	26
Reimbursement of demand Charges .....	27
Replacement of the Meters.....	27
Number of Consumers .....	28
Government Subsidy .....	28
Bonus to Employees.....	29
Interest on Loan.....	29
Miscellaneous Charges.....	30
<b>A 5 APPROVAL OF BUSINESS PLAN FOR CONTROL PERIOD FROM FY 2021-22 TO FY 2025-26 .....</b>	<b>31</b>
Demand and Sale Forecast .....	33
Distribution Loss .....	37
Power Purchase Plan .....	37
<i>Energy Balance</i> .....	37



<i>Power Procurement Source</i> .....	39
<i>Power Purchase Cost</i> .....	42
Capital Investment Plan .....	46
<i>Financing of Capital Expenditure Plan</i> .....	55
Human Resource Plan .....	57
<b>A 6 DETERMINATION OF TARIFF FOR THE MYT CONTROL PERIOD FROM FY 2021-22 TO FY 2025-26</b> .....	<b>61</b>
Consumers, Connected Load and Sales .....	61
Energy Balance .....	62
Distribution Loss .....	62
Power Purchase Cost.....	62
Operation and Maintenance (O&M) Expenses .....	63
Capital Work in Progress (CWIP) and Gross Fixed Asset (GFA).....	69
Consumer Contribution .....	70
Depreciation .....	71
Interest and Finance Charges .....	74
Interest on Consumer Security Deposit.....	76
Return on Equity .....	78
Interest on Working Capital .....	80
Non-Tariff Income .....	82
Summary of ARR for the MYT Control Period from FY 2021-22 to FY 2025-26.....	83
Revenue at Existing Tariff .....	84
Summary of ARR and Gap/(Surplus) at Existing Tariff.....	84
<b>A 7 REVENUE GAP AND ITS TREATMENT</b> .....	<b>86</b>
Treatment of Revenue Gap/(Surplus) .....	86
Revenue Gap/(Surplus) .....	86
<b>A 8 OPEN ACCESS CHARGES</b> .....	<b>89</b>
Wheeling Charges .....	89
Cross Subsidy Surcharge.....	92
Additional Surcharge.....	93
Regulatory Surcharge for Open Access Consumers .....	94
<b>A 9 OTHER TARIFF RELATED ISSUES</b> .....	<b>95</b>
<b>A 10 APPROVED RETAIL TARIFF FOR FY 2021-22</b> .....	<b>99</b>
<b>A 11 SCHEDULE OF CHARGES</b> .....	<b>101</b>
<b>A 12 TARIFF SCHEDULE</b> .....	<b>103</b>
Consumer Tariff .....	103
Tariff to be paid by the Licensee for Gross/Net Metering of rooftop Solar PV projects.....	115



Schedule of Miscellaneous Charges.....	116
<b>A 13 TERMS AND CONDITIONS OF SUPPLY.....</b>	<b>117</b>
<i>Clause I: Penalty for exceeding Billing/Contract Demand.....</i>	<i>117</i>
<i>Clause II: Jharkhand Electricity Duty.....</i>	<i>117</i>
<i>Clause III: Delayed Payment Surcharge.....</i>	<i>117</i>
<i>Clause IV: Voltage Rebate .....</i>	<i>117</i>
<i>Clause V: Load Factor Rebate .....</i>	<i>118</i>
<i>Clause VI: Installation of Shunt Capacitors.....</i>	<i>118</i>
<i>Clause VII: ToD Tariff.....</i>	<i>118</i>
<i>Clause VIII: Prompt Payment Rebate and Rebate for Online Payment.....</i>	<i>118</i>
<i>Clause IX: Rebate for Prepaid Metering.....</i>	<i>119</i>
<i>Clause X: Rebate for Delayed Billing .....</i>	<i>119</i>
<i>Clause XI: Other Terms and Conditions .....</i>	<i>119</i>
<b>A 14 DIRECTIVES.....</b>	<b>122</b>
Publicising Tariff Approved by the Commission .....	122
Submission of Capital Expenditure Plan.....	122
Submission of Fixed Asset Register.....	122
Submission of break-up R&M Expenses. ....	122
<b>ANNEXURE.....</b>	<b>124</b>
Annexure-1: List of members of public who participated in the Public Hearing and submitted their Suggestions/Comments.....	124

### List of Abbreviations

Abbreviation	Description
<b>A&amp;G</b>	Administrative and General
<b>ACS/ACoS</b>	Average Cost of Supply
<b>APR</b>	Annual Performance Review
<b>APTEL</b>	Appellate Tribunal for Electricity
<b>ARR</b>	Aggregate Revenue Requirement
<b>BG</b>	Bank Guarantee
<b>CC</b>	Consumer Contribution
<b>CGRF</b>	Consumer Grievance Redressal Forum
<b>CSD</b>	Consumer Security Deposit
<b>CWIP</b>	Capital Works in Progress
<b>DVC</b>	Damodar Valley Corporation
<b>FPA</b>	Fuel Purchase Adjustment
<b>FY</b>	Financial Year
<b>GFA</b>	Gross Fixed Assets
<b>GoJ</b>	Government of Jharkhand
<b>HP</b>	Horse Power
<b>HT</b>	High Tension
<b>IAS</b>	Irrigation and Agriculture Services
<b>IEX</b>	Indian Energy Exchange
<b>IFC</b>	Interest & Finance Charge
<b>IoWC</b>	Interest on Working Capital
<b>kW</b>	kilo Watt
<b>kWh</b>	kilo Watt hour
<b>kVA</b>	kilo Volt Ampere
<b>kVAh</b>	kilo Volt-Ampere hour
<b>MD</b>	Maximum Demand
<b>MES</b>	Military and Engineering Services
<b>MOD</b>	Merit Order Despatch
<b>MU</b>	Million Units
<b>NTI</b>	Non-Tariff Income
<b>O&amp;M</b>	Operation and Maintenance
<b>PPA</b>	Power Purchase Agreement
<b>R&amp;M</b>	Repair and Maintenance
<b>REC</b>	Renewable Energy Certificates
<b>RoE</b>	Return on Equity
<b>RPO</b>	Renewable Purchase Obligation
<b>RTS</b>	Railway Traction Services
<b>SBI</b>	State Bank of India
<b>SERC</b>	State Electricity Regulatory Commission
<b>SOP</b>	Standard of Performance
<b>SS</b>	Streetlight Services
<b>TSL</b>	Tata Steel Limited

## List of Tables

Table 1: List of newspapers and dates of publication of public notice by TSL.....	16
Table 2: List of newspapers and dates of publication of Public Notice by the Commission...	16
Table 3: Number of Consumers as projected by the Petitioner for the Control Period (Nos)	17
Table 4: Connected Load as projected by the Petitioner for the Control Period (kVA) .....	17
Table 5: Sales as projected by the Petitioner for the Control Period (MUs).....	17
Table 6: Energy Balance as projected by the Petitioner for the Control Period .....	18
Table 7: Power Procurement Plan as submitted by the Petitioner for the Control Period.....	19
Table 8: Capital Expenditure Plan as submitted by the Petitioner for the Control Period ....	20
Table 9: Capitalisation Plan as submitted by the Petitioner for the Control Period.....	21
Table 10: Cumulative Manpower requirement as submitted by the Petitioner for the Control Period.....	21
Table 11: ARR as submitted by the Petitioner for the Control Period (Rs. Crore).....	22
Table 12: Cumulative Revenue Gap till FY 2020-21 as submitted by the Petitioner (Rs. Crore).....	22
Table 13: Tariff Proposed by the Petitioner for FY 2021-22 (Rs.).....	23
Table 14: Number of Consumers Projection as submitted by the Petitioner for Control Period (Nos).....	33
Table 15: Connected Load Projection as submitted by the Petitioner for Control Period (kVA) .....	33
Table 16: Sales Projection as submitted by the Petitioner for Control Period (MUs).....	34
Table 17: Approach for Projection of No. of Consumers for Control Period.....	34
Table 18: Approach for Projection of for Connected Load Control Period .....	35
Table 19: Approach for Projection of Sales for Control Period .....	35
Table 20: Number of Consumers as approved by the Commission for Control Period (Nos)	36
Table 21: Connected Load as approved by the Commission for Control Period (kVA) .....	36
Table 22: Sales as approved by the Commission for Control Period (MUs).....	37
Table 23: Energy Balance as submitted by the Petitioner for Control Period (MU).....	38
Table 24: Energy Balance as approved by the Commission for Control Period (MU) .....	39
Table 25: Power Purchase Plan as submitted by the Petitioner (MU) .....	40
Table 26: Power Purchase Plan as approved by the Commission (MU).....	41
Table 27: RPO Quantum Approved by the Commission for Control Period (MU).....	41
Table 28: Power Purchase Cost as submitted by the Petitioner (Rs. Crore) .....	43
Table 29: Power Purchase Cost as approved by the Commission (Rs. Crore).....	45
Table 30: Capital Expenditure Plan as submitted by the Petitioner (Rs. Crore).....	50
Table 31: Scheme wise Phasing of Debt Component for Schemes during the Control Period as submitted by the Petitioner (Rs. Crore).....	50
Table 32: Scheme wise IDC as submitted by the Petitioner (Rs. Crore).....	51
Table 33: Scheme wise Capitalisation Phasing as submitted by the Petitioner (Rs. Crore)...	51
Table 34: Capital Expenditure Plan as approved by the Commission (Rs. Crore).....	54
Table 35: Capitalisation Plan as approved by the Commission (Rs. Crore) .....	54
Table 36: Financing of Capital Expenditure Plan submitted by the Petitioner (Rs. Crore)...	56
Table 37: Financing of Capital Expenditure Plan as approved by the Commission (Rs. Crore) .....	57
Table 38: Manpower Requirement to replace Superannuating Employees as submitted by the Petitioner.....	57
Table 39: Manpower Requirement for additional Functional Requirement in existing Operational Area as submitted by the Petitioner .....	58
Table 40: Manpower requirement for Construction and O&M of upcoming Infrastructure as submitted by the Petitioner .....	58

Table 41: Annual Cost to Company for employee projected to added for the Control Period as submitted by the Petitioner.....	59
Table 42: Manpower approved by the Commission for Control Period (Nos.) .....	60
Table 43: Employee Expenses as submitted by the Petitioner (Rs. Crore) .....	63
Table 44: A&G Expenses as submitted by the Petitioner (Rs. Crore).....	63
Table 45: R&M Expenses as submitted by the Petitioner (Rs. Crore) .....	64
Table 46: Petition Fee and CGRF Expenses as submitted by the Petitioner (Rs. Crore).....	64
Table 47: O&M Expenses as submitted by the Petitioner (Rs. Crore).....	64
Table 48: Growth Factor as approved by the Commission for Control Period.....	68
Table 49: O&M Expenses as approved by the Commission (Rs. Crore).....	69
Table 50: Capital Work in Progress (CWIP) as submitted by the Petitioner (Rs. Crore) .....	69
Table 51: Gross Fixed Assets (GFA) as submitted by the Petitioner (Rs. Crore).....	70
Table 52: CWIP and GFA as approved by the Commission (Rs. Crore) .....	70
Table 53: CC Capitalisation and Received as submitted by the Petitioner (Rs. Crore) .....	70
Table 54: Consumer Contribution as approved by the Commission for Control Period.....	71
Table 55: Depreciation on assets created out of CC as submitted by the Petitioner (Rs. Crore).....	71
Table 56: Net Depreciation as submitted by the Petitioner (Rs. Crore) .....	71
Table 57: Computation of depreciation rate for Control Period .....	73
Table 58: Depreciation as approved by the Commission for Control Period (Rs. Crore).....	73
Table 59: Interest and Finance Charges as submitted by the Petitioner (Rs. Crore) .....	74
Table 60: Interest and Finance Charges as approved by the Commission for Control Period (Rs. Crore) .....	76
Table 61: Interest on CSD as submitted by the Petitioner (Rs. Crore) .....	76
Table 62: Interest on CSD as approved by the Commission for Control Period (Rs. Crore).77	77
Table 63: Return on Equity as submitted by the Petitioner (Rs. Crore).....	78
Table 64: Return on Equity as approved by the Commission for Control Period (Rs. Crore)79	79
Table 65: Interest on Working Capital for Wheeling Business as submitted by the Petitioner (Rs. Crore) .....	80
Table 66: Interest on Working Capital for Retail Supply Business as submitted by the Petitioner (Rs. Crore) .....	80
Table 67: Interest on Working Capital as approved by the Commission for Control Period.81	81
Table 68: Non-Tariff Income as submitted by the Petitioner (Rs. Crore) .....	82
Table 69: Non-Tariff Income as approved by the Commission (Rs. Crore).....	83
Table 70: Summary of ARR for the MYT Period as submitted by the Petitioner.....	83
Table 71: Summary of ARR for the MYT Control Period as approved by the Commission (Rs. Crore).....	84
Table 72: Revenue at existing tariff as approved by the Commission (Rs. Crore).....	84
Table 73: Gap/(Surplus) at existing tariff as approved by the Commission (Rs. Crore) .....	85
Table 74: Revenue Gap/(Surplus) approved by the Commission for FY 2021-22 at Existing Tariff (Rs. Crore).....	86
Table 75: Revenue Gap/(Surplus) approved by the Commission for FY 2021-22 at Proposed Tariff (Rs. Crore).....	86
Table 76: Cumulative Gap/(Surplus) till FY 2021-22 as submitted by the Petitioner (Rs. Crore).....	87
Table 77: Cumulative Gap/(Surplus) as approved by the Commission (Rs. Crore) .....	88
Table 78: Segregation of ARR for FY 2021-22 as approved by the Commission (Rs. Crore) 91	91
Table 79: Asset ratio and Sales ratio as approved by the Commission (Rs. Crore) .....	91
Table 80: Cost Stacking for FY 2021-22 as approved by the Commission (Rs. Crore).....	91
Table 81: Wheeling Tariff for FY 2021-22 as approved by the Commission (Rs. Crore).....	92



*Table 82: Cross Subsidy Surcharge for FY 2021-22 as submitted by the Petitioner (Rs./kWh) ..... 92*

*Table 83: Cross Subsidy Surcharge approved by the Commission for FY 2021-22 (Rs./kWh) ..... 93*

*Table 84: Summary of Tariff Proposed by the Petitioner for FY 2021-22 ..... 99*

*Table 85: Summary of Tariff Approved by the Commission for FY 2021-22 ..... 100*

*Table 86: Miscellaneous Charges as proposed by the Petitioner for FY 2021-22..... 101*



**BEFORE**

**Jharkhand State Electricity Regulatory Commission, Ranchi**

**Case (Tariff) No.: 13 of 2020**

**In the matter of:**

**Petition for**

**Approval of Business Plan and MYT Petition for the Control Period from  
FY 2021-22 to FY 2025-26**

**and**

**Tariff Determination for FY 2021-22**

**In the matter:**

Tata Steel Limited (TSL)

Northern Town, Bistupur, Jamshedpur..... **Petitioner**

**PRESENT**

Shri. Atul Kumar

Member(Technical)

Shri. Mahendra Prasad

Member (Legal)

**Order dated November 24, 2022**

Tata Steel Limited (hereinafter referred to as 'TSL' or the 'Petitioner') has filed the Petition dated December 01, 2020 for approval of Business Plan, MYT Petition for the Control Period from FY 2021-22 to FY 2025-26 and Tariff determination for FY 2021-22.

## **A 1 INTRODUCTION**

### **Jharkhand State Electricity Regulatory Commission**

- 1.1 The Jharkhand State Electricity Regulatory Commission (hereinafter referred to as the “JSERC” or “the Commission”) was established by the Government of Jharkhand under Section 17 of the Electricity Regulatory Commissions Act, 1998 on August 22, 2002. The Commission became operational with effect from April 24, 2003.
- 1.2 The Government of Jharkhand, vide its notification dated August 22, 2002, had defined the functions of JSERC as per Section 22 of the Electricity Regulatory Commissions Act, 1998 to be the following, namely:
- (a) to determine the tariff for electricity, wholesale, bulk, grid or retail, as the case may be, in the manner provided in Section 29;
  - (b) to determine the tariff payable for the use of the transmission facilities in the manner provided in Section 29;
  - (c) to regulate power purchase and procurement process of the transmission utilities and distribution utilities including the price at which the power shall be procured from the generating companies, generating stations or from other sources for transmission, sale, distribution and supply in the State;
  - (d) to promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purposes of this Act.
- 1.3 After the Electricity Act, 2003 (hereinafter referred to as the “Act”) came into force, the earlier Electricity Regulatory Commissions Act, 1998 got repealed and the functions of SERC’s are now defined under Section 86 of the Act.
- 1.4 In accordance with Section 86 (1) of the Act, the JSERC discharges the following functions:
- (a) determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State:  
Provided that where open access has been permitted to a category of consumers under Section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;
  - (b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;
  - (c) facilitate intra-State transmission and wheeling of electricity;

- (d) issue licences to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;
  - (e) promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;
  - (f) adjudicate upon the disputes between the licensees and generating companies; and to refer any dispute for arbitration;
  - (g) levy fee for the purposes of this Act;
  - (h) specify State Grid Code consistent with the Grid Code specified under Clause (h) of sub-section (1) of Section 79;
  - (i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
  - (j) fix the trading margin in the intra-state trading of electricity, if considered, necessary;
  - (k) discharge such other functions as may be assigned to it under this Act.
- 1.5 The Commission has to also advise the State Government as per sub section 2 of Section 86 of the Act, on all or any of the following matters, namely:
- (a) promotion of competition, efficiency and economy in activities of the electricity industry;
  - (b) promotion of investment in electricity industry;
  - (c) reorganisation and restructuring of electricity industry in the State;
  - (d) matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by that Government.
- 1.6 The State Commission ensures transparency while exercising its powers and discharging its functions.
- 1.7 In discharge of its functions, the State Commission is also guided by the Tariff Policy notified by the Government of India under Section 3 of the Act. The objectives of the Tariff Policy are to:
- (a) ensure availability of electricity to consumers at reasonable and competitive rates;
  - (b) ensure financial viability of the sector and attract investments;
  - (c) promote transparency, consistency and predictability in regulatory approaches across jurisdictions and minimize perceptions of regulatory risks;
  - (d) promote competition, efficiency in operations and improvement in quality of supply.

### The Petitioner-Tata Steel Limited

- 1.8 Tata Steel Limited (TSL), formerly known as Tata Iron and Steel Company Limited (TISCO), is a company incorporated under the provisions of the Companies Act, 1956. It has been distributing electricity in Jamshedpur under the licence granted u/s 14 of the Act.
- 1.9 The Petitioner has been distributing electricity in Jamshedpur township since 1923 through a sanction/licence granted u/s 28(1) of the erstwhile Indian Electricity Act, 1910. Post enactment of the EA, 2003, the Petitioner filed an application for a Distribution Licence for Jamshedpur township on December 24, 2003 u/s 15 of the Act. In the absence of the notified Regulations and in view of the first proviso of Section 14 and Section 172(b) of the Act, JSERC vide Order dated March 24, 2004 permitted TSL to continue operating under the provisions of the repealed Act till the time Regulations regarding the same were notified by the Commission.
- 1.10 After notification of the JSERC (Terms and Conditions for Distribution Tariff) Regulations, 2004, action for issue of licence for Jamshedpur town was initiated and subsequently the licence was issued to TSL on January 12, 2006 effective from March 24, 2004.
- 1.11 The area of the Petitioner is bounded as under: -
- North:** River Subarnarekha;
  - South:** Tracks of South Eastern Railways;
  - East:** Eastern boundaries of Mouza Jojobera and Nildhand;
  - West:** River Kharkai.

### The Petitioner's Prayers

- 1.12 The Petitioner in this Petition has made the following prayers before the Commission:
- a) *Pass suitable orders with respect to the Cumulative Revenue Gap and proposed tariff as presented in this petition.*
  - b) *Pass Suitable orders on Business Plan and MYT petition, considering the impact of changes in RPO compliance cost and revised capital expenditure cost and plan.*
  - c) *Condone any inadvertent omissions/errors/shortcomings and permit TSL to add/change/modify/alter this filing and make further submissions as may be required as a future date.*
  - d) *Pass such further orders, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case.*



### **Scope of the Present Order**

- 1.13 The Commission in this Order has approved the Business Plan, MYT Petition for the Control Period from FY 2021-22 to FY 2025-26 and has dealt with the Petitioner's Tariff proposal for FY 2021-22.
- 1.14 While approving this Order, the Commission has taken into consideration:
- a) Material placed on record by the Petitioner;
  - b) Provisions of the Electricity Act, 2003;
  - c) Principles laid down in the National Electricity Policy;
  - d) Principles laid down in the Tariff Policy;
  - e) Provisions of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 (hereinafter referred to as the Tariff Regulations, 2020 or the Regulations);
- 1.15 Accordingly, the Commission has scrutinized the Petition in detail and hereby issues the Order on approval of Business Plan, MYT Petition for the Control Period from FY 2021-22 to FY 2025-26 and Tariff determination for FY 2021-22 for Tata Steel Limited.

## **A 2 PROCEDURAL HISTORY**

### **Background**

- 2.1 The Commission had issued the MYT Order for the Petitioner on June 04, 2014 for True up for FY 2011-12 and FY 2012-13, determination of ARR for MYT Period from FY 2013-14 to FY 2015-16 and tariff for FY 2013-14. The Petitioner filed Review Petition against the MYT Order dated June 04, 2014 for relief under the provisions of Section 94 (1) (f) of the Act and Regulation 36 (1) of the Jharkhand State Electricity Regulatory Commission (Conduct of Business) Regulations, 2011 on July 01, 2014. The Commission issued the Order on the Review Petition in its Order dated March 31, 2015.
- 2.2 The Petitioner filed the tariff Petition for True-up for FY 2013-14, Annual Performance Review for FY 2014-15 and Revised Annual Revenue Requirement and Tariff for FY 2015-16 on November 10, 2014. The Commission issued the Order on the above Petition on May 31, 2015.
- 2.3 The Petitioner had filed the tariff Petition for Truing up for FY 2014-15 and Annual Performance Review for FY 2015-16 on January 01, 2016. Further, as per the provisions of the Tariff Regulations, 2015, the Petitioner also filed the Business Plan for MYT Control Period from FY 2016-17 to FY 2020-21 on July 12, 2016 and the Petition for determination of Annual Revenue Requirement for Multi Year Tariff Period from FY 2016-17 to FY 2020-21 and Tariff Determination for FY 2016-17 on July 28, 2016. The Commission issued the Tariff Order in this regard on February 28, 2017.
- 2.4 The Petitioner filed the tariff Petition for True-Up for FY 2015-16, Annual Performance Review for FY 2016-17, Annual Revenue Requirement and Tariff Determination for FY 2017-18. The Commission issued the Tariff Order in this regard on May 18, 2018. The Petitioner filed Review Petition against the Order dated May 18, 2018 and the Commission issued the Review Order on September 11, 2018. Further, the Commission approved the True up for FY 2016-17 and FY 2017-18 vide its Order dated May 26, 2020.
- 2.5 The Commission has carried out the True up for FY 2018-19, Annual Performance Review for FY 2019-20, Annual Revenue Requirement and Tariff Determination for FY 2020-21 vide its Order dated September 29, 2020.
- 2.6 The Commission vide its Order dated November 24, 2022 carried out the True up for FY 2019-20.



2.7 The Petitioner in the current Petition, filed on December 01, 2020 has sought approval of Business Plan, MYT Petition for the Control Period from FY 2021-22 to FY 2025-26 and Tariff determination for FY 2021-22.

### **Information Gaps in the Petition**

2.8 As part of the Tariff determination exercise, several deficiencies/information gaps were observed in the Petition submitted by the Petitioner that were communicated to the Petitioner vide letter nos. JSERC/Case (Tariff) no.: 13 of 2020/416 dated February 01, 2021.

2.9 The Petitioner submitted its response to the aforesaid letters and furnished additional data/ information to the Commission vide letter nos.: PBD/125/10/59-T/2021 dated February 15, 2021.

2.10 The Petitioner submitted that it has inadvertently missed to consider the tax component on return on equity while computing ARR for each year of the control period. Hence, the Petitioner has submitted revised computation of return on equity and interest on working capital and revised the numbers of the overall ARR. This additional information was submitted to the Commission by the Petitioner in vide letter no.: PDB/128/09/59-J/2021 dated February 17, 2021.

2.11 Further, the Petitioner submitted revised Capex estimate proposed in Business Plan and MYT Petition for Control Period to the Commission vide letter nos.: PBD/JSR/793/2022 dated August 11, 2022.

2.12 The Commission has scrutinized the Petition along with additional data/information submitted by the Petitioner in response to the discrepancies identified and has considered the same while passing this Order.

### **Inviting Public Comments/Suggestions**

2.13 The Commission directed the Petitioner to make available copies of the Petition to the members of the general public on request, and also issue a Public Notice inviting comments/suggestions on the Petition for approval of Business Plan, MYT Petition for the Control Period from FY 2021-22 to FY 2025-26 and Tariff determination for FY 2021-22.

2.14 The aforesaid Public Notice was issued by the Petitioner in the following newspapers and a period of twenty-one (21) days was given to the members of the general public for submitting their comments/suggestions:

**Table 1: List of newspapers and dates of publication of public notice by TSL**

Newspaper	Language	Date of Publication
Prabhat Khabar	Hindi	20.02.2021
Dainik Bhaskar	Hindi	20.02.2021
Times of India	English	20.02.2021
Hindustan Time	English	20.02.2021
Prabhat Khabar	Hindi	21.02.2021
Dainik Bhaskar	Hindi	21.02.2021
Times of India	English	21.02.2021
Hindustan Time	English	21.02.2021

2.15 The Commission issued a Public Notice on its website www.jserc.org and various newspapers giving time till March 15, 2021 to various Stakeholders to submit their comments/suggestions. Further, the Commission also organized a Public Hearing on August 17, 2022, where an additional opportunity was provided to all the Stakeholders to submit their comments/suggestions on the above said Petition. The details of newspapers wherein the Notice was published by the Commission are as under:

**Table 2: List of newspapers and dates of publication of Public Notice by the Commission**

Newspaper	Language	Date of Publication
Prabhat Khabar	Hindi	31.07.2022
Dainik Jagran	Hindi	31.07.2022
The Times of India	English	31.07.2022
The Economics Times	English	31.07.2022
Prabhat Khabar	Hindi	17.08.2022
Dainik Bhaskar	Hindi	17.08.2022
The Times of India	English	17.08.2022
The Economics Times	English	17.08.2022

### **Submission of Comments/Suggestions and Conduct of Public Hearing**

2.16 Objections/Comments/Suggestions on the Petition were received. The Objections/Comments/Suggestions of the Public, Petitioner’s responses and Commission’s views thereon are detailed in **Section A 4** of this Order.

### A 3 BRIEF FACTS OF THE PETITION

3.1 The following Section summarises the Petition for Approval for Business Plan and MYT for the Control Period from FY 2021-22 to FY 2025-26 and Tariff Determination for FY 2021-22 as filed by the Petitioner before the Commission for approval.

#### MYT Business Plan

#### **Demand & Sales Forecast**

3.2 The following table summarises the number of consumer, Connected Load and Sales projected by the Petitioner for the Control Period.

**Table 3: Number of Consumers as projected by the Petitioner for the Control Period (Nos)**

Consumer Category	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Domestic	39,630	41,536	43,492	45,498	47,554
Domestic - DSHT	147	153	159	165	171
Commercial	10,463	10,593	10,725	10,859	10,994
HT-IS	217	219	220	222	224
Streetlight	370	377	384	391	398
Temporary Supply	38	38	38	38	38
Sale to Other Licensee	1	1	1	1	1
LTIS	1	1	1	1	1
<b>Total</b>	<b>50,867</b>	<b>52,918</b>	<b>55,020</b>	<b>57,175</b>	<b>59,381</b>

**Table 4: Connected Load as projected by the Petitioner for the Control Period (kVA)**

Consumer Category	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Domestic	251,676	262,652	274,217	286,756	301,170
Domestic – DSHT	60,527	62,985	65,444	67,902	70,360
Commercial	75,576	76,388	77,239	78,135	79,088
HT-IS	413,333	400,333	397,983	400,983	403,983
Streetlight	4,446	4,534	4,624	4,716	4,810
Temporary Supply	152	152	152	152	152
Sale to Other Licensee	70,000	70,000	70,000	70,000	70,000
LTIS	106	106	106	106	106
<b>Total</b>	<b>875,816</b>	<b>877,151</b>	<b>889,765</b>	<b>908,750</b>	<b>929,669</b>

**Table 5: Sales as projected by the Petitioner for the Control Period (MUs)**

Consumer Category	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Domestic	229.71	247.43	266.29	286.47	308.22
Domestic – DSHT	86.44	89.95	93.11	95.91	98.44
Commercial	84.33	85.87	87.48	89.27	91.32
HT-IS	1,957.28	1,862.50	1,754.17	1,800.26	1,811.98
Streetlight	4.18	4.27	4.35	4.44	4.53
Temporary Supply	1.21	1.00	0.83	0.69	0.57
Sale to Other Licensee	400.00	400.00	400.00	400.00	400.00
LTIS	0.10	0.10	0.10	0.10	0.10
<b>Total</b>	<b>2,763.25</b>	<b>2,691.12</b>	<b>2,606.33</b>	<b>2,677.14</b>	<b>2,715.16</b>

### Distribution Loss

3.3 The Petitioner has submitted that for the purpose of projection it has considered uniform loss of 3.86% on overall sales. The Petitioner submitted that slightly higher loss levels are projected due to decrease in HT sales, change in consumption pattern of consumers due to adoption of Solar rooftop plants, relatively higher sales in LT levels and increase in provisional connections in congested fringe areas.

3.4 The Petitioner further submitted that it would take all efforts to keep the T&D loss levels to one of the best in the country, for which it has also included plans to increase actions related to removal of unauthorised connections and other administrative and technical measures during the control period.

### Energy Balance

3.5 Based on the sales projected, the Petitioner has projected the energy requirement as shown below for the Control Period.

**Table 6: Energy Balance as projected by the Petitioner for the Control Period**

Sr. No.	Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
<b>A</b>	<b>ENERGY REQUIREMENT</b>					
1	Sales to Other Licensees	400.00	400.00	400.00	400.00	400.00
2	Distribution Losses on Sales to Other Licensees (%)	0.00%	0.00%	0.00%	0.00%	0.00%
3	Unit Lost on Sales to Other Licensees					
4	<b>Energy Requirement for Sales to Other Licensees</b>	<b>400.00</b>	<b>400.00</b>	<b>400.00</b>	<b>400.00</b>	<b>400.00</b>
5	Sales to HT - IV Category	176.32	176.32	176.32	176.32	176.32
6	Distribution Losses to HT -IV (%)	0.00%	0.00%	0.00%	0.00%	0.00%
7	Unit lost on Sales to HT – IV	-	-	-	-	-
8	<b>Energy Requirement for HT - IV Category</b>	<b>176.32</b>	<b>176.32</b>	<b>176.32</b>	<b>176.32</b>	<b>176.32</b>
9	Sale of Daily Surplus balance to Exchange (MU)	30.00	30.00	30.00	30.00	30.00
10	Sales to LT Consumers (Dom+Comm+Street light+temp)	319.53	338.66	359.05	380.97	404.74
11	Sales to HT Consumers (other than HT-IV) ( DSHT + HT-1 + HT-2+HT-3)	1,867.40	1,776.14	1,670.96	1,719.85	1,734.10
<b>12</b>	<b>Total Sales to Other Consumers</b>	<b>2,216.93</b>	<b>2,144.80</b>	<b>2,060.01</b>	<b>2,130.82</b>	<b>2,168.84</b>
13	Distribution Losses on Sales to Other Consumers (%)	<b>4.82%</b>	<b>4.85%</b>	<b>4.89%</b>	<b>4.85%</b>	<b>4.84%</b>
14	Unit Lost on Sales to Other Consumers	112.15	109.25	105.85	108.69	110.22
<b>15</b>	<b>Energy Requirement for Sales to Other Consumers</b>	<b>2,329.08</b>	<b>2,254.05</b>	<b>2,165.86</b>	<b>2,239.52</b>	<b>2,279.06</b>
16	Overall Sales (4+8+9+12)	2,793.25	2,721.12	2,636.33	2,707.14	2,745.16
17	Overall Distribution Losses (%)	3.86%	3.86%	3.86%	3.86%	3.86%
18	Overall Distribution Losses	112.15	109.25	105.85	108.69	110.22



Sr. No.	Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
19	Total Energy Requirement (MUs)	2905.40	2830.37	2742.18	2815.84	2855.38

### Power Purchase Plan

3.6 In compliance to JSERC (Terms & Conditions for Determination of Distribution Tariff) Regulations, 2020, the Petitioner has submitted the Power Purchase Plan for the Control Period as shown below.

**Table 7: Power Procurement Plan as submitted by the Petitioner for the Control Period**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
<b>Tata Power Company Limited</b>	1393.76	1357.77	1315.46	1350.80	1369.77
<i>Unit – II</i>	705.77	687.55	666.13	684.02	693.62
<i>Unit – III</i>	687.99	670.22	649.34	666.78	676.14
<b>Damodar Valley Corporation`</b>	1421.05	1384.35	1341.22	1377.24	1396.58
<i>132 kV</i>	336.13	327.45	317.25	325.77	330.34
<i>400 kV</i>					
<i>DSTPS</i>	550.26	536.05	519.34	533.29	540.78
<i>MTPS</i>	534.66	520.85	504.62	518.18	525.45
<b>Tata Steel Works</b>	26.52	25.84	25.03	25.71	26.07
<b>Short Term Sources</b>	64.07	62.41	60.47	62.09	62.97
<b>Total Energy Availability (MUs)</b>	<b>2905.40</b>	<b>2830.37</b>	<b>2742.18</b>	<b>2815.84</b>	<b>2855.38</b>



### Capital Investment Plan

3.7 The following table summarises the Capital Investment Plan including Capitalisation for the 3<sup>rd</sup> Control Period i.e. FY 2021-22 to FY 2025-26 as submitted by the Petitioner.

**Table 8: Capital Expenditure Plan as submitted by the Petitioner for the Control Period**

S.No	Scheme Name	Remarks	Total Project Cost (in Crore.)	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
1	Upgradation of Network Monitoring & Control Centre	New	7.5		4	3.5		
2	New 6.6kV AIS indoor substation for network extension in Ramadhin Bagan, Manifit and nearby area (Eastern South)	New	3.00	0.50	2.50			
3	New 2x16/20MVA, 33kV / 6.6 kV S/Stn with incoming feeder cable from Bara S/stn at Baridih Area for Eastern North Area (Unserved Area)	New	25.00		3.00	19.00	3.00	
4	6.6 kV Network Extension for power supply in fringe areas	From Last Control Period	8.00	1	1	2	2	2
5	Strengthening of Testing facilities	From Last Control Period	2.00	2.00				
6	132kV power line connectivity form MPDS-4 to Sonari/Bara	From Last Control Period.	20.00		20			
7	Augmentation of Tinplate ,Golmuri & BPRS for feeding town loads	New	17.40	2.00	15.4			
8	Supply and Installation of Power Quality Meter	New	1.52	1.52				
9	Other assets to provide consumer connection from consumers (self financing scheme)	New	10	2.00	2.00	2.00	2.00	2.00
	<b>Total Capital Expenditure</b>		<b>94.42</b>	<b>9.02</b>	<b>47.90</b>	<b>26.50</b>	<b>7.00</b>	<b>4.00</b>

**Table 9: Capitalisation Plan as submitted by the Petitioner for the Control Period**

S.No	Scheme Name	Total Project Cost (in Crore.)	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
1	Upgradation of Network Monitoring & Control Centre (SCADA)	7.5		4.00	3.50		
2	New 6.6kV AIS indoor substation for network extension in Ramadhin Bagan, Manifit and nearby area (Eastern South)	3.04		3.04			
3	New 2x16/20MVA, 33kV / 6.6 kV S/Stn with incoming feeder cable from BaraS/stn at Baridih Area for Eastern North Area(Unserved Area)	25.24		0.00	22.22	3.02	
4	6.6 kV Network Extension for power supply in fringe areas	8.00	1.00	1.00	2.00	2.00	2.00
5	Strengthening of Testing facilities	2.00	2.00				
6	132kV power line connectivity form MPDS-4 to Sonari/Bara	20.00		20.00			
7	Augmentation of Tinplate ,Golmuri & BPRS for feeding town loads	17.55		17.55			
8	Supply and Installation of Power Quality Meter	1.52	1.52				
9	Other assets to provide consumer connection from consumers (self financing scheme)	10	2.00	2.00	2.00	2.00	2.00
	<b>Total Capitalisation</b>	<b>94.85</b>	<b>6.52</b>	<b>47.58</b>	<b>29.72</b>	<b>7.02</b>	<b>4.00</b>

### Human Resource Plan

3.8 In compliance to JSERC (Terms & Conditions for Determination of Distribution Tariff) Regulations, 2020, the Petitioner has submitted the detail of additional manpower requirement and its yearly expenses for the Control Period as shown below.

**Table 10: Cumulative Manpower requirement as submitted by the Petitioner for the Control Period**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	Total
Cumulative Manpower Requirement	34	15	5	0	0	54

## MYT Tariff Petition

### Aggregate Revenue Requirement

3.9 The summary of Annual Revenue Requirement for each financial year of the Control Period as submitted by the Petitioner is shown below.

**Table 11: ARR as submitted by the Petitioner for the Control Period (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Power Purchase Cost	1,459.59	1,442.28	1,444.09	1,501.59	1,549.27
O&M Expenses	95.57	103.01	113.43	123.76	133.69
Depreciation	29.45	30.95	32.92	33.76	33.95
Interest and Finance Charges	3.23	2.09	1.53	0.00	0.00
Interest on Consumer Security Deposit	2.29	2.38	2.51	2.65	2.78
Interest on Working Capital*	13.12	12.97	13.11	13.67	14.93
Return on Equity*	30.92	32.37	34.50	35.46	35.66
Less: Non Tariff Income	6.93	7.10	7.28	7.46	7.65
<b>Annual Revenue Requirement*</b>	<b>1,627.24</b>	<b>1,618.95</b>	<b>1,634.83</b>	<b>1,703.42</b>	<b>1,762.62</b>
Revenue at Existing Tariff	1,514.64				
<b>Revenue Gap/(Surplus) at Existing Tariff</b>	<b>112.60</b>	<b>1,618.95</b>	<b>1,634.83</b>	<b>1,703.42</b>	<b>1,762.62</b>
Revenue at Proposed Tariff	1,800.07				
<b>Revenue Gap/(Surplus) at Proposed Tariff</b>	<b>(172.83)</b>	<b>1,618.95</b>	<b>1,634.83</b>	<b>1,703.42</b>	<b>1,762.62</b>

\* Petitioner Submission vide letter dated February 17, 2021

3.10 The Petitioner has estimated the Cumulative Revenue Gap till FY 2021-22 at existing tariff if retained for FY 2021-22 would reach Rs 1,007.45 Crore.

3.11 Based on the projection and tariff proposed, the Petitioner has estimated the cumulative Revenue Gap/(Surplus) of Rs. 713.78 Crore till FY 2021-22, as summarized below:

**Table 12: Cumulative Revenue Gap till FY 2020-21 as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22
	Projected	Projected	Projected
Opening Revenue Gap/(Surplus) as on 1 <sup>st</sup> April of FY	788.14	763.93	803.11
Revenue Gap/(Surplus) created during the year	(115.85)	(47.08)	(172.83)
Rate of Interest	12.55%	11.65%	11.65%
Carrying Cost on Opening Balance	98.91	89.00	93.56
Carrying Cost on Add. Gap/(Surplus)	(7.27)	(2.74)	(10.07)
Gap/(Surplus) including Carrying Cost	763.93	803.11	713.78

3.12 The Petitioner further submitted that for liquidation of such Revenue Gap in next four years a tariff increase of around 30% would be needed. However, if load factor rebate is corrected to be given only on incremental units, then a tariff increase of 20% would be needed to liquidate this gap in next four years.

3.13 Considering the above and in order to also avoid tariff shock to its consumers in the license area, petitioner has requested for an increase of 10.68% increase in Tariff. Moreover, the Petitioner requested the Commission to reduce enhanced load factor rebate given to consumers in tariff order dated September 29, 2020.

3.14 In order to cover the projected Revenue Gap for the Financial Year, the Petitioner has proposed revision in retail tariff for FY 2021-22 for various categories. The tariff schedule proposed by the Petitioner is summarised below:

**Table 13: Tariff Proposed by the Petitioner for FY 2021-22 (Rs.)**

Consumer Category	Fixed Charges	Existing Tariff		Proposed Tariff	
		Fixed Charges	Energy Charges	Fixed Charges	Energy Charges
		Unit	Rate	(Rs./kWh)	Rate
<b>DOMESTIC SERVICE</b>					
<b>DS LT</b>					
<i>0-100 units</i>	Rs./Conn/Month	20.00	2.60	25.00	3.25
<i>Above 100 units</i>	Rs./Conn/Month	50.00	4.55	55.00	6.00
<b>DS HT</b>	Rs./KVA/ Month	60.00	4.20*	65.00	5.10*
<b>IRRIGATION &amp; AGRICULTURE SERVICE (IAS)</b>	Rs./Conn/Month	20.00	4.50	50.00	6.00
<b>COMMERCIAL SERVICES (CS)</b>					
All Units	Rs./kW/Month	100.00	5.25	110.00	5.75
<b>INDUSTRIAL SERVICES</b>					
<i>Low Tension Industrial Service</i>	Rs./KVA/ Month	130.00	5.00*	135.00	5.25*
<i>High Tension Industrial Service*</i>	Rs./KVA/ Month	350.00	5.85*	385.00	6.45*
<b>INSTITUTIONAL SERVICES</b>					
<i>Street Light</i>	Rs./kW/ Month	100	5.50	110	5.50
<i>Railway Traction Services, Military Engineering Services and Other Distribution Licensees* (Excluding JUSCO)</i>	Rs./KVA/ Month	350	5.70*	375	6.00*

\* (in Rs/kVAh)



## **A 4 PUBLIC CONSULTATION PROCESS**

- 4.1 The Petition filed by the Petitioner evoked responses from several Stakeholders. The Commission also organized a Public Hearing on August 17, 2022, where an additional opportunity was provided to all the Stakeholders to submit their comments/suggestions on the above said Petition to ensure maximum public participation and transparency wherein Stakeholders put forth their comments and suggestions before the Commission. The list of the attendees is attached as **Annexure-1** to this Order.
- 4.2 The comments and suggestion of the members of the public along with the response thereon of the Petitioner and the views of the Commission are detailed hereunder:

### **Increase in Tariff**

#### ***Public Comments/Suggestions***

- 4.3 The Stakeholder submitted that the Petitioner has proposed high tariff increase for LT Domestic and commercial category. Further, the stakeholder submitted that high tariff is having huge impact on the hotel industry revenue which is already struggling to survive since COVID pandemic. Therefore, requested the Commission not to increase tariff.

#### ***Petitioner's Response***

- 4.4 The Petitioner submitted that the rationale behind increase in tariff is already given in the petition submitted to the Commission. Tariff increase is required to recover the reasonable return and liquidate the Revenue Gap. Delay in recovery leads to additional burden of carrying cost on the consumers by way of regulatory assets and therefore reasonable and timely tariff increase is essential for sustainable operations.
- 4.5 With regards to commercial tariff, the Petitioner submitted that the tariff proposed is among one of the lowest commercial tariffs in comparison with similar cities in the country. Further, Petitioner submitted that per unit effective tariff including all charges varies based on effective utilisation of contract demand.
- 4.6 The Petitioner further submitted that tariff should reflect the ACoS and all consumers should pay the tariff applicable to their respective category in order to have sustainable operations.

#### ***Views of the Commission***

- 4.7 The Commission has gone through the submissions of the Stakeholder and the Petitioner. The Commission determines the tariff as per the provision of the Electricity Act, 2003, Tariff Policy issued from time to time and principles laid down in its Tariff

Regulations, 2020. Accordingly, the Commission has dealt with the Petitioner's tariff proposal for FY 2021-22.

### **Connection to Consumers**

#### ***Public Comments/Suggestions***

4.8 The Stakeholder submitted that the Petitioner is not providing individual connection in flat Complexes, while the same is being provided by JUSCO in Seraikela/Adityapur.

#### ***Petitioner's Response***

4.9 The Petitioner submitted that wherever individual connections are asked from TSL, the petitioner provides individual connection. Wherever DSHT (Domestic High Tension- Bulk) connection is asked petitioner provides that connection. The choice of taking individual/ bulk connection for housing society rests with the applicant.

#### ***Views of the Commission***

4.10 The Commission has noted the submission made by stakeholder and reply submitted by the Petitioner. The Commission directs the Petitioner to continue to provide connection in accordance with the Terms and Conditions of Supply in consistent with JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time.

### **Increase of Provisional Connection Limit**

#### ***Public Comments/Suggestions***

4.11 The Stakeholder submitted that the provisional connections sanctioned load limit should be raised from 2 kW to 4 kW.

#### ***Petitioner's Response***

4.12 The Petitioner submitted that provisional connection sanctioned limit is specified in the JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time. Accordingly, the Petitioner provides provisional connection.

#### ***Views of the Commission***

4.13 The Commission has noted the submission made by stakeholder and reply submitted by the Petitioner. The Commission directs the Petitioner to continue to provide provisional connection in accordance with JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time.

## **Tariff applicability difference**

### *Public Comments/Suggestions*

4.14 The Stakeholder submitted that the Tata Steel employees get power at subsidised tariff in comparison with tariff applicable to rest of the consumers and the Petitioner shows revenue loss to the Commission on account to this.

### *Petitioner's Response*

4.15 The Petitioner submitted that Tata Steel employees are also billed at tariff as notified by the Commission. Further, the electricity subsidy given by Steel Business to its employees, doesn't impact in any way the distribution business, because full revenue as per distribution tariff is accounted for in power business. The difference between actual bill of employees as per distribution tariff and recovery from employees is borne by Tata Steel, Steel Business. Therefore, as far as Power Business is concerned, its revenues do not get impacted by the same in any way.

### *Views of the Commission*

4.16 The Commission has noted the submission made by stakeholder and reply submitted by the Petitioner. The Commission observed that the Petitioner are billing the consumers of the licensee area as per the terms and condition and tariff applicable in the tariff schedule as notified by the Commission.

## **Difference in Tariff of TSL and JUSCO**

### *Public Comments/Suggestions*

4.17 The Stakeholder submitted that the tariff in TSL supply area is higher than JUSCO in Seraikela/ Adityapur. Further, submitted that JUSCO is purchasing power from TSL/DVC and then selling it in Seraikela/ Adityapur, still its tariff is lower than TSL.

### *Petitioner's Response*

4.18 The Petitioner submitted that tariff are generally different for different licensee. These are determined based on several cost element like Power Purchase cost, O&M Cost, Financing Costs, Assets deployed for distribution. These varies from Licensee to Licensee. The detail analysis/working to arrive at the ARR and tariff is already explained in the petition. However, petitioner would like to communicate that Tata Steel Tariff also has an element of past recovery in terms of Regulatory Assets whereas Tata Steel UISL (formerly JUSCO) does not have such as of now.

### *Views of the Commission*

4.19 The Commission has gone through the submissions of the Stakeholder and the Petitioner. The Commission determines the tariff as per the provision of the Electricity Act, 2003, Tariff Policy issued from time to time and principles laid down in its Tariff Regulations, 2020. Accordingly, the Commission has dealt with the Petitioner's tariff proposal for FY 2021-22.

### **Reimbursement of demand Charges**

#### *Public Comments/Suggestions*

4.20 The Stakeholder submitted that the Fixed Charges should be reimbursed to consumers for the 3 month which Petitioner has roll backed after post pandemic.

#### *Petitioner's Response*

4.21 The Petitioner submitted that the fixed charges for the month of April-2020 to June-2020 were taken back based on the order of Hon'ble ATPEL.

### *Views of the Commission*

4.22 The Commission has gone through the submissions of the Stakeholder and the Petitioner. The Commission observed that Petitioner has implemented the Hon'ble ATPEL order. Hence, the Commission find the submission of the Petitioner appropriate.

### **Replacement of the Meters**

#### *Public Comments/Suggestions*

4.23 The stakeholder submitted that the petitioner in the last 22 years has changed the meter of electricity about 4 to 5 times without any notice. For this, Petitioner has neither shown it in ARR nor has any prior information been given to the customer. Thereafter, the meter purchase and maintenance charge have always been taken from the customers.

#### *Petitioner's Response*

4.24 The Petitioner submitted that electricity meters are replaced, once they get defective due to overload or other reasons including meter tampering. In addition, old electro-mechanical meters were replaced with electronic meters in past few years to ensure correct metering. In case the meter gets defective, due to the reasons caused by consumer, then cost is recovered from consumer.



### ***Views of the Commission***

4.25 The Commission has noted the submission made by stakeholder and reply submitted by the Petitioner. The Commission allows the petitioner to replace meter under various capex schemes for accurate billing. Further, any replacement of meters on account of defective or any other reasons are done in accordance with JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time.

### **Number of Consumers**

#### ***Public Comments/Suggestions***

4.26 The stakeholder submitted that petitioner have about 10 lakhs customers however, the petitioner shows sixty thousand customers in ARR Petition.

#### ***Petitioner's Response***

4.27 The Petitioner submitted that it does not have 10 lakhs customers. Further, submitted that entire Jamshedpur is serviced by both Tata Steel as well as JBVNL and total metered connections for the petitioner was 47, 100 in FY 2020-21. Beside this, Revenue realised from all consumers form part of the ARR.

### ***Views of the Commission***

4.28 The Commission has noted the submission made by stakeholder and reply submitted by the Petitioner. The Commission has projected no. of consumers and its Revenue as per the provision and principles laid down in its Tariff Regulations, 2020. The detailed approach for approval of no. of consumers and its Revenue is detail in Subsequent Sections of this Order.

### **Government Subsidy**

#### ***Public Comments/Suggestions***

4.29 The stakeholder submitted that the company receives revenue from various departments of the State and Central Government in many heads for example, revenue from hospital bus stand, park zoo, agriculture and railways however, there is no information or report about this in ARR.

#### ***Petitioner's Response***

4.30 The Petitioner submitted that all revenue received against electricity billing to premises of Central or State government departments are included in the revenue received reported for their respective consumer category. Like, housing is reported under

domestic category and offices in commercial category. The Petitioner does not receive any Grant/ subsidy in Power Distribution business from Central or State Government.

***Views of the Commission***

4.31 The Commission has noted the submission made by stakeholder and reply submitted by the Petitioner. The Commission has approved revenue for each category of the consumers as per the provision of the Electricity Act, 2003, Tariff Policy issued from time to time and principles laid down in its Tariff Regulations, 2020. Accordingly, the Commission has dealt with the Petitioner’s tariff proposal for FY 2021-22.

**Bonus to Employees**

***Public Comments/Suggestions***

4.32 The stakeholder submitted that each year the company gives profit bonus to its employees, however, the Petitioner shows revenue loss.

***Petitioner’s Response***

4.33 The Petitioner submitted that the cumulative Revenue Gap in Tata Steel Power Business has accumulated over the years due to delay in appropriate tariff increase over the years. Bonus is part of wage and is paid as per terms of employment and other factors.

***Views of the Commission***

4.34 The Commission has noted the submission made by stakeholder and reply submitted by the Petitioner. The Commission approves employees’ expenses for the petitioner as per the provision and principles laid down in its Tariff Regulations, 2020. Accordingly, the Commission approach in detail is discussed in **Section A5** of this order.

**Interest on Loan**

***Public Comments/Suggestions***

4.35 The stakeholder submitted that Interest on loan is being given to Tata Steel iron producer company, then why it shows in there.

***Petitioner’s Response***

4.36 The Petitioner submitted that the normative Interest on Loan is calculated only on 70% of GFA of Power Distribution Assets in line with Tariff Regulations and this has nothing to do with Steel Business.

***Views of the Commission***

4.37 The Commission has noted the submission made by stakeholder and reply submitted by the Petitioner. The Commission has approved Interest on loan as per the provision and principles laid down in its Tariff Regulations, 2020. Accordingly, the Commission approach in detail in **Section A5** of this order.

**Miscellaneous Charges**

***Public Comments/Suggestions***

4.38 The stakeholder submitted that the petitioner takes full cost of connection from its customers from load dispatch to meter installation and the Commission has made rules only in terms of load. While the rest of the expenses are charged by the petitioner as per their own free will which is never shown in the application.

***Petitioner’s Response***

4.39 The Petitioner submitted that the charges for load enhancement and new connection is taken based on cost of material and services to provide the same. All such receipts are included in the consumer contribution or service charges, which is included in the accounts and form part of the petition.

***Views of the Commission***

4.40 The Commission has noted the submission made by stakeholder and reply submitted by the Petitioner. The Miscellaneous, load enchantment and new connection charges are applicable to consumers in accordance with JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time and Tariff Orders as issued from time to time.



## A 5 APPROVAL OF BUSINESS PLAN FOR CONTROL PERIOD FROM FY 2021-22 TO FY 2025-26

5.1 The Petitioner is required to file the Business Plan for approval before the Commission as per Clause 6.9, Clause 6.10 and Clause 6.11 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020. The relevant Clauses are reproduced below:

### *“Business Plan*

6.9 Each Licensee shall file for the Commission’s approval a Business Plan approved by an authorized signatory, as per the timelines specified in **Section A 24** of these Regulations.

6.10 The Business Plan shall be filed separately for the Retail Supply and Wheeling Business. As specified in Clause 6.7 of these Regulations, in the absence of segregated accounts for the two Businesses, the Licensee shall prepare an allocation statement and submit the same with the Business Plan.

6.11 The Business Plan shall be for the entire Control Period and shall inter-alia contain:

a) **Capital Investment Plan** for the entire Control Period commensurate with load growth, distribution loss reduction trajectory and quality improvement measures proposed in the Business Plan. The Capital Investment Plan should also include corresponding capitalisation schedule and financing plan;

The Distribution Licensee shall also submit scheme-wise capital structure and cost of financing (interest on debt) and return on equity, Grant, Deposit Works along with terms of the existing loan agreements, etc., as a part of Capital Investment Plan;

b) **Sales/Demand Forecast** for each consumer category and sub-categories for each year of the Control Period;

c) **Power Procurement Plan** based on the sales forecast and distribution loss trajectory for each year of the Control Period. The Power Procurement Plan shall also include energy efficiency, RPO fulfilment, and demand side management measures;

d) A set of targets proposed for other controllable items such as **distribution losses, collection efficiency, working capital requirement, quality of supply targets** (viz., SAIFI, SAIDI and MAIFI as per the JSERC (Distribution Licensees’ Standards of Performance) Regulations, 2015, and subsequent

amendments), etc. The targets shall be consistent with the capital investment plan proposed by the Licensee;

e) **Human Resource Plan** with manpower planning including details of the estimated year wise manpower addition and retirements for the Control Period to meet the growth in demand/consumers;

f) **Proposals for Non-Tariff Income** with item-wise description and details;

g) **Proposals in respect of income from Other Business**; and

h) **Business Plan** shall also contain the requisite information for the preceding Control Period:

*Provided that requisite information for the preceding Control Period shall include year-wise audited data on Scheme-wise capital investment, distribution loss trajectory, quality improvement measures undertaken, category-wise number of consumers, connected load and sales, source-wise power procurement quantum and cost, Employee, R&M and A&G Expenses along with detailed break up and any other information used for preparing projections of various performance parameters and other components during the Control Period. In case of a new Licensee, such information is required to be submitted for the period of operations up to the start of the Control Period.”*

5.2 In accordance to above said Regulations, the Petitioner has filed the Business Plan for the Control Period from FY 2021-22 to FY 2025-26 for approval before the Commission on December 01, 2020.

5.3 The Petitioner further added that the Business Plan submitted before the Commission is broadly classified into four heads as mentioned below and requested the Commission to duly consider the same while approving the Business Plan for the Control Period from FY 2021-22 to FY 2025-26:

- a) Demand and Sales Forecast;
- b) Power Purchase Plan;
- c) Capital Investment Plan;
- d) Human Resource Plan.

5.4 The Commission has approved the Business Plan for the Control Period from FY 2021-22 to FY 2025-26, in line with the relevant Regulations specified above.

5.5 The component-wise description of the Petitioner’s submission and the Commission’s analysis thereof is provided hereunder.

## Demand and Sale Forecast

- 5.6 The Petitioner submitted that Demand and Sales Forecast is one of the key element of power distribution licensee Business Plan. In this Business Plan demand estimation has been done for each category of consumer’s separately and then it has been added to arrive at the total demand/sales.
- 5.7 The Petitioner further submitted that for retail consumers assessment has been done based on the Compound Annual Growth Rate (CAGR) of past years adjusted with specific information available with the Petitioner. For Bulk & HT consumers demand and sales assessment has been mostly done based on consumer specific information available with the Distribution Licensee about the upcoming facilities/plants etc.
- 5.8 The Petitioner submitted that since FY 2020-21 sales are heavily impacted by COVID-19 outbreak and subsequent lockdown, the unprecedented decline in the economy and the subsequent loss of production days, the figure for FY 2020-21 has been treated as outlier data, as far as Energy Sales is considered. Hence for all the CAGR and growth trend estimation, last five year’s data has been considered i.e. from FY 2015-16 to FY 2019-20.
- 5.9 The no. of consumer, connected load and Sales as projected by the Petitioner for the Control Period is as follows:

**Table 14: Number of Consumers Projection as submitted by the Petitioner for Control Period (Nos)**

Categories	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Domestic-LT	39,630	41,536	43,492	45,498	47,554
Domestic-HT	147	153	159	165	171
Commercial	10,463	10,593	10,725	10,859	10,994
HT-IS	217	219	220	222	224
Streetlight	370	377	384	391	398
Temporary Supply	38	38	38	38	38
Sales to Other licensee	1	1	1	1	1
LT-IS	1	1	1	1	1
<b>Total</b>	<b>50,867</b>	<b>52,918</b>	<b>55,020</b>	<b>57,175</b>	<b>59,381</b>

**Table 15: Connected Load Projection as submitted by the Petitioner for Control Period (kVA)**

Categories	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Domestic-LT	251,676	262,652	274,217	286,756	301,170
Domestic-HT	60,527	62,985	65,444	67,902	70,360
Commercial	75,576	76,388	77,239	78,135	79,088
HT-IS	413,333	400,333	397,983	400,983	403,983
Streetlight	4,446	4,534	4,624	4,716	4,810
Temporary Supply	152	152	152	152	152
Sales to Other licensee	70,000	70,000	70,000	70,000	70,000
LT-IS	106	106	106	106	106
<b>Total</b>	<b>875,816</b>	<b>877,151</b>	<b>889,765</b>	<b>908,750</b>	<b>929,669</b>

**Table 16: Sales Projection as submitted by the Petitioner for Control Period (MUs)**

Categories	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Domestic-LT	229.71	247.43	266.29	286.47	308.22
Domestic-HT	86.44	89.95	93.11	95.91	98.44
Commercial	84.33	85.87	87.48	89.27	91.32
HT-IS	1,957.28	1,862.50	1,754.17	1,800.26	1,811.98
Streetlight	4.18	4.27	4.35	4.44	4.53
Temporary Supply	1.21	1.00	0.83	0.69	0.57
Sales to Other licensee	400.00	400.00	400.00	400.00	400.00
LT-IS	0.10	0.10	0.10	0.10	0.10
<b>Total</b>	<b>2,763.25</b>	<b>2,691.12</b>	<b>2,606.33</b>	<b>2,677.14</b>	<b>2,715.16</b>

**Commission's Analysis**

5.10 The Commission has observed that the Petitioners have relied on the actual data pertaining to FY 2015-16 to FY 2019-20 for projection of number of consumers, connected load and sales for the Control Period. In order to project number of consumers, connected load and sales for the Control Period from FY 2021-22 to FY 2025-26, the Commission has considered it appropriate to consider last six years data from FY 2015-16 to FY 2020-21. Based on the actual last six years data, the Commission has analysed category wise 5 Years CAGR, 4 Years CAGR, 3 Years CAGR, 2 Years CAGR and Year-on-Year growth rate and compared the same with the growth rates considered by the Petitioners for projections.

5.11 Approach adopted by the Commission, for projection of number of consumers, connected load and sales is as follows:

**Table 17: Approach for Projection of No. of Consumers for Control Period**

Categories	Approach for Projection of No. of Consumers
Domestic-LT	The Commission has considered actual no. of consumer of FY 2020-21 for projection and escalated at 2-Year CAGR (i.e FY 19 to FY 21) of 0.15% for each year of the Control Period.
Domestic-HT	The Commission has considered actual no. of consumer of FY 2020-21 for projection and escalated at 5-Year CAGR (i.e FY 16 to FY 21) of 0.61% for each year of the Control Period.
Commercial	The Commission has considered actual no. of consumer of FY 2020-21 for projection and escalated at 5-Year CAGR (i.e FY 16 to FY 21) of 3.61% for each year of the Control Period.
HT-IS	The Commission has considered actual no. of consumer of FY 2020-21 for projection and escalated at 4-Year CAGR (i.e FY 16 to FY 20) of 1.90% for each year of the Control Period.
Streetlight	The Commission in Tariff Proposal for FY 2020-21 has recategorized the category of earlier utilities and Streetlight and created new category comprise of Streetlights consumers after October 01,2020. The consumers under this category has declined drastically. Therefore, for projection the Commission has considered a nominal growth factor of 2% and escalated the same growth factor for each year of the Control Period.



Categories	Approach for Projection of No. of Consumers
Temporary Supply	Petitioner Submission has been considered as no particular trend in growth rate has been observed.
Sales to Other licensee	Petitioner submission has been considered as under this category there is only one single consumer i.e TSUISL and in future no addition is assessed. Therefore, the Commission approves single consumer under this category for each year of the Control Period.
LT-IS	Petitioner Submission has been considered as no particular trend in growth rate has been observed.

**Table 18: Approach for Projection of for Connected Load Control Period**

Categories	Approach for Projection of Connected Load
Domestic-LT	The Commission has considered actual connected load of FY 2020-21 for projection and escalated at 4-Year CAGR (i.e FY 16 to FY 20) of 4.41% for each year of the Control Period.
Domestic-HT	The Commission has considered actual connected load of FY 2020-21 for projection and escalated at 4-Year CAGR (i.e FY 16 to FY 20) of 5.22% for each year of the Control Period.
Commercial	The Commission has considered actual connected load of FY 2020-21 for projection and escalated with Year on Year growth (i.e FY 20 to FY 21) of 0.39% for each year of the Control Period.
HT-IS	The Commission has considered actual connected load of FY 2020-21 for projection and added 1.5 MVA/consumer for each year of the Control Period.
Streetlight	The Commission in Tariff Proposal for FY 2020-21 has recategorized the category of earlier utilities and Streetlight and created new category comprising of Streetlights consumers after October 01,2020. The connected load under this category has declined drastically. Therefore, for projection the Commission has considered a nominal growth factor of 2% and escalated the same growth factor for each year of the Control Period.
Temporary Supply	Petitioner Submission has been considered as no particular trend in growth rate has been observed.
Sales to Other licensee	Petitioner submission has been considered as under this category there is only one single consumer i.e TSUISL and in future no addition is assessed. Therefore, the Commission approves connected load as per Petitioner submission under this category for each year of the Control Period.
LT-IS	Petitioner Submission has been considered as no particular trend in growth rate has been observed.

**Table 19: Approach for Projection of Sales for Control Period**

Categories	Approach for Projection of Sales
Domestic-LT	The Commission has projected the Sales considering the growth in sales per consumers. The actual specific consumption of FY 2020-21 has been considered for projection and escalated at 4-Year CAGR (i.e FY 16 to FY 20) of 2.83% for each year of the Control Period to derive the Sales.
Domestic-HT	The Commission has projected the Sales considering the growth in sales per consumers. The actual specific consumption of FY 2020-21 has been considered for projection and escalated considering a nominal growth factor of 1% for each year of the Control Period to derive the Sales.
Commercial	The Commission has projected the Sales considering the growth in sales per consumers. The actual specific consumption of FY 2020-21 has been considered for projection and escalated at 5-Year CAGR (i.e FY 16 to FY 21) of 1.52% for each year of the Control Period to derive the Sales.

Categories	Approach for Projection of Sales
HT-IS	The Commission has considered actual sales of FY 2020-21 for projection and escalated the Sales considering 5% growth factor for 1 <sup>st</sup> year of the Control Period and thereafter considered a nominal growth factor of 3% for escalation for each year of the Control Period.
Streetlight	The Commission in Tariff Proposal for FY 2020-21 has recategorized the category of earlier utilities and Streetlight and created new category comprise of Streetlights consumers after October 01,2020. The sales under this category has declined drastically. Therefore, for projection the Commission has considered a nominal growth factor of 2% and escalated the same growth factor for each year of the Control Period.
Temporary Supply	The Commission has considered actual sales average of 3-Years i.e (FY 19 to FY 21) of 1.58 MUs for Projection for each year of the Control Period.
Sales to Other licensee	Petitioner submission has been considered as under this category there is only one single consumer i.e TSUISL and in future no addition is assessed. Therefore, the Commission approves the Sales as per petitioner submission for each year of the Control Period.
LT-IS	The Commission observed no particular trend in growth rate. Therefore, considered 0.23 MUs which is actual sales of FY 2020-21 for each year of the Control Period.

5.12 Based on above approach, the No. of Consumers, Connected Load and Sales approved for the control period from FY 2021-22 to FY 2025-26 by the Commission is as follows:

**Table 20: Number of Consumers as approved by the Commission for Control Period (Nos)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Domestic-LT	36,082	36,137	36,193	36,249	36,305
Domestic-HT	135	136	136	137	138
Commercial	10,675	11,060	11,459	11,873	12,302
LT-IS	1	1	1	1	1
HT-IS	161	164	167	170	174
Streetlight	398	406	414	422	431
Temporary Supply	38	38	38	38	38
Sales to Other licensee	1	1	1	1	1
<b>Total</b>	<b>47,490</b>	<b>47,943</b>	<b>48,410</b>	<b>48,892</b>	<b>49,389</b>

**Table 21: Connected Load as approved by the Commission for Control Period (kVA)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Domestic-LT	2,35,364	2,45,742	2,56,577	2,67,890	2,79,702
Domestic-HT	59,580	62,689	65,961	69,403	73,025
Commercial	74,461	74,748	75,037	75,326	75,617
LT-IS	106	106	106	106	106
HT-IS	4,22,032	4,26,532	4,31,032	4,35,532	4,40,032
Streetlight	1,899	1,937	1,976	2,015	2,056
Temporary Supply	152	152	152	152	152
Sales to Other licensee	70,000	70,000	70,000	70,000	70,000
<b>Total</b>	<b>8,63,595</b>	<b>8,81,907</b>	<b>9,00,841</b>	<b>9,20,425</b>	<b>9,40,690</b>

**Table 22: Sales as approved by the Commission for Control Period (MUs)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Domestic-LT	195.82	201.68	207.71	213.92	220.31
Domestic-HT	85.03	86.40	87.80	89.21	90.65
Commercial	86.83	91.33	96.07	101.05	106.29
LT-IS	0.23	0.23	0.23	0.23	0.23
HT-IS	1,863.61	1,919.52	1,977.11	2,036.42	2,097.51
Streetlight	7.14	7.28	7.43	7.58	7.73
Temporary Supply	1.58	1.58	1.58	1.58	1.58
Sales to Other licensee	400.00	400.00	400.00	400.00	400.00
<b>Total</b>	<b>2,640.25</b>	<b>2,708.03</b>	<b>2,777.92</b>	<b>2,849.99</b>	<b>2,924.31</b>

### **Distribution Loss**

#### ***Petitioner's Submission***

3.15 The Petitioner has submitted that for the purpose of projection it has considered uniform loss of 3.86% on overall sales for the Control Period.

#### ***Commission's Analysis***

5.13 The Commission for the purpose of projected for the MYT Control Period approves the distribution loss target of 3.80% on overall sales for each year of the Control Period. Further, the Petitioner shall be allowed to operate within distribution loss 3.80% on overall sales for the Control Period without any incentive/penalty.

### **Power Purchase Plan**

### **Energy Balance**

#### ***Petitioner's Submission***

5.14 The Petitioner had estimated the energy requirement by adding up distribution loss to the projected sales.

5.15 The Petitioner further added that for the calculation of energy requirement, distribution loss at 3.86% is projected on overall sales, slightly higher loss levels are projected due to decrease in HT sales, change in consumption pattern of consumers due to adoption of Solar rooftop plants, relatively higher sales in LT levels and increase in provisional connections in congested fringe areas.

5.16 The Petitioner further added that they will take all efforts to optimise its T&D loss levels to one of the best in the country, for which it has also included plans to increase actions related to removal of unauthorised connections and other administrative and technical measures during the control period

**Table 23: Energy Balance as submitted by the Petitioner for Control Period (MU)**

Sr. No.	Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
<b>A</b>	<b>ENERGY REQUIREMENT</b>					
1	Sales to Other Licensees	400.00	400.00	400.00	400.00	400.00
2	Distribution Losses on Sales to Other Licensees (%)	0.00%	0.00%	0.00%	0.00%	0.00%
3	Unit Lost on Sales to Other Licensees					
4	<b>Energy Requirement for Sales to Other Licensees</b>	<b>400.00</b>	<b>400.00</b>	<b>400.00</b>	<b>400.00</b>	<b>400.00</b>
5	Sales to HT - IV Category	176.32	176.32	176.32	176.32	176.32
6	Distribution Losses to HT -IV (%)	0.00%	0.00%	0.00%	0.00%	0.00%
7	Unit lost on Sales to HT – IV	-	-	-	-	-
8	<b>Energy Requirement for HT - IV Category</b>	<b>176.32</b>	<b>176.32</b>	<b>176.32</b>	<b>176.32</b>	<b>176.32</b>
9	Sale of Daily Surplus balance to Exchange (MU)	30.00	30.00	30.00	30.00	30.00
10	Sales to LT Consumers (Dom+Comm+Street light+temp)	319.53	338.66	359.05	380.97	404.74
11	Sales to HT Consumers (other than HT-IV) ( DSHT + HT-1 + HT-2+HT-3)	1,867.40	1,776.14	1,670.96	1,719.85	1,734.10
12	<b>Total Sales to Other Consumers</b>	<b>2,216.93</b>	<b>2,144.80</b>	<b>2,060.01</b>	<b>2,130.82</b>	<b>2,168.84</b>
13	Distribution Losses on Sales to Other Consumers (%)	<b>4.82%</b>	<b>4.85%</b>	<b>4.89%</b>	<b>4.85%</b>	<b>4.84%</b>
14	Unit Lost on Sales to Other Consumers	112.15	109.25	105.85	108.69	110.22
15	<b>Energy Requirement for Sales to Other Consumers</b>	<b>2,329.08</b>	<b>2,254.05</b>	<b>2,165.86</b>	<b>2,239.52</b>	<b>2,279.06</b>
16	Overall Sales (4+8+9+12)	2,793.25	2,721.12	2,636.33	2,707.14	2,745.16
17	Overall Distribution Losses (%)	3.86%	3.86%	3.86%	3.86%	3.86%
18	Overall Distribution Losses	112.15	109.25	105.85	108.69	110.22
19	<b>Total Energy Requirement (Mus)</b>	<b>2905.40</b>	<b>2830.37</b>	<b>2742.18</b>	<b>2815.84</b>	<b>2855.38</b>

### Commission's Analysis

5.17 The Commission has projected the energy requirement for the Control Period after grossing up the approved energy sales by the distribution loss target of 3.80% for each year of the Control Period.

5.18 The Commission has noted that the Petitioner has proposed to sell the surplus power in the Open Market. The Commission in its Order is not approving any surplus for the Control Period and has reduced the proportional quantum of power purchase from the costliest source at this juncture. However, the Petitioner is encouraged to sell surplus power provided that the same results in reducing the fixed charge burden on the consumers. Further, any losses on account of sell of surplus power shall be approved by the Commission after prudence check, subject to truing up.

5.19 The Energy Sales, Distribution Loss and Energy Requirement based on approved Sales for the Control Period, is shown in the following table:

**Table 24: Energy Balance as approved by the Commission for Control Period (MU)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
	Approved	Approved	Approved	Approved	Approved
<b>Energy Requirement</b>					
Sales to Other Licensee	400.00	400.00	400.00	400.00	400.00
Dist. Losses on Sales to Other Licensee (%)	0.00%	0.00%	0.00%	0.00%	0.00%
Distribution on Sales to Other Licensee	0.00	0.00	0.00	0.00	0.00
Energy Req. for Sales to Other Licensee	400.00	400.00	400.00	400.00	400.00
Sales to Steel Works	176.32	176.32	176.32	176.32	176.32
Dist. Losses on Sales to Steel Works (%)	0.00%	0.00%	0.00%	0.00%	0.00%
Dist. Losses on Sales to Steel Works	0.00	0.00	0.00	0.00	0.00
Energy Req. for Sales to Steel Works	176.32	176.32	176.32	176.32	176.32
Sale in IEX	0.00	0.00	0.00	0.00	0.00
Sales to LT consumers	291.61	302.11	313.02	324.36	336.14
Sales to Other HT consumers	1,772.32	1,829.60	1,888.59	1,949.32	2,011.85
Total Sales to Other Consumers	2,063.93	2,131.71	2,201.60	2,273.67	2,347.99
Dist. Losses on Sales to Other Consumers (%)	4.81%	4.78%	4.75%	4.72%	4.69%
Dist. Losses on Sales to Other Consumers	104.29	106.97	109.73	112.58	115.51
Energy Req. for Sales to Other Consumers	2,168.22	2,238.68	2,311.33	2,386.25	2,463.50
Overall Sales	2,640.25	2,708.03	2,777.92	2,849.99	2,924.31
Overall Distribution Losses %	3.80%	3.80%	3.80%	3.80%	3.80%
Overall Distribution Losses	104.29	106.97	109.73	112.58	115.51
<b>Total Energy Requirement</b>	<b>2,744.54</b>	<b>2,815.00</b>	<b>2,887.65</b>	<b>2,962.57</b>	<b>3,039.82</b>

## Power Procurement Source

### *Petitioner's Submission*

5.20 The Petitioner submitted that the energy requirement for the Control Period would be met from the following sources:

- Tata Power-Unit II & Unit III
- DVC, 132 kV
- DVC, 400 kV
- Tata Steel Works
- Open Access & Power Exchange

5.21 The Power Purchase quantum from the above sources have been projected based on average of the ratio of total energy requirement met by individual sources in the previous Control Period i.e. FY 2015-16 to FY 2019-20. The Petitioner further added that while projecting energy purchase from these sources, they also ensured that energy

procured from each of these sources is well within limit of maximum energy which can be despatched by these sources at its Installed Capacity/Contract Capacity. The Power Procurement Plan for the Control Period from FY 2021-22 to FY 2025-26 from the above mentioned sources as per methodology explained above is tabulated below:

**Table 25: Power Purchase Plan as submitted by the Petitioner (MU)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
<b>Tata Power Company Limited</b>	1393.76	1357.77	1315.46	1350.80	1369.77
<i>Unit – II</i>	705.77	687.55	666.13	684.02	693.62
<i>Unit – III</i>	687.99	670.22	649.34	666.78	676.14
<b>Damodar Valley Corporation`</b>	1421.05	1384.35	1341.22	1377.24	1396.58
<i>132 kV</i>	336.13	327.45	317.25	325.77	330.34
<i>400 kV</i>					
<i>DSTPS</i>	550.26	536.05	519.34	533.29	540.78
<i>MTPS</i>	534.66	520.85	504.62	518.18	525.45
<b>Tata Steel Works</b>	26.52	25.84	25.03	25.71	26.07
<b>Short Term Sources</b>	64.07	62.41	60.47	62.09	62.97
<b>Total Energy Availability (MUs)</b>	<b>2905.40</b>	<b>2830.37</b>	<b>2742.18</b>	<b>2815.84</b>	<b>2855.38</b>

### *Commission's Analysis*

- 5.22 The energy requirement shall be met through power sourced from TPCL-Unit II & III, DVC at 132 kV and 400 kV and TSW – Captive.
- 5.23 The Commission has approved projected energy availability of power from TPCL (Unit -I &II) to be 1,702.94 MUs for each year of the Control Period except for FY 2023-24 as the year shall be a leap year the availability of power shall be 1,707.61 MUs. Further, the Commission has projected energy availability of TPCL based on energy demand of TSL and considering NAPLF of 85% for TPCL.
- 5.24 In case of DVC at 132 kV, the Commission has approved the projected energy availability based on average of the ratio of total energy requirement met by DVC 132 kV in the period FY 2015-16 to FY 2019-20 which workout to 11.57%, based on this ratio the Commission projected energy availability of power from DVC at 132 kV for each year of the Control Period.
- 5.25 In case of TSW Captive, the Commission has approved the projected energy availability as 27.08 MUs (i.e 5-Year Average of FY 2015-16 to FY 2019-20) for each year of the Control Period.
- 5.26 In case of DVC at 400kV, the Commission has projected the energy availability for each year of the Control Period by proportionally allocating remaining energy to match with the energy requirement.

- 5.27 The Commission has not allowed any short term purchase in the energy availability projection as the energy availability from the long term sources meet out the energy requirement for each year of the Control Period.
- 5.28 The Power Procurement Plan based on Energy Requirement on approved Sales for the Control Period, is shown in the following table:

**Table 26: Power Purchase Plan as approved by the Commission (MU)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
TPCL (Unit II)	804.17	804.17	806.37	804.17	804.17
TPCL (Unit III)	804.17	804.17	806.37	804.17	804.17
Damodar Valley Corporation (132kV)	317.52	325.67	334.08	342.75	351.68
Damodar Valley Corporation (400kV)	845.76	908.07	967.91	1,038.56	1,106.88
TSW – Captive	27.08	27.08	27.08	27.08	27.08
Open access/ other sources	0.00	0.00	0.00	0.00	0.00
<b>Total Pooled Energy Availability</b>	<b>2,744.54</b>	<b>2,815.00</b>	<b>2,887.65</b>	<b>2,962.57</b>	<b>3,039.82</b>

- 5.29 Further, the Petitioner is mandated to purchase power from renewable energy (RE) sources to meet its RPO. The Petitioner has submitted that it would make all efforts to purchase power from renewable sources, however for the purpose of Business Plan projections, the Petitioner has proposed to meet its RPO through purchase of REC.
- 5.30 The Petitioner had estimated the RPO for the Control Period on total energy requirement after netting off the power purchase from DVC 132 kV source on the basis of the trajectory defined in the JSERC (Renewable Purchase Obligation and its Compliance) Regulations, 2016. The Commission has determined the RPO requirement for the Control Period on total energy requirement after netting off the power purchase from DVC 132 kV source on the basis of the trajectory defined in JSERC (Renewable Energy Purchase Obligation and its compliance) (First Amendment) Regulations, 2021.
- 5.31 The quantum of Solar and Non-Solar power purchase requirement for RPO compliance based on the total energy requirement admitted for the Control Period, as shown in the table below:

**Table 27: RPO Quantum Approved by the Commission for Control Period (MU)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Solar	254.84	286.27	319.20	327.48	336.02
Non-Solar	254.84	286.27	319.20	327.48	336.02
<b>Total</b>	<b>509.67</b>	<b>572.54</b>	<b>638.39</b>	<b>654.96</b>	<b>672.04</b>

## **Power Purchase Cost**

### ***Petitioner's Submission***

5.32 The Power Purchase Cost from the available sources are projection by the Petitioner on the following basis:

#### **Tata Power-Unit II & Unit III:**

- **Fixed Cost:** Base value of Fixed Cost is taken from the TPCL Order dated September 09, 2020 regarding Annual Performance Review for FY 2019-20 and annually escalated by 2.00%;
- **Energy Charge:** Base value of Variable Cost is taken from the TPCL Order dated September 09, 2020 regarding Annual Performance Review for FY 2019-20 and annually escalated by 2.00%;
- **Impact of SHAKTI Scheme Stage-II and Stage-III Bidding:** One-time reduction in Variable Cost by Rs. 0.30/kWh and Rs. 0.25/kWh in FY 2021-22 and FY 2022-23 for Stage-II and Stage-III Bidding respectively.

#### **DVC 132 kV:**

- The Petitioner has considered the Base value for FY 2020-21 as HT Institutional Services tariff approved by the Commission in its Order dated September 30, 2020 with an assumption of the Power Factor (PF) as 0.95, Voltage Rebate of 5.00% and Prompt Online Rebate of 2% based on the above said Order.
- The Petitioner has also considered an annual growth rate of 2.00% in both Demand Charge and Variable Charges for estimating the power purchase cost of each financial year of the Control Period.

#### **DVC 400 kV:**

- The Petitioner submitted that the power from DVC at 400 kV is procured from two different generating stations i.e. Mejia Thermal Power Station (MTPS) and Durgapur Steel Thermal Power Station (DSTPS). The Petitioner has estimated the power purchase rate from DVC 400 kV based on the actual value of FY 2019-20 and considered an annual growth rate of 2.00% in both Capacity Charge as well as Energy Charges for each financial year of the Control Period.

#### **Tata Steel Works (TSW)-Captive:**

- Based on the methodology adopted earlier, the Petitioner projected the power purchase rate from TSW-Captive as weighted average cost of power purchase from TPCL Jojobera Unit-II & Unit-III.

**Short Term Power:**

- The Petitioner has projected the power procurement cost from Short Term Sources at Rs. 4.00/kWh during the Control Period without any escalation.

**Renewable Power Purchase Obligation:**

- Based on the latest data of Solar and Non-Solar REC’s trading in FY 2020-21 at Rs. 1.00 per unit as Base value, the Petitioner has projected the Renewable Power Purchase cost at Rs. 1140/REC including Trader fees, applicable GST price etc.

**Transmission and Scheduling Cost:**

- The Petitioner has considered the actual Transmission Cost for FY 2019-20 and escalated it by 2.00% annually to project the Transmission and Scheduling Cost for next Control Period.

**Sale of Excess Power:**

- The Petitioner has projected that in the next Control Period, they would sell ~30 MU’s surplus power in the Open Market each financial year of the Control Period at an average rate of Rs. 3.50/kWh, which will reduce the Power Purchase Expenses.

5.33 Based on the above, the Power Purchase Cost as projected by the Petitioner for the Control Period from FY 2021-22 to FY 2025-26 is tabulated below.

**Table 28: Power Purchase Cost as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
<b>TPCL (Unit-II)</b>					
Power Purchased (MU)	705.77	687.55	666.13	684.02	693.62
Rate of Power Purchased (Rs./kWh)	3.77	3.68	3.79	3.68	3.83
Power Purchase Cost (Rs. Crore)	325.44	309.26	309.14	320.69	330.04
Prior Period Adjustments (Rs. Crore)	-	-	-	-	-
<b>Net Power Purchase Cost (Rs. Crore)</b>	<b>325.44</b>	<b>309.26</b>	<b>309.14</b>	<b>320.69</b>	<b>330.04</b>
<b>TPCL (Unit-III)</b>					
Power Purchased (MU)	687.99	670.22	649.34	666.78	676.14
Rate of Power Purchased (Rs./kWh)	3.74	3.86	3.72	3.87	3.75
Power Purchase Cost (Rs. Crore)	310.10	294.16	293.87	305.01	313.98
Prior Period Adjustments (Rs. Crore)	-	-	-	-	-
<b>Net Power Purchase Cost (Rs. Crore)</b>	<b>310.10</b>	<b>294.16</b>	<b>293.87</b>	<b>305.01</b>	<b>313.98</b>
<b>DVC 132 kV</b>					
Power Purchased (MU)	336.13	327.45	317.25	325.77	330.34
Rate of Power Purchased (Rs./kWh)	3.45	3.45	3.45	3.45	3.45
Power Purchase Cost (Rs. Crore)	149.16	149.13	148.51	154.55	159.32
Prior Period Adjustments (Rs. Crore)	-	-	-	-	-
<b>Net Power Purchase Cost (Rs. Crore)</b>	<b>149.16</b>	<b>149.13</b>	<b>148.51</b>	<b>154.55</b>	<b>159.32</b>
<b>DVC 400 kV</b>					
Power Purchased (MU)	1084.92	1056.9	1023.96	1051.47	1066.23
Rate of Power Purchased (Rs./kWh)	5.61	5.61	5.61	5.61	5.61
Power Purchase Cost (Rs. Crore)	533.25	535.37	535.83	555.28	571.16

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Prior Period Adjustments (Rs. Crore)	-	-	-	-	-
<b>Net Power Purchase Cost (Rs. Crore)</b>	533.25	535.37	535.83	555.28	571.16
<b>TSW (Captive)</b>					
Power Purchased (MU)	26.52	25.84	25.03	25.71	26.07
Rate of Power Purchased (Rs./kWh)	4.56	4.44	4.58	4.63	4.70
<b>Power Purchase Cost (Rs. Crore)</b>	12.09	11.48	11.48	11.91	12.26
<b>Short Term Sources</b>					
Power Purchased (MU)	64.07	62.41	60.47	62.09	62.97
Rate of Power Purchased (Rs./kWh)	4.00	4.00	4.00	4.00	4.00
<b>Power Purchase Cost (Rs. Crore)</b>	25.63	24.97	24.19	24.84	25.19
<b>Renewable</b>					
<b>REC Purchased (Rs. Crore)</b>	32.81	34.67	36.17	42.71	48.97
PGCIL	80.93	82.55	84.20	85.89	87.60
ERLDC	0.68	0.69	0.71	0.72	0.74
Sales of Excess Power	10.50	10.50	10.50	10.50	10.50
<b>Power Purchase Expenses (Rs. Crore)</b>	<b>1,459.59</b>	<b>1,442.28</b>	<b>1,444.09</b>	<b>1,501.59</b>	<b>1,549.27</b>
<b>Power Purchased (MU)</b>	<b>2,905.40</b>	<b>2,830.37</b>	<b>2,742.18</b>	<b>2,815.84</b>	<b>2,855.38</b>
<b>Rate of Power Purchased (Rs./kWh)</b>	5.02	5.10	5.27	5.33	5.43

### Commission's Analysis

5.34 The Commission has scrutinised the detail submitted by the Petitioner and approves the Power Purchase Cost from various source based on the following:

#### Tata Power - Unit II & Unit III:

- Based on the approved value of MYT of TPCL (Unit-II & III) for the Control Period i.e. FY 2021-22 to FY 2025-26 approved by the Commission vide its Order dated November 04, 2022.

#### DVC 132 kV:

- The Commission has determined per unit rate considering fixed and energy charge of DVC HT Institutional Services tariff approved by the Commission in its Order dated September 30, 2020 with an assumption of the Power Factor (PF) as 0.95, and Prompt Online Rebate of 2% based on the above said Order.
- The Commission has not considered Voltage Rebate of 5.00% while determination per unit rate as TSL have filed a petition before the Commission which is under active consideration of the Commission, if any impact on this account shall be considered at time of truing up after prudence check.
- Further, the Commission has not considered any escalation in both fixed and energy charges for estimating the power purchase cost of each financial year of the Control Period.

#### DVC 400 kV:

- The Commission after prudence check approves the power purchase cost from DVC 400 kV source for the 1<sup>st</sup> year of the Control Period (i.e FY 2021-22) at the same level as approved in True-up for FY 2019-20 with 2% escalation thereafter for each year of the Control Period. Any variation in the power purchase cost will be reviewed at the time of APR/True-up.

#### Tata Steel Works (TSW)-Captive:

- The Commission approves the power purchase cost from TSW-Captive equivalent to least cost source among the rest of the generating sources.

#### Short Term Power:

- The Commission has not allowed any short term purchase in the energy availability projection as the energy availability from the long term sources meet out the energy requirement for each year of the Control Period. Therefore, no power purchase cost has been considered with regards to short term purchase for the Control Period.

#### Renewable Power Purchase Obligation:

- The Commission approves the rate of Solar and Non-Solar REC's at Rs. 1140/REC including Trader fees, applicable GST price etc, based on the details submitted by the Petitioner in the Petition. If any, variation in the REC purchase cost will be reviewed at the time of APR/True-up.

#### Sale of Excess Power:

- The Commission in this Order doesn't approve any surplus power and any surplus sale will be reviewed by the Commission at the time of APR/True up.

5.35 Based on the above, the Power Purchase Cost as approved by the Commission for the Control Period from FY 2021-22 to FY 2025-26, subject to truing up based on actuals is mentioned below.

**Table 29: Power Purchase Cost as approved by the Commission (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
	Approved	Approved	Approved	Approved	Approved
<b>TPCL Unit 2</b>					
Power Purchased (MU)	804.17	804.17	806.37	804.17	804.17
Rate of Power Purchased (Rs./kWh)	3.69	3.73	3.72	3.74	3.76
<b>Power Purchase Cost (Rs. Crore)</b>	<b>296.50</b>	<b>299.55</b>	<b>299.89</b>	<b>301.08</b>	<b>302.53</b>
<b>TPCL Unit 3</b>					
Power Purchased (MU)	804.17	804.17	806.37	804.17	804.17
Rate of Power Purchased (Rs./kWh)	3.75	3.78	3.77	3.79	3.82
<b>Power Purchase Cost (Rs. Crore)</b>	<b>301.48</b>	<b>303.81</b>	<b>304.00</b>	<b>304.38</b>	<b>306.79</b>
<b>DVC 132 kV</b>					



Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
	Approved	Approved	Approved	Approved	Approved
Power Purchased (MU)	317.52	325.67	334.08	342.75	351.68
Rate of Power Purchased (Rs./kWh)	4.50	4.47	4.43	4.40	4.37
<b>Power Purchase Cost (Rs. Crore)</b>	<b>142.90</b>	<b>145.48</b>	<b>148.15</b>	<b>150.89</b>	<b>153.72</b>
<b>DVC 400 kV</b>					
Power Purchased (MU)	845.76	908.07	967.91	1,038.56	1,106.88
Rate of Power Purchased (Rs./kWh)	5.50	5.61	5.72	5.83	5.95
<b>Power Purchase Cost (Rs. Crore)</b>	<b>464.91</b>	<b>509.14</b>	<b>553.55</b>	<b>605.84</b>	<b>658.60</b>
<b>TSW (Captive)</b>					
Power Purchased (MU)	27.08	27.08	27.08	27.08	27.08
Rate of Power Purchased (Rs./kWh)	3.69	3.73	3.72	3.74	3.76
<b>Power Purchase Cost (Rs. Crore)</b>	<b>9.98</b>	<b>10.09</b>	<b>10.07</b>	<b>10.14</b>	<b>10.19</b>
<b>Others/Open Market</b>					
Power Purchased (MU)	0.00	0.00	0.00	0.00	0.00
Rate of Power Purchased (Rs./kWh)	0.00	0.00	0.00	0.00	0.00
<b>Power Purchase Cost (Rs. Crore)</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>
<b>RPO</b>					
Power Purchased (MU)	509.67	572.54	638.39	654.96	672.04
Rate of REC (Rs./kWh)	1.14	1.14	1.14	1.14	1.14
<b>Cost to meet RPO (Rs. Crore)</b>	<b>58.10</b>	<b>65.27</b>	<b>72.78</b>	<b>74.66</b>	<b>76.61</b>
<b>Power Purchased (MU)</b>	<b>2,744.54</b>	<b>2,815.00</b>	<b>2,887.65</b>	<b>2,962.57</b>	<b>3,039.82</b>
Rate of Power Purchased (Rs./kWh)	4.64	4.74	4.81	4.88	4.96
<b>Power Purchase Cost (Rs. Crore)</b>	<b>1,273.88</b>	<b>1,333.35</b>	<b>1,388.43</b>	<b>1,446.98</b>	<b>1,508.44</b>

## Capital Investment Plan

### *Petitioner's Submission*

5.36 The Petitioner submitted that the present distribution network comprises of distribution network cables, distribution transformers, switch houses, customer sub-stations meters, metering equipment and all associated control, monitoring, communication and protection equipment. The current voltage level existing in the Petitioner's distribution network consist of 132 kV, 33 kV, 6.6 kV and LT Level network. The Petitioner submits that they continuously evaluate its distribution network to ensure providing quality power supply to existing and new consumers.

5.37 The Petitioner further added that significant part of distribution network become old and requires up-gradation and strengthening of network to ensure quality and reliable power supply to its increasing consumer base. The Petitioner submitted that though sales in industrial segment is decreasing, sales in retail domestic and commercial segment is projected to increase during the control period and therefore there is a need for strengthening the network and substation that feeds to retail domestic and

commercial segment. There are few substations which are fed from single source and don't have full capacity tied up and therefore there is a need to provide another source. Further, there are some substations where existing capacity is already fully utilised and therefore there is a need to strengthen the capacity.

5.38 The petitioner has proposed to undertake Capital Expenditure under eight Schemes in the next Control Period i.e. FY 2021-22 to FY 2025-26 at an estimated cost of Rs. 94.42 Crore. Further, out of eight Schemes, four Schemes are roll-over from the present Control Period as listed below:

- Upgradation of Tinplate Area Sub-Station;
- Augmentation- 132 kV Line 6 for Bara / Sonari Sub-Station;
- 6.6 kV Network Extension for power supply in fringe Areas;
- Strengthening of Testing facilities

5.39 The Petitioner submitted that these Schemes could not be completed in the last control period due to various reasons including overall priority. In case of up-gradation of Tinplate area sub-station only one essential part was completed, and rest part was deferred to next Control Period. This resulting into the short closure of the Schemes and 33kV Sub-Station and civil building construction is considered under new Scheme in next Control Period i.e. FY 2021-22 to FY 2025-26.

5.40 Further, due to difference in capital expenditure and capitalisation schedule, the Petitioner has also factored in IDC component on normative debt in addition to capex amount and considered the same for calculating final capitalisation:

5.41 The new projects are taken up in line with the era of digital transformation and to enhance the customer experience by providing uninterrupted power supply. Keeping in mind of the customer portfolio and heavily industrialized demography, the Petitioner are taking up projects to alleviate the network congestion and to enhance the capacity to pull power from various source. In addition, also working to improve the aged distribution network which will help Petitioner's initiative to improve the quality of supply to its growing network, especially in the rural areas. Some of the Schemes are cited below along-with the detailed background and purpose:

- **Up-gradation of Network Monitoring & Control Centre:** Currently 350 power distribution Substations/Switch houses, HT Consumers are integrated with existing SCADA supplied by ABB, which was installed and commissioned in year 2014 in order to reduce overall power breakdown restoration time and monitoring of Town network from central location (NMCC). Now in order to manage energy distribution system, there is need to upgrade to latest version with add on features like Outage Management, Crew and Resource

Management, Geographic Information Systems (GIS), Customer Information Systems, Access of information over WAN, Load Shedding.

- **New 6.6kV AIS Indoor Sub-Station in Eastern South Area:** The Petitioner submitted that there is need to develop infrastructure to cater to un-served area in Eastern South Part of the Town. Hence, the above said Scheme is proposed to establish a new 6.6 kV substation with incoming power supply from 33/6.6 kV BPRS Substation. This substation will cater to 4-5 MVA power supply in Ghorabandha, Mills and Godown area, Jemco Gurudwara Bustee, Chuna Bhatta near Prem Nagar, Chota Govindpur, Ramadhin Bagan along with existing load of Eastern Zone Feeder, Ramadhin Bagan Water project. This project will assist the Petitioner in catering to growth in load, Network Augmentation and Customer Satisfaction.
- **New 2x16/20 MVA, 33/6.6 kV Sub-Station in Eastern part of Town:** The above said scheme is proposed to set-up two nos. i.e. 16/20 MVA and 33/6.6 kV Indoor Sub-Station to meet load growth in that area during and beyond the Control Period:
  - New load requirement of new construction of Manipal Medical College/Women College;
  - Cater un-served area of Bagun Nagar, Birsa Nagar, Baridih Basti, Bagun Hatu, Moharda Bastee etc.;
  - Load enhancement of Vijaya Garden and other existing customers; and
  - Tie to existing three numbers of switch house (Kadani Road, Baridih Market and Sidgora Market HT Switchroom etc.) to increase power reliability i.e.to feed power supply in case of failure of existing source.
- **6.6 kV Network Extension for power supply in Fringe Area:** There are pockets in peripheral area of Jamshedpur (Bagan/Bustee area), where the Petitioner's network is not present and therefore power supply is being provided by JBVNL. Due to difference in quality and reliability of power supply, there had been continuous demand from various groups to provide power supply from the Petitioner's network. This scheme covers network extension in such areas where demand for power connection is coming up. It is proposed and planned to install eight numbers of Compact Substation (CPSS) and extend LT network to provide power connections. The extension is planned in the area which is in close vicinity of our existing electricity distribution network with maximum distance of 500 meters from area which is already served by the Petitioner. This project will create additional infrastructure for next 3000 prospective consumers

in those area and hence the provisioning will pave the way to integrate more consumers from this region.

- **Strengthening of Testing Facilities:** Following equipment are required to be procured for strengthening of testing facilities:
  - **Cable Testing Mobile Van:** Presently cable fault locator of Telemetrics make is twelve years old and is frequently out of service. It is not working properly since October 2018. Hence, automated Cable Test Van with advanced digital/diagnostic features is required to locate fault in cable;
  - **Meter Testing Set:** As per JSERC and CEA regulations Meters are to be tested once in 5 years/3 years. Energy meter test Bench is not available for testing of Energy meters (incoming, periodic & disputed). Hence, the Petitioner is planning to procure Automated Energy meters test Bench which can test 8-10 meters at a time;
  - **Partial Discharge Machine:** Existing instrument is seven years old and has limited range 10 meters and also not suitable for condition monitoring of tower line insulator. Hence, the Petitioner is planning to procure Ultra probe UP15000TS with waveform concentrator with range up to 60 meters;
  - **Three Phase Power Quality (PQ) Analyser:** PQ analyser is required for monitoring and planning required actions on few parameters (Harmonics) of PQ as required by JSERC regulations;
  - **Line Thermography Machine.**
- **Up-gradation of Tinplate Area Substation with new 2x16/20 MVA, 33/6.6 kV power Transformer:** 33/6.6kV Tinplate Area substation at Golmuri is the main substation for distribution of power in eastern part of the town. It has two 33 kV incoming feeders namely L-5 and L-6 from 132/33 kV substation near Tubes Division. This project is taken up to cater to existing and upcoming load in next 3-4 years. Moreover, any outage (including breakdown), may lead to long duration power outage which may further lead to public unrest in addition to loss of revenue & customer dissatisfaction. The planned installations are as follows:
  - Supply, installation and commissioning of 2/leg, 3Cx300 sqmm, 33kV XLPE, AL underground Cable from TSL Golmuri S/S to Tinplate S/S (approximate route length: 3 km)
  - Supply, Installation and Commissioning of two number i.e. 16/20 MVA, 33/6.6 kVA Transformer along with NIFPS system;

- Supply, Installation and Commissioning of new 33kV Double Bus GIS in Tinline S/S;
- Supply, Installation and Commissioning of miscellaneous electrics e.g. battery charger, ACDB, LT Cables etc.;
- Construction of new control building;
- Civil work for Transformer foundation and oil pit.

5.42 The summary of projected Capital Expenditure Plan for the Control Period from FY 2021-22 to FY 2025-26 is shown below:

**Table 30: Capital Expenditure Plan as submitted by the Petitioner (Rs. Crore)**

Scheme Name	Scheme Type	Proposed Cost	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Up-gradation of Network Monitoring & Control Centre	New	7.50	-	4.00	3.50	-	-
New 6.6kV AIS indoor substation for network extension in Ramadhin Bagan, Manifit and nearby area (Eastern South)	New	3.00	0.50	2.50	-	-	-
New 2x16/20MVA, 33kV / 6.6 kV S/S with incoming feeder cable from Bara S/S at Baridih Area for Eastern North Area(Unserved Area)	New	25.00	-	3.00	19.00	3.00	-
6.6 kV Network Extension for power supply in fringe areas	Carry Forward	8.00	1.00	1.00	2.00	2.00	2.00
Strengthening of Testing facilities	Carry Forward	2.00	2.00	-	-	-	-
132kV power line connectivity form MPDS-4 to Sonari/Bara	Carry Forward	20.00	-	20.00	-	-	-
Augmentation of Tinline, Golmuri & BPRS for feeding town loads	New	17.40	2.00	15.40	-	-	-
Supply and Installation of Power Quality Meter	New	1.52	1.52	-	-	-	-
Other assets to provide consumer connection from consumers (Self-Financing Scheme)	New	10.00	2.00	2.00	2.00	2.00	2.00
<b>Capital Expenditure Plan</b>		<b>94.42</b>	<b>9.02</b>	<b>47.90</b>	<b>26.50</b>	<b>7.00</b>	<b>4.00</b>

5.43 Out of the above Schemes, there is difference in schedule of Capital Expenditure and Capitalisation and therefore the Petitioner has taken into account the Interest during Construction (IDC) corresponding to un-capitalized portion of Capital Expenditure for following three schemes:

- New 6.6kV AIS indoor substation in eastern south area near Telco Area) (Unserved Area);
- New 2x16/20MVA, 33kV / 6.6 kV S/Stn with incoming feeder cable from Bara S/stn at Baridih Area for Eastern North Area(Unserved Area);
- Augmentation of Tinline ,Golmuri & BPRS for feeding town loads

**Table 31: Scheme wise Phasing of Debt Component for Schemes during the Control Period as submitted by the Petitioner (Rs. Crore)**

Scheme Name	Normative Debt Corresponding to Capital Expenditure				
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
New 6.6kV AIS indoor substation in eastern south area near Telco Area) (Unserved Area)	0.35	1.75	0.00	0.00	0.00

Scheme Name	Normative Debt Corresponding to Capital Expenditure				
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
New 2x16/20MVA, 33kV / 6.6 kV S/Stn with incoming feeder cable from Bara S/stn at Baridih Area for Eastern North Area(Unserved Area)	0.00	2.10	13.30	2.10	0.00
Augmentation of Tinplate ,Golmuri & BPRS for feeding town loads	1.40	10.78	0.00	0.00	0.00
<b>Normative Debt for IDC</b>	<b>1.75</b>	<b>14.63</b>	<b>13.30</b>	<b>2.10</b>	<b>0.00</b>

5.44 Further, the Interest incurred on un-capitalisation of debt has been considered at 10.00% for Control Period from FY 2021-22 to FY 2025-26 as per Regulation 10.26 of JSERC Distribution Tariff Regulations, 2020. The detailed break of IDC on the Capex Scheme carry forward to next Year during the Control Period is shown below:

**Table 32: Scheme wise IDC as submitted by the Petitioner (Rs. Crore)**

Scheme Name	Normative Debt Corresponding to Capital Expenditure				
	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
New 6.6kV AIS indoor substation in eastern south area near Telco Area) (Unserved Area)	0.018	0.019	-	-	-
New 2x16/20MVA, 33kV / 6.6 kV S/Stn with incoming feeder cable from Bara S/stn at Baridih Area for Eastern North Area(Unserved Area)	0.000	0.105	0.116	0.022	-
Augmentation of Tinplate ,Golmuri & BPRS for feeding town loads	0.070	0.077	-	-	-
<b>Interest During Construction (IDC)</b>	<b>0.09</b>	<b>0.20</b>	<b>0.12</b>	<b>0.02</b>	<b>-</b>

5.45 Based on the Capital Expenditure and normative IDC, the Capitalisation Schedule proposed for the Control Period is shown below:

**Table 33: Scheme wise Capitalisation Phasing as submitted by the Petitioner (Rs. Crore)**

Scheme Name	Scheme Type	Proposed Cost	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Up-gradation of Network Monitoring & Control Centre	New	7.50	-	4.00	3.50	-	-
New 6.6kV AIS indoor substation for network extension in Ramadhin Bagan, Manifit and nearby area (Eastern South)	New	3.04	-	3.04	-	-	-
New 2x16/20MVA, 33kV / 6.6 kV S/S with incoming feeder cable from Bara S/S at Baridih Area for Eastern North Area(Unserved Area)	New	25.24	-	-	22.22	3.02	-
6.6 kV Network Extension for power supply in fringe areas	Carry Forward	8.00	1.00	1.00	2.00	2.00	2.00
Strengthening of Testing facilities	Carry Forward	2.00	2.00	-	-	-	-
132kV power line connectivity form MPDS-4 to Sonari/Bara	Carry Forward	20.00	-	20.00	-	-	-
Augmentation of Tinplate, Golmuri & BPRS for feeding town loads	New	17.55	-	17.55	-	-	-
Supply and Installation of Power Quality Meter	New	1.52	1.52	-	-	-	-
Other assets to provide consumer connection from consumers (Self-Financing Scheme)	New	10.00	2.00	2.00	2.00	2.00	2.00
<b>Capitalisation Phasing</b>		<b>94.85</b>	<b>6.52</b>	<b>47.58</b>	<b>29.72</b>	<b>7.02</b>	<b>4.00</b>



### Commission's Analysis

5.46 As per Regulation 6.12 to 6.15 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020:

#### **“Capital Investment Plan**

*6.12 The Licensee shall file for the Commission's approval a Capital Investment Plan for the entire Control Period along with the Business Plan. The Capital Investment Plan shall be prepared scheme-wise and each scheme shall include:*

*a) Purpose of investment (e.g., replacement of existing assets, meeting load growth, technical and distribution loss reduction, non-technical loss reduction, meeting reactive energy requirements, customer service improvement, improvement in quality and reliability of supply, etc.);*

**b) Approval of Competent Authority;**

*c) Capital Structure;*

*d) Detailed Project Report;*

*e) Capitalization Schedule;*

*f) Implementation schedule including timelines;*

*g) Cost-benefit analysis and Rate reasonability;*

*h) Improvement in operational efficiency envisaged in the Control Period;*

*i) On-going schemes that will spill over into the year under review along with justification;*

*j) New schemes that will commence during the Control Period but may be completed within or beyond the Control Period.*

.....”

5.47 The Commission in its discrepancy note directed the Petitioner to provide the approval of Competent Authority for the capital expenditure/scheme proposed for each year of the Control Period as per MYT Regulation. In compliance to above, the Petitioner vide letter dated February 15, 2021 has submitted that the Chief (Power System and Energy) is authorised to put up the capital projects Plan and the Capital Project Plan has been prepared after due analysis of its requirement by the Technical team. The Petitioner further submitted that the Capital Expenditure Scheme is three Tier approval systems i.e. Business Unit Peer Review Group -> Peer Review Group -> Capital Expenditure Committee/TSL Board. The Petitioner submitted that all these schemes have been technically accepted and the same will undergo approval through these steps. The Petitioner requested the Commission to kindly approve the same as claimed in the Petition subject to Capital Expenditure Committee (CEC)/Board approval.

- 5.48 The Commission has scrutinized the information provided in MYT Business Plan where the Petitioner has provided justifications for the all the schemes proposed including spill over from previous Control Period.
- 5.49 The Commission while scrutinizing the carry forward schemes which were spill over from previous Control Period and allowed the capital expenditure schemes and the related capitalization after due prudence check. However, the Commission also directs the Petitioner to strictly ensure that the schedule of Capital Expenditure and Capitalisation should be strictly adhered.
- 5.50 With regard to new schemes, the Commission has scrutinized the Detailed Scheme wise Reports along with projected completion schedule provided by the Petitioner for the schemes along with detail justification and necessity of the schemes.
- 5.51 The Commission observed that the Petitioner has proposed Interest during Construction (IDC) in projected Capital Expenditure and Capitalisation. The Petitioner in its reply dated February 15, 2021 clarified that all the Capital Expenditure proposed is envisaged to be done through internal accrual. Hence, as per Regulation, only actual loan up to the date of commercial operation of the Scheme will be considered for IDC. The relevant portion of Regulation is reproduced below:

***“Capital Cost***

*10.8 The capital cost of the Licensee shall include the following:*

- a) Expenditure incurred or projected to be incurred on original scope of work, including the interest during construction and financing charges, any gain or loss on account of Foreign Exchange Risk Variation during construction, on the actual loan up to the date of commercial operation of the scheme, as admitted by the Commission after prudence check, shall form the basis for determination of Tariff;*

*.....”*

- 5.52 Further, in the absence of the approval from Competent Authority such as CEC/Board, the Commission provisionally approves the Capital Expenditure and Capitalisation as mentioned below. However, the Petitioner is directed to submit the approval of Capital Expenditure Plan, including the spill over schemes, duly approved by CEC/Board to the Commission before carrying out actual operations at the ground. The Commission will carry out prudence check at the time of APR/Truing up of the Capital Investment and approval certificate while approving the same.
- 5.53 The approved Capital Expenditure Plan and Capitalization for each year of the Control Period from FY 2021-22 to FY 2025-26 has been summarized in the tables below.

**Table 34: Capital Expenditure Plan as approved by the Commission (Rs. Crore)**

Scheme Name	Scheme Type	Proposed Cost	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Up-gradation of Network Monitoring & Control Centre	New	7.50	-	4.00	3.50	-	-
New 6.6kV AIS indoor substation for network extension in Ramadhin Bagan, Manifit and nearby area (Eastern South)	New	3.00	0.50	2.50	-	-	-
New 2x16/20MVA, 33kV / 6.6 kV S/S with incoming feeder cable from Bara S/S at Baridih Area for Eastern North Area(Unserved Area)	New	25.00	-	3.00	19.00	3.00	-
6.6 kV Network Extension for power supply in fringe areas	Carry Forward	8.00	1.00	1.00	2.00	2.00	2.00
Strengthening of Testing facilities	Carry Forward	2.00	2.00	-	-	-	-
132kV power line connectivity form MPDS-4 to Sonari/Bara	Carry Forward	20.00	-	20.00	-	-	-
Augmentation of Tinplate, Golmuri & BPRS for feeding town loads	New	17.40	2.00	15.40	-	-	-
Supply and Installation of Power Quality Meter	New	1.52	1.52	-	-	-	-
Other assets to provide consumer connection from consumers (Self-Financing Scheme)	New	10.00	2.00	2.00	2.00	2.00	2.00
<b>Capital Expenditure Plan</b>		<b>94.42</b>	<b>9.02</b>	<b>47.90</b>	<b>26.50</b>	<b>7.00</b>	<b>4.00</b>

**Table 35: Capitalisation Plan as approved by the Commission (Rs. Crore)**

Scheme Name	Scheme Type	Proposed Cost	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Up-gradation of Network Monitoring & Control Centre	New	7.50	-	4.00	3.50	-	-
New 6.6kV AIS indoor substation for network extension in Ramadhin Bagan, Manifit and nearby area (Eastern South)	New	3.00	-	3.00	-	-	-
New 2x16/20MVA, 33kV / 6.6 kV S/S with incoming feeder cable from Bara S/S at Baridih Area for Eastern North Area(Unserved Area)	New	25.00	-	-	22.00	3.00	-
6.6 kV Network Extension for power supply in fringe areas	Carry Forward	8.00	1.00	1.00	2.00	2.00	2.00
Strengthening of Testing facilities	Carry Forward	2.00	2.00	-	-	-	-
132kV power line connectivity form MPDS-4 to Sonari/Bara	Carry Forward	20.00	-	20.00	-	-	-
Augmentation of Tinplate, Golmuri & BPRS for feeding town loads	New	17.40	-	17.40	-	-	-
Supply and Installation of Power Quality Meter	New	1.52	1.52	-	-	-	-
Other assets to provide consumer connection from consumers (Self-Financing Scheme)	New	10.00	2.00	2.00	2.00	2.00	2.00
<b>Capitalisation Phasing Plan</b>		<b>94.42</b>	<b>6.52</b>	<b>47.40</b>	<b>29.50</b>	<b>7.00</b>	<b>4.00</b>

5.54 The Commission shall review the capital expenditure and capitalization actually done by the Petitioner at the end of each year of the Control Period in accordance with Clause 6.13 to Clause 6.15 of the Distribution Tariff Regulations, 2020. The relevant regulation is mentioned below:

“ .....

6.13 During the Annual Performance Review, the Commission shall monitor the year-wise progress of the actual capital expenditure incurred by the Licensee vis-à-vis the approved capital expenditure. The Licensee shall submit the actual capital expenditure incurred along with the Annual Performance Review Filing.

6.14 *The Commission shall review the actual capitalisation at the end of each year of the Control Period vis-à-vis the approved capitalisation schedule and shall true up the ARR based on actual capitalisation for the year for which True up has been filed and also revise the ARR components for the year for which APR and Tariff have been sought.*

6.15 *In case the capital expenditure is required for emergency work, which has not been approved in the Capital Investment Plan, the Licensee shall submit an application containing all relevant information along with reasons justifying emergency nature of the proposed work seeking approval of the Commission wherever possible:*

*Provided that in case the capital expenditure is required for emergency work or unforeseen situation to mitigate threat to life and property and if prior intimation thereof to the Commission shall cause any irreparable loss or injury, the Licensee may undertake such capital expenditure and submit the details for post-facto approval of the Commission along with next Tariff Petition with all relevant details.”*

5.55 The Commission at this junction does not approve any de-capitalisation, however, directed the Petitioner to submit the detail of de-capitalisation, if any at the time up of APR/truing up.

5.56 With regards to Petitioner submission of revised Capex estimate proposed in Business Plan and MYT Petition for Control Period to the Commission vide letter nos.: PBD/JSR/793/2022 dated August 11, 2022. The revised capex was submitted to the Commission after public notice was published and just before the public hearing. Hence, this additional information was not published for the public consultation and public at large could not respond to the revised numbers. Therefore, the Commission in this order has not considered the revised Capex estimate of the Petitioner.

5.57 However, the Petitioner is at liberty to file revised Capex Expenditure Plan, including the spill over schemes, duly approved by Competent Authority to the Commission in next tariff filing petition and the Commission shall consider the same on merits.

### **Financing of Capital Expenditure Plan**

#### ***Petitioner’s Submission***

5.58 The Petitioner submitted that financing of the proposed Capex schemes is envisaged to be done through internal accrual.

5.59 The Petitioner further submitted that as per the methodology given in JSERC Distribution Tariff Regulations, 2020, any GFA addition in the Control Period after

deducting consumer contribution, if any shall be considered to be funded by Petitioner in a Debt: Equity ratio of 70:30. Accordingly, financing of Additional Capitalization has been considered at normative Debt: Equity ratio of 70:3 as per JSERC Distribution Tariff Regulations, 2020.

**Table 36: Financing of Capital Expenditure Plan submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Assets added during the Year	6.52	47.58	29.72	7.02	4.00
Less: CC during the Year	2.00	2.00	2.00	2.00	2.00
Assets added net of CC	4.52	45.58	27.72	5.02	2.00
Equity addition during the Financial Year @ 30%	1.36	13.68	8.32	1.51	0.60
Debt addition during the Financial Year @ 70%	3.16	31.91	19.40	3.52	1.40

**Commission's Analysis**

5.60 As per Clause 10.16 & Clause 10.17 of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020:

**"Debt-Equity Ratio**

*10.16 Existing Projects: In case of capital expenditure schemes capitalised prior to April 01, 2021, the debt-equity ratio as allowed by the Commission for determination of tariff for the period ending March 31, 2021 shall be considered.*

*10.17 New Projects: For capital expenditure schemes capitalised after April 01, 2021:*

*a) A normative debt-equity ratio of 70:30 shall be considered for the purpose of determination of Tariff;*

*b) In case the actual equity employed is in excess of 30%, the amount of equity for the purpose of tariff determination shall be limited to 30%, and the balance amount shall be considered as normative loan;*

*c) In case the actual equity employed is less than 30%, the actual debt-equity ratio shall be considered;*

*d) The premium, if any raised by the Licensee while issuing share capital and investment of internal accruals created out of free reserve, shall also be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal accruals are actually utilized for meeting capital expenditure.*

.....;

5.61 Further, in compliance to Commission query, the Petitioner submitted that all the Capital Expenditure proposed is envisaged to be done through internal accrual.

5.62 The Commission accordingly approves Normative Equity to the tune of 30% and has considered the remaining 70% as Normative Debt. The financing of the additional capitalization as approved by the Commission is tabulated below.

**Table 37: Financing of Capital Expenditure Plan as approved by the Commission (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
	Approved	Approved	Approved	Approved	Approved
Assets added during the Year	6.52	47.40	29.50	7.00	4.00
Less: CC received during the Year	2.00	2.00	2.00	2.00	2.00
Assets added net of CC	4.52	45.40	27.50	5.00	2.00
Equity addition during the Financial Year @ 30%	1.36	13.62	8.25	1.50	0.60
Debt addition during the Financial Year @ 70%	3.16	31.78	19.25	3.50	1.40

### Human Resource Plan

5.63 The Petitioner submitted that they have prepared its Human Resource Plan based on overall Operation and Maintenance (O&M) requirement as assessed for the Control Period from FY 2021-22 to FY 2025-26 and also to maintain service levels, Operational Parameters as per relevant Regulations notified by the Commission.

5.64 The Petitioner submitted that Employees are the most critical resource required to deliver the services and maintain the operational efficiency. Therefore, there is need of continuous attention and monitoring of the day-to-day activities. As the distribution network of the Petitioner is spread across different locations of Jamshedpur, it is prone to damage and disruption due to residents of the city, vehicles, and also environmental factors such as adverse weather conditions etc.

5.65 Petitioner submitted that during the upcoming Control Period from FY 2021-22 to FY 2025-26, nearly 30 employees will be superannuating. Hence, there will be requirement of to fill the vacant post. However, workforce would be recruited prior to their retirement as they need to be on-boarded (trained on multiple skill and knowledge on electricity distribution before allowing them to work independently). The table below provides the detail of hiring to be done to replace retiring workforce:

**Table 38: Manpower Requirement to replace Superannuating Employees as submitted by the Petitioner**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Managerial & Officers	2	5	2	2	3
Supervisory & Workmen	1	5	3	6	1
<b>Total Manpower Replaced</b>	<b>3</b>	<b>10</b>	<b>5</b>	<b>8</b>	<b>4</b>

5.66 The Petitioner further added that they had tried to deploy existing workforce or prioritising/shifting some of the activity/work, however, there are some functional requirements for which Petitioner has not added suitable manpower in previous Control

Period and therefore finds it difficult to fully comply with some activities. Therefore, the Petitioner has evaluated additional workforce required to meet such additional functional requirement as shown below:

**Table 39: Manpower Requirement for additional Functional Requirement in existing Operational Area as submitted by the Petitioner**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	Remark
Safety inspection and enhancement of safety measures in Market area, at HT consumers & LT bulk consumers and in bustee and fringe areas	4	-	-	-	-	1-Engineer with Safety Background each for Market area, Inspection at HT Consumers & LT Bulk consumers, Bustee & fringe area East, Bustee & Fringe Area West
Enhancement of electricity disconnection activity due to payment default.	11	1	-	-	-	4 groups with 3 persons in each group including admin & security
Vigilance and Inspection of Unauthorised tapping from distribution network	5	1	-	-	-	2 groups of 3persons in each group including admin and security
Power Quality Monitoring, reporting and improvement actions	3	-	-	-	-	1-Engineer, 1-Ddiploma, 1- ITI
Periodic testing of installed Energy meter at consumer premises	5	1	-	-	-	2-Engineers & 4-Diploma for forming 4 groups to supervise the same at site
<b>Total Manpower Added</b>	<b>28</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>-</b>	

5.67 The Petitioner further added the rise in connection application from Bustee/villagers and fringe area has created a scope of providing power supply in those areas. However due to non-existence of TSL network in such areas, the Petitioner needs to develop suitable power distribution infrastructure. Hence different schemes have been undertaken to develop infrastructure in these areas. The Petitioner plans to hire additional manpower required for building the infrastructure. Manpower recruited for this purpose would later be transferred for Operation and Maintenance of the Petitioner’s distribution network in the same area. Such plan ensures that there is a continuity of key workforce including managerial staff and there a certainty in the job prospects for the person deployed for capital execution/network development. There will be an additional requirement of 23 manpower to execute the capital projects and subsequent Operations and Maintenance, during the 5-year Control Period as tabulated below:

**Table 40: Manpower requirement for Construction and O&M of upcoming Infrastructure as submitted by the Petitioner**

Activity Details	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	Remark
Up-gradation of Network Monitoring & Control Centre (SCADA)	-	2	-	-	-	1-IT/ SCADA engineer and 1-Dip/ITI to support field activity.
New 6.6kV AIS indoor substation for network extension in Ramadhin Bagan, Manifit and nearby area (Eastern South)	2	-	-	-	-	1-Diploma/Engineer and 1-ITI for regular O&M and to also look after the downstream distribution.

Activity Details	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	Remark
New 2x16/20MVA, 33kV / 6.6 kV S/Stn with incoming feeder in Baridih Area (Eastern North) for network extension to meet load growth in nearby area	-	6	1	-	-	For Shift manning of power substation and O&M of downstream distribution network.
6.6 kV Network Extension for power supply in fringe areas	1	-	2	-	-	3-Diploma engineers for regular O&M
Strengthening of Testing facilities	-	2	-	-	-	1-Engineer and 1-Diploma engineer for additional tests on existing equipment and also testing of the equipment installed in Capex.
Upgradation of Tinplate area substation for Golmuri (33kV Substation) and line	3	2	2	-	-	For Shift manning of power substation and O&M of downstream distribution network.
<b>Total Manpower Added</b>	<b>6</b>	<b>12</b>	<b>5</b>	<b>-</b>	<b>-</b>	

5.68 Based on the above detail, the Petitioner submitted the additional annual expenditure for the Control Period from FY 2021-22 to FY 2025-26 as shown below:

**Table 41: Annual Cost to Company for employee projected to added for the Control Period as submitted by the Petitioner**

Particulars	UoM	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Managerial (B. Tech/MBA)	Nos.	4	4	-	-	-
Officer ( BE, Diploma)	Nos.	12	-	-	-	-
Supervisory, Junior Engineer (Diploma)	Nos.	8	5	5	-	-
Lineman, Electrician, Junior Field Attendant (ITI)	Nos.	10	6	-	-	-
<b>Total Manpower Requirement</b>	Nos.	<b>34</b>	<b>15</b>	<b>5</b>	<b>-</b>	<b>-</b>
<b>Additional Manpower Cost @ CTC</b>	<b>Rs. Cr.</b>	<b>2.40</b>	<b>3.70</b>	<b>4.22</b>	<b>4.43</b>	<b>4.65</b>

### Commission's Analysis

5.69 The Commission observes that the Petitioner while projecting costs towards additional manpower has only factored in the new recruitments and has not considered the reducing impact of superannuating employees which is erroneous.

5.70 The Commission observes that against the proposed 30 number of employees to be superannuating, the Petitioner has proposed 31 new manpower to replace the same. The Commission approves the additional requirement of manpower however, the same shall be subject to truing up based on actuals.

5.71 The Commission has also reviewed the proposal of the Petitioner of further addition of 23 employees for creating the infrastructure and latter transfer to O&M Department to carry out the Operation and Maintenance activities of the created infrastructure. The Commission approves the additional requirement of manpower however, the same shall be subject to truing up based on actuals.

- 5.72 The Commission approves the additional 54 manpower requirement for the Control Period and their expenses on provisional basis in this Order. The Commission will further review the same at the time of APR/True up based on actual progress made.
- 5.73 Further, the Commission vide dated February 15, 2021 sought query regarding existing manpower including contractual employees, Petitioner submitted that there are 140 manpower on roll employees and 110 manpower are on contractual employees as on 31<sup>st</sup> March, 2020.
- 5.74 Accordingly, the Commission approves total manpower for the Control Period in this Order and the same shall be reviewed by the Commission at the time of APR/True up based on actual manpower.

**Table 42: Manpower approved by the Commission for Control Period (Nos.)**

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Opening Manpower	250	250	281	286	286	278
Less: Manpower Superannuating	-	3	10	5	8	4
Manpower additions	-	34	15	5	0	0
Closing Manpower during the Year	<b>250</b>	<b>281</b>	<b>286</b>	<b>286</b>	<b>278</b>	<b>274</b>
Growth Rate (%)	-	<b>12.40%</b>	<b>1.78%</b>	<b>0.00%</b>	<b>(2.80%)</b>	<b>(1.44%)</b>

## A 6 DETERMINATION OF TARIFF FOR THE MYT CONTROL PERIOD FROM FY 2021-22 TO FY 2025-26

6.1 The Petitioner, in the current Petition has submitted the MYT Petition for the Control Period from FY 2021-22 to FY 2025-26 and has computed each element of ARR for the 3<sup>rd</sup> Control Period taking into the following consideration:

- Norms and Principles outlined in the Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Distribution Tariff) Regulations 2020;
- Business Plan and Multi Year Tariff Petition covering Operational and Financial Plan submitted for the Control Period from FY 2021-22 to FY 2025-26;
- Actual parameters of the last Control Period i.e. FY 2015-16 to FY 2019-20 and actuals for first six months and estimates for the remaining six months for FY 2020-21;

6.2 The Commission has scrutinized the Petition filed by the Petitioner for determination of Distribution Tariff for the MYT Control Period i.e. FY 2021-22 to 2025-26, in accordance with JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations 2020.

6.3 The Commission has approved the ARR for the Control Period i.e. FY 2021-22 to 2025-26 and has dealt with Petitioner's Tariff Proposal for FY 2021-22 taking into consideration:

- Distribution Tariff Regulations, 2020;
- Information placed on record.
- Methodology adopted by the Commission in its earlier Orders.

6.4 The component-wise description of the Petitioner's submission and the Commission's analysis thereon is given below.

### **Consumers, Connected Load and Sales**

#### ***Petitioner's Submission***

6.5 The Petitioner had projected the number of consumers, Connected Load and Sales in Business Plan for FY 2021-22 to FY 2025-26 as discussed in the Business Plan Chapter.

#### ***Commission's Analysis***

6.6 The Commission has approved the Number of Consumers, Connected Load and Sales for the Control Period i.e. FY 2021-22 to FY 2025-26 as discussed in **Section: 5, Sub-Section: Demand and Sale** Forecast of this Order.

## **Energy Balance**

### ***Petitioner's Submission***

- 6.7 The Petitioner submitted that the projection for demand has been arrived at, by grossing up the above consumption projections with distribution loss as per the process adopted by the Commission in previous tariff orders.
- 6.8 Petitioner further submitted that as the Control Period progresses percentage consumption by categories related with higher loss levels is expected to increase, thereby making normative loss level challenging for Petitioner.
- 6.9 The Petitioner had projected the energy requirement in Business Plan for FY 2021-22 to FY 2025-26 as discussed in the Business Plan Chapter.

### ***Commission's Analysis***

- 6.10 The Commission has approved the Energy Balance for the Control Period i.e. FY 2021-22 to FY 2025-26 as discussed in **Section: 5, Sub-Section: Energy Balance** of this Order.

## **Distribution Loss**

### ***Petitioner's Submission***

- 6.11 The Petitioner has submitted that for the purpose of projection it has considered uniform loss of 3.86% on overall sales for the Control Period.

### ***Commission's Analysis***

- 6.12 The Commission for the purpose of projected for the MYT Control Period approves the distribution loss target of 3.80% on overall sales for each year of the Control Period. Further, the Petitioner shall be allowed to operate within distribution loss 3.80% on overall sales for the Control Period without any incentive/penalty.

## **Power Purchase Cost**

### ***Petitioner's Submission***

- 6.13 The Petitioner had projected the total power purchase cost in Business Plan for FY 2021-22 to FY 2025-26 as discussed in the Business Plan Chapter.

### ***Commission's Analysis***

- 6.14 The Commission has approved the Power Purchase Cost for the Control Period i.e. FY 2021-22 to FY 2025-26 as discussed in **Section: 5, Sub-Section: Power Purchase Plan** of this Order.

## Operation and Maintenance (O&M) Expenses

### Petitioner's Submission

#### Employee Expenses

- 6.15 The Petitioner submitted that it has envisaged manpower recruitment of 23 employees for execution of the proposed capital projects and subsequent Operational and Maintenance and another additional manpower of 31 employees for additional function in existing operational area in compliance to the requirements as per JSERC Regulations.
- 6.16 Further, the Petitioner has proposed to recruit additional manpower at the onset of the Control Period to provide adequate hands on training to the new recruits during the Control Period. The costs against this additional manpower in the first year of recruitment have been estimated based on the historical average employee cost/CTC of the employee of the same cadre.
- 6.17 Based on the above, the total employee expenses claimed by the Petitioner for each year of the Control Period is as shown in the table below:-

**Table 43: Employee Expenses as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Employee Expenses (Base Year)	25.38	29.86	32.87	35.61	38.44
Inflation Factor (%)	6.09%	6.09%	6.09%	6.09%	6.09%
Growth Factor for Employees	1.97%	0.15%	1.44%	2.13%	2.30%
Additional Manpower Expenses	2.40	3.70	4.22	4.43	4.65
<b>Employee Expenses</b>	<b>29.86</b>	<b>32.87</b>	<b>35.61</b>	<b>38.44</b>	<b>41.57</b>

#### A&G Expenses

- 6.18 The Petitioner submitted that the Administrative & General (A&G) Expenses consists of Billing & Collection expenses, electricity surcharge, rates, taxes and consultancy fees. However, with rise in connected consumers and load there is also increase in A&G expense in addition to increase in inflation. Therefore, the Petitioner has also considered the increase in Connected Load for each year of next Control Period for escalating normative A&G Expense as shown below.

**Table 44: A&G Expenses as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
A&G Expenses (Base Year)	30.47	32.96	35.02	37.69	40.84
Increase in Connected Load	1.97%	0.15%	1.44%	2.13%	2.30%
Inflation Factor	6.09%	6.09%	6.09%	6.09%	6.09%
<b>A&amp;G Expenses</b>	<b>32.96</b>	<b>35.02</b>	<b>37.69</b>	<b>40.84</b>	<b>44.32</b>

## R&M Expenses

6.19 The Petitioner had computed the 'k' factor based on actual value of GFA and R&M Expenses for FY 2019-20, which comes out to be 5.09%. In addition to indexing with 'k' factor, the Petitioner has also taken into account the inflation factor of FY 2019-20 (6.09%) while computing the R&M Expenses as shown below.

**Table 45: R&M Expenses as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Opening GFA	596.88	603.40	650.98	680.70	687.73
'k' Factor	5.09%	5.09%	5.09%	5.09%	5.09%
Inflation Factor	6.09%	6.09%	6.09%	6.09%	6.09%
<b>A&amp;G Expenses</b>	<b>32.24</b>	<b>34.58</b>	<b>39.57</b>	<b>43.90</b>	<b>47.05</b>

## Other Expenditure

6.20 In addition to above, the Petitioner has also considered Petition Filing Fees and Rent and Remuneration of CGRF Office to derive the net O&M Expenses.

6.21 The Petitioner had projected the Petition Filing Fees as per JSERC (Conduct of Business) Regulations, 2016. Since, FY 2025-26 being the last year of Control Period, fees for filing MYT Petition and Business Plan has also been considered while projecting the Petition filing fees.

6.22 In case of rent and remuneration of CGRF office, the Petitioner has considered the estimated value for FY 2020-21 and escalated by inflation index (6.09%) for projecting the rent and remuneration of CGRF office for the Control Period.

**Table 46: Petition Fee and CGRF Expenses as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Petition Filing Fees	0.20	0.20	0.20	0.20	0.35
CGRF Expense	0.32	0.34	0.36	0.38	0.40

6.23 The Petitioner has factored in the inflation factor 6.09% for each year of the Control Period.

6.24 Summary of claims of the Petitioners with respect to O&M Expenses is shown in the table below:

**Table 47: O&M Expenses as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Employee Expenses*	29.86	32.87	35.61	38.44	41.57
A & G Expenses*	32.96	35.02	37.69	40.84	44.32
R&M Expenses*	32.24	34.58	39.57	43.90	47.05
Petition Filing Fees	0.20	0.20	0.20	0.20	0.35
CGRF Expense	0.32	0.34	0.36	0.38	0.40
<b>Total O&amp;M Expense</b>	<b>95.57</b>	<b>103.01</b>	<b>113.43</b>	<b>123.76</b>	<b>133.69</b>

\*Petitioner additional submission in letter dated February 17, 2021

### Commission's Analysis

6.25 The relevant Regulations related to O&M Expenses of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 is mentioned below.

#### *“Operation and Maintenance Expenses*

10.3 *Operation and Maintenance (O&M) Expenses shall include:*

- a) Salaries, wages, pension contribution and other employee costs;*
- b) Administrative and General Expenses;*
- c) Repairs and Maintenance Expenses.*

10.4 *The O&M Expenses for the Base Year of the Control Period shall be approved by the Commission taking into account the audited accounts of FY 2015-16 to FY 2019-20, Business Plan filed by the Licensee, estimates of the actual for the Base Year, prudence check and any other factor considered appropriate by the Commission.*

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

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) + Terminal Liabilities$$

*Where,*

*R&M<sub>n</sub> – Repair and Maintenance Costs of the Licensee for the n<sup>th</sup> year;*

*EMP<sub>n</sub> – Employee Costs of the Licensee for the n<sup>th</sup> year excluding terminal liabilities;*

*A&G<sub>n</sub> – Administrative and General Costs of the Licensee for the n<sup>th</sup> year.*

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

$$a) R\&M_n = K * GFA * (INDX_n / INDX_{n-1})$$

*Where,*

*‘k’ is a constant (expressed in %) governing the relationship between R&M costs and Gross Fixed Assets (GFA) and shall be calculated based on the % of R&M to GFA of the preceding year of the Base Year in the MYT Order after normalising any abnormal expenses;*

*‘GFA’ is the opening value of the gross fixed asset of the nth year;*

$$b) EMP_n + A\&G_n = [(EMP_{n-1}) * (1 + G_n) + (A\&G_{n-1})] * (INDX_n / INDX_{n-1})$$

Where,

*EMP<sub>n-1</sub> – Employee Costs of the Licensee for the (n-1)<sup>th</sup> year excluding terminal liabilities;*

*A&G<sub>n-1</sub> – Administrative and General Costs of the Licensee for the (n-1)<sup>th</sup> year excluding legal/litigation expenses;*

*INDX<sub>n</sub> – 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<sub>n</sub> – is a growth factor for the nth year and it can be greater than or lesser than zero based on the actual performance. Value of G<sub>n</sub> shall be determined by the Commission in the MYT Order for meeting the additional manpower requirement based on the Distribution Licensee’s Filing, benchmarking and any other factor that the Commission feels appropriate;*

*c)  $INDX_n = 0.55 * CPI_n + 0.45 * WPI_n$ ;*

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;*

Note 2: *Any variation due to changes recommended by the Pay Commission, wage revision agreement, etc., will be considered separately by the Commission;*

Note 3: *Terminal Liabilities will be approved as per actual submitted by the Licensee along with documentary evidence such as actuarial studies.*

*10.7 The Distribution Licensee, in addition to the above details shall also submit the detailed break-up of the Legal/Litigation Expenses for the previous Years (FY 2015-16 to FY 2019-20) along with the details and documentary evidence of incurring such expenses. The Commission shall approve the legal expenses as per the relevant provisions of the Jharkhand State Litigation Policy based on the necessary documentary evidence submitted for the Control Period and shall carry out due prudence check of legal expenses at the time of trueing up.”*

- 6.26 For the MYT Control Period, the Commission has projected the O&M Expenses separately for each component of O&M Expenses as per the Distribution Tariff Regulations 2020.
- 6.27 The Commission has approved the component wise O&M Expenses only provisionally and these estimates will be subject to true up during the Annual Performance Review/True up based on the actual as per audited accounts.

### **Employee Expenses**

- 6.28 The Commission had approved the Employee Expenses including terminal benefits in the past and also in the MYT Order dated February 28, 2017 while approving the Base value. Hence, adopting the same methodology, the Commission has determined the Base value for Normative Employee Expenses including terminal benefits.
- 6.29 The Commission has computed the O&M expenses considering the methodology specified in the aforesaid Regulation. For approval of Employee Expenses for the Control Period, following approach has been adopted:
- a) The average of past five years actual audited employee expenses from FY 2015-16 to FY 2019-20 has been considered for deriving normative Employee Expenses for FY 2017-18.
  - b) The average of such expenses has been escalated twice with inflation factor of respective years to arrive at the normative expenses for the base year i.e FY 2019-20.
  - c) The base year expenses so calculated are then escalated twice with inflation factor of respective years to arrive at normative Employee expenses for FY 2021-22 and for subsequent years normative Employee expenses has been arrive escalating with inflation factor of 3.47% (i.e Average of 5 Year Inflation factor of FY 2015-16 to FY 2019-20) for each year of the control period.
- 6.30 Further, 10.6(b) of Distribution Tariff Regulations, 2020 provides provision for determination of Growth factor (G(n)) factor to compute the increase in Employee Expenses for meeting the additional manpower requirement based on the Distribution Licensee's Filing, benchmarking and any other factor that the Commission feels appropriate.
- 6.31 Accordingly, the Commission has considered Growth factor based on manpower approved for the Control Period i.e. FY 2021-22 to FY 2025-26 as discussed in **Section: 5, Sub-Section: Human Resource Plan** of this Order. The Growth factor considered for the control period, subject to prudence check at the time of APR/True up is as follows:-

**Table 48: Growth Factor as approved by the Commission for Control Period  
(Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Growth Factor (Gn)	12.40%	1.78%	0.00%	(2.80%)	(1.44%)

6.32 The Commission has approved the normative Employee Expenses including terminal benefits considering growth factor for the Control Period, subject to prudence check at the time of APR/True up.

#### **A&G Expenses**

6.33 Based on the methodology adopted for projection of Employee Expenses for the Control Period, A&G Expenses excluding Petition Filing Fee and CGRF Expenses and growth factor has been projected for the Control Period.

#### **R&M Expenses**

6.34 The Commission observes that the k factor on the basis of actuals are in excess of 5% which is considerably higher for a Distribution utility and needs to be analysed in detail. As the detailed break-up of the expenses were not provided by the Petitioner, the Commission could not carry out the detailed prudence check. The Commission in this Order has therefore approved k factor on provisional basis which shall be re-looked on the basis of detailed break up of expenses incurred while dealing with the issue in the next tariff petition.

6.35 In accordance with the provisions of Regulation 10.6(a) of JSERC Distribution Tariff Regulations, 2020, the Commission approves the ‘k’ factor based on the actual ratio of the opening Gross Fixed Assets and R&M Expenses for the preceding year (i.e FY 2019-20) as 5.08% on provisional basis for the Control Period. The Petitioner is directed to submit sub head wise break-up of R&M Expenses for FY 2015-16 to FY 2022-23 to the Commission in next tariff filing petition. Thereafter, the Commission may redetermine ‘k’ factor for the Control Period after due analysis and prudence check.

6.36 The Commission has projected the normative R&M Expenses for the Control Period considering the approved opening GFA of respective year and multiplied with the provisional ‘k’ factor of 5.08% and again multiplied with inflation factor of 8.67% (i.e Inflation Factor of FY 2021-22 as on 1<sup>st</sup> April, 2021) to arrive at normative R&M Expenses for 1<sup>st</sup> year of the Control Period (i.e FY 2021-22) thereafter inflation factor of 3.47% (i.e Average of 5 Year Inflation factor of FY 2015-16 to FY 2019-20) has been considered for each year of the Control Period, subject to prudence check at the time of APR/True up.

6.37 The Petitioner is directed to submit the detailed break up of R&M expenses for FY 2016-17 to 2020-21 incurred under various sub-heads duly certified by its statutory auditor during the next tariff proceedings.

### Other Expenditure

6.38 The Commission has approved the Petition Filing Fees for the Control Period as submitted by the Petitioner, subject to truing up based on actuals.

6.39 The Commission approves rent and remuneration of CGRF Office based on the approved value for FY 2019-20 in its Order dated November 24, 2022, subject to truing up based on actuals.

6.40 Based on above, the Commission approves Operation and Maintenance Expenses for the Control Period is shown in the table below

**Table 49: O&M Expenses as approved by the Commission (Rs. Crore)**

Particulars	Base Value	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
	FY 2019-20	Approved	Approved	Approved	Approved	Approved
Employee Expenses including Terminal Liabilities	24.07	30.38	32.00	33.11	33.29	33.95
A&G Expenses excluding Petition Filling Fee, CGRF Expenses	27.99	31.43	32.52	33.65	34.82	36.03
R&M Expenses		32.92	31.69	34.18	35.73	36.09
Petition Filling Fee		0.20	0.20	0.20	0.20	0.20
Rent & Remuneration of CGRF Office		0.28	0.28	0.28	0.28	0.28
<b>Total O&amp;M Expenses</b>		<b>95.22</b>	<b>96.69</b>	<b>101.42</b>	<b>104.32</b>	<b>106.56</b>

### Capital Work in Progress (CWIP) and Gross Fixed Asset (GFA)

#### Petitioner's Submission

6.41 Based on the submission of Capital Expenditure and Capitalization proposed in the Business Plan for the Control Period, the Petitioner has projected the CWIP and GFA for the Control Period as shown below. Further, the Petitioner also submitted the scheme-wise details of Capital Expenditure and Capitalisation along with the Petition.

6.42 The Petitioner requested the Commission to approve the Capital Expenditure and Capitalization for the Control Period as proposed by the Petitioner.

**Table 50: Capital Work in Progress (CWIP) as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Opening CWIP	2.48	5.07	5.59	2.48	2.48
Addition during the FY	9.11	48.10	26.62	7.02	4.00
Capitalization	6.52	47.58	29.72	7.02	4.00
Closing CWIP	5.07	5.59	2.48	2.48	2.48

**Table 51: Gross Fixed Assets (GFA) as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Opening GFA	596.88	603.40	650.98	680.70	687.73
Capitalization	6.52	47.58	29.72	7.02	4.00
Decapitalization	-	-	-	-	-
Closing GFA	603.40	650.98	680.70	687.73	691.73

**Commission’s Analysis**

6.43 The Commission has scrutinized the additional capitalisation submitted by the Petitioner in Business Plan along with Detail Project Report (DPR). The Commission after prudence check approves the additional capitalisation for the Control Period as discussed in **Section:5, Sub-Section: Capital Investment Plan** of this Order.

6.44 The Commission after prudence check has provisionally approved the Capital Work in Progress (CWIP) and Gross Fixed Assets (GFA) for the Control Period as summarised below, subject to truing up:

**Table 52: CWIP and GFA as approved by the Commission (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
	Approved	Approved	Approved	Approved	Approved
<b>Capital Works in Progress</b>					
<b>Opening CWIP</b>	<b>2.81</b>	<b>5.40</b>	<b>6.10</b>	<b>3.22</b>	<b>3.24</b>
Additional Capex	9.11	48.10	26.62	7.02	4.00
Less: Capitalisation	6.52	47.40	29.50	7.00	4.00
<b>Closing CWIP</b>	<b>5.40</b>	<b>6.10</b>	<b>3.22</b>	<b>3.24</b>	<b>3.24</b>
<b>Gross Fixed Assets</b>					
<b>Opening GFA</b>	<b>596.43</b>	<b>602.95</b>	<b>650.35</b>	<b>679.85</b>	<b>686.85</b>
Net Addition	6.52	47.40	29.50	7.00	4.00
<b>Closing GFA</b>	<b>602.95</b>	<b>650.35</b>	<b>679.85</b>	<b>686.85</b>	<b>690.85</b>

**Consumer Contribution**

**Petitioner’s Submission**

6.45 The Petitioner has projected the CC capitalization and received during the Control Period as Rs. 2 Crore for each year, as shown below:

**Table 53: CC Capitalisation and Received as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
CC capitalized during the Year	2	2	2	2	2
CC received during the Year	2	2	2	2	2

**Commission’s Analysis**

6.46 The Petitioner in its reply dated February 15, 2021 submitted that the CC received during FY 2019-20 is Rs. 2.24 Crore and expected to receive Rs. 1.50 Crore during FY 2020-21. Further, submitted that similar levels are expected in next control period.

Therefore, Petitioner has considered CC of Rs. 2 Crore per annum for the Control Period.

- 6.47 The Commission has considered the submission made by the Petitioner and approves the addition in CC Received as Rs. 2 Crore for each year of the Control Period. as per the Methodology adopted by the Commission in the previous Orders, subject to truing up.

**Table 54: Consumer Contribution as approved by the Commission for Control Period (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
CC received during the Year	2	2	2	2	2

## Depreciation

### *Petitioner's Submission*

- 6.48 The Petitioner submitted the depreciation is calculated in accordance with Regulations 10.39 of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020.
- 6.49 The Petitioner has projected the Gross Depreciation based on actual weighted average rate of previous year, i.e., FY 2019-20 (5.52%) for the Control Period.
- 6.50 Further, for the assets created out of Consumer Contribution (CC), the equivalent depreciation corresponding to Consumer Contribution is deducted from Gross Depreciation to derive net Depreciation.

**Table 55: Depreciation on assets created out of CC as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Closing GFA (A)	603.40	650.98	680.70	687.73	691.73
Closing CC (B)	66.96	68.96	70.96	72.96	74.96
Gross Depreciation (C)	33.13	34.62	36.76	37.77	38.07
Depreciation on CC (D=C/A*B)	3.68	3.67	3.83	4.01	4.13

**Table 56: Net Depreciation as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Gross Depreciation (A)	33.13	34.62	36.76	37.77	38.07
Depreciation on CC (B)	3.68	3.67	3.83	4.01	4.13
<b>Net-Depreciation (C=A-B)</b>	<b>29.45</b>	<b>30.95</b>	<b>32.92</b>	<b>33.76</b>	<b>33.95</b>

### *Commission's Analysis*

- 6.51 The relevant extract of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 is reproduced below.

**“Depreciation**

10.34 Depreciation shall be calculated every year on the amount of original cost of the fixed assets as admitted by the Commission:

*Provided that depreciation shall not be allowed on assets funded by Consumer Contribution and Capital Subsidies/Grants. Provision for replacement of such assets shall be made in the Capital Investment Plan.*

10.35 Depreciation for each year shall be determined based on the methodology as specified in these Regulations along with the rates and other terms specified in these Regulations.

10.36 Depreciation shall be calculated annually, based on the straight-line method at the rates specified at Appendix-I. The base value for the purpose of depreciation shall be original cost of the asset:

*Provided that the Distribution Licensee shall ensure that once the individual asset is depreciated to the extent of seventy (70) percent of the Book Value of that asset, remaining depreciable value as on March 31 of the year closing shall be spread over the balance useful life of the asset.*

10.37 Depreciation shall be charged from the first year of commercial operation of the asset. In case, the operation of the asset is for a part of the year, depreciation shall be charged on a pro-rata basis.

10.38 The residual value of assets shall be considered as 10% and depreciation shall be allowed to a maximum of 90% of the original cost of the asset. Land is not a depreciable asset and its cost shall be excluded while computing 90% of the original cost of the asset.

*Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;*

**10.39 The Commission may, in the absence of the Fixed Assets Register, calculate Depreciation (%) arrived by dividing the Depreciation and the Average Gross Fixed Assets as per the latest available Audited Accounts of the Distribution Licensee. The Depreciation (%) so arrived shall be multiplied by the Average GFA approved by the Commission for the relevant Financial Year to arrive at the Depreciation for that Financial Year.**

10.40 In case of de-capitalization of assets, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered through tariff corresponding to the decapitalised asset during its useful services.”

- 6.52 The Commission has determined Depreciation weighted average depreciation rate at 4.11% for the Control Period.
- 6.53 For this, the Commission has considered Opening and Closing GFA of FY 2019-20 and rates of depreciation as per JSERC Tariff Regulations, 2020 as specified for each class of assets. The average of each class of assets was multiplied with depreciation rates to arrive Gross Depreciation then summation of Gross Depreciation and average GFA of FY 2019-20 was divided to determine weighted average depreciation rate for the Control Period. The computation of depreciation rate considered by the Commission for approval of depreciation for the Control Period is as shown below:

**Table 57: Computation of depreciation rate for Control Period**

Particulars	GFA Opening as on 01.04.2019	GFA Closing as on 31.03.2020	Average GFA	Depreciation Rate(%)	Gross Depreciation
Freehold Land and Roads	0.30	0.30	0.30	2.67%	0.01
Buildings	39.87	40.84	40.36	2.67%	1.08
Plant & Machinery	509.85	517.53	513.69	4.22%	21.68
Furniture & Fixture	0.25	0.27	0.26	6.33%	0.02
Vehicle	0.06	0.06	0.06	12.77%	0.01
Office Equipment	0.17	0.18	0.18	6.33%	0.01
Software	0.00	0.19	0.10	15.00%	0.01
<b>Total</b>	<b>550.50</b>	<b>559.37</b>	<b>554.94</b>		<b>22.81</b>
<b>Weighted Average Depreciation Rate (%)</b>					<b>4.11%</b>

- 6.54 The depreciation of the assets created from Consumer Contribution is depreciated in proportion of Gross depreciation and in the ratio of average Consumer Contribution out of average GFA for each respective each year of the Control Period.
- 6.55 **The Commission further directs the Petitioner to maintenance the Fixed Assets Register (FAR) considering the depreciation rates as specified in JSERC Distribution Tariff Regulations, 2020 and submit the status report to the Commission along FAR in next tariff filling.**
- 6.56 The net depreciation approved by the Commission for the Control Period is shown in the table below:

**Table 58: Depreciation as approved by the Commission for Control Period (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Gross Depreciation	24.65	25.76	27.34	28.09	28.32
Depreciation on CC	2.85	2.93	3.01	3.10	3.18
<b>Net-Depreciation</b>	<b>21.80</b>	<b>22.83</b>	<b>24.33</b>	<b>24.99</b>	<b>25.14</b>

## Interest and Finance Charges

### *Petitioner's Submission*

- 6.57 The Petitioner submitted that it has considered the opening debt for FY 2021-22 equal to closing value of FY 2020-21 as submitted in its APR Petition for FY 2020-21.
- 6.58 The annual addition during the financial year of Control Period is considered in line with source funding as submitting in its Business Plan.
- 6.59 Further, repayment of loan for each financial year of the Control Period has been considered equal to net Depreciation in line with the Regulation 10.23 of the JSERC Tariff Regulations, 2020.
- 6.60 The rate of interest on long-term loan has been considered as prevailing Marginal Cost of Lending Rate (MCLR) of SBI plus 200 basis points as per Regulation 10.26 of the JSERC Distribution Tariff Regulations, 2020.

**Table 59: Interest and Finance Charges as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Opening Loan (Normative)	49.05	22.76	23.72	10.20	(20.05)
Add: Deemed Addition during the FY	3.16	31.91	19.40	3.52	1.40
Less: Deemed Repayment	29.45	30.95	32.92	33.76	33.95
Closing Loan (Normative)	22.76	23.72	10.20	(20.05)	(52.60)
Average Loan	35.91	23.24	16.96	(4.93)	(36.33)
SBI Base Rate plus 200 bp	9.00%	9.00%	9.00%	9.00%	9.00%
<b>Interest and Finance Charges</b>	3.23	2.09	1.53	-	-

### *Commission's Analysis*

- 6.61 The relevant Regulations related to Interest on Loan of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 is mentioned below.

#### *“Interest on Loan Capital*

*10.21 The loans arrived at in the manner indicated in Clauses 10.16 and 10.17 shall be considered as gross normative loan for calculation of interest on loan.*

*10.22 The normative loan outstanding as on April 01, 2021 shall be worked out as the gross loan by deducting the cumulative repayment as admitted by the Commission up to March 31, 2021 from the gross normative loan.*

*10.23 The repayment for each year of the Control Period shall be deemed to be equal to the depreciation allowed for that year.*

*10.24 In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on pro-rata basis and the adjustment should not*

*exceed cumulative depreciation recovered up to the date of de-capitalization of such assets.*

*10.25 Notwithstanding any moratorium period availed by the Licensee, the repayment of loan shall be considered from the first year of operation of the scheme/asset.*

*10.26 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the Licensee:*

*Provided that if there is no actual loan for a particular year but normative loan is still outstanding, then the rate of interest shall be considered on normative basis and shall be equal to the Bank Rate as on April 01 of the respective year of the Control Period plus 200 basis points.*

*10.27 The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*

*10.28 The above interest computation shall exclude interest on loan amount, normative or otherwise, to the extent of capital cost funded by Consumer Contribution, Grants or Deposit Works carried out by Distribution Licensee.*

*10.29 The Licensee shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the users and the net savings shall be shared between the users and the Licensee, as the case may be, in the ratio of 50:50.”*

- 6.62 In accordance with the Tariff Regulations, 2020, the Commission has computed the normative loan addition during the year equal to 70% of the approved capitalization after deducting assets funded out of CC. The normative repayment is deemed to be equal to the approved net depreciation during the Financial Year.
- 6.63 The Opening loan for FY 2020-21 has been considered as the closing loan approved by the Commission in True up Order of FY 2019-20. Thereafter GFA addition and Consumer Contribution received during FY 2020-21 has been considered as per the APR Petition for FY 2020-21 to arrive at Normative loan addition for FY 2020-21. Similarly, Debt repayment has been arrived considering the numbers of APR Petition for FY 2020-21 as submitted by the Petitioner. The closing loan thus arrived for FY 2020-21 has been considered opening loan for FY 2021-22.
- 6.64 Further, in accordance with the Tariff Regulations, 2020, interest on normative loan has been approved based on the average normative loan outstanding during the FY at the interest rate of MCLR SBI Rate as on April 01, 2021 plus 200 basis points for each year of the Control Period.

6.65 The following table summarises the Interest and Finance Charges (IFC) as approved by the Commission for the Control period.

**Table 60: Interest and Finance Charges as approved by the Commission for Control Period (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Opening Loan (Normative)	48.70	30.06	39.02	33.94	12.45
Add: Deemed Addition during the FY	3.16	31.78	19.25	3.50	1.40
Less: Deemed Repayment	21.80	22.83	24.33	24.99	25.14
Closing Loan (Normative)	30.06	39.02	33.94	12.45	-
Average Loan	39.38	34.54	36.48	23.19	6.22
Interest Rate	9.00%	9.00%	9.00%	9.00%	9.00%
<b>Interest and Finance Charges</b>	<b>3.54</b>	<b>3.11</b>	<b>3.28</b>	<b>2.09</b>	<b>0.56</b>

### Interest on Consumer Security Deposit

#### *Petitioner's Submission*

6.66 The petitioner has computed Security Deposit (SD) additions for each year of the Control Period in proportion to increase in Connected Load for that relevant financial year of the Control Period.

6.67 The Interest on Security Deposit is calculated at interest rate of 7.40% during the Control Period as shown below.

**Table 61: Interest on CSD as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Opening CSD	30.59	32.12	33.72	35.41	37.18
CSD Addition	0.60	0.05	0.48	0.76	0.86
Closing CSD	31.19	32.17	34.21	36.16	38.03
<b>Interest on CSD</b>	<b>2.29</b>	<b>2.38</b>	<b>2.51</b>	<b>2.65</b>	<b>2.78</b>

#### *Commission's Analysis*

6.68 The relevant Regulations related to Interest on Consumer Security Deposits of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 is mentioned below.

#### *"Interest on Consumer Security Deposits*

*10.33 Interest paid on consumer security deposits shall be as specified by the Commission in JSERC (Electricity Supply Code) Regulations, 2015 as amended or as replaced from time to time."*

*10.21 The loans arrived at in the manner indicated in Clauses 10.16 and 10.17 shall be considered as gross normative loan for calculation of interest on loan.*

10.22 *The normative loan outstanding as on April 01, 2021 shall be worked out as the gross loan by deducting the cumulative repayment as admitted by the Commission up to March 31, 2021 from the gross normative loan.*”

- 6.69 The JSERC (Electricity Supply Code) Regulations 2015 specifies that the Licensee shall pay interest to its consumer at the SBI Base rate prevailing on April 01, of the respective financial year. The relevant section of JSERC (Electricity Supply Code) Regulations 2015 is reproduced below.

***“Interest on Security Deposit***

8.2.16 *The Distribution Licensee shall pay interest to the consumer at the State Bank of India base rate prevailing on the 1st of April for the year, payable annually on the consumer’s security deposit with effect from date of such deposit in case of new connections energized after the date of this notification, or in other cases, from the date of notification of these Regulations. The interest accrued during the year shall be adjusted in the consumer’s bill for the first billing cycle of the ensuing financial year.*”

- 6.70 The Opening Security Deposit for FY 2020-21 has been considered as the closing security deposit approved by the Commission in True up Order of FY 2019-20. Thereafter Security Deposit Addition has been considered as per the APR Petition for FY 2020-21 as submitted by the Petitioner. The closing Security Deposit thus arrived for FY 2020-21 has been considered opening Security Deposit for FY 2021-22.
- 6.71 The Commission has computed Security Deposit additions for each year of the Control Period in proportion to increase in Connected Load for that relevant financial year of the Control Period.
- 6.72 The rate of interest of Security Deposit is considered as SBI Base as on April 01, 2021 for FY 2021-22 and thereafter SBI Base rate as on April 01, 2022 has been considered for the subsequent years of the Control Period.
- 6.73 The Commission has provisionally approved the Interest on CSD as shown below, subject to truing up based on actuals:

**Table 62: Interest on CSD as approved by the Commission for Control Period (Rs. Crore)**

<b>Particulars</b>	<b>FY 2021-22</b>	<b>FY 2022-23</b>	<b>FY 2023-24</b>	<b>FY 2024-25</b>	<b>FY 2025-26</b>
Opening CSD	<b>30.59</b>	<b>31.23</b>	<b>31.89</b>	<b>32.57</b>	<b>33.28</b>
CSD Addition	0.64	0.66	0.68	0.71	0.73
Closing CSD	<b>31.23</b>	<b>31.89</b>	<b>32.57</b>	<b>33.28</b>	<b>34.01</b>
<b>Interest on CSD</b>	<b>2.29</b>	<b>2.38</b>	<b>2.43</b>	<b>2.49</b>	<b>2.54</b>

## Return on Equity

### Petitioner's Submission

- 6.74 The Petitioner submitted that it has considered the opening equity base for FY 2021-22 equal to closing value of FY 2020-21 as submitted in its APR Petition for FY 2020-21.
- 6.75 The annual addition during the financial year of Control Period is considered in line with financing plan as submitting in its Business Plan. The deemed addition to the equity has been considered after reducing the assets expected to be funded from CC.
- 6.76 The rate of return on equity has been considered at 14.50% as per provisions of Regulation 10.19 of the JSERC Distribution Tariff Regulations, 2020.
- 6.77 The Petitioner submitted revised computation of return on equity in vide letter no.: PDB/128/09/59-J/2021 dated February 17, 2021 as shown below:

**Table 63: Return on Equity as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Opening Equity (Normative)	158.88	160.24	173.91	182.23	183.73
Equity Addition	1.36	13.68	8.32	1.51	0.60
Closing Equity (Normative)	160.24	173.91	182.23	183.73	184.33
Average Equity	159.56	167.07	178.07	182.98	184.03
Rate of Return	14.50%	14.50%	14.50%	14.50%	14.50%
<b>Return on Equity</b>	<b>23.14</b>	<b>24.23</b>	<b>25.82</b>	<b>26.53</b>	<b>26.68</b>
<b>Income Tax (MAT)</b>	<b>7.78</b>	<b>8.15</b>	<b>8.68</b>	<b>8.92</b>	<b>8.97</b>
<b>Return on Equity Including Income Tax</b>	<b>30.92</b>	<b>32.37</b>	<b>34.50</b>	<b>35.36</b>	<b>35.66</b>

### Commission's Analysis

- 6.78 The relevant Regulations related to return on equity and income tax on equity of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 is mentioned below.

#### “Return on Equity

10.19 The rate of return on equity shall be 14.50% (post-tax) for the Control Period.

10.20 Return on equity for each year shall be allowed on equity employed in assets in use considering the following:

a) Equity employed in accordance with Clause 10.16 of these Regulations on assets (in use) capitalised as on the beginning of the year; and

b) 50% of the equity projected to be employed in accordance with Clause 10.17 of these Regulations on assets (in use) commissioned during the year.

.....

### Income Tax

10.51 Tax on income, if any, on the Licensed business of the Licensee shall be limited to tax on the allowed return on equity.

10.52 The income tax actually payable or paid limited to the tax on allowed return on equity shall be included in the ARR while truing up. The actual assessment of income tax should take into account benefits of tax holiday, and the credit for carry forward losses applicable as per the provisions of the Income Tax Act, 1961 and its amendments thereof shall be passed on to the consumers. Tax on the other income streams of the Distribution Licensee shall not be recovered from the Beneficiaries.”

- 6.79 In accordance with the Tariff Regulations, 2020, the Commission has computed the normative Equity addition during the year equal to 30% of the approved capitalization after deducting assets funded out of CC.
- 6.80 The Opening Equity for FY 2020-21 has been considered as the closing Equity approved by the Commission in True up Order of FY 2019-20. Thereafter GFA addition and Consumer Contribution received during FY 2020-21 has been considered as per the APR Petition for FY 2020-21 as submitted by the Petitioner to arrive at Normative Equity addition for FY 2020-21. The closing Equity thus arrived for FY 2020-21 has been considered opening Equity for FY 2021-22.
- 6.81 The Commission has approved Return on Equity at 14.50% as per provisions of Regulation 10.19 of the JSERC Distribution Tariff Regulations, 2020.
- 6.82 The Commission has considered the IT at the rate of 25.17% (based on the prevailing Corporate IT Rate u/S 115BAA of the IT Act) for grossing up the RoE for each year of the Control Period, subject to prudence check at the time of Truing up.
- 6.83 The table below summarises the Return on Equity as approved by the Commission for the Control Period.

**Table 64: Return on Equity as approved by the Commission for Control Period (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Opening Equity (Normative)	158.43	159.78	173.40	181.65	183.15
Equity Addition	1.36	13.62	8.25	1.50	0.60
Closing Equity (Normative)	159.78	173.40	181.65	183.15	183.75
Average Equity	159.11	166.59	177.53	182.40	183.45
Rate of Return	14.50%	14.50%	14.50%	14.50%	14.50%
<b>Return on Equity</b>	<b>23.07</b>	<b>24.16</b>	<b>25.74</b>	<b>26.45</b>	<b>26.60</b>
Income Tax Rate	25.17%	25.17%	25.17%	25.17%	25.17%
Income Tax	<b>7.76</b>	<b>8.12</b>	<b>8.66</b>	<b>8.90</b>	<b>8.95</b>
<b>RoE including Income Tax</b>	<b>30.83</b>	<b>32.28</b>	<b>34.40</b>	<b>35.34</b>	<b>35.55</b>

## Interest on Working Capital

### Petitioner's Submission

6.84 The Petitioner submitted that it has arrived at Working Capital requirement based on the Tariff Regulations, 2020.

6.85 The SBI Bank Rate as on September 30, 2020 plus 350 basis points has been considered for computation of IoWC as given below:

**Table 65: Interest on Working Capital for Wheeling Business as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Receivables (2 months)	20.25	21.35	23.12	24.37	29.42
Maintenance Spares (1% of Opening GFA)	5.37	5.43	5.86	6.13	6.19
<b>Total Working Capital</b>	<b>25.62</b>	<b>26.78</b>	<b>28.98</b>	<b>30.50</b>	<b>35.61</b>
Interest Rate	10.50%	10.50%	10.50%	10.50%	10.50%
<b>Interest on Working Capital for Wheeling Business *</b>	<b>2.69</b>	<b>2.81</b>	<b>3.04</b>	<b>3.20</b>	<b>3.74</b>

**Table 66: Interest on Working Capital for Retail Supply Business as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Receivables (2 months)	250.95	248.48	249.35	259.54	272.13
Maintenance Spares (1% of Opening GFA)	0.60	0.60	0.65	0.68	0.69
Less: Security Deposit	30.59	32.12	33.72	35.41	37.18
Less: Power Purchase Cost (1 month)	121.63	120.19	120.34	125.13	129.11
<b>Total Working Capital</b>	<b>99.33</b>	<b>96.77</b>	<b>95.94</b>	<b>99.68</b>	<b>106.53</b>
Interest Rate	10.50%	10.50%	10.50%	10.50%	10.50%
<b>Interest on Working Capital for Retail Supply Business *</b>	<b>10.43</b>	<b>10.16</b>	<b>10.07</b>	<b>10.47</b>	<b>11.19</b>

\*Petitioner additional submission in letter dated February 17, 2021

### Commission's Analysis

6.86 The relevant Regulations related to Interest on Working Capital (IoWC) of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 is mentioned below.

#### *“Interest on Working Capital*

*10.30 Working capital for the Wheeling Business for the Control Period shall comprise:*

- a) Maintenance spares at 1% of Opening GFA of Wheeling Business; plus*
- b) Two months equivalent of the expected revenue from wheeling charges at the prevailing tariffs; minus*
- c) Amount, if any, held as security deposits.*

10.31 Working capital for the Retail Supply of Electricity for the Control Period shall comprise:

- a) Maintenance spares at 1% of Opening GFA for Retail Supply Business; plus
- b) Two months equivalent of the expected revenue from sale of electricity at the prevailing tariffs; minus
- c) Amount held as security deposits under Clause (a) and Clause (b) of subsection (1) of Section 47 of the Act from consumers and Distribution System Users net of any security held for Wheeling Business; minus
- d) One-month equivalent of cost of power purchased including the Inter-State and Intra-State Transmission Charges and Load Despatch Charges, based on the annual power procurement plan.

10.32 Rate of interest on working capital shall be equal to the Bank Rate as on September 30 of the financial year in which the MYT Petition is filed plus 350 basis points. At the time of true up, the interest rate shall be adjusted as per the actual rate prevailing on April 01 of the financial year for which truing up exercise has been undertaken.”

- 6.87 The Interest rate of SBI Bank Rate as on April 01, 2021 plus 350 basis points stand at 10.50%. Accordingly, the normative interest rate for the working Capital for each year of the Control Period is approved for Wheeling and Retail Supply Business.
- 6.88 Further, the Commission has segregated Interest on Working Capital into Wheeling and Supply Business as per allocation specified in Regulation 6.8 of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020
- 6.89 The Interest on Working Capital approved by the Commission for Wheeling and Retail Supply Business activity combined together is shown in the table below:

**Table 67: Interest on Working Capital as approved by the Commission for Control Period (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
<b>Wheeling Business</b>					
Maintenance Spares (1% of Opening GFA)	0.60	0.60	0.65	0.68	0.69
Receivables (2 months)	23.87	24.92	25.99	27.03	28.08
Less: Security Deposit					
Interest Rate	10.50%	10.50%	10.50%	10.50%	10.50%
<b>Interest on Working Capital on Wheeling Business</b>	<b>2.57</b>	<b>2.68</b>	<b>2.80</b>	<b>2.91</b>	<b>3.02</b>
<b>Retail Supply Business</b>					
Receivables (2 months)	214.79	224.30	233.92	243.26	252.69
Maintenance Spares (1% of Opening GFA)	5.37	5.43	5.85	6.12	6.18
Less: Security Deposit	30.91	31.56	32.23	32.93	33.65

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Less: Power Purchase Cost (1 month)	106.16	111.11	115.70	120.58	125.70
Interest Rate	10.50%	10.50%	10.50%	10.50%	10.50%
<b>Interest on Working Capital on Retail Supply Business</b>	<b>8.72</b>	<b>9.14</b>	<b>9.64</b>	<b>10.07</b>	<b>10.45</b>
<b>Interest on Working Capital</b>	<b>11.29</b>	<b>11.82</b>	<b>12.44</b>	<b>12.98</b>	<b>13.47</b>

## Non-Tariff Income

### Petitioner's Submission

6.90 The Petitioner has estimated the Non-Tariff Income for FY 2020-21 at Rs. 6.76 Crore in its APR Petition for FY 2020-21 and escalated with rate of 2.50% for each financial year for projecting the Non-Tariff Income for the Control Period as tabulated below.

**Table 68: Non-Tariff Income as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Non-Tariff Income	6.93	7.10	7.28	7.46	7.65

### Commission's Analysis

6.91 The relevant Regulations related to Non-Tariff Income (NTI) of JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 is mentioned below.

#### *“Non-Tariff Income*

*10.53 The amount of Non-Tariff Income relating to the Distribution Business as approved by the Commission shall be deducted from the ARR in determining the Retail Supply Tariff and Wheeling Charges of the Distribution Business:*

*Provided that the Distribution Licensee shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission.*

*10.54 The Non-Tariff Income shall include:*

- a) Income from rent of land or buildings;*
- b) Income from sale of scrap;*
- c) Income from investments;*
- d) Interest accrued on advances to suppliers/contractors;*
- e) Interest income on loans/advances to employees;*
- f) Income from rental of staff quarters;*
- g) Income by rental from contractors;*
- h) Income by hire charges from contractors and others;*
- i) Income from delayed payment surcharge, supervision charges, etc.;*

- j) Supervision charges for capital works;
- k) Income from recovery against theft and/or pilferage of electricity;
- l) Income from advertisements;
- m) Income from sale of tender documents;
- n) Profit from sale of Assets (i.e. difference of Sale value and Book value of Asset);
- o) Any other Non-Tariff Income:

*Provided that the interest earned from investments made out of Return on Equity corresponding to the regulated Business of the Distribution Licensee shall not be included in Non-Tariff Income.*

*Provided that the onus to substantiate, to the satisfaction of the Commission, that such investments have been out of Return on Equity shall be on the Licensee.”*

- 6.92 The Commission has considered the NTI as submitted by the Petitioner for the Control Period.
- 6.93 The Commission has provisionally approved the NTI for the Control Period, subject to truing up based on actuals.

**Table 69: Non-Tariff Income as approved by the Commission (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Non-Tariff Income	6.93	7.10	7.28	7.46	7.65

### Summary of ARR for the MYT Control Period from FY 2021-22 to FY 2025-26

#### *Petitioner’s Submission*

- 6.94 Based on the assumption and estimation, the Annual Revenue Requirement as projected by the Petitioner for the Control Period from FY 2021-22 to FY 2025-26 is as shown below.

**Table 70: Summary of ARR for the MYT Period as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Power Purchase Cost	1,459.59	1,442.28	1,444.09	1,501.59	1,549.27
O&M Expenses	95.57	103.01	113.43	123.76	133.69
Depreciation	29.45	30.95	32.92	33.76	33.95
Interest and Finance Charges	3.23	2.09	1.53	0.00	0.00
Interest on Consumer Security Deposit	2.29	2.38	2.51	2.65	2.78
Interest on Working Capital*	13.12	12.97	13.11	13.67	14.93
Return on Equity*	30.92	32.37	34.50	35.46	35.66
Less: Non Tariff Income	6.93	7.10	7.28	7.46	7.65
<b>Annual Revenue Requirement*</b>	<b>1,627.24</b>	<b>1,618.95</b>	<b>1,634.83</b>	<b>1,703.42</b>	<b>1,762.62</b>

\*Petitioner additional submission in letter dated February 17, 2021

### Commission's Analysis

6.95 The Commission has approved the ARR for the Control Period from FY 2021-22 to FY 2025-26 based on the components approved in this Order. The following table summarises the ARR for the Control Period as approved by the Commission:

**Table 71: Summary of ARR for the MYT Control Period as approved by the Commission (Rs. Crore)**

Particulars	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
Power Purchase Cost	1,273.88	1,333.35	1,388.43	1,446.98	1,508.44
O&M Expenses	95.22	96.69	101.42	104.32	106.56
Depreciation	21.80	22.83	24.33	24.99	25.14
Interest and Finance Charges	3.54	3.11	3.28	2.09	0.56
Interest on Consumer Security Deposit	2.29	2.38	2.43	2.49	2.54
Interest on Working Capital	11.29	11.82	12.44	12.98	13.47
Return on Equity	30.83	32.28	34.40	35.34	35.55
Less: Non Tariff Income	6.93	7.10	7.28	7.46	7.65
<b>Annual Revenue Requirement</b>	<b>1,431.92</b>	<b>1,495.36</b>	<b>1,559.45</b>	<b>1,621.74</b>	<b>1,684.60</b>

### Revenue at Existing Tariff

#### Commission's Analysis

6.96 The Commission has reassessed the Revenue from Sale of Power at the prevailing applicable Tariff and approves the revenue for Sale of Energy at prevailing Tariff for FY 2021-22 as shown below.

**Table 72: Revenue at existing tariff as approved by the Commission (Rs. Crore)**

Particulars	FY 2021-22
	Approved
Domestic-Rural & Urban	68.73
Domestic – DSHT	44.01
Commercial	37.11
LTIS	0.14
HTIS	1,125.40
Street Light	4.12
Temporary Supply	1.29
Sale to Other Licensee (JUSCO)	185.66
<b>Revenue at Existing Tariff</b>	<b>1,466.46</b>

### Summary of ARR and Gap/(Surplus) at Existing Tariff

#### Commission's Analysis

6.97 The Commission has approved the ARR for FY 2021-22 based on the components approved in this Order. The following table summarises the Gap/(Surplus) for FY 2021-22 as existing tariff.



**Table 73: Gap/(Surplus) at existing tariff as approved by the Commission (Rs. Crore)**

<b>Particulars</b>	<b>FY 2021-22</b>
	<b>Approved</b>
<b>Annual Revenue Requirement</b>	<b>1,431.92</b>
Revenue from Sales at Existing Tariff	1,466.46
<b>Revenue Gap/(Surplus)</b>	<b>(34.53)</b>

6.98 The Commission has approved the treatment of the Gap/(Surplus) at existing tariff in **Section A 7** of this Order.

## A 7 REVENUE GAP AND ITS TREATMENT

### Treatment of Revenue Gap/(Surplus)

#### Commission's Analysis

7.1 Based on the approved ARR and revenue from existing tariff, the Commission has approved the Revenue Gap/(Surplus) for FY 2021-22 as shown below:

**Table 74: Revenue Gap/(Surplus) approved by the Commission for FY 2021-22 at Existing Tariff (Rs. Crore)**

Particulars	FY 2021-22
	Approved
<b>Annual Revenue Requirement</b>	<b>1,431.92</b>
Revenue from Sales at Existing Tariff	1,466.46
<b>Revenue Gap/(Surplus)</b>	<b>(34.53)</b>

7.2 The Commission observes that the outstanding Gap of TSL has been consistently higher and due to carrying cost, the same cannot be liquidated unless a tariffs are hiked. In Order to liquidate the outstanding gap which is also mandated in the Tariff Policy, the Commission has decided to increase the tariff by 5.95% on overall basis.

7.3 Based on the approved ARR and revenue from proposed tariff, the Commission has approved the Revenue Gap/(Surplus) for FY 2021-22 as shown below:

**Table 75: Revenue Gap/(Surplus) approved by the Commission for FY 2021-22 at Proposed Tariff (Rs. Crore)**

Particulars	FY 2021-22
	Approved
<b>Annual Revenue Requirement</b>	<b>1,431.92</b>
Revenue from Sales at Proposed Tariff	1,553.71
<b>Revenue Gap/(Surplus)</b>	<b>(121.79)</b>

### Revenue Gap/(Surplus)

#### Petitioner's Submission

7.4 The Petitioner has considered the Revenue Gap/(Surplus) till FY 2018-19 as approved by the Commission in Tariff Order dated September 29, 2020 as base for the subsequent years.

7.5 The Petitioner further submitted that the Commission had not approved any carrying cost for the FY 2016-17 and FY 2017-18 on the ground of late submission for which the Petitioner has gone for Appeal before Hon'ble APTEL.

7.6 Based on the submission in this Petition, the cumulative Revenue Gap/(Surplus) till FY 2021-22 as projected by the Petitioner at proposed tariff is shown below:

**Table 76: Cumulative Gap/(Surplus) till FY 2021-22 as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2019-20	FY 2020-21	FY 2021-22
Opening Revenue Gap/(Surplus) as on 1 <sup>st</sup> April of FY	788.14	763.93	803.11
Revenue Gap/(Surplus) created during the year	(115.85)	(47.08)	(172.83)
Rate of Interest	12.55%	11.65%	11.65%
Carrying Cost on Opening Balance	98.91	89.00	93.56
Carrying Cost on Gap/(Surplus) during the FY	(7.27)	(2.74)	(10.07)
<b>Gap/(Surplus) including Carrying Cost</b>	<b>763.93</b>	<b>803.11</b>	<b>713.78</b>

\*Petitioner additional submission in letter dated February 17, 2021

7.7 The Petitioner has projected the cumulative Revenue Gap of Rs. 713.78 Crore till FY 2021-22 at proposed tariff. In order to liquidate this Revenue Gap in next four years a tariff increase of around 30% would be needed. However, if load factor rebate is corrected to be given only on incremental units, then a tariff increase of 20% would be needed to liquidate this gap in next four years.

7.8 Further, in order to also avoid tariff shock to its consumers in the license area, petitioner has requested for an increase of 10.68% increase in Tariff and also requested the Commission to reduce enhanced load factor rebate given to consumers in tariff order dated September 29, 2020.

### **Commission's Analysis**

7.9 The Commission has considered the opening Revenue Gap as Rs. 760.63 Crore till FY 2019-20 as approved in Tariff Order dated November 24, 2022.

7.10 With regards to carrying cost for FY 2016-17 and FY 2017-18, the Commission in its Order dated May 26, 2020 provides sufficient reasons for disallowing the carrying cost. The relevant extract is reproduced below:

*“5.96 As per MYT Distribution Regulations, 2015, the Petitioner is required to file the true up petition for FY 2016-17 latest by November 30, 2017 and true up for FY 2017-18 by November 30, 2018. The Commission observed that the Petitioner had failed to meet the timeline and filed the petition for truing up for FY 2016-17 & FY 2017-18 after the timelines mentioned in the regulation. Hence, the Commission has not considered the carrying cost on gap outstanding as on April 01, 2016.”*

7.11 Further, the Petitioner had filed an Appeal before the Hon'ble APTEL against the above said matter which is still pending. Since, the matter is sub-judice before the Hon'ble APTEL, the Commission has adopted the same methodology as approved in the previous Order for approving the carrying cost.

7.12 Based on the approved value of ARR for FY 2021-22, the cumulative Revenue Gap/(Surplus) approved by the Commission till FY 2021-22 at existing tariff is shown below:

**Table 77: Cumulative Gap/(Surplus) as approved by the Commission (Rs. Crore)**

<b>Particulars</b>	<b>FY 2019-20</b>	<b>FY 2020-21</b>	<b>FY 2021-22</b>
Opening Gap/(Surplus)	788.14	760.63	536.48
Gap/(Surplus) during FY	(118.95)	(295.55)	(34.53)
Rate of Carrying Cost (%)	12.55%	11.65%	10.50%
Carrying Cost on Opening Gap/(Surplus)	98.91	88.61	56.33
Carrying Cost on Gap/(Surplus) during FY	(7.46)	(17.22)	(1.81)
<b>Closing Gap/(Surplus)</b>	<b>760.63</b>	<b>536.48</b>	<b>556.46</b>

7.13 The Commission observed that Cumulative Revenue Gap till FY 2021-22 stands at Rs. 556.46 Crore.

7.14 The Tariff Schedule approved by the Commission for FY 2021-22 is detailed in **Section A12** of this Order.



## A 8 OPEN ACCESS CHARGES

- 8.1 As per Clause 2.2 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, the Commission shall determine wheeling tariff, cross-subsidy surcharge, additional surcharge and other Open Access (OA) related charges. The relevant extract of the Regulations has been reproduced below:

“2.2

..... Provided further that where any category of consumer has been permitted open access under Section 42 of the Act, the Commission shall determine the wheeling tariff, cross-subsidy surcharge, additional surcharge and other open access related charges in accordance with these Regulations and JSERC (Intra State Open Access) Regulations, 2016, as amended from time to time.”

- 8.2 As per the Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Intra-State Open Access) Regulations, 2016, the Open Access (OA) charge includes Wheeling Charges, Wheeling Losses, Cross Subsidy Surcharge, and Additional Surcharge.
- 8.3 The Petitioner has submitted its proposal for the determination of Wheeling Charge, Cross Subsidy Surcharge and Additional Surcharge for FY 2021-22. The following Sections summarize the Petitioner’s submission and Commission’s analysis thereof:

### Wheeling Charges

#### *Petitioner’s Submission*

- 8.4 The Petitioner submitted that it has considered the allocation ratio for Wheeling and Retail Supply business in line with Regulation 6.8 of JSERC Distribution Tariff Regulations, 2020.
- 8.5 Based on the above said Regulations, the Petitioner has segregated each component of ARR into Wire and Supply Business for FY 2021-22. The Petitioner has proposed Wheeling Charge for FY 2021-22 as Rs. 0.41/kWh considering ARR for Wheeling Business as Rs. 114.51 Crore and sales as 2,763.25 MU.

#### *Commission’s Analysis*

- 8.6 According to Regulations 6.5 to 6.8 of the Distribution Tariff Regulations, 2020, the Petitioner is required to segregate the accounts of the Licensed Business into Wheeling Business and Retail Supply Business. In absence of segregated accounts, the Petitioner is required to submit an allocation statement duly approved by the Board of Directors

accompanied with an explanation of the basis and methodology used for segregation. The relevant extract of the Regulations has been reproduced hereunder:

***“Segregation of Retail Supply and Wheeling Business***

*6.5 The Licensee shall segregate the accounts of the Licensed Business into Wheeling Business and Retail Supply Business.*

*6.6 The ARR for Wheeling Business shall be used to determine Wheeling Tariff and the ARR for Retail Supply Business shall be used to determine Retail Supply Tariff.*

*6.7 For such period until accounts are segregated, the Licensee shall prepare an Allocation Statement to apportion costs and revenues to respective business. The Allocation Statement, approved by the Board of Directors of the Licensee, shall be accompanied with an explanation of the basis and methodology used for segregation, which should be consistent over the Control Period.*

*6.8 In case clear and reasoned methodology for allocation is not submitted by the Distribution Licensee, the Commission may consider the segregation as approved for the previous Control Period as specified below or may decide on the manner in which such allocation can be done:*

<b>Particulars</b>	<b>Share of Supply Business</b>	<b>Share of Wires Business</b>
O&M Cost		
<i>Employee cost</i>	<i>40%</i>	<i>60%</i>
<i>A&amp;G Expense</i>	<i>50%</i>	<i>50%</i>
<i>R&amp;M Cost</i>	<i>10%</i>	<i>90%</i>
Power Purchase (Including PGCIL & RLDC Charges)	100%	0%
Interest on security deposit	100%	0%
Interest Cost	10%	90%
Interest on working capital	90%	10%
Taxes on Income	10%	90%
Depreciation	10%	90%
Return on Equity	10%	90%
Less: Non-Tariff/Other Income	90%	10%

.....”

- 8.7 The Commission vide its letter dated February 02, 2021, directed the Petitioner to submit the voltage-wise losses, GFA and sales details for calculation of voltage-wise Wheeling Charges and Cross Subsidy Surcharge.
- 8.8 The Petitioner in its reply dated February 15, 2021 submitted the estimated value of voltage-wise Assets, sales and losses for FY 2021-22 based on estimated numbers submitted in MYT Petition and Business Plan. The Commission has considered the

above detail submitted by the Petitioner while approving the voltage-wise Wheeling Charge and Cross Subsidy Surcharge.

8.9 The segregation of ARR into Wires and Supply Business as approved by the Commission for FY 2021-22 is shown below:

**Table 78: Segregation of ARR for FY 2021-22 as approved by the Commission (Rs. Crore)**

Particulars	Share of Wire Business (%)	Share of Supply Business (%)	ARR (Rs. Cr)	Wire Business ARR (Rs. Cr)	Supply Business ARR (Rs. Cr)
Power Purchase Cost	-	100%	1,273.88	0.00	1,273.88
Employee Expenses	60%	40%	30.38	18.23	12.15
A&G Expenses	50%	50%	31.92	15.96	15.96
R&M Expenses	90%	10%	32.92	29.63	3.29
Depreciation	90%	10%	21.80	19.62	2.18
Interest and Finance Charges	90%	10%	3.54	3.19	0.35
Interest on Security Deposit	-	100%	2.29	0.00	2.29
Interest on Working Capital	10%	90%	11.29	2.57	8.72
Return on Equity	90%	10%	30.83	27.75	3.08
Non-Tariff Income	10%	90%	6.93	0.69	6.24
<b>Annual Revenue Requirement</b>	-	-	<b>1,431.92</b>	<b>116.25</b>	<b>1,315.67</b>
Approved Sales (MU)	-	-	-	2,640.25	-

8.10 In the absence of asset register, to estimate the ratio of fixed assets at various voltage levels, the Commission has considered the network details of the Petitioner as submitted on February 15, 2021 and has pro-rated it in the same ratio to arrive voltage wise classification of Assets for FY 2021-22. The 400 kV asset and common assets are distributed among the other voltage level assets based on the estimated sales for FY 2021-22.

**Table 79: Asset ratio and Sales ratio as approved by the Commission (Rs. Crore)**

Voltage Level	Asset Segregation	Asset Segregation (%)	Segregation of ARR	Sales (%)
LT	109.72	18.20%	21.16	11.04%
HT (upto 11kV)	99.80	16.55%	19.24	10.35%
HT (above 11 kV)	393.42	65.25%	75.85	78.61%
<b>Total</b>	<b>602.95</b>		<b>116.25</b>	

8.11 Based on the above, the Voltage-wise Wheeling Charges for FY 2021-22 as approved by the Commission has been tabulated below:

**Table 80: Cost Stacking for FY 2021-22 as approved by the Commission (Rs. Crore)**

Voltage level	Voltage-wise ARR Allocation	Cost Stacking on the basis of Energy Sales		
		LT	HT (up to 11 kV)	HT (33kV & above)
LT	21.16	21.16	-	-
HT (upto 11kV)	19.24	9.93	9.31	-
HT (above 11kV)	75.85	8.38	7.85	59.62
<b>Total</b>	<b>116.25</b>	<b>39.47</b>	<b>17.16</b>	<b>59.62</b>

**Table 81: Wheeling Tariff for FY 2021-22 as approved by the Commission (Rs. Crore)**

Voltage Category	ARR (Rs. Crore)	Sales (MU)	Wheeling Tariff (Rs./kWh)
LT	39.47	291.61	<b>1.35</b>
HT (up to 11kV)	17.16	273.26	<b>0.63</b>
HT (above 11kV)	59.62	2,075.39	<b>0.29</b>

**Cross Subsidy Surcharge****Petitioner's Submission**

8.12 The Petitioner calculated the Cross-Subsidy Surcharge as per the methodology outlined in Tariff Policy, 2016. The methodology keeps the interest of Distribution Companies as well as consumers in mind while determining a mathematical formula, thus, ensuring that competition in electricity through OA is not constrained.

Surcharge formula:

$$S = T - [C / (1 - L/100) + D + R]$$

Where,

S is the surcharge;

T is the tariff payable by the relevant category of consumers, including reflecting the Renewable Purchase Obligation;

C is the per unit weighted average cost of power purchase by the Licensee, including meeting the Renewable Purchase Obligation;

D is the aggregate of transmission, distribution and wheeling charge applicable to the relevant voltage level;

L is the aggregate of transmission, distribution and commercial losses, expressed as a percentage applicable to the relevant voltage level;

R is the per unit cost of carrying regulatory assets:

Provided that the surcharge shall not exceed 20% of the tariff applicable to the category of the consumers seeking open access.

8.13 In line with the above formula and methodology adopted by the Commission in previous Tariff Orders, Cross-Subsidy Surcharge is calculated as per table below based on proposed tariff:

**Table 82: Cross Subsidy Surcharge for FY 2021-22 as submitted by the Petitioner (Rs./kWh)**

Consumer Category	Voltage Level	T-Tariff Payable ABR (Rs/kWh)	C-PPC (Rs/kWh)	L-System losses (%)	D-Wheeling Charge (Rs./kWh)	Cross Subsidy Surcharge (Rs./kWh)
Domestic	LT	4.76	5.02	11.00%	0.41	(1.30)
Commercial	LT	5.56	5.02	11.00%	0.41	(0.50)
Domestic – HT	HT	6.13	5.02	2.20%	0.41	0.58
Industrial- THIS	6.6 kV HT	7.08	5.02	2.20%	0.41	1.53
	33 kV HT	7.08	5.02	1.95%	0.41	1.54
	132 kV HT	7.08	5.02	0.70%	0.41	1.61

Consumer Category	Voltage Level	T-Tariff Payable ABR (Rs/kWh)	C-PPC (Rs/kWh)	L-System losses (%)	D-Wheeling Charge (Rs./kWh)	Cross Subsidy Surcharge (Rs/kWh)
Street Lighting	LT	6.69	5.02	11.00%	0.41	0.63
Railway Traction Services	LT	7.08	5.02	2.20%	0.41	1.53
Military Engineering Services	6.6 kV HT	6.69	5.02	2.20%	0.41	1.14
LTIS	LT	7.08	5.02	11.00%	0.41	1.54

### Commission’s Analysis

8.14 As per Clause 21.5 of the Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Intra-State Open Access) Regulations, 2016:

*“The Cross-subsidy surcharge shall be determined by the Commission in accordance with the principles and formula stipulated in the National Tariff Policy and shall be leviable at the rate as determined by the Commission from time to time.”*

8.15 The Commission has considered the JSERC (Terms and Conditions for Intra-State Open Access) Regulations, 2016 and Tariff Policy, 2016 while approving the Cross-Subsidy Surcharge (CSS). The Commission has also taken into account that the CSS shall not exceed 20% of the tariff applicable to the category of the consumers seeking OA. Accordingly, the CSS approved by the Commission for FY 2021-22 is shown below.

**Table 83: Cross Subsidy Surcharge approved by the Commission for FY 2021-22 (Rs./kWh)**

Category	ABR (T) Rs./kWh	APPC THIS Rs./kWh	Losses (L) %	Charges (D) Rs./kWh	Reg. Assets (R) Rs./kWh	CSS Rs./kWh
HT (upto 11kV)	6.18	4.64	3.38%	0.63	0.00	<b>0.74</b>
HT (above 11kV)	6.11	4.64	2.60%	0.29	0.00	<b>1.05</b>

### Additional Surcharge

#### Petitioner’s Submission

8.16 The Petitioner submitted that Section 8.5 of the Tariff Policy 2016 deals with applicability of Additional Surcharge to be paid by OA consumers, as reproduced below:

*“8.5.4 The additional surcharge for obligation to supply as per section 42(4) of the Act should become applicable only if it is conclusively demonstrated that the obligation of a licensee, in terms of existing power purchase commitments, has been and continues to be stranded, or there is an unavoidable obligation*



*and incidence to bear fixed costs consequent to such a contract. The fixed costs related to network assets would be recovered through wheeling charges.”*

- 8.17 The Petitioner requested for determination of Additional Surcharge on case-to-case basis and requested permission to approach the Commission for the same at appropriate time within the given provisions of applicable Regulations.

***Commission’s Analysis***

- 8.18 Considering the plea of the Petitioner, the Commission has not approved any Additional Surcharge and directs the Petitioner to approach this Commission separately in this matter, if required.

**Regulatory Surcharge for Open Access Consumers**

***Petitioner’s Submission***

- 8.19 The Petitioner submitted that a Regulatory Asset Surcharge ought to be levied on OA consumers to protect the interest of other consumers who shall continue to take power from the Licensee.
- 8.20 The Petitioner has proposed liquidation of meagre amount of Regulatory Assets. Therefore, the Petitioner has not calculated the category-wise Regulatory Asset Surcharge and requested the Commission to allow to charge the Regulatory Asset Surcharge as approved in the Order dated May 18, 2018 in case any OA consumer approaches the Petitioner or as may be determined by Commission in upcoming Tariff Orders.

***Commission’s Analysis***

- 8.21 The Commission notes that there is a Revenue Gap to be recovered by the Petitioner. However, the Commission is of the view that such surcharge is not required under the present circumstances as the tariff hikes will result in liquidation of such gap in this control period.

## A 9 OTHER TARIFF RELATED ISSUES

### Tariff Rationalisation

#### *Petitioner's Submission*

- 9.1 The Petitioner submitted that the existing average tariffs for domestic category is highly cross-subsidized and much lower than the average cost of supply. The current Tariff in Domestic category is also ineffective in bringing out efficient use of electricity. Hence, the Petitioner proposes to make tariff for domestic category closer to Average cost of Supply.
- 9.2 The Petitioner stated that presently there is no Irrigation and Agriculture Services (IAS) category consumer and proposed to approve the tariff of IAS Consumers in line with ACoS.
- 9.3 The Petitioner suggested that for the purpose of tariff alignment, in line with National Tariff Policy, the fixed part of tariff needs to be revised upward to make it more realistic and closer to ACoS.
- 9.4 The Petitioner further submitted that since Domestic Tariff is highly subsidised, therefore, the Commercial Consumers having Connected Load less than 5 kW should not be categorised/Billed at Domestic tariff for their Commercial purposes. Unlike Domestic Consumer, Commercial Consumers have the option to charge the input cost (including cost of electricity) to their end products and therefore providing subsidised tariff to Commercial Consumers is against the reasonably accepted principles. Therefore, the Petitioner proposes to de-classify Commercial and Industrial Consumers having connected load below 5 kW from Domestic Category to category specified as per applicability clause of respective consumer category.
- 9.5 The Petitioner has proposed Load Factor (LF) Rebate of 7.50% for LF between 60%-70% and 10.00% for LF above 70%. Further, the LF rebate should be applicable only on incremental units consumed above 60% LF by consumers above cut-off level and not on cumulative units consumed.
- 9.6 The Petitioner has further proposed to increase the penalty for deviation from Contracted Demand to 200% for deviation in more than three months in a Financial Year in place of the existing penalty of 150%.
- 9.7 Beside this, the Petitioner has proposed to revise the Connected Load of LTIS, in case the actual recorded demand is more than 100 kVA in any month and treat the same as new Contract Demand for future billing. Further, the LTIS consumer will be billed at 1.1 times of HT rates till such time, the consumer doesn't convert to HT Supply.



- 9.8 Further, the Petitioner proposed to revise the billing demand of LTIS consumers to be the maximum demand recorded during the month or 75% of contract demand whichever is higher.
- 9.9 Furthermore, the Petitioner has proposed Power Factor Penalty for consumers having kWh based billing.
- 9.10 The Petitioner has proposed to revise Delayed Payment Surcharge (DPS) from 1.00% per month and part thereof to 1.5% per month and part thereof for all categories of consumers. In addition to upward revised, the Petitioner proposes to revise the due date for making payment of energy bills/other charges to 15 days for LT Domestic, Commercial and Agriculture category and 21 days after issue date of bill for other categories as stipulated in the JSERC (Supply Code) Regulations, 2015 and its amendments.
- 9.11 The Petitioner further has proposed Voltage Rebate only for 33kV and 132 kV. However, the Petitioner has proposed the Voltage Rebate to be applicable only on Energy Charges instead of Fixed Charges and Energy Charges.
- 9.12 In addition to above submission, the Petitioner has proposed to reduce the Prompt Payment rebate from 1.00% to 0.50% on the billed amount for payment of the bills within ten days of issue date of bill for all the category of consumers. Further, the Petitioner has also proposed to restrict the rebate for online payment to maximum of Rs. 250 against 1.00% of billed amount.

### ***Commission's Analysis***

- 9.13 The Commission has simplified the tariff and wherever necessary has rationalized the tariff structure in line with the Tariff Policy, 2016 with an intent to gradually move towards cost reflective tariff.
- 9.14 The Commission has approved the tariff of Irrigation and Agriculture Services (IAS) category consumer in line with ACoS.
- 9.15 The Commission, in its Tariff Order dated September 29, 2022 has specified the reasons for re-categorisation and billing Commercial Consumers having Contracted Demand (CD) up to 5 kW as per Domestic Tariff. Therefore, in line with the view taken in its earlier order the Commission has retained the billing of Commercial Consumers having Connected Load up to 5 kW as per Domestic Tariff in this order.
- 9.16 With regard to Load factor Rebate, the Commission observes that energy consumption for different categories of consumers are in the process to reach pre-pandemic levels and with anticipated economic growth during the Control Period, the one-time measures that were taken its order dated September 29, 2020 to speed up the economic



- recovery process needs to be withdrawn. Therefore, the Commission has modified the Load Factor Rebate mechanism in this order. The Commission has approved the Load Factor Rebate of 7.50% for LF between 60%-70% and 10.00% for LF above 70% shall be applicable for the consumers. Further, the Load Factor rebate shall be applicable to all the consumers only on incremental units consumption whose load factor exceeds 60%.
- 9.17 With regard to penalty for exceeding contract demand, the Commission has taken note of the Petitioner submission however, considering the specific provisions in the Supply Code has retained the existing provision of penalty for deviation from Contracted Demand.
- 9.18 With regard to modification suggested in the billing demand of LTIS consumer, the Commission finds no merit in Petitioner's proposal of increasing the same to 75% of the Contract Demand or actual demand recorded which ever is higher.
- 9.19 The Commission has approved Delayed Payment Surcharges as specified in Clauses 10.75 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020.
- 9.20 The Commission has modified the Voltage rebate considering the prevalent market scenario. The Voltage rebate shall be applicable only for 33kV and 132 kV as per the JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time. Further, voltage rebate shall be applicable only on energy charges.
- 9.21 The Commission in its order dated September 29, 2020 stated that PF Rebate/Surcharge are no longer relevant as metering is done in kWh only for LT Domestic, LT Commercial, LT IAS and LT Streetlight consumers. In addition to this, the Commission stated that the LT Commercial consumers are to install capacitors to maintain Power Factor as per the Supply Code Regulations, hence, PF rebate is no more relevant and is thus, withdrawn. In line with its view taken earlier the Commission do not approve Power Factor Penalty for consumers having kWh based billing.
- 9.22 The Commission has modified the Rebate on Prompt payment as specified in Clauses 10.76 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020.
- 9.23 The Commission has modified the Online Payment rebate, a rebate of 1.00% shall be allowed on the billed amount for payment within the due date of the entire billed amount made either through online or any digital mode or through cash subject to a maximum ceiling rebate of Rs. 250 against the billed amount.



- 9.24 Further, the Commission has modified the due date for making payment of energy bills or other charges as specified in Clauses 10.1.5 of the JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time.
- 9.25 The Commission has approved Terms and Conditions of Supply consistent with JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time.



## A 10 APPROVED RETAIL TARIFF FOR FY 2021-22

### Petitioner's Submission

10.1 The summary of Tariff proposed by the Petitioner is provided below:

**Table 84: Summary of Tariff Proposed by the Petitioner for FY 2021-22**

Consumer Category	Consumption Slab	Existing Tariff		Proposed Tariff	
		Fixed/Demand Charges	Energy Charges	Fixed/Demand Charges	Energy Charges
Domestic (Fixed Charge: Rs./Conn./Month, Energy Charge: Rs./kWh)					
LT-Rural	0-100 units	20	2.60	25	3.25
	Above 100 units	50	4.55	55	6.00
LT-Urban	0-100 units	20	2.60	25	3.25
	Above 100 units	50	4.55	55	6.00
Domestic-HT (Fixed Charge: Rs./kVA/Month, Energy Charge: Rs./kVAh)					
DS-HT	All units	60	4.20	65	5.10
Commercial Service (Fixed Charge: Rs./kW/Month, Energy Charge: Rs./kWh)					
CS-Rural	All units	100	5.25	110	5.75
CS-Urban	All units	100	5.25	110	5.75
IAS (Fixed Charge: Rs./HP/Month, Energy Charge: Rs./kWh)					
IAS	All units	20	4.50	50	6.00
Industrial Services (Fixed Charge: Rs./kVA/Month, Energy Charge: Rs./kVAh)					
LTIS	All units	130	5.00	135	5.25
Industrial Services (Fixed Charge: Rs./kVA/Month, Energy Charge: Rs./kVAh)					
HTS	All units	350	5.85	385	6.45
Streetlight Services (Fixed Charge: Rs./kW/Month, Energy Charge: Rs./kWh)					
Streetlight	All units	100	5.50	110	5.55
Institutional Services (Fixed Charge: Rs./kVA/Month, Energy Charge: Rs./kVAh)					
RTS, MES and Other Distribution Licensees	All units	350	5.70	375	6.00

**Commission’s Analysis**

10.2 Based on the above discussions, the summary of Tariff approved by the Commission for FY 2021-22 is as mentioned below:

**Table 85: Summary of Tariff Approved by the Commission for FY 2021-22**

Consumer Category	Consumption Slab	Existing Tariff		Approved Tariff	
		Fixed/Demand Charges	Energy Charges	Fixed/Demand Charges	Energy Charges
Domestic (Fixed Charge: Rs./Conn./Month, Energy Charge: Rs./kWh)					
LT-Rural	0-100 units	20	2.60	20	2.80
	Above 100 units	50	4.55	55	4.95
LT-Urban	0-100 units	20	2.60	20	2.80
	Above 100 units	50	4.55	55	4.95
Domestic-HT (Fixed Charge: Rs./kVA/Month, Energy Charge: Rs./kVAh)					
DS-HT	All units	60	4.20	65	4.55
Commercial Service (Fixed Charge: Rs./kW/Month, Energy Charge: Rs./kWh)					
CS-Rural	All units	100	5.25	105	5.55
CS-Urban	All units	100	5.25	105	5.55
IAS (Fixed Charge: Rs./HP/Month, Energy Charge: Rs./kWh)					
IAS	All units	20	4.50	20	5.00
Industrial Services (Fixed Charge: Rs./kVA/Month, Energy Charge: Rs./kVAh)					
LTIS	All units	130	5.00	135	5.25
Industrial Services (Fixed Charge: Rs./kVA/Month, Energy Charge: Rs./kVAh)					
HTS	All units	350	5.85	360	6.20
Streetlight Services (Fixed Charge: Rs./kW/Month, Energy Charge: Rs./kWh)					
Streetlight	All units	100	5.50	110	5.85
Institutional Services (Fixed Charge: Rs./kVA/Month, Energy Charge: Rs./kVAh)					
RTS, MES and Other Distribution Licensees	All units	350	5.70	360	6.05

## A 11 SCHEDULE OF CHARGES

### Petitioner's Submission

11.1 The Petitioner has proposed no change in the Schedule for Miscellaneous Charges and requested the Commission to retain the same as approved by Corrigendum Order dated October 19, 2020 as shown below:

**Table 86: Miscellaneous Charges as proposed by the Petitioner for FY 2021-22**

Sl. No.	Purpose	Scale of Charges	Payment Realisation
<b>1.</b>	<b>Application Fee</b>		
	LT Connection	Rs.100	Payable with Energy Bill
	HT Connection	Rs. 500	
<b>2</b>	<b>Revision of Estimate on Consumer Request based on Revision in Original Application</b>		
	LT Connection	Rs. 100	Payable with Energy Bill
	HT Connection	Rs. 500	
<b>3</b>	<b>Testing of Consumers Installation<sup>1</sup></b>		
	LT Supply	Rs. 100	Payable with Energy Bill
	HT Supply	Rs. 500	
<b>4</b>	<b>Meter Test when Accuracy disputed by Consumer<sup>2</sup></b>		
	Single Phase/Three Phase	Rs. 100	Payable with Energy Bill
	Trivector/Special Type Meter, HT, EHT Metering Equipment	Rs. 1000	
<b>5</b>	<b>Removing/Refixing of Meter/Changing of Meter or Meter Equipment/Fixing of Sub Meter on the request of the Consumer/Fixing of Sub Meter Resealing of Meter when seals are found broken</b>		
	Single Phase/Three Phase	Rs. 200	Payable with Energy Bill
	Trivector/Special Type Meter, HT, EHT Metering Equipment	Rs. 1000	
<b>6</b>	<b>Fuse call-Replacement</b>		
	Consumer Fuse	Rs. 100	Payable with Energy Bill
<b>7</b>	<b>Disconnection/ Reconnection</b>		
	LT Connection	Rs. 200	Payable in advance along with the Consumer request. In case, the same consumer is reconnected or disconnected within 12 months, 50% will be charged extra.
	HT Connection	Rs. 1500	
<b>8</b>	<b>Replacement of meter card, if lost or damaged by Consumer</b>	Rs. 100	Payable with Energy Bill
<b>9</b>	<b>Security Deposit</b>	As per JSERC (Electricity Supply Code) Regulations, 2015 as amended from time to time	
<b>10</b>	<b>Replacement of Burnt Meter</b>	Cost of Meter	Payable with Energy Bill
<b>11</b>	<b>Transformer Rent<sup>3</sup></b>		



Sl. No.	Purpose	Scale of Charges	Payment Realisation
	Upto 200 kVA	Rs. 5500/Month	Payable with Energy Bill
	Above 200 kVA	Rs. 7500/Month	Payable with Energy Bill

<sup>1</sup>First test & 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.

<sup>2</sup>If the meter is found defective within the meaning of the Indian Electricity Rules 1956, no charge shall be levied. If it is proved to be correct within the permissible limits laid down in the Rules, the amount will be charged in the next energy bill.

<sup>3</sup>Applicable for 6 month duration from the date of taking the transformer on rent, thereafter monthly escalation of 10% would be applicable.

### Commission's Analysis

11.2 The Commission has analysed the various aspects of these charges and the Schedule of Miscellaneous Charges applicable to other Distribution Licensee in the State of Jharkhand. The Commission observes that the Schedule of Miscellaneous Charges are already specified in the JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time. However, since the Commission has approved the Miscellaneous Charges in the Corrigendum Order dated October 19, 2020, the Commission has not approved any change in Miscellaneous Charges in this Order as reiterated in **Section A 12** of this Order and any changes in the Charges shall be revised in the amendment of the Supply Code Regulations.

## **A 12 TARIFF SCHEDULE**

**APPLICABLE FROM 01.12.2022**

### **Consumer Tariff**

#### **Ceiling Tariff**

The Tariffs approved below are Ceiling Tariffs and the Licensees are at the liberty to Supply at lower and more competitive rates based on the requirement of the Consumers. However, this reduced recovery shall be attributable to the Licensee and shall not be recoverable in the ARR.

#### **Domestic Service - Rural and Urban**

##### **Applicability:**

This schedule shall apply to private residential premises for domestic use for household electric appliances such as Radios, Fans, Televisions, Desert Coolers, Air Conditioner, etc., and including motor 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, Burial/Crematorium grounds, Rural Drinking Water Schemes and other recognised charitable institutions, where no rental/fees are charged for the energy needs and for its products and services.

This rate is also applicable for all consumers with contracted demand of up to 5 kW mixed, commercial, industrial, educational institutions, drinking water schemes or for any other purpose, except streetlight connections and agriculture/allied connections.

##### **Category of Services:**

Domestic Service-Rural areas not covered by Nagar Nigam, Nagar Parishad and Nagar Panchayat.

Domestic Service -Urban: areas covered by Nagar Nigam, Nagar Parishad and Nagar Panchayat.

##### **Service Character:**

- (i) For Rural: AC, 50 Cycles, Single Phase at 230 Volts, Three Phase at 400 Volts.
- (ii) For Urban: AC, 50 Cycles, Single Phase at 230 Volts, Three Phase at 400 Volts.



**Tariff:**

Category	Fixed Charges		Energy Charges
	Unit	Rate	(Rs./kWh)
LT-Rural/Urban (0-100 Units)	Rs./conn./month	20	2.80
LT-Rural/Urban (>100 Units)	Rs./conn./month	55	4.95

**Delayed Payment Surcharge:** In accordance with **Clause III: Delayed Payment Surcharge** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Rebate for Prompt Payment:** In accordance with **Clause VIII: Prompt Payment Rebate** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

## Domestic Service - HT

### Applicability:

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

### Category of Services:

Domestic Service- 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 6.6 kV, 33kV or 11kV voltage level. DS-HT consumers, who supply power to individual households, the average per unit charges billed to an individual consumer shall not exceed 105% of average per unit cost paid to the Petitioner. This additional 5% allowed reflects the internal distribution losses in housing complex and administrative and distribution costs.

### Service Character:

For HT: AC, 50 Cycles, at 6.6 kV, 11 kV or 33 kV

### Tariff:

Category	Fixed Charges		Energy Charges
	Unit	Rate	(Rs./kVAh)
DS-HT	Rs./kVA/month	65	4.55

**Billing Demand:** 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: Penalty for exceeding Billing/Contract Demand** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Delayed Payment Surcharge:** In accordance with **Clause III: Delayed Payment Surcharge** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Rebate for Prompt Payment:** In accordance with **Clause VIII: Prompt Payment Rebate** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

## Irrigation & Agriculture Service (IAS)

### Applicability:

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

### Service Character:

AC 50 Cycles, Single Phase at 230 Volts/Three Phase at 400 Volts

### Tariff:

Category	Fixed Charges		Energy Charges
	Unit	Rate	(Rs./kWh)
IAS	Rs./HP/month	20	5.00

**Delayed Payment Surcharge:** In accordance with **Clause III: Delayed Payment Surcharge** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Rebate for Prompt Payment:** In accordance with **Clause VIII: Prompt Payment Rebate** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

## **Commercial Services**

### **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, public Electric Vehicles Charging stations and such other installations not covered under any other tariff schedule whose contracted demand is greater than 5 kW and less than or equal to 100 kVA (or equivalent in terms of HP or kW). The equivalent HP for 100 kVA shall be 114 HP and the equivalent kW for 100 kVA shall be 85 kW.

This schedule shall also be applicable to 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 whose Connected Load/Contracted Demand is greater than 5 kW and less than or equal to 100 kVA (or equivalent in terms of HP or kW). The equivalent HP for 100 kVA shall be 114 HP and the equivalent kW for 100 kVA shall be 85 kW.

### **Service Category:**

Commercial Service-Rural: Areas not covered by area indicated for Commercial Service Urban.

Commercial Service-Urban: Areas covered by Nagar Nigam, Nagar Parishad, Nagar Panchayat.

### **Service Character:**

Rural: AC 50 Cycles, Single phase at 230 Volts or Three Phase at 400 Volts.

Urban: AC 50 Cycles, Single phase at 230 Volts or Three Phase at 400 Volts.



**Tariff:**

Category	Fixed Charges		Energy Charges
	Unit	Rate	(Rs./kWh)
CS-Rural/Urban	Rs./kW/month	105	5.55

**Billing Demand:** The Billing Demand shall be the Maximum Demand recorded during the month or 50% of Contract Demand, whichever is higher. The penalty on exceeding Contract Demand will be applicable in accordance with **Clause I: Penalty for exceeding Billing/Contract Demand** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order. In case Recorded Demand is more than 100 kVA/85 kW for any month for more than three instances within a Financial Year, the average of the Maximum Demand recorded during such instances 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.

**Delayed Payment Surcharge:** In accordance with **Clause III: Delayed Payment Surcharge** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Installation of Shunt Capacitors:** In accordance with **Clause VI: Installation of Shunt Capacitors** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Rebate for Prompt Payment:** In accordance with **Clause VIII: Prompt Payment Rebate** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

## Low Tension Industrial Services

### Applicability:

**Low Tension Industrial Service (LTIS):** This schedule shall apply to all industrial units having a contracted load more than 5 kW and less than or equal to 100 kVA (or equivalent in terms of HP or kW). The equivalent HP for 100 kVA shall be 114 HP and the equivalent kW for 100 kVA shall be 85 kW.

### Service Character:

**Low Tension Industrial Service (LTIS):** AC, 50 Cycles, Single Phase supply at 230 Volts or Three Phase Supply at 400 Volts.

### Tariff:

Category	Fixed Charges		Energy Charges
	Unit	Rate	(Rs./kVAh)
LTIS	Rs./kVA/month	135	5.25

**Billing Demand:** The Billing Demand shall be the Maximum Demand recorded during the month or 50% of Contract Demand, whichever is higher. The penalty on exceeding Contract Demand will be applicable in accordance with **Clause I: Penalty for exceeding Billing/Contract Demand** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order. In case Recorded Demand is more than 100 kVA/85 kW for any month for more than three instances within a Financial Year, the average of the Maximum Demand recorded during such instances 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.

**Delayed Payment Surcharge:** In accordance with **Clause III: Delayed Payment Surcharge** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Installation of Shunt Capacitors:** In accordance with **Clause VI: Installation of Shunt Capacitors** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Rebate for Prompt Payment:** In accordance with **Clause VIII: Prompt Payment Rebate** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

## HT Services

### Applicability:

**High Tension Service (HTS):** All the consumers drawing power at voltage level at 6.6 kV and above except Domestic-HT and HT- Institutional Consumers.

### Service Character:

**High Tension Service (HTS):** 50 Cycles, Three Phase at 6.6 kV/11 kV/33 kV/132 kV/220 kV/400 kV

### Tariff:

Category	Fixed Charges		Energy Charges
	Unit	Rate	(Rs.kVAh)
HTS	Rs./kVA/month	360	6.20

**Billing Demand:** The Billing Demand shall be the Maximum Demand recorded during the month or 75% of Contract Demand, whichever is higher. The penalty on exceeding Contract Demand will be applicable in accordance with **Clause I: Penalty for exceeding Billing/Contract Demand** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Load Factor Rebate:** In accordance with **Clause V: Load Factor Rebate** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Voltage Rebate:** In accordance with **Clause IV: Voltage Rebate** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Delayed Payment Surcharge:** In accordance with **Clause III: Delayed Payment Surcharge** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Rebate for Prompt Payment:** In accordance with **Clause VIII: Prompt Payment Rebate** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**TOD Tariff:** In accordance with **Clause VII: ToD Tariff** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

## Street Light

This tariff schedule shall apply for use of Street Lighting system.

### Applicability:

**Street Light Service (SS):** 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.

### Service Character:

**Street Light Service (SS):** AC, 50 cycles, Single phase at 230 Volts or Three phase at 400 Volts

### Tariff:

Category	Fixed Charges		Energy Charges
	Unit	Rate	(Rs./kWh)
Streetlight	Rs./kW/month	110	5.85

**Delayed Payment Surcharge:** In accordance with **Clause III: Delayed Payment Surcharge** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Rebate for Prompt Payment:** In accordance with **Clause VIII: Prompt Payment Rebate** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

## HT Institutional Services

This tariff schedule shall apply for use of Railway Traction, Military Engineering Services and Other Distribution Licensees.

### Applicability:

**Railway Traction (RTS) and Military Engineering Services (MES):** This tariff schedule shall apply for use of railway traction and Military Engineering Services (MES) for a mixed load in defence cantonment and related area.

**Other Distribution Licensees:** This tariff schedule shall apply to other distribution licensees procuring power from the Licensee (except JUSCO, which shall continue to procure power as per the prevailing arrangement) for the sole purpose of supplying it to its consumers. It is clarified that such tariff shall not be applicable for the quantum of power utilised in industrial units owned by it or its parent or affiliate company.

### Service Character:

**Railway Traction Service (RTS):** AC, 50 cycles, Single phase at 25 kV/132 kV.

**Military Engineering Services (MES):** AC, 50 cycles, three phase at 6.6 kV and above

**Other Distribution Licensees:** AC, 50 cycles, three phase at 6.6 kV and above.

### Tariff:

Category	Fixed Charges		Energy Charges
	Unit	Rate	(Rs./kVAh)
HT- Institutional Services	Rs./kVA/month	360	6.05

**Billing Demand:** The Billing Demand shall be the Maximum Demand recorded during the month or 75% of Contract Demand, whichever is higher. The penalty on exceeding Contract Demand will be applicable in accordance with **Clause I: Penalty for exceeding Billing/Contract Demand** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Load Factor Rebate:** In accordance with **Clause V: Load Factor Rebate** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Voltage Rebate:** In accordance with **Clause IV: Voltage Rebate** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**Delayed Payment Surcharge:** In accordance with **Clause III: Delayed Payment Surcharge** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.



**Rebate for Prompt Payment:** In accordance with **Clause VIII: Prompt Payment Rebate** of Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**TOD Tariff:** In accordance with **Clause VII: ToD Tariff** as provided in section on Terms & Conditions of Supply as provided in **Section A 13** of this Tariff Order.

**RPO Compliance:** RPO Compliance for Sale to Other Licensees, RTS and MES shall be made by the first Licensee which sells the power viz., in case TSL buys power from DVC then the onus to comply with RPO will be with DVC only.

## Temporary Connections

### Applicability:

The Temporary tariff shall be applicable as per the following conditions:

- (a) Temporary tariff shall 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.
- (b) Temporary connections may be given with normal meters with security deposit as per JSERC (Electricity Supply Code) Regulations, 2015 and amendment thereof.
- (c) Temporary connections may also be given with prepaid meters with minimum prepaid balance equivalent to 45 days of sale of power, which shall be based on the assessment formula as per JSERC (Electricity Supply Code) Regulations, 2015 and amendment thereof.

### Tariff:

Category	Fixed Charges	Energy Charges
	Rate	(Rs.)
All Units	1.5 times of the applicable fixed charges	1.5 times of the applicable energy charges



### **Tariff to be paid by the Licensee for Gross/Net Metering of rooftop Solar PV projects**

The Commission had notified the JSERC (Rooftop Solar PV Grid Interaction Systems and Net/Gross Metering) Regulations, 2015, on November 10, 2015 and further notified its 1<sup>st</sup> amendment as JSERC (Rooftop Solar PV Grid Interaction Systems and Net/Gross Metering) (1<sup>st</sup> Amendment) Regulations, 2019. The Tariff for sale of surplus power by Gross/Net metering of Rooftop Solar PV for such eligible consumers of the Petitioner shall be issued separately by the Commission and till the time such order is issued, the existing rate shall continue to be valid.

**Schedule of Miscellaneous Charges**

Sl. No.	Purpose	Scale of Charges	Payment Realisation
<b>1.</b>	<b>Application Fee</b>		
	LT Connection	Rs.100	Payable with Energy Bill
	HT Connection	Rs. 500	
<b>2.</b>	<b>Revision of Estimate on Consumer Request based on Revision in Original Application</b>		
	LT Connection	Rs. 100	Payable with Energy Bill
	HT Connection	Rs. 500	
<b>3.</b>	<b>Testing of Consumers Installation<sup>1</sup></b>		
	LT Supply	Rs. 100	Payable with Energy Bill
	HT Supply	Rs. 500	
<b>4.</b>	<b>Meter Test when Accuracy disputed by Consumer<sup>2</sup></b>		
	Single Phase/Three Phase	Rs. 100	Payable with Energy Bill
	Trivector/Special Type Meter, HT, EHT Metering Equipment	Rs. 1000	
<b>5.</b>	<b>Removing/Refixing of Meter/Changing of Meter or Meter Equipment/Fixing of Sub Meter on the request of the Consumer/Fixing of Sub Meter Resealing of Meter when seals are found broken</b>		
	Single Phase/Three Phase	Rs. 200	Payable with Energy Bill
	Trivector/Special Type Meter, HT, EHT Metering Equipment	Rs. 1000	
<b>6.</b>	<b>Fuse call-Replacement</b>		
	Consumer Fuse	Rs. 100	Payable with Energy Bill
<b>7.</b>	<b>Disconnection/ Reconnection</b>		
	LT Connection	Rs. 200	Payable in advance along with the Consumer request. In case, the same consumer is reconnected or disconnected within 12 months, 50% will be charged extra.
	HT Connection	Rs. 1500	
<b>8.</b>	<b>Replacement of meter card, if lost or damaged by Consumer</b>	Rs. 100	Payable with Energy Bill
<b>9.</b>	<b>Security Deposit</b>	As per JSERC (Electricity Supply Code) Regulations, 2015 as amended from time to time	
<b>10.</b>	<b>Replacement of Burnt Meter</b>	Cost of Meter	Payable with Energy Bill
<b>11.</b>	<b>Transformer Rent<sup>3</sup></b>		
	Upto 200 kVA	Rs. 5500/Month	Payable with Energy Bill
	Above 200 kVA	Rs. 7500/Month	Payable with Energy Bill

<sup>1</sup>First test & 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.

<sup>2</sup>If the meter is found defective within the meaning of the Indian Electricity Rules 1956, no charge shall be levied. If it is proved to be correct within the permissible limits laid down in the Rules, the amount will be charged in the next energy bill.

<sup>3</sup>Applicable for 6 month duration from the date of taking the transformer on rent, thereafter monthly escalation of 10% would be applicable.

**\* Note: Meter Rent is Deleted as the same is done away with in this Order."**



## A 13 TERMS AND CONDITIONS OF SUPPLY

### Clause I: Penalty for exceeding Billing/Contract Demand

In case the Recorded/Actual Demand exceeds 110% of the Contract Demand, the consumer shall pay penal charges. The penal charges would be charged as follows: if the Recorded Demand exceeds 110% of Contract Demand, then the Demand Charge up to Contract Demand will be charged as per the normal Tariff rate. The remaining Recorded Demand over and above the Contract Demand will be charged at 1.5 times the normal Tariff rate.

In case Recorded Demand is higher than the Contract Demand by the quantum and for the duration as specified in the JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time, the Contract Demand shall be revised as per the procedure specified therein.

### Clause II: Jharkhand Electricity Duty

The charges in this tariff schedule do not include charges on account of State Electricity Duty/Surcharge to the consumers under the State Electricity Duty Act and the rules framed there under as amended from time to time and any other Statutory levy, which may take effect from time to time.

### Clause III: Delayed Payment Surcharge

The Delayed Payment Surcharge shall be applicable as specified in Clauses 10.75 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, as amended from time to time. In case, the Licensee defaults in generating and delivering bills on monthly basis, Delayed Payment Surcharge will not be charged for the period of default by Licensee. The consumer should not be deprived of any subsidy/benefit, which could have been otherwise accrued to the consumers, i.e., energy units/amount (in case of unmetered) billed has to be apportioned on average monthly basis for the whole billing duration.

### Clause IV: Voltage Rebate

Voltage Rebate\* will be applicable on Energy Charge as per the JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time at the rate given below:

Consumer Category	Voltage Rebate*
HTS/HT Institutional -33 kV	3.00%
HTS/ HT Institutional -132 kV	5.00%

\* Note:

- 1) It is clarified that, if a consumer who is eligible to get supply at 11kV as per classification as mentioned in Clause 4.3 of JSERC (Electricity Supply Code) Regulations, 2015 and then the consumer opts for connection at 33kV then consumer shall be eligible for voltage rebate of 3%. Similarly, if a consumer who is eligible to get supply at 33kV as per Clause 4.3 of JSERC (Electricity Supply Code) Regulations, 2015 and opts for connection at 132kV then consumer shall be eligible for voltage rebate of 5%. Further, no voltage rebate shall be applicable above voltage level of 132 kV. It is further clarified that the existing consumers at 11kV and 33kV opts for higher voltage, rebate shall be applicable for such consumers.

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

### **Clause V: Load Factor Rebate**

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

<b>Load Factor</b>	<b>Load Factor Rebate</b>
40%-60%	Nil
60%-70%	7.50%
70%-100%	10.00%

The Load Factor rebate shall be applicable to all the consumers only on incremental units consumption whose load factor exceeds 60% .

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

### **Clause VI: Installation of Shunt Capacitors**

Connections with inductive load/motors as specified in Clauses 8.2.34 and 8.2.35 of the JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time, shall be installed with Shunt Capacitors to meet the Power Factor requirements.

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 do 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.

### **Clause VII: ToD Tariff**

TOD tariff shall be applicable as an option to HTS and HT Institutional Consumers as follows:

- **Off Peak Hours: 10:00 PM to 06:00 AM:** 85% of normal rate of energy charge
- **Normal Hours: 10:00 AM to 06:00 PM:** 100% of normal rate of energy charge
- **Peak Hours: 06:00 AM to 10:00 AM and 06:00 PM to 10:00 PM:** 120% of normal rate of energy charge

### **Clause VIII: Prompt Payment Rebate and Rebate for Online Payment**

The due date for making payment of energy bills or other charges shall be as specified in Clauses 10.1.5 of the JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time.

Prompt Payment Rebate shall be allowed for payment of bills by the Consumers in accordance with Clauses 10.76 of the JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020, as amended from time to time.

Further, a rebate of 1.00% shall be allowed on the billed amount for payment within the due date of the entire billed amount made either through online or any digital mode or through cash subject to a maximum ceiling rebate of Rs. 250 against the billed amount.

Further no rebate shall be allowed after due date irrespective of the mode of payment.

#### **Clause IX: Rebate for Prepaid Metering**

The Commission has introduced rebate to prepaid meters at 3% of the Energy Charges for the respective Consumer Category. For such consumers, the Petitioner shall refund the entire Security Deposit within one month from the date of installation of such prepaid meters.

#### **Clause X: Rebate for Delayed Billing**

The Commission has introduced rebate in case of delayed billing to consumers to promote prompt billing by the Licensees. In case the bill is not received for two continuous billing cycles, a rebate at the rate of 1.00% on the bill amount per month for delay beyond two months or part thereof shall be applicable subject to a ceiling of 3%. The Utility shall not be eligible to claim such Rebate as a part of ARR. The same shall be treated as a Compensation for the consumers out of the RoE of the Licensee. This clause shall be applicable for all consumers.

#### **Clause XI: Other Terms and Conditions**

##### **Reduction in Fixed Charges**

Recovery of Complete Fixed/Demand Charges from consumers shall be based on the availability of hours of supply recorded by meters installed in the consumer's premises. TSL to include the same in the consumer's bill and recover the Fixed Charges only in proportion to the hours of supply as per the meter. The cut off hours for complete recovery from Fixed/Demand Charges shall be 21 hours per day for LT consumers and 23 hours per day for HT Consumers.

Provided that the planned outages/Rostering in the network that are uploaded on its website seven days in advance with a copy to the Commission and intimation to the respective consumers shall be excluded while computing scheduled supply hours.

Provided that any reduction in recovery of Fixed/Demand Charges on account of lower than stipulated hours of supply shall not be claimed as a part of the ARR. Any reduction in the Fixed/Demand Charges shall be considered as a compensation to be paid to the Consumer by the Licensee.



The Commission directs the Petitioner to submit a report on implementation of the above, within 30 days of issue of this Order and implement the same from the subsequent billing cycle following the issuance of this Order.

### **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.

### **Dishonoured Cheques**

In terms of Clause 10.10.5 of the JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time, in the event of dishonoured cheque for payment against a particular bill, the Licensee shall charge a minimum of Rs. 300 or 0.5% of the billed amount, whichever is higher. In addition to the same, the Delayed Payment Surcharge shall be levied extra as per the applicable terms and conditions of Delayed Payment Surcharge.

### **Stopped/Defective Meters**

In case of existing consumers with previous consumption pattern, the provisional average bill shall be issued as per Clause 10.3.1 of the JSERC (Electricity Supply Code) Regulations, 2015, as amended from time to time.

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 Load/Contract Load on following load factor applicable to respective categories:

<b>Consumer Category</b>	<b>Load Factor</b>
Domestic	0.15
Non-Domestic	0.20
LTIS	0.20
DS-HT	0.15
HT Consumers- Below 132kV	0.30
HT Consumers- 132kV & Above	0.50

### **Sale of Energy**

No consumer shall be allowed to sell the electricity purchased from the Licensee to any other person/entity. In case of DS-HT consumers, who supply power to individual households, the average per unit charges billed to an individual consumer shall not exceed 105% of average per unit cost paid to the Petitioner. This additional 5% allowed reflects the internal distribution losses in housing complex and administrative and distribution costs.



### **Release of New Connections**

No new connections shall be provided without appropriate meter.

### **Conversion Factors**

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

1 kilo Watt (kW) = 1.176 kilo Volt Ampere (kVA)

1 kilo Watt (kW) = 1/0.746 Horse Power (HP)

1 Horse Power (HP) = 0.878 kilo Volt Ampere (kVA)

### **Fuel & Power Purchase Cost Adjustment (FPPCA)**

Applicable as per JSERC (Terms and Conditions for Determination of Distribution Tariff) Regulations, 2020 and as amended by the Commission from time to time.

## **A 14 DIRECTIVES**

- 14.1 In addition to the compliance of existing directives as mentioned in the status of earlier directives, the Commission directs the Petitioner to comply with the following new directive.

### **Publicising Tariff Approved by the Commission**

- 14.2 The Commission directs the Petitioner to submit a draft Notice to the Commission on the Tariff Approved by the Commission along with the Terms and Conditions of Supply for approval and publishing in the newspapers within a week of issue of this Order for enhancing consumer awareness of the applicable Rate Schedule and salient features of the Order impacting general consumers in the Licensee area.

### **Submission of Capital Expenditure Plan**

- 14.3 The Commission directs the Petitioner to submit the approval of Capital Expenditure Plan, including the spill over schemes, duly approved by CEC/Board Investment to the Commission, before carrying out actual operations at the ground.
- 14.4 Further, the petitioner is directed to submit revised Capital Expenditure Plan duly approved by CEC/Board to the Commission in next tariff filling petition.

### **Submission of Fixed Asset Register**

- 14.5 The Commission directs the Petitioner to maintenance the Fixed Assets Register (FAR) considering the depreciation rates as specified in JSERC Distribution Tariff Regulations, 2020 and submit the status report to the Commission along FAR in next tariff filling.

### **Submission of break-up R&M Expenses.**

- 14.6 The Commission directs the Petitioner to submit the detailed break up of R&M expenses for FY 2016-17 to 2020-21 incurred under various sub-heads duly certified by its statutory auditor during the next tariff proceedings.

In addition to above, the Petitioner is further directed to comply with the directives issued by the Commission in earlier Orders.



***TSL – Approval of Business Plan & MYT Petition and Tariff determination for FY 2021-22***

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This Order is signed and issued by the Jharkhand State Electricity Regulatory Commission on November 24, 2022.

It is made clear that the Order regarding revision of tariff shall come into effect from December 01, 2022 and shall remain in force till the next Order of the Commission in this regard.

**Date: 24.11.2022**

**Place: Ranchi**

**Sd/-**  
**(Atul Kumar)**  
**MEMBER (Technical)**

**Sd/-**  
**(Mahendra Prasad)**  
**MEMBER (Legal)**

## ANNEXURE

### Annexure-1: List of members of public who participated in the Public Hearing and submitted their Suggestions/Comments

Sr. No.	Name	Address/Organization
<b>Date &amp; Time: August 17, 2022, 02:30 PM</b>		
1.	Shri N.K. Singh	B/2, Natraj Niwas, Ramnagar, Kadma, Jamshedpur-831005.
2.	Shri. P.N. Thakur	439, Sonari East layout, Sonari, Jamshedpur – 831011.
3.	Shri. Atul Kumar Sandi	Old Sitaramdera, Jamshedpur
4.	Shri. Jay Kumar Yadav	Inder Singh Bustee, Jamshedpur
5.	Shri. B. K. Dubey	Kadma
6.	Shri. R. R. Thakur	Kadma
7.	Shri. Kaustav Banerjee	Kadma
8.	Shri. M. K. Pandit	Tata Steel UISL
9.	Shri. Anup Kumar Sand	Old Sitaramdera, Jamshedpur
10.	Shri. Vijay Singh Hembram	Old Sitaramdera, Jamshedpur
11.	Shri. Raj Kaur	Old Sitaramdera, Jamshedpur
12.	Smt. Usha Devi	Old Sitaramdera, Jamshedpur
13.	Shri. Durgesh Kumar	Tata Steel UISL
14.	Shri. Suman Mandal	Tata Steel UISL
15.	Shri. Abhishek Kumar	Sitaramdera, Jamshedpur
16.	Shri. Durga Gope	Old Sitaramdera, Jamshedpur
17.	Shri. S. S. Chawla	Vijay Nagar Golmuri
18.	Smt. N. Leena	Tata Steel UISL
19.	Shri. Sharad Kumar	Tata Steel Ltd.
20.	Shri. Ravi Kumar	Tata Steel Ltd.
21.	Shri. Sumadir Banerjee	Golmuri
22.	Shri. Sheeb Ahmad	LDC, TSL
23.	Shri. Ajay Kumar	Tata Steel Ltd.
24.	Shri. Sagar Nayak	ETD, Tata Steel Ltd.
25.	Shri. Balvinder Singh	Taila Dugri
26.	Shri. S Roy Choudhary	Tata Steel UISL
27.	Shri. Sunil Kumar Singh	48-K Type st. Mile Road, N. Town, Bitupuri, JSR
28.	Shri. Ranabir Mullick	Kadma
29.	Shri. Ritesh Gupta	Kadma
30.	Shri. K. P. Raman	Kadma
31.	Shri. Shashi Acharya	Kadma
32.	Shri. Harendra Verma	Tata Steel Ltd.
33.	Shri. Ashok Kumar Bihany	Ashiana Garden Sonari, Jamshedpur
34.	Shri. U. K. Mitra	22 NTC Colony, Kadma
35.	Shri. A. K. Singh	Sonari
36.	Shri. K. M. Pandey	Sonari
37.	Shri. Wasim Khan	Sonari
38.	Shri. Abdul Jaisal	Golmuri
39.	Shri. Gurmit kaur	Taila Dugri
40.	Shri. Janak Devi	Taila Dugri
41.	Shri. Prabhanjan Kumar	News 18 Press
42.	Shri. Rakesh Kumar	Hindustan Times



Sr. No.	Name	Address/Organization
43.	Shri. Roshan Singh	Golmuri
44.	Shri. S. Anand Rao	Foujabagan
45.	Shri. Yogendra Prasad	Tata Steel UISL
46.	Shri. Mani Bhushan Pandey	Tata Steel UISL
47.	Shri. Diptanshu Das	Tata Steel UISL
48.	Shri. Ashutosh Prasad	Tata Steel Ltd.
49.	Shri. Nirmal Prasad	Dainik Jagran
50.	Shri. Abtar Singh	Taila Dugri
51.	Shri. Kiran Kumar	Advocate Adya Mandir Path, Sitaramdera, JSR
52.	Shri. Suil Kumar	Professional Flat 49C, Farm Area, Kadma
53.	Shri. Rajesh Kumar	Sonari Kumhar Para Sonari, JSR
54.	Shri. Prakash Debula	Golmuri
55.	Shri. Pradeep Nag	Burmamines
56.	Shri. M. Nag	Burmamines
57.	Shri. Kirti Ballabh	Jamshedpur
58.	Shri. S. K. Monsob	Town Electrical PSD, Tata Steel UISL
59.	Shri. P Bhatu	Town Electrical PSD, Tata Steel UISL
60.	Shri. Tarun Daga	JUSCO/TSUISL
61.	Shri. Manmohan Singh	JUSCO/TSUISL
62.	Shri. B. Singh	Jamshedpur
63.	Shri. Satendra Sharma	Burmamines
64.	Shri. B. K. Singh	Foujabagan
65.	Shri. C. M. Pandey	F/B Baridih
66.	Shri. S. S. Dubey	Sakchi
67.	Shri. Md. Shahid	Jamshedpur
68.	Shri. Sadhu Sharan	Sheopuri, Jamshedpur
69.	Shri. S. Pandey	New Baridih
70.	Shri. Sanjay Kumar	Burmamines
71.	Shri. A. Ahmad	Sakchi
72.	Shri. Shekhar Kumar	Bistupur
73.	Shri. Lalan Sah	Sakchi
74.	Shri. Gopaldeb Nath	Sakchi
75.	Shri. Raj Kumar	Shivpur Colony
76.	Shri. Gopal P Singh	Shive celonig Garmnala
77.	Shri. R. K. Mishra	Teacher Colony
78.	Shri. A. Singh	Teacher Colony
79.	Shri. Fazal Khan	Pushpanjali Aprt, Dhatkidih
80.	Shri. AB	Pushpanjali Aprt, Dhatkidih
81.	Shri. Md. Azhar Ahmad Jhunnu	Bistupur
82.	Shri. AB Hameed	Dhatkidih
83.	Shri. Surajeet Chowdhury	Bhatia Basti, Kadma
84.	Shri. D. N. Singh	25- Vishnu Path
85.	Shri. Prakash Barha	43, Mandir Path
86.	Shri. Anwar Ali	Dhatkidih, Jamshedpur
87.	Shri. Manohar Singh	Gtb. 18/A, Road No. 9, Agrica, Shiv Singh Bagan, Jamshedpur