

Jharkhand State Electricity Regulatory Commission



Order on

True-up for FY 2022-23, APR for FY 2023-24,
Business Plan for FY 2021-22 to FY 2025-26, ARR
and Tariff Petition for FY 2024-25

for

Jharkhand Urja Sancharan Nigam Limited

July 03rd, 2024



Table of Contents

Chapter1: Introduction	8
<i>Jharkhand State Electricity Regulatory Commission</i>	8
<i>The Petitioner -Jharkhand Urja Sancharan Nigam Ltd. (JUSNL)</i>	10
<i>The Petitioner’s Prayers</i>	11
Chapter:2 Procedural History	12
<i>Background</i>	12
<i>Information Gaps in the Petition</i>	13
<i>Inviting Public Comments/ Suggestions</i>	14
<i>Submission of Comments/ Suggestions and Conduct of Public Hearing</i>	15
Chapter:3 Brief Facts of the Petition	16
<i>True-up for FY 2022-23</i>	16
<i>APR for FY 2023-24</i>	16
<i>ARR for FY 2024-25</i>	16
<i>Transmission Tariff for FY 2024-25</i>	17
Chapter:4 Public Consultation Process	18
Chapter 5: True Up for FY 2022-23	19
<i>Capital Expenditure, Capitalization & CWIP</i>	19
<i>Operation and Maintenance Expenses</i>	22
<i>Depreciation</i>	28
<i>Interest on Loan</i>	30
<i>Return on Equity</i>	31
<i>Interest on Working Capital</i>	33
<i>Non-tariff Income</i>	34
<i>Tax on Income</i>	35
<i>Incentive for Transmission Availability</i>	35
<i>Revenue from Operations</i>	37
<i>Summary of ARR Components and Revenue Gap/ (Surplus)</i>	38
Chapter 6: Annual Performance Review for FY 2023-24	39
<i>Capital Expenditure, Capitalization & CWIP</i>	39
<i>Operation and Maintenance Expenses</i>	40
<i>Depreciation</i>	45
<i>Interest on Loan</i>	46
<i>Return on Equity</i>	47



<i>Interest on Working Capital</i>	49
<i>Non-tariff Income</i>	50
<i>Summary of ARR Components and Revenue Gap/ (Surplus)</i>	51
Chapter 7: Business Plan for FY 2024-25 to FY 2025-26	52
<i>Capital Investment Plan</i>	54
<i>Proposed Capitalization</i>	56
<i>Rational for Capital Expenditure</i>	60
<i>Justification for Implementation of the Capital Expenditure Schemes under Business Plan</i>	60
<i>Transmission Network necessary to meet the Load Growth</i>	65
<i>Business Plan in conformity with the CEA</i>	66
<i>Reduction of Technical Losses</i>	66
<i>Board Approval Accorded</i>	67
<i>Financing Plan</i>	68
Chapter 8: Aggregate Revenue Requirement for FY 2024-25	76
<i>Capital Expenditure and Capitalization</i>	76
<i>Operation and Maintenance Expenses</i>	77
<i>Depreciation</i>	83
<i>Interest on Loan</i>	84
<i>Return on Equity</i>	86
<i>Interest on Working Capital</i>	87
<i>Non-tariff Income</i>	88
<i>Summary of ARR Components</i>	89
Chapter 9: Determination of Transmission Tariff for FY 2024-25	91
<i>Determination of Transmission Capacity of the system</i>	92
<i>Determination of Transmission Charges</i>	92
<i>Determination of Transmission Charges for Short Term Open Access Consumers</i>	93
Chapter 10: Directives	97
<i>Data adequacy in the next Petition</i>	97
<i>Timeliness and Data Adequacy in the Next Tariff Petition</i>	97
<i>Re-financing of State Government Loans</i>	97
ANNEXURE - I	99



List of Abbreviations

Abbreviation	Description
A&G	Administrative and General
ARR	Aggregate Revenue Requirement
CEA	Central Electricity Authority
COD	Commercial Operation Date
CFBC	Circulating Fluidized Bed Combustion
CCL	Central Coalfield Limited
CIL	Coal India Limited
ECR	Energy Charge Rate
FY	Financial Year
GCV	Gross Calorific Value
GFA	Gross Fixed Assets
GHR	Gross Station Heat Rate
GoI	Government of India
GoJ	Government of Jharkhand
IoWC	Interest on Working Capital
IPL	Inland Power Limited
JBVNL	Jharkhand Bijli Vitran Nigam Limited
JSEB	Jharkhand State Electricity Board
JSERC	Jharkhand State Electricity Regulatory Commission
JUVNL	Jharkhand Urja Vikas Nigam Limited
kCal	Kilocalorie
Kg	Kilogram
kWh	Kilowatt-hour
MAT	Minimum Alternative Tax
ML	Millilitre
MOU	Memorandum of Understanding
MT	Million Tonnes
MU	Million Units
MW	Megawatt
MYT	Multi-Year Tariff
NAPAF	Normative Annual Plant Availability Factor
O&M	Operations and Maintenance
PAF	Plant Availability Factor
PLF	Plant Load Factor
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
RoE	Return on Equity
Rs.	Rupees
SBI	State Bank of India
SERC	State Electricity Regulatory Commission
SLDC	State Load Dispatch Centre
SLM	Straight Line Method



List of Tables

Table 1: List of Newspapers and dates of publication of Public Notice by the Petitioner	14
Table 2: List of Newspapers and dates of Publication of Public Notice by the Commission .	14
Table 3: ARR for FY 2022-23 as submitted by the Petitioner (Rs.Cr.)	16
Table 4: ARR for FY 2023-24 as submitted by the Petitioner (Rs. Cr.)	16
Table 5: ARR for FY 2024-25 as submitted by the Petitioner (Rs. Cr.)	16
Table 6: Transmission Tariff for FY 2024-25 as submitted by the Petitioner (Rs.Cr.)	17
Table 7: STOA Charges for FY 2024-25 as submitted by the Petitioner (Rs. Cr.)	17
Table 8: Capex, CWIP and Capitalization for FY 2022-23 as submitted by the Petitioner (Rs. Cr.)	19
Table 9: Capex and Capitalization for FY 2022-23 as submitted by the Petitioner (Rs. Cr.)	20
Table 10: Gross Fixed Assets for FY 2022-23 as submitted by the Petitioner (Rs.Cr.)	20
Table 11: Gross Fixed Assets for FY 2022-23 as approved by the Commission (Rs.Cr.)	22
Table 12 Employee Expenses as submitted by the Petitioner for FY 2022-23(Rs.Cr)	22
Table 13 R&M expenses as submitted by the Petitioner for FY 2022-23(Rs.Cr)	24
Table 14 A&G Expenses as submitted by the Petitioner for FY 2022-23(Rs.Cr)	24
Table 15: O&M expense for FY 2022-23 as submitted by the Petitioner (Rs. Cr.)	25
Table 16 O&M expenses as approved by the Commission for FY 2022-23(Rs.Cr)	28
Table 17 Calculation of Depreciation expenses as submitted by the Petitioner for FY 2022-23(Rs.Cr)	29
Table 18: Depreciation for FY 2022-23 as submitted by the Petitioner (Rs. Cr.)	29
Table 19: Depreciation for FY 2022-23 as approved by the Commission(Rs.Cr)	30
Table 20: Interest on loan as submitted by the Petitioner for FY 2022-23(Rs.Cr)	30
Table 21: Interest on loan as approved by the Commission for FY 2022-23(Rs.Cr)	31
Table 22: Return on Equity as submitted by the Petitioner for FY 2022-23(Rs.Cr)	32
Table 23: Return on Equity as approved by the Commission for FY 2022-23(Rs.Cr)	32
Table 24: Interest on Working Capital as submitted by the Petitioner for FY 2022-23(Rs.Cr)	33
Table 25: Interest On Working Capital as approved by the Commission for FY 2022-23(Rs.Cr)	34
Table 26: Non-Tariff Income as submitted by the Petitioner for FY 2022-23(Rs.Cr)	34
Table 27: Non-Tariff Income as approved by the Commission for FY 2022-23(Rs.Cr)	35
Table 28: Incentive for Transmission Availability as submitted by the Petitioner for FY 2022-23(Rs.Cr)	35
Table 29: Annual Fixed Cost as approved by the Commission for FY 2022-23(Rs.Cr)	36
Table 30: Incentive for FY 2022-23 as approved by the Commission(Rs.Cr)	37
Table 31: Revenue for FY 2022-23 as submitted by the Petitioner (Rs.Cr.)	37
Table 32: Revenue for FY 2022-23 as approved by the Commission (Rs. Cr.)	37
Table 33: Summary of ARR Components as submitted by the Petitioner for FY 2022-23(Rs.Cr)	38
Table 34: Summary of ARR Components for FY 2022-23 as approved by the Commission (Rs. Cr.)	38
Table 35: Capex, CWIP and Capitalization for FY 2023-24 submitted by the Petitioner (Rs.Cr.)	39
Table 36: Gross Fixed Assets for FY 2023-24 as submitted by the Petitioner (Rs. Cr.)	40
Table 37: Gross Fixed Assets as approved by the Commission for FY 2023-24(Rs.Cr)	40
Table 38 Employee Cost as projected by the Petitioner for FY 2023-24(Rs.Cr)	41
Table 39 A&G expenses as projected by the Petitioner for FY 2023-24(Rs.Cr)	41
Table 40 R&M expenses projected by the Petitioner for FY 2023-24(Rs.Cr)	42
Table 41: O&M Expense as projected by the Petitioner for FY 2023-24(Rs.Cr)	42
Table 42: O&M expense as approved by the Commission for FY 2023-24(Rs.Cr)	45
Table 43: Depreciation as submitted by the Petitioner for FY 2023-24(Rs.Cr)	45
Table 44: Depreciation as approved by the Commission for FY 2023-24(Rs.Cr)	46
Table 45 Weighted average rate of interest(Rs.Cr)	46
Table 46: Interest on loan as projected by the Petitioner for FY 2023-24(Rs.Cr)	46
Table 47: Interest on Loan as approved by the Commission for FY 2023-24(Rs.Cr)	47
Table 48: Return on Equity as submitted by the Petitioner for FY 2023-24(Rs.Cr)	48
Table 49: Return on Equity as approved by the Commission for FY 2023-24(Rs.Cr)	49
Table 50: Interest on Working Capital as submitted by the Petitioner for FY 2023-24(Rs.Cr)	



.....	49
Table 51: Interest on Working Capital as approved by the Commission for FY 2023-24(Rs.Cr)	49
Table 52: Non-Tariff Income as projected by the Petitioner for FY 2023-24(Rs.Cr)	50
Table 53: Non-Tariff Income as approved by the Commission for FY 2023-24(Rs.Cr)	51
Table 54: Summary of ARR Components as submitted by the Petitioner for FY 2023-24(Rs.Cr)	51
Table 55: Summary of ARR Components as approved by the Commission for FY 2023-24(Rs.Cr)	51
Table 56 Proposed Capital Expenditure for the MYT Control Period (in Rs.Cr).....	54
Table 57 Proposed Capitalization Schedule for the MYT Control Period.....	56
Table 58 Proposed Augmentation Schedule for the MYT Control Period(in Rs.Cr)	59
Table 59 Proposed Capitalization Schedule for the MYT Control Period including Augmentation Schemes(in Rs.Cr)	59
Table 60 Summary of Approval of BOD and Sanction letters	67
Table 61 Provisional approval of the various schemes against which Board of approval is accorded.....	73
Table 62 Summary of Comparison of capitalization of the projects over the years(Rs.Cr) ...	74
Table 63: Capex, CWIP and Capitalization for FY 2024-25 as submitted by the Petitioner (Rs. Cr.)	76
Table 64 Debt Equity Ratio as projected by Petitioner for FY 2024-25(Rs.Cr)	77
Table 65: Gross Fixed Asset for FY 2024-25 as submitted by the Petitioner (Rs.Cr.)	77
Table 66: Gross Fixed Assets as approved by the Commission for FY 2024-25(Rs.Cr).....	77
Table 67 Salary Computation of proposed New Employees	78
Table 68 Employee Cost as projected by the Petitioner for FY 2024-25(Rs.Cr)	79
Table 69A&G Cost as projected by the Petitioner for FY 2024-25(Rs.Cr).....	79
Table 70 R&M expenses projected for FY 2024-25 by the Petitioner (Rs.Cr).....	80
Table 71: O&M Expense as projected by the Petitioner for FY 2024-25(Rs.Cr).....	80
Table 72: O&M expense as approved by the Commission for FY 2024-25(Rs.Cr)	83
Table 73 Depreciation rates considered by the Petitioner.....	83
Table 74: Depreciation as projected by the Petitioner for FY 2024-25(Rs.Cr)	83
Table 75: Depreciation as approved by the Commission for FY 2024-25(Rs.Cr)	84
Table 76 Weighted average rate of interest as submitted by the Petitioner.....	84
Table 77: Interest on loan as projected by the Petitioner for FY 2024-25(Rs.Cr).....	85
Table 78: Interest on loan as approved by the Commission for FY 2024-25(Rs.Cr)	85
Table 79: Return on Equity as projected by the Petitioner for FY 2024-25(Rs.Cr)	86
Table 80: Return on Equity as approved by the Commission for FY 2024-25(Rs.Cr)	87
Table 81: Interest On Working Capital as projected by the Petitioner for FY 2024-25(Rs.Cr)	87
Table 82: Interest on Working Capital as approved by the Commission for FY 2024-25(Rs.Cr)	88
Table 83: Non-Tariff Income as projected by the Petitioner for FY 2024-25(Rs.Cr)	89
Table 84: Non-Tariff Income as approved by the Commission for FY 2024-25(Rs.Cr)	89
TABLE 85: SUMMARY OF ARR COMPONENTS FOR FY 2024-25 AS SUBMITTED BY THE PETITIONER (RS. CR.)	89
Table 86: Summary of ARR Components as approved by the Commission for FY 2024-25(Rs.Cr)	90
Table 87 Monthly Transmission Charges for JBVNL.....	93
Table 88 Monthly Transmission Charges for Railways.....	93
Table 89 Short Term Open Access Charges for FY 2024-25	94
Table 90 : Determination Of Transmission Charges As Approved By The Commission.....	94
Table 91 STOA charges as approved by the Commission for FY 2024-25	96



Before
Jharkhand State Electricity Regulatory Commission, Ranchi

Case (Tariff) No.: 04 of 2024

In the matter of:

Petition for
True-up for FY 2022-23, APR for FY 2023-24, Business Plan FY 2021-
22 to FY 2025-26
&
ARR and Tariff for FY 2024-25

In the matter:

Jharkhand Urja Sancharan Nigam Limited.....**Petitioner**

PRESENT

Shri Mahendra Prasad

Member (Law)

Shri Atul Kumar

Member (Technical)

Order dated July 03rd ,2024

Jharkhand Urja Sancharan Nigam Limited (hereinafter referred to as 'JUSNL' or the 'Petitioner') filed a petition dated 29th February 2024, for True-up for FY 2022-23, APR for FY 2023-24 & ARR & Tariff for FY 2024-25 for the transmission of electricity in the State of Jharkhand.



Chapter 1: Introduction

Jharkhand State Electricity Regulatory Commission

- 1.1 The Jharkhand State Electricity Regulatory Commission (hereinafter referred to as “JSERC” or “the Commission”) was established by the Government of Jharkhand under Section 17 of the Electricity Regulatory Commission 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 Commission Act, 1998 to be the following, namely: -
- a) to determine the tariff for electricity, wholesale, bulk, grid or retail, as the case maybe, in the manner provided in Section 29;
 - b) to determine the tariff payable for the use of 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 came into force, the earlier Electricity Regulatory Commission Act of 1998 stands repealed and the JSERC is discharging its functions as prescribed in Section 86 of the Act.
- 1.4 In accordance with the provisions of the said 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 licenses 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 advises the State Government 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 guided by the National



Tariff Policy framed and published by Government of India under the provisions of Section 3 of the Act. The objectives of the present National 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 -Jharkhand Urja Sancharan Nigam Ltd. (JUSNL)

- 1.8 The erstwhile Jharkhand State Electricity Board (JSEB) was constituted on March 10, 2001 under the Electricity (Supply) Act, 1948 as a result of the bifurcation of the erstwhile State of Bihar. Before that, the Bihar State Electricity Board (BSEB) was the predominant entity entrusted with the task of generating, transmitting and supplying power in the State.
- 1.9 The Energy Department, Government of Jharkhand, vide its Letter No. 1/Board-01-Urja-26/13-1745 dated 28th June 2013 unbundled the erstwhile JSEB into following companies:
 - a) Jharkhand Urja Vikas Nigam Ltd (JUVNL) being the holding company;
 - b) Jharkhand Urja Utpadan Nigam Ltd (JUUNL) undertaking the generation function of the erstwhile JSEB;
 - c) Jharkhand Bijli Vitaran Nigam Ltd (JBVNL) undertaking the distribution function of the erstwhile JSEB;
 - d) Jharkhand Urja Sancharan Nigam Ltd (JUSNL) undertaking the transmission function of the erstwhile JSEB.
- 1.10 Jharkhand Urja Sancharan Nigam Ltd. (herein after to be referred to as JUSNL or the Petitioner or erstwhile JSEB-Transmission function) has been incorporated under Indian Companies Act, 1956 pursuant to the decision of Government of Jharkhand to reorganize erstwhile JSEB. 1.11 Reorganization of the JSEB has been done by Government of Jharkhand pursuant to 'Part



XIII-Reorganization of Board' read with Section 131 of The Electricity Act 2003. The Petitioner is a Company constituted under the provisions of Government of Jharkhand, General Resolution as notified by transfer scheme vide notification no. 8, dated 6th January 2014, and is duly registered with the Registrar of Companies, Ranchi.

- 1.11 Jharkhand Urja Sancharan Nigam Ltd was incorporated on October 23, 2013 with the Registrar of Companies, Jharkhand, Ranchi and obtained Certificate of Commencement of Business on November 28, 2013.
- 1.12 The Petitioner is a Transmission Licensee under the provisions of the Electricity Act, 2003 (EA, 2003) having license to establish or operate transmission lines in the State of Jharkhand.
- 1.13 The Petitioner is functioning in accordance with the provisions envisaged in the Electricity Act, 2003 and is engaged in the business of Transmission of electricity to its consumers situated over the entire State of Jharkhand.

The Petitioner's Prayers

- 1.14 The Petitioner in this petition has made the following prayers before the Commission: -
 - a) Admit the instant Petition;
 - b) Examine the proposal submitted by the Petitioner in the enclosed petition for a favorable dispensation;
 - c) Approve the True up for FY 2022-23, APR for 2023-24 and ARR & Tariff for FY 2024-25 under Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020, and the amendments/ orders issued, time to time by the Hon'ble Commission;
 - d) Pass a separate order for the present petition;
 - e) JUSNL may also be permitted to propose suitable changes to the respective ARR, prior to the final approval by the Hon'ble Commission, as the Petitioner believes that such an approach would go a long way towards providing a fair treatment to all the stakeholders and will eliminate the need for a review or clarification;
 - f) Condone any inadvertent omissions / errors / shortcomings and permit JUSNL to add / change / modify / alter this petition and make further submissions as may be required in future;
 - g) Pass such order, as the Hon'ble Commission may deem fit and appropriate keeping in view the facts and circumstances of the case;



Chapter:2 Procedural History

Background

- 2.1 The Commission had issued an order on Annual Revenue Requirement for FY 2011-12 and FY 2012-13 for the Transmission Business of erstwhile JSEB on August 02, 2012.
- 2.2 The Commission had issued the Provisional Tariff order on Review of Annual Revenue Requirement for FY 2013-14 (January 06, 2014 to March 31, 2014) & FY 2014-15 and Annual Revenue Requirement and Transmission Tariff for FY 2015-16 on December 14, 2015.
- 2.3 The Commission had issued the order for the approval of Business plan and MYT for the 2nd Control period from FY 2016-17 to FY 2020-21 on February 24, 2018.
- 2.4 The Commission by Order dated February 01, 2019 had issued the True-up for FY 2013-14 (January 06, 2014 to March 31, 2014) and FY 2014-15. The Petitioner had filed a review petition against the order dated February 01, 2019 which was disposed off by the Commission vide order dated December 03, 2020.
- 2.5 In the meantime, the Commission vide order dated February 24, 2018 had directed the Petitioner to file true-up petition for FY 2015-16 & FY 2016-17 and ARR for FY 2017-18 & FY 2018-19 within two months from the date of issuance of the order. However, the Petitioner vide letter no. 255 dated August 02, 2018 had prayed for extension of time of three months for filing the aforesaid petition.
- 2.6 The Commission vide letter no. JSERC/Case(T) no. 17 of 2016 & 03 of 2017/299 allowed extension of time till October 2018 for filing the True-up petition for FY 2015-16 & FY 2016-17 and APR for FY 2017-18 & FY 2018-19 and to submit the compliance request as per directives of the Commission.
- 2.7 Thereafter the Petitioner filed the petition for approval of True-up for FY 2015-16 & FY 2016-17 and Annual Revenue Requirement for FY 2017-18 & FY 2018-19 on October 05, 2018, and Commission passed the order on December 03, 2020.
- 2.8 The Petitioner on February 05, 2021 filed the petition for approval of True-up for FY 2017-18 and the Commission on June 12, 2023 passed the order on the aforesaid Petition.



- 2.9 The Petitioner on August 24,2021 filed petition for approval of True-up for FY 2018-19, APR for FY2019-20 & ARR for FY 2020-21 and the Commission on June 23,2023 passed the order on the aforesaid petition.
- 2.10 The Petitioner on October 17,2022 filed petition for approval of True-up for FY 2019-20, APR for FY 2020-21 and Business plan and Annual Revenue Requirement for the control period FY 2021-22 to FY 2025-26 and the Commission passed the order on June 23,2023 on the aforesaid petition.
- 2.11 The Petitioner has also filed petition for True-up for FY 2020-21 & FY 2021-22, Annual Performance Review of FY 2022-23, and Annual Revenue Requirement and Tariff for FY 2023-24 on December 21,2024 and the Commission passed the order on July 03rd,2024 on the aforesaid petition.
- 2.12 The instant Petition was initially filed by the Petitioner on provisional basis vide letter no25 dated 29.02.2024 for True up of FY 2022-23 however in due course of time the Petitioner has submitted the actual audited data for the FY 2022-23 and has filed petition for True up of FY 2022-23,APR for FY 2023-24 and ARR and Tariff for FY 2024-25.The audited data has been submitted by the Petitioner vide letter no 92 dated 05.06.2024.The Petitioner has also submitted revised business plan for FY 2024-25 and FY 2025-26 along with the petition for review and approval of the Commission.

Information Gaps in the Petition

- 2.13 Upon reviewing the petition, the Commission found that the petitioner had not deducted the SLDC expenses and had included them in the petition. Since the Commission had already issued a separate order for SLDC's ARR expenses, the Commission directed the petitioner to file a revised petition after deducting the SLDC expenses. The petitioner then submitted the revised petition with the necessary changes before the Commission.
- 2.14 As part of tariff determination exercise, several deficiencies/information gaps were found and noted in the petition submitted by the Petitioner, which were pointed out and communicated to the Petitioner with respect to the petition for True-up for FY 2022-23, Annual Performance Review of FY 2023-24, and Annual Revenue Requirement for FY 2024-25.



- 2.15 The Petitioner furnished the additional data/ information as directed for on the petition for True-up of FY2022-23, Annual Performance Review of FY 2023-24, and Annual Revenue Requirement for FY 2024-25.
- 2.16 The Commission has scrutinized the additional data/ information and has considered the same while passing this order. The Commission has examined the replies and supporting documents as supplied by the Petitioner on the discrepancies pointed out to it on material already on record in the petitions filed by the Petitioner.
- 2.17 In order to provide adequate opportunity to all stakeholders and general public as mandated under Section 64 (3) of the Electricity Act 2003 and in relevant provisions of Regulation(s) framed by the Commission and further in order to ensure transparency in the process of tariff determination, the Commission decided to conduct public hearing on June 11, 2024 in the Conference room of Hotel Raso at Ranchi for inviting comments/ suggestion/ objections.

Inviting Public Comments/Suggestions

- 2.18 The Commission directed the Petitioner to make available copies of the petition to the members of general public on request, and also issued a public notice inviting comments/ suggestions on the above said petition.
- 2.19 The aforesaid public notice was issued by the Petitioner in various 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 the Petitioner

True-up for FY 2022-23, APR for FY 2023-24 & ARR and Tariff For FY 2024-25				
Sl. No.	Newspaper	Edition Name	Version	Date of Publication
1	Prabhat Khabar	Ranchi	Hindi	12.03.24 & 13.03.24
2	Hindustan	Ranchi	Hindi	12.03.24 & 13.03.24
3	Times of India	Patna	English	13.03.2024
4	Hindustan Times	Ranchi	English	13.03.2024

- 2.20 Subsequently, the Commission also issued a notice on its website www.jserc.org and in various newspapers for conducting a public hearing on the petition filed by the Petitioner. The newspapers wherein the notice for public hearing was issued by the Commission are detailed hereunder:

Table 2: List of Newspapers and dates of Publication of Public Notice by the Commission

Sl. No.	Newspaper	Version	Date of Publication
1	Prabhat Khabar	Hindi	05.06.2024 & 10.06.2024
2	Hindustan Dainik	Hindi	05.06.2024 & 10.06.2024
3	Hindustan Times	English	05.06.2024 & 10.06.2024



Sl. No.	Newspaper	Version	Date of Publication
4	The Times of India	English	05.06.2024 & 10.06.2024
5	Prabhat Khabar	Hindi	05.06.2024 & 10.06.2024

Submission of Comments/ Suggestions and Conduct of Public Hearing

2.21 The public hearing was held on June 11, 2024 in the Conference room of Hotel Raso at Ranchi. Comments/Suggestions on the petition were received. The Comments/Suggestions of the Public, Petitioner's responses and Commission's views thereon are detailed in **Chapter A 4** of this order.



Chapter:3 Brief Facts of the Petition

True-up for FY 2022-23

3.1. The details of Aggregate Revenue Requirement as submitted by the Petitioner is provided in table below:

Table 3: ARR for FY 2022-23 as submitted by the Petitioner (Rs.Cr.)

Sl. No.	Particulars	Approved in T.O. dtd. 23.06.2023	Petition
1	Operation and Maintenance Expense	109.26	169.04
I	<i>Employee Expense</i>	51.86	112.46
ii	<i>A&G Expense</i>	9.53	12.19
iii	<i>R&M Expense</i>	47.87	44.39
2	Depreciation	120.33	203.79
3	Interest and Finance Charge	91.48	466.29
4	Return on Equity	49.09	224.13
5	Interest on Working Capital	7.40	18.01
6	Incentive for Target Availability	0.00	8.93
7	Less: Non-tariff Income	12.79	18.90
8	Net Aggregate Revenue Requirement	364.77	1,071.30
9	Revenue from Operations	364.77	299.25
10	Revenue Gap / (Surplus)	0.00	772.05

APR for FY 2023-24

3.2. The details of Aggregate Revenue Requirement as submitted by the Petitioner is provided in table below:

Table 4: ARR for FY 2023-24 as submitted by the Petitioner (Rs. Cr.)

Sl. No.	Particulars	Approved in T.O. dtd. 23.06.2023	Petition
1	Operation and Maintenance Expense	120.55	222.22
2	Depreciation	127.44	167.60
3	Interest and Finance Charge	95.43	482.93
4	Interest on Working Capital	7.95	22.60
5	Return on Equity	49.16	224.13
6	Less: Non-tariff Income	12.79	18.90
7	Net Aggregate Revenue Requirement	387.74	1,100.58

ARR for FY 2024-25

3.3. The details of Aggregate Revenue Requirement as submitted by the Petitioner is provided in table below:

Table 5: ARR for FY 2024-25 as submitted by the Petitioner (Rs. Cr.)

Sl. No.	Particulars	Approved in T.O. dtd. 23.06.2023	Petition
1	Operation and Maintenance Expense	124.27	241.56
2	Depreciation	130.93	189.42
3	Interest and Finance Charge	89.43	516.17
4	Interest on Working Capital	8.12	24.27
5	Return on Equity	51.96	224.13
6	Less: Non-tariff Income	12.79	18.90
7	Net Aggregate Revenue Requirement	391.92	1,176.66



Transmission Tariff for FY 2024-25

3.4. The details of Transmission Tariff as submitted by the Petitioner is provided in table below:

Table 6: Transmission Tariff for FY 2024-25 as submitted by the Petitioner (Rs.Cr.)

Sl. No.	Particulars	Petition
1	Annual Transmission Charges for JBVNL (Rs. Crore)	4,505.09
2	Total Transmission Capacity (MW)	2,812.39
3	Total Transmission Capacity allocated to JBVNL (MW)	2,742.39
4	Annual Transmission Charges to be levied to JBVNL (Rs. Cr.)	4,392.96
5	Monthly Transmission Charges to be levied to JBVNL (Rs. Cr.)	366.08
6	Annual Transmission Charges for Railways(Rs.Cr)	4505.09
7	Total Transmission Capacity(MW)	2812.39
8	Total Transmission Capacity allocated to Railways (MW)	70.00
9	Annual Transmission Charges to be levied to Railways (Rs. Cr.)	112.13
10	Monthly Transmission Charges to be levied to Railways (Rs. Cr.)	9.34

Table 7: STOA Charges for FY 2024-25 as submitted by the Petitioner (Rs. Cr.)

Sl. No.	Particulars	UoM	Petition
1	AFC (FY 2023-24)	Rs. Crore	1,100.58
2	Av_CAP (FY 2023-24)	MW	1,394.05
3	ST Rate	Rs./MW/Day	10,814.85
4	ST Rate	Rs./MWhr	450.62



Chapter:4 Public Consultation Process

- 4.1 The Petition filed by the Petitioner evoked responses from several Stakeholders. The Public Hearing was held on June 11,2024 to ensure maximum Public participation and transparency wherein Stakeholders put forth their comments and suggestions before the Commission in the presence of the Petitioner. The list of the attendees is attached as **Annexure-I** to this order.

- 4.2 The Commission has observed that the public notice of the petition was published by the Petitioner to invite comments and suggestions in the month of March 2024 wherein the Petitioner has submitted that it has not received any comments. Moreover, during public hearing the Commission had directed the respective beneficiaries and the Petitioner to provide written submission/comment to the Commission within a week, till date the Commission has not received any comments/suggestions from the beneficiaries. Accordingly, the Commission has not incorporated any comments/suggestion raised by beneficiary during public hearing.



Chapter 5: True Up for FY 2022-23

- 5.1 The Petitioner has submitted that the true-up petition for FY 2022-23 which has been prepared based on actual values from audited accounts taking into consideration the provisions of JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020, and the methodology adopted by the Commission in the earlier orders.
- 5.2 The Commission based on the provisions of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 has carried out true-up taking into consideration: -
- Actual values (audited) for FY 2022-23 and additional details submitted by the Petitioner;
 - JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020; and;
 - Methodology adopted by the Commission in the earlier orders.

Capital Expenditure, Capitalization & CWIP

Petitioner Submission

- 5.3 The Petitioner submits that it has considered the actual capital expenditure and capitalization that has incurred in the books of accounts (audited) for trueing up of expenses for FY 2022-23. In accordance with the same, the Petitioner submits that it has incurred actual capital expenditure of Rs.724.09 Crore and actual capitalization of Rs.3.86 Crore in FY 2022-23.
- 5.4 The Capital Expenditure, Capitalization and CWIP as submitted by the Petitioner are given in the tables below:

Table 8: Capex, CWIP and Capitalization for FY 2022-23 as submitted by the Petitioner (Rs. Cr.)

Particulars	Opening	Addition	Closing
Capital Expenditure during the Year	6610.48	724.09	7334.57
Capitalization	3871.89	3.86	3875.75
Capital Works in Progress	2738.59	720.23	3458.82
<i>Asset Capital Work in Progress</i>	2190.60	605.38	2795.98
<i>Capital Advances</i>	520.99	114.85	635.84
<i>Advance to Suppliers</i>	0.00	0.00	0.00
<i>Stock of Materials at Site</i>	27.00	0.0049	27.00



Table 9: Capex and Capitalization for FY 2022-23 as submitted by the Petitioner (Rs.Cr.)

Particulars	MYT	Petition
Capital Expenditure during the Year	2016.83	724.09
Asset Capitalized during the year	307.06	3.86

5.5 The Petitioner has submitted that the Commission in its Business Plan order dated 23rd June 2023, had determined the opening balance of GFA for FY 2022-23 based on the closing balance approved for FY 2021-22 in the same order.

5.6 The Petitioner has claimed opening GFA as per the audited annual accounts for FY 2022-23. The following table shows the opening and closing balance of GFA as per audited annual accounts against that approved by JSERC in the last tariff order. The Petitioner has requested the Commission to approve GFA for FY 2022-23 as provided in the table below.

Table 10: Gross Fixed Assets for FY 2022-23 as submitted by the Petitioner (Rs.Cr.)

Particulars	MYT	Petition
Opening Gross Fixed Asset	2023.35	3871.89
Asset Capitalized during the year	307.06	3.857
Closing Gross Fixed Asset	2330.41	3875.75

5.7 The Petitioner has stated that during the FY 2022-23, the petitioner performed a reconciliation of assets under use and found that certain assets were in use from earlier period but were not capitalized in books of accounts. Accordingly, assets were capitalized based on the date of capitalization which were of earlier periods and hence the opening balances were reinstated having an impact on PPE, depreciation, and CWIP. This has resulted in variation between the closing balance of GFA for the FY 2021-22 and the opening balance of GFA for the FY 2022-23. The closing balance of GFA for FY 2021-22 was Rs. 3734.26 Crore and the opening balance of GFA for FY 2022-23 was Rs. 3873.92 Crore. The difference between the closing balance of GFA for FY 2021-22 and opening balance of GFA for FY 2022-23 is Rs. 139.66 Crore which pertains to schemes capitalized during prior period.

5.8 The Petitioner has also submitted that Assets amounting to Rs. 2.03 crore pertaining to SLDC have been deducted from the total assets of JUSNL valuing Rs. 3873.92 Crores. Hence, the net assets of JUSNL after segregation of SLDC assets are Rs. 3871.89 Crores.

Commission Analysis

5.9 The Commission has observed that in the MYT and Business plan order for FY



- 2022-23 dated 23rd June 2023 the Commission had provisionally approved an capital expenditure of Rs.2016.83 Cr against which the Petitioner has infused an amount of Rs.724.09 Cr.
- 5.10 The Commission vide the data gap had directed the Petitioner to provide details of such capital expense however the Petitioner had not submitted proper justification regarding the same.
- 5.11 The Commission vide data gap proceeding directed the Petitioner to provide details of capitalization along with DPRs for all projects capitalized during FY 2022-23 along with detailed cost benefit analysis. In compliance to Commission's query, the Petitioner, vide its reply submitted the requisite data of assets capitalization as for FY 2022-23.
- 5.12 The Commission after scrutiny and prudence check of the data/information submitted by the Petitioner along with audited accounts for FY 2022-23 observed that there is a mismatch between opening GFA for FY 2022-23 wrt closing GFA of FY 2021-22. The Commission vide date gap directed the Petitioner to provide justification for the same.
- 5.13 The Petitioner in its reply stated that JUSNL performed a reconciliation of assets under use and found that certain assets were in use from earlier period but were not capitalized in books of accounts. Accordingly, assets were capitalized based on the date of capitalization which were of earlier periods and hence the opening balances were reinstated having an impact on PPE, depreciation, and CWIP. This has resulted in variation between the closing balance of GFA for the FY 2021-22 and the opening balance of GFA for the FY 2022-23. The closing balance of GFA for FY 2021-22 was Rs. 3734.26 Crore and the opening balance of GFA for FY 2022-23 was Rs. 3873.92 Crore. The difference between the closing balance of GFA for FY 2021-22 and opening balance of GFA for FY 2022-23 is Rs. 139.66 Crore which pertains to schemes capitalized during prior period.
- 5.14 The Commission after scrutiny and prudence check of the data/information submitted by the Petitioner along with audited accounts for FY 2022-23 approves the capitalization of Rs.3.86 Crore as submitted by the Petitioner.
- 5.15 The Commission has verified the documents submitted by the Petitioner along with a prudence check of the audited annual accounts and has approved the



GFA for FY 2022-23 accordingly.

5.16 Hence the Commission while approving the GFA for FY 2022-23 has considered the audited accounts for FY 2022-23. Moreover, an amount of Rs.2.03 Cr pertaining to SLDC have been deducted from the total assets of JUSNL amounting to Rs.3871.89 Cr.

5.17 The Commission has scrutinized the additional information submitted by the Petitioner and approves the capitalization for FY 2022-23 as shown in the table below:

Table 11: Gross Fixed Assets for FY 2022-23 as approved by the Commission (Rs.Cr.)

Particulars	MYT	Petition	Approved
Opening Gross Fixed Asset	2023.35	3871.89	3871.89
Asset Capitalized during the year	307.06	3.86	3.86
Closing Gross Fixed Asset	2330.41	3875.75	3875.75

Operation and Maintenance Expenses

Petitioner Submission

5.18 The Petitioner has submitted that the Operation and Maintenance (O&M) cost is mainly driven by the length of transmission line and number of substations. Employee Expenses constitute a major portion of the O&M expenses and the expenses include salaries of the staff, payments related to surrender leave, various medical allowances, leave travel allowances and other allowances.

5.19 **Employee Expenses:** The Petitioner has submitted that the employee expenses primarily include costs towards salaries, Dearness Allowances, bonus, staff welfare and medical benefits, leave travel and earned leave encashment, and the terminal benefits in the form of pension, gratuity etc. The details of employee expense as submitted by the Petitioner is shown in the table below:

Table 12 Employee Expenses as submitted by the Petitioner for FY 2022-23(Rs.Cr)

S.No	Particulars	MYT	Petition
1	Employee Expense	46.53	78.80
2	Terminal Benefits	5.33	33.66
	Total	51.86	112.46

5.20 The Petitioner has claimed the employee expenses as per the audited accounts for FY 2022-23. The actual employee expense for FY 2022-23 is Rs.112.46



Creore (including the terminal benefits) which is high in comparison to Rs. 51.86 Crore as approved by the Hon'ble Commission in its MYT Tariff Order dated 23.06.2023. It is also submitted that the employee expenses of SLDC amounting to Rs.5.16 crores have been deducted from the total employee expenses of Rs.117.62 Crore to arrive at the net employee expenses of Rs. 112.46 Crores. The major reason for such exceptional increase is due to the following:

- a) **Revision of Pay structure of the employees of JUSNL with effect from 01.01.2016:** Govt. of Jharkhand vide its Resolution No. 11/07 (Ve, Aa)-01/2016-217/F dated 18.01.2017 of Additional Chief Secretary, Planning-cum-Finance Department (Finance Division), Govt. of Jharkhand has issued an order regarding the revision of pay structure for the State Govt. employees with effect from 01.01.2016. Accordingly, same was also adopted for the employees of JUSNL vide notification no 1848/Nigam HQ, Ranchi dated 10.07.2017 and by way of this the salaries and terminal benefits of the employees of JUSNL was revised w.e.f. 01.01.2016 retrospectively. The arrear for the period from 01.01.2016 to 31.03.2017 was paid during FY 2017-18. Also, the cost on account of terminal benefits was increased due to mass retirement during FY 2017-18.
- b) **Recruitment drives conducted by JUSNL:** JUSNL conducted recruitment drives for filling of the vacant positions at various levels vide JUVNL Employment Notification No. 03/2016 and 04/2016. The new recruits are also entitled to the revised pay structure as per the notification of JUVNL vide notification no. 1848/Nigam HQ, Ranchi dated 10.07.2017. The addition of new employees has also contributed to the increase in employee expenses during FY 2020-21 which may further increase after all the vacant positions are fulfilled as per the sanctioned strength.

5.21 The Petitioner submits that from the above fact, it may be inferred that the increase in employee expense was due to change in pay structure and addition of new employees which was not under the control of JUSNL. The Petitioner has thus requested the Commission to allow employee expense as per actual thereby invoking Clause no.21 which provides that the Hon'ble Commission shall consider any variation in Employee Expense due to changes recommended by the Pay Commission and Clause No. 20.1 which provides that the Commission may adopt a procedure, which is at variance with any of



the provisions of the notified Regulations.

5.22 **R&M Expenditure:** The Petitioner has submitted that the repairs and maintenance expenses include procurement expenses for various spares used for maintenance purposes as well as labour charges for repairs. The Commission, in its Business Plan order, has approved R&M expenses based on k-Factor of 2.23% which was applied on opening GFA (Rs. 2023.35 Crore) assumed at that time of FY 2022-23.

5.23 The Petitioner has further submitted that the actual opening GFA as per the audited accounts of FY 2022-23 is Rs.3781.89 Crore which is much higher than that assumed in Business Plan order dated 23rd June 2023. The R&M expenses primarily include costs related to repair of different class of fixed assets etc. Accordingly, R&M expense has been claimed as per actual in line with the actual audited accounts for FY 2022-23.

5.24 The R&M expense as submitted by the Petitioner is shown in the table below:

Table 13 R&M expenses as submitted by the Petitioner for FY 2022-23(Rs.Cr)

S.No	Particulars	MYT	Petition
1	Opening GFA	2023.35	3871.89
2	K Factor	2.23%	
	R&M Expense	47.87	44.39

5.25 **A&G Expenses:** The Petitioner has submitted that A&G expenses mainly comprise of costs towards rent charges, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits. The Petitioner has claimed the A&G expenses as per the unaudited accounts for FY 2022-23. The major contribution to the A&G expense is from miscellaneous expense of Rs.7.85 Crore. It is also submitted that the A&G expenses of SLDC amounting to Rs. 0.98 Crores have been deducted from the total A&G expenses of Rs. 13.17 Crore to arrive at the net A&G expenses of Rs. 12.19 Crores. The A&G expense as submitted by the Petitioner for FY 2021-22 is shown in the table below:

Table 14 A&G Expenses as submitted by the Petitioner for FY 2022-23(Rs.Cr)

S.No	Particular	MYT	Petition
1	A&G Expenses	9.53	12.19

5.26 The summary of the O&M Expenses for FY 2022-23 as approved by the



Commission in its MYT order vis-à-vis actually incurred, is as shown in the table below:

Table 15: O&M expense for FY 2022-23 as submitted by the Petitioner (Rs.Cr.)

Particulars	MYT	Petition
Emp. Expenses	46.53	78.80
Terminal Benefits	5.33	33.66
R&M Expenses	47.87	44.39
A&G Expenses	9.53	12.19
O&M Expenses	109.26	169.04

Commission's Analysis

5.27 The Commission has referred to provisions mentioned JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 for determination of O&M expenses as cited below:

Operation and Maintenance (O&M) expenses

10.18 Operation and Maintenance (O&M) expenses shall comprise the following:

- (a) Salaries, wages, pension contribution and other employee costs;
- (b) Administrative and General costs;
- (c) Repairs and maintenance expenses;

10.19 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 Transmission Licensees, estimates of the actuals for the Base Year, prudence check and any other factor considered appropriate by the Commission.

10.20 O&M expenses permissible towards ARR for each year of the Control Period shall be determined using the formula detailed below:

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) + \text{Terminal liabilities};$$

Where,

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

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

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

10.21 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 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 years of the Base Year in the MYT Order after normalizing any abnormal



expenses;

'GFA' is opening value of the gross fixed asset of the nth year;

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

Where,

EMP_{n-1} – Employee Costs of the Transmission Licensee for the (n-1)th year excluding terminal liabilities;

A&G_{n-1} – Administrative and General Costs of the Transmission Licensee for the (n-1)th year excluding legal/litigation expenses;

INDX_n– Inflation Factor to be used for indexing the employee cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year before the base year;

G_n– is 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_n* shall be determined by the Commission in the MYT Order for meeting the additional manpower requirement based on the Transmission 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 or wage revision agreement, etc., will be considered separately by the Commission;

Note 3: Terminal Liabilities will be approved as per actual submitted by the Transmission Licensee or be established through actuarial studies.

A. Employee Expenses

5.28 The Commission has observed that the Petitioner has claimed employee expense as per actuals and in line with audited accounts for FY 2022-23.

5.29 The Commission while analyzing the employee expense for FY 2022-23 has



referred to MYT order dated 23rd June 2023 and has found that there is steep increase in employee expense wherein the Petitioner has stated reasons for the increase in employee expense owing to pay revision, various recruitment drives etc as undertaken by the Petitioner referred above in para 5.22 (a) and (b) respectively. The Commission in this regard had sought necessary documents validating the same to which the Petitioner did not provide any validation justifying the increase in cost.

- 5.30 Moreover, the Commission vide letter no JSERC/Case(T) No.14 of 2024 dated 05.06.2024 had directed the Petitioner for discussion on technical validation session on the petitions in the office of the Commission on 07.06. 2024. During the course of discussion the steep increase in employee expense was discussed wherein the Petitioner was directed to submit bifurcation of employee expense with arrears due to pay revision. However, the Petitioner has not provided any details on the same.
- 5.31 Therefore, the Commission has considered normative methodology for the computation of employee expense for FY 2022-23 by escalating the previous years trued up value i.e. FY 2021-22 by an inflation factor of 6.87% and has determined and approved the employee expense accordingly for FY 2022-23. The terminal benefit is approved on actuals based on audited accounts.

B. A&G Expenses

- 5.32 The Commission after scrutinizing and prudence check of the audited accounts of the Petitioner for FY 2022-23 has found that the Petitioner has also incurred a high A&G cost wrt the approved MYT order dated 23rd June 2023. The A&G cost as approved in MYT order was Rs.9.53 crores with respect to which the Petitioner has claimed an amount of Rs.12.19 crores. The Commission after due diligence has approved the A&G expense for FY 2022-23 by escalating the previous year trued up approved value with a factor of 6.87% and has approved the A&G expense for the year accordingly.

C. R&M Expenses

- 5.33 The Commission in its MYT order dated 23rd June 2023 had approved the R&M expense for the entire period of the third control period with respect to opening GFA of the respective financial year along with K factor of 2.23%.
- 5.34 The Commission has observed that the Petitioner has claimed an R&M expense of Rs.44.39 Cr as in regard to MYT approved value of Rs.47.87 Crores.



- 5.35 The Commission has also referred to audited accounts of FY 2022-23 and has found it to be in line with the submission of the Petitioner.
- 5.36 The Commission has adopted similar methodology as considered in previous years and has approved the R&M expense for FY 2022-23 by considering the audited GFA of FY 2022-23, K factor (2.23%) as approved in MYT order dated 23rd June 2023 along with inflation factor of 6.87%.
- 5.37 The Commission has also referred to Incentive and Penalty Framework as mentioned in JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 for computation of O&M expense as cited below:

“6.19 The financial gains on account of Operations and Maintenance Expenses for Transmission Licensee shall be shared in the ratio of 50:50 between the Transmission Licensee and beneficiaries at the time of truing up.”

- 5.38 The O&M expenses as approved by the Commission in MYT order dated 23 June, 2023 and submitted by the Petitioner vis-à-vis as approved by the Commission for FY 2022-23 is shown in the table below:

Table 16 O&M expenses as approved by the Commission for FY 2022-23(Rs.Cr)

Particulars	MYT	Petition	Approved
Emp. Expenses	46.53	78.80	47.25
Terminal Benefits	5.33	33.66	33.66
R&M Expenses	47.87	44.39	92.27
A&G Expenses	9.53	12.19	9.67
O&M Expenses	109.26	169.04	182.85
Approved O&M expenses inc. of sharing of gain			175.95

Depreciation

Petitioner’s Submission

- 5.39 The Petitioner has submitted that it has calculated the depreciation as per the rates prescribed in the schedule attached to the Regulation as Appendix-I of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020.
- 5.40 The Petitioner has submitted detailed calculation for the depreciation claimed as shown in the table below:



Table 17 Calculation of Depreciation expenses as submitted by the Petitioner for FY 2022-23(Rs.Cr)

Particulars	Gross Fixed Assets			Depreciation
	At Beginning of Year	Additions/ Disposals during the year	At End of Year	Depreciation during the year
Land and land rights	7.93	0.00	7.93	0.00
Building	13.46	0.75	14.21	0.45
Plant and Machinery	2137.22	0.00	2137.22	112.85
Lines and Cable Network	1702.77	2.59	1705.36	90.00
Vehicles	0.72	0.19	0.91	0.05
Furniture and Fixture	1.45	0.09	1.54	0.10
Office Equipment	2.07	0.10	2.17	0.13
Spare Units/Service Units	0.21	0.00	0.21	0.00
Others Civil Works	6.05	0.14	6.19	0.20
Total	3871.89	3.86	3875.75	203.79

5.41 The Petitioner has submitted that depreciation expenses claimed is within the limit approved by the Hon'ble Commission in the Tariff Order dated 23.06.2023 and is also in line with the unaudited accounts for FY 2022-23. It is also submitted that the depreciation of SLDC amounting to Rs. 0.11 Crores have been deducted from the total depreciation of Rs. 203.90 Crore to arrive at the net depreciation of Rs. 203.79 Crores, as shown in the table:

Table 18: Depreciation for FY 2022-23 as submitted by the Petitioner (Rs. Cr.)

Particulars	MYT	Petition
Depreciation	120.33	203.79

Commission's Analysis

5.42 The Commission, in its MYT order dated 23.06.2023 has determined asset-wise depreciation with additions in asset during the year considered as per the approved capitalization for the year. The Commission has considered the depreciation rates for the various asset classes as per the Transmission Tariff Regulations, 2020. Accordingly, the depreciation cost was approved by the Commission for the control period FY 2020-21 to FY 2025-26.

5.43 The Commission after scrutinizing the submission made by the Petitioner approves the depreciation based on the depreciation schedule attached to as Appendix-I to the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 and the capitalization as approved earlier in this order.

5.44 The Commission after scrutiny and verification of the documents submitted along with audited accounts has adopted similar methodology for computing the depreciation for FY 2022-23 and has approved depreciation for FY 2022-



23 as shown in the table below:

Table 19: Depreciation for FY 2022-23 as approved by the Commission(Rs.Cr)

Particulars	MYT	Petition	Approved
Depreciation	120.33	203.79	203.79

Interest on Loan

Petitioner's Submission

5.1 The Petitioner has submitted that interest on loans include loans against schemes, central and state government loans, Bank Overdrafts, public bonds etc. The Petitioner has further submitted that it has been funding its capital expenditure mostly from State Government loan. In this regard, loan balance has substantially increased with increase in capital expenditure and capitalization for each year. JUSNL has claimed interest on loan of Rs.466.29 Crore against that approved amount of Rs.91.48 Crore. The following table shows the interest on loan claimed by JUSNL against that approved in the MYT Order:

Table 20: Interest on loan as submitted by the Petitioner for FY 2022-23(Rs.Cr)

Particulars	MYT	Petition
Interest on Loan	91.48	466.29

Commission's Analysis

5.2 As per Clause 7.10 of JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020, the Debt : Equity ratio of transmission project will be considered as per the following:-

“For a project declared under commercial operation on or after 1.04.2016, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity deployed is less than 30% of capital cost, the actual equity shall be considered for determination of tariff.”

5.3 As the Petitioner has submitted that all capitalization is carried out by taking loans from State Government, hence, the Commission has considered the entire capitalization during the year funded through loan (i.e Debt : Equity is 100:0).

5.4 The repayment for the year of the tariff period has been considered to be equal to the depreciation allowed for that particular financial year. The closing loan values for the FY 2021-22 has been considered as opening loan value for FY

2022-23.

- 5.5 The Commission has observed that most of the projects of the Petitioner is being funded by loan from State Govt of Jharkhand at an interest rate of 13% and world bank at an rate of 2.5%.The Commission in MYT tariff order for the third control period dated 23 June 2023 had also directed the Petitioner to make efforts to re-finance the loans for such schemes from the cheapest source available and had also advised the Petitioner to approach the State Government to convert the loans into grant or equity however even after direction from the Commission the Petitioner did not make any efforts for conversion of loans into cheapest sources. Hence the Commission has considered the methodology as adopted in the MYT order for the respective year of FY 2022-23. The Commission has referred to clause 10.33 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations,2020 and has considered an interest rate of SBI MCLR as on 1st April 2022 plus 200 basis points i.e. (7% plus 200 basis points =9%) The Interest on Loan as approved by the Commission is tabulated hereunder:

Table 21: Interest on loan as approved by the Commission for FY 2022-23(Rs.Cr)

Particulars	MYT	Petition	Approved
Net Loan-Opening	923.25	-	1368.61
Additions during the year	307.06	-	3.86
Repayment during the Year	120.58	-	203.79
Net Loan- closing	1109.74	-	1168.68
Average Loan	1016.49	-	1268.64
Interest on Loan (%)	9.00%	-	9.00%
Interest on Loan	91.48	466.29	114.18

Return on Equity

Petitioner's Submission

- 5.6 The Petitioner has submitted that it has considered equity base of Rs.1600.96 Crore (Rs1598.96 Crore towards equity share capital + Rs.2.00 Crore towards restructuring account pending adjustment) for FY 2022-23 as reflected in the annual unaudited accounts. The applicable return on equity has been calculated considering 14% rate of return as per Regulation 10.26 of JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020. The detailed calculation of return on equity is provided below:



Table 22: Return on Equity as submitted by the Petitioner for FY 2022-23(Rs.Cr)

Particulars	MYT	Petition
Opening Equity	350.61	1600.96
Additions	0.00	0.00
Closing Equity	350.61	1600.96
Average Equity	350.61	1600.96
Rate of Return	14.00%	14.00%
Return on Equity	49.09	224.13

Commission's Analysis

5.7 The Commission is of the view that the Petitioner has computed the equity component more than the normative equity of 30% of the GFA. The Commission vide data gap had directed the Petitioner for providing detailed information on the same.

5.8 In reply the Petitioner had submitted that it has considered the equity portion as per the audited accounts for FY 2022-23. The Commission has observed that the Petitioner failed to submit proper justification. Hence, the Commission, in the instant petition, has considered the closing equity of FY 2021-22 as the opening equity for FY 2022-23. with no addition in equity component as submitted by the Petitioner.

5.9 As per Regulation 10.26 to 10.27 of the JSERC Transmission Tariff Regulations, 2020 Return on Equity shall be calculated as follows: -

“Return on Equity

10.26 The rate of return on equity shall be 14.00% (post-tax) for the Control Period.

10.27 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 10.23 of these Regulations on assets (in use) capitalized as on the beginning of the year; and b) 50% of the equity projected to be employed in accordance with Clause 10.24 of these Regulations on assets (in use) commissioned during the year.”

5.10 The Commission has accordingly approved the Return on Equity for FY 2022-23 as shown in the table below:

Table 23: Return on Equity as approved by the Commission for FY 2022-23(Rs.Cr)

Particulars	MYT	Petition	Approved
Opening Equity	350.61	1600.96	976.61
Additions	0.00	0.00	0.00
Closing Equity	350.61	1600.96	976.61
Average Equity	350.61	1600.96	976.61
Rate of Return	14.00%	14.00%	14.00%
Return on Equity	49.09	224.13	136.73



Interest on Working Capital

Petitioner's Submission

5.11 The Petitioner has submitted that the working capital requirement has been computed according to the applicable norms for Transmission function as provided in the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020, the calculation for which has been detailed in the table below. In line with the above Regulations actual SBI base rate prevailing on 1st April 2022 has been taken into account for calculation of interest on working capital for FY 2022-23.

Table 24: Interest on Working Capital as submitted by the Petitioner for FY 2022-23(Rs.Cr)

Particulars	MYT	Petition
O&M expenses for 1 month	9.10	14.09
Maintenance spares 15% of O&M expenses	16.39	25.36
45 days Receivables of Annual Fixed Charges	44.97	132.08
Total Working Capital	70.46	171.52
Interest Rate	10.50%	10.50%
Interest on Working Capital in Rs.Crore	7.40	18.01

Commission's Analysis

5.45 The Commission has considered Interest on Working Capital(IoWC) as per norms specified in clause 10.43 to clause 10.46 of the JSERC ((Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 referred as below:

“Interest on Working Capital

10.44 Working Capital for the Transmission Licensee shall comprise:

- (a) Maintenance spares @ 15% of the O&M expenses specified in Clauses 10.19- 10.21 of these Regulations;*
- (b) Receivables equivalent to 45 days of annual fixed cost;*
- (c) Operation and Maintenance expenses for one month;*
- (d) Less: Interest on amount, if any, held as security deposits from Transmission system users.*

10.45 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 true up exercise has been undertaken

10.46 The interest on working capital shall be payable on normative basis notwithstanding that the Transmission Licensee has not taken working capital loan from any outside agency.”



- 5.12 The Commission has considered the Interest on Working Capital (IoWC) as per norms specified in Clause 10.45 to clause 10.46 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020.
- 5.13 The rate of IoWC has been considered to be equal to the Bank rate of SBI as applicable on April 01, of the relevant financial year plus 350 basis points as per Clause 10.45 to 10.46 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020.

Table 25: Interest On Working Capital as approved by the Commission for FY 2022-23(Rs.Cr)

Particulars	MYT	Petition	Approved
O&M expenses for 1 month	9.10	14.09	14.66
Maintenance spares 15% of O&M expenses	16.39	25.36	26.39
45 days Receivables of Annual Fixed Charges	44.97	132.08	76.95
Total Working Capital	70.46	171.52	118.00
Interest Rate	10.50%	10.50%	10.50%
Interest on Working Capital in Rs.Core	7.40	18.01	12.39

Non-tariff Income

Petitioner's Submission

- 5.14 The Petitioner has submitted that Regulation 10.50 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 states non-tariff income as follows:

“10.50 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 by supervision charges, etc.;*
- j) Supervision charges for capital works;*
- k) Income from advertisements;*
- l) Income from sale of tender documents;*
- m) Profit from sale of assets (i.e. difference in Sale Value and Book Value)*
- n) Any other Non-Tariff Income:”*

Table 26: Non-Tariff Income as submitted by the Petitioner for FY 2022-23(Rs.Cr)

Particulars	MYT	Petition
Non-tariff Income	12.79	18.90



Commission's Analysis

5.15 The Commission, on evaluation and prudent check has approved the Non-Tariff Income based on actuals as summarized in the table below.

Table 27: Non-Tariff Income as approved by the Commission for FY 2022-23(Rs.Cr)

Particulars	MYT	Petition	Approved
Non-tariff Income	12.79	18.90	18.90

Tax on Income

5.46 The Petitioner has submitted that as per the Transmission Tariff regulations 2020 notified by the Hon'ble Commission, the following has been stated:

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

10.48 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 Transmission Licensee shall not be recovered from the Beneficiaries."

5.47 Hence the Petitioner has not paid any income tax during the FY 2022-23. Therefore, same has not been considered as part of ARR in this Petition.

Commission's Analysis

5.48 The Commission has noted the submission made by the Petitioner and has considered the same accordingly.

Incentive for Transmission Availability

Petitioner's Submission

5.16 The Petitioner has claimed an incentive for achieving 99.32% availability of transmission network against the normative value of 98.50%, detailed below.

Table 28: Incentive for Transmission Availability as submitted by the Petitioner for FY 2022-23(Rs.Cr)

Particulars	Petition
Annual Transmission System Availability Factor	99.32%
Annual Transmission System Target Availability Factor for Incentive consideration as per JSERC Regulations	98.50%
Max availability factor that can be claimed for incentive	99.75%
Annual Transmission Charges	1081.14
Incentive/(Penalty) to be claimed	8.93



Commission's Analysis

5.17 The relevant clauses of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 related to the incentive calculation and recovery of fixed charges are extracted hereunder,

“10.58 The fixed cost of the Transmission System shall be computed on annual basis, in accordance with norms contained in these Regulations, aggregated as appropriate, and recovered on monthly basis as transmission charge from the users.

10.59 The transmission charge (inclusive of incentive) payable for a calendar month for a Transmission System or part thereof shall be

- a. For TAFM < 98% AFC x (NDM/NDY) x (TAFM/98%)*
- b. For TAFM: 98% < TAFM < 98.5% AFC x (NDM/NDY) x (1)*
- c. For TAFM: 98.5% < TAFM < 99.75% AFC x (NDM/NDY) x (TAFM/98.5%)*
- d. For TAFM > 99.75% AFC x (NDM/NDY) x (99.75%/98.5%)*

Where,

AFC = Annual Fixed Cost specified for the year, in Rupees;

NDM = Number of days in the month;

NDY = Number of days in the year; and

TAFM = Transmission system availability factor for the month, in percent, computed in accordance with Appendix –III to these Regulations.

10.60 The Transmission Licensee shall raise the bill for the transmission charge (inclusive of incentive) for a month based on its estimate of TAFM. Adjustments, if any, shall be made on the basis of the TAFM to be certified by the SLDC within 30 days from the last day of the relevant month.”

5.18 Accordingly, the Commission on prudent check has approved the Incentive as summarized in the table below.

Table 29: Annual Fixed Cost as approved by the Commission for FY 2022-23(Rs.Cr)

Particulars	UoM	Petition	Approved
O&M Expenses	Rs.Cr.	169.04	175.95
Interest & Finance Charges	Rs.Cr.	466.29	114.18
Interest on Working Capital	Rs.Cr.	18.01	12.39
Depreciation	Rs.Cr.	203.79	203.79
Return on Equity	Rs.Cr.	224.13	136.73
Annual Fixed Cost	Rs.Cr.	1,081.27	643.03
Non-Tariff Income	Rs.Cr.	18.90	18.90
Net ARR	Rs.Cr.	1062.37	624.13



Table 30: Incentive for FY 2022-23 as approved by the Commission(Rs.Cr)

Month	No. of Days	TAFM as Certified by the SLDC	ARR including Incentive
April	30.00	98.61%	51.35
May	31.00	98.71%	53.12
June	30.00	98.87%	51.49
July	31.00	98.89%	53.22
August	31.00	99.54%	53.57
September	30.00	98.85%	51.48
October	31.00	98.35%	53.01
November	30.00	99.07%	51.60
December	31.00	99.39%	53.49
January	31.00	99.49%	53.54
February	28.00	98.44%	47.88
March	31.00	98.91%	53.23
Total	365.00		626.97

Particulars	Approved
Annual Fixed Cost	624.13
ARR inclusive of Incentive	626.97
Net Incentive	2.84

Revenue from Operations

Petitioner's Submission

5.19 The Petitioner submits that it has recovered transmission charge as approved by the Hon'ble Commission in its order dated 24th February 2018. The relevant extract of the order is quoted below:

“ 6.64 The Commission approves transmission tariff of Rs 0.25 per kWh for FY 2016-17, which shall remain applicable till amended or modified or extended by an Order of this Commission.”

5.20 In line with the direction of the Hon'ble Commission the Petitioner has recovered transmission charge at a tariff of Rs. 0.25 per kWh wheeled through its transmission network for FY 2022-23. The Petitioner has claimed the revenue from the existing tariff as per actual for FY 2022-23.

Table 31: Revenue for FY 2022-23 as submitted by the Petitioner (Rs.Cr.)

Particulars	Petition
Revenue from Existing Tariff	299.25

Commission's Analysis

5.21 The Commission, after scrutinizing and on analysis of the audited accounts approves the revenue from transmission business for FY 2022-23 as tabulated below.

Table 32: Revenue for FY 2022-23 as approved by the Commission (Rs. Cr.)

Particulars	Petition	Approved
Revenue from Existing Tariff	299.25	299.25



Summary of ARR Components and Revenue Gap/(Surplus)

Petitioner's Submission

5.22 The summary of ARR components as submitted by the Petitioner is mentioned in the table below.

Table 33: Summary of ARR Components as submitted by the Petitioner for FY 2022-23(Rs.Cr)

Particulars	MYT	Petition
Operation and Maintenance Expense	109.26	169.04
Employee Expense	51.86	112.46
A&G Expense	9.53	12.19
R&M Expense	47.87	44.39
Depreciation	120.33	203.79
Interest and Finance Charge	91.48	466.29
Return on Equity	49.09	224.13
Interest on Working Capital	7.40	18.01
Less: Non-tariff Income	12.79	18.90
Incentive	0.00	8.93
Net Aggregate Revenue Requirement	364.77	1071.30
Revenue from Operations	-	299.25
Revenue Gap / (Surplus)	364.77	772.05

Commission's Analysis

5.23 The summary of ARR components as approved by the Commission is summarized in the table below:

Table 34: Summary of ARR Components for FY 2022-23 as approved by the Commission (Rs. Cr.)

Particulars	MYT	Petition	Approved
Operation and Maintenance Expense	109.25	169.04	175.95
Depreciation	120.33	203.79	203.79
Interest and Finance Charge	91.48	466.29	114.18
Return on Equity	49.09	224.13	136.73
Interest on Working Capital	7.40	18.01	12.39
Less: Non-tariff Income	12.79	18.90	18.90
Incentive	0.00	8.93	2.84
Net Aggregate Revenue Requirement	364.77	1071.30	626.97
Revenue from Operations	-	299.25	299.25
Revenue Gap / (Surplus)	364.77	772.05	327.72

5.24 The Commission observes that the petition was required to be filed in accordance with Clause A 24 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020. However, the instant petition was filed on 29th February, 2024, as such, the Commission disallows the carrying on the net Gap/(Surplus) cost for the period of delay.



Chapter 6: Annual Performance Review for FY 2023-24

- 6.1 The Petitioner has submitted the APR petition for FY 2023-24 taking into consideration the provisions of JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020, and the methodology adopted by the Commission in the previous orders.
- 6.2 The Commission, based on the provisions of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 has carried out APR taking into consideration: -
- Data and information's submitted for FY 2023-24 and additional details submitted by the Petitioner,
 - JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020; and;
 - Methodology adopted by the Commission in the earlier orders.

Capital Expenditure, Capitalization & CWIP

Petitioner Submission

- 6.3 The Petitioner has projected capital expenditure and capitalization for FY 2023-24. JUSNL has considered the closing CWIP of FY 2022-23 estimated in true up of FY 2022-23 as the opening CWIP for FY 2023-24. Accordingly, the closing balance of CWIP has been computed.
- 6.4 The Capital Expenditure, Capitalization and CWIP as submitted by the Petitioner are given in the tables below:

Table 35: Capex, CWIP and Capitalization for FY 2023-24 submitted by the Petitioner (Rs.Cr.)

Particulars	Projected
Capital Expenditure during the Year	3458.82
Addition in Capital Expenditure	570.08
Capitalization	215.07
Closing CWIP	3813.84

- 6.5 The Petitioner has considered closing GFA for FY 2022-23 as opening GFA of FY 2023-24. Based on the capital expenditure and capitalization proposed for the FY 2023-24, Rs.215.07 Crore is proposed to be capitalized during the FY 2023 24. Assets amounting to Rs.2.03 crore pertaining to SLDC have been deducted from the total opening assets of JUSNL for FY 2023-24 valuing Rs.



3877.78 Crores. Hence, the net opening assets of JUSNL for FY 2023-24 after segregation of SLDC assets are Rs.3875.75 Crores.

- 6.6 The Petitioner has requested the Commission to approve GFA for FY 2023-24 as provided in the table below:

Table 36: Gross Fixed Assets for FY 2023-24 as submitted by the Petitioner (Rs. Cr.)

Particulars	MYT	Petition
Opening Gross Fixed Asset	2330.41	3875.75
Asset Capitalized during the year	29.99	215.07
Closing Gross Fixed Asset	2360.40	4090.82

Commission Analysis

- 6.7 The Commission has considered opening GFA for FY 2023-24 equal to closing GFA for FY 2022-23, as approved while truing-up above. The Commission has also observed that the capitalization as submitted by the Petitioner is 215.07 Cr as compared to 29.99 Cr as approved in MYT order. The Commission after scrutiny of the documents submitted by the Petitioner as enclosed in Annexure F has found it to be in line with the submission of the Petitioner. The Commission however provisionally allows the capitalization as submitted by the Petitioner however same shall be reviewed during true up based on audited accounts.
- 6.8 The Commission has scrutinized the information submitted by the Petitioner and approves the capitalization for FY 2023-24 as shown below.

Table 37: Gross Fixed Assets as approved by the Commission for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition	Approved
Opening Gross Fixed Asset	2330.41	3875.75	3875.75
Asset Capitalized during the year	29.99	215.07	215.07
Closing Gross Fixed Asset	2360.40	4090.82	4090.82

Operation and Maintenance Expenses

Petitioner Submission

- 6.9 The Petitioner has submitted that the O&M expenses of JUSNL for the FY 2023-24 have been projected considering the historical expenses and the projections in terms of capitalization etc. The O&M expenses of FY 2022-23 are being used as base figures, which are escalated to arrive at the future projections for FY 2023-24.
- 6.10 **Employee Expenses:** The Petitioner submits that the employee expenses primarily include the salaries, dearness allowances, dearness pay, other



allowances, incentives and retirement and other benefits paid to the employees;

- 6.11 **Repair and Maintenance (R&M) Expenses:** The Petitioner has submitted that the R&M expense basically include all expenditure incurred on the maintenance and upkeep of all assets and regulatory purposes.
- 6.12 **Administrative and General Expenses:** The Petitioner has submitted that the A&G expenses basically include all expenditure incurred in operating a business such as telephone charges, vehicle and other hiring charges, legal expenses, consultancy fees, audit fees, conveyance and travel expenses, water charges and other expenses.
- 6.13 The Petitioner has projected the employee cost for the FY 2023-24 by escalating the employee cost (excluding the terminal benefits) for FY 2022-23 by the inflation factor of 6.09%. The same has been approved by the Hon'ble Commission in the MYT Order for the 3rd Control Period.
- 6.14 Thus, the employee cost projected by the Petitioner for the FY 2023-24 considering the inflation factor of 6.09% is summarized in the following table:

Table 38 Employee Cost as projected by the Petitioner for FY 2023-24(Rs.Cr)

Particulars	FY 2023-24	FY 2023-24
	Approved in order	Projected
Employee Expenses	49.36	83.60
Terminal Benefits	5.33	33.66
Total	54.69	117.25

- 6.15 The Petitioner has projected the A&G expenses for the FY 2023-24 by escalating the A&G expenses (excluding the legal expenses) of FY 2022-23 by the inflation factor of 6.09%.
- 6.16 Thus, the A&G expenses projected by the Petitioner for the FY 2023-24 is summarized in the following table:

Table 39 A&G expenses as projected by the Petitioner for FY 2023-24(Rs.Cr)

Particulars	FY 2023-24	FY 2023-24
	Approved in order	Projected
A&G Expenses	10.73	12.91
Total	10.73	12.91

- 6.17 The Petitioner has referred to regulation 10.21 of the Transmission regulations 2020 for the calculation of Repair of Maintenance expenses:



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

Where “K” is 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 years of the Base Year in the MYT Order after normalising any abnormal expenses; ‘GFA’ is opening value of the gross fixed asset of the nth year;”

6.18 As given above, the Regulations stipulate to compute the “K” factor governing the relationship between R&M costs and Gross Fixed Assets (GFA). The JUSNL has considered the “K” factor as approved by the Hon’ble Commission in the MYT Order issued for the 3rd Control Period.

6.19 The R&M cost for the FY 2023-24 is computed by considering the opening GFA as determined for FY 2023-24, the “K” factor as determined here and the inflation factor of 6.09%. The R&M expenses proposed for the FY 2023-24 are given in the following table:

Table 40 R&M expenses projected by the Petitioner for FY 2023-24(Rs.Cr)

Particulars	FY 2023-24	FY 2023-24
	Approved in order	Projected
R&M Expenses	55.13	92.05

6.20 The Petitioner has requested the Honourable Commission to approve the O&M expenses for FY 2023-24 as given in the table below:

Table 41: O&M Expense as projected by the Petitioner for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition
Emp. Expenses	54.69	117.25
R&M Expenses	55.13	92.05
A&G Expenses	10.73	12.91
O&M Expenses	120.55	222.22

Commission’s Analysis

5.49 The Commission has referred to provisions mentioned JSERC(Terms and Conditions for Determination of Transmission Tariff)Regulations,2020 for determination of O&M expenses as cited below:

Operation and Maintenance (O&M) expenses

10.18 Operation and Maintenance (O&M) expenses shall comprise the following:

- (a) Salaries, wages, pension contribution and other employee costs;
- (b) Administrative and General costs;
- (c) Repairs and maintenance expenses;

10.19 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 Transmission Licensees, estimates of the actuals for the Base Year, prudence check and any other factor considered appropriate by the Commission.

10.20 O&M expenses permissible towards ARR for each year of the Control Period shall be determined using the formula detailed below:

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) + \text{Terminal liabilities};$$

Where,

R&M_n – Repair and Maintenance Costs of the Transmission Licensee for the *n* th year;

A&G_n – Administrative and General Costs of the Transmission Licensee for the *n*th year;

EMP_n – Employee Costs of the Transmission Licensee for the *n*th year excluding terminal liabilities.

10.21 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 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 years of the Base Year in the MYT Order after normalising any abnormal expenses;

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

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

Where,

EMP_{n-1} – Employee Costs of the Transmission Licensee for the (n-1)th year excluding terminal liabilities;

A&G_{n-1} – Administrative and General Costs of the Transmission Licensee for the (n-1)th year excluding legal/litigation expenses;

INDX_n– Inflation Factor to be used for indexing the employee cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year before the base year;

G_n– is a growth factor for the *n*th year and it can be greater than or lesser than zero based on the actual performance. Value of *G_n* shall be determined by the Commission in the MYT Order for meeting the additional manpower requirement based on the Transmission 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 INDEX n/INDEXn-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 or wage revision agreement, etc., will be considered separately by the Commission;

Note 3: Terminal Liabilities will be approved as per actual submitted by the Transmission Licensee or be established through actuarial studies.

A. Employee Expenses

- 6.21 The Commission in its MYT order dated 23rd June 2023 has approved the employee cost for 3rd control as per provisions laid down JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020.
- 6.22 The Commission upon reviewing the submission made by the Petitioner observes that the employee cost projected by the Petitioner is quite high as compared to that being approved by the Commission in its MYT order.
- 6.23 Hence the Commission has adapted the methodology as outlined in the previous section of this order for determination of employee expense for True up of FY 2022-23.
- 6.24 The Commission for calculation of employee expense for FY 2023-24 has considered the true up value as approved for FY 2022-23 and has escalated the same with an escalation factor of 6.09%. The Commission has disallowed the expense wrt to terminal benefits in APR for FY2023-24 and same shall be considered during true up for the respective year based on audited accounts.

B. A&G Expenses

- 6.25 The Commission after analyzing the submission made by the Petitioner for computation of A&G expenses for FY 2023-24 finds that the projected value of A&G for FY 2023-24 is higher than that being approved by the Commission in MYT order. Hence the Commission after due diligence has approved the A&G expense for FY 2023-24 by escalating the previous year true up approved value with a factor of 6.09% and has approved accordingly.

C. R&M Expenses

- 6.26 The Commission in its MYT order dated 23rd June 2023 had approved the R&M expense for the entire period of the third control period with respect to opening GFA of the respective financial year along with K factor of 2.23%.
- 6.27 The Commission has observed that the Petitioner has projected an R&M expense of Rs.92.05 Cr as in regard to MYT approved value of Rs.55.13 Crores.
- 6.28 In line with the above provisions the Commission has adopted similar



methodology and has approved the R&M expense for FY 2023-23 by considering the approved GFA of FY 2023-23, K factor (2.23%) as approved above along with inflation factor of 6.09%.

- 6.29 Hence, considering the same methodology as adopted in the earlier orders, the O&M expenses as approved by the Commission in MYT order dated 23rd June 2023 and submitted by the Petitioner vis-à-vis as approved by the Commission for FY 2023-24 is shown below:

Table 42: O&M expense as approved by the Commission for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition	Approved
Emp. Expenses(excluding terminal benefits)	49.36	83.60	50.12
R&M Expenses	55.13	92.05	91.69
A&G Expenses	10.11	12.91	10.26
O&M Expenses	120.55	188.56	152.08

Depreciation

Petitioner's Submission

- 6.30 The Petitioner has submitted that it has calculated the depreciation as per the rates prescribed in the schedule attached to the Regulation as Appendix-I of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020.
- 6.31 The Petitioner has calculated depreciation on the projected GFA as per the above-mentioned provisions and has projected depreciation which are in line with the MYT Regulations, 2020 provided in the table below:

Table 43: Depreciation as submitted by the Petitioner for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition
Depreciation	127.44	167.60

Commission's Analysis

- 6.32 The Commission, in its MYT order dated 23.06.2023 has determined asset-wise depreciation with additions in asset during the year considered as per the approved capitalization for the year. The Commission has considered the depreciation rates for the various asset classes as per the Transmission Tariff Regulations, 2020. Accordingly, the depreciation cost was approved by the Commission for the control period FY 2020-21 to FY 2025-26.
- 6.33 The Commission after scrutinizing the submission made by the Petitioner approves the depreciation based on the depreciation schedule attached to as



Appendix-I to the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 and the capitalization as approved earlier in this order.

- 6.34 The Commission has adopted similar methodology for computing the depreciation for FY 2023-24.

Table 44: Depreciation as approved by the Commission for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition	Approved
Depreciation	127.44	167.60	167.60

Interest on Loan

Petitioner's Submission

- 6.35 The Petitioner has projected the interest charges based on the clauses 10.28 to 10.36 of the MYT Regulations, 2020. The Petitioner has stated that assets proposed to be capitalized during the FY 2023-24 have been funded by the State Government Funds and the World Bank Funds. The State Government Funds are being provided to the JUSNL in the form of Loan at an interest rate of 13%. The World Bank Funds are being provided in the form of loan and equity divided in the ratio of 70:30. The rate of interest of the World Bank Loan is 2.5%.
- 6.36 The Petitioner has stated that the rate of interest has been considered as 9.82% which is the weighted average rate of interest calculated on the basis of the actual loan portfolio of the JUSNL for the FY 2022-23. The computation of the interest rate is provided below:

Table 45 Weighted average rate of interest(Rs.Cr)

Rate of Interest	FY 2022-23
Opening Loan	4603.96
Loan for additional Capex	668.45
Loan Surrendered	376.99
Closing Loan	4895.42
Average Loan	4749.69
Interest during the Year	466.29
Interest Rate	9.82%

- 6.37 The Petitioner has projected the interest charges for FY 2023-24 as shown in the table below:

Table 46: Interest on loan as projected by the Petitioner for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition
Interest on Loan	1109.74	4895.42
Loan for additional Capex	28.97	215.07
Loan Repayment	127.69	167.60
Closing Loan	1011.02	4942.89
Interest Cost on Avg.Loan	95.43	482.93



Commission's Analysis

6.38 As per Clause 7.10 of JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020, the Debt: Equity ratio of transmission project will be considered as per the following: -

“For a project declared under commercial operation on or after 1.04.2016, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity deployed is less than 30% of capital cost, the actual equity shall be considered for determination of tariff:”

6.39 The repayment for the year of the tariff period has been considered to be equal to the depreciation allowed for that particular financial year. The closing loan values for the FY 2022-23 has been considered as opening loan value for FY 2023-24.

6.40 In the absence of the actual loan portfolio, the Commission has considered the rate of interest as 9.00% as approved in MYT order dated 23.06.2023. The Interest on Loan as approved by the Commission is tabulated hereunder:

Table 47: Interest on Loan as approved by the Commission for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition	Approved
Net Loan-Opening	1109.74	4895.42	1168.68
Additions during the year	28.97	215.07	215.07
Repayment during the Year	127.69	167.60	167.60
Net Loan- closing	1011.02	4942.89	1216.15
Average Loan	1060.38	4919.16	1192.41
Interest on Loan (%)	9.00%	9.82%	9.00%
Interest on Loan	95.43	482.93	107.32

Return on Equity

Petitioner's Submission

6.41 The Petitioner has submitted that it has considered equity base of Rs.1600.96 Crore (Rs1598.96 Crore towards equity share capital + Rs. 2.00 Crore towards restructuring account pending adjustment) for FY 2023-24 as reflected in the annual unaudited accounts. The State Government has infused Rs. 626.00 Crore of equity during the FY 2020-21 in JUSNL. This equity pertains to the equity amount of the World Bank funded schemes being implemented by JUSNL. The applicable return on equity has been calculated considering 14.00% rate of return as per Regulation 10.26 of JSERC



Transmission Tariff Regulations, 2020. The detailed calculation of return on equity is provided below:

Table 48: Return on Equity as submitted by the Petitioner for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition
Opening Equity	350.61	1600.96
Additions	1.02	0.00
Closing Equity	351.63	1600.96
Average Equity	351.12	1600.96
Rate of Return	14.00%	14.00%
Return on Equity	49.16	224.13

Commission's Analysis

6.42 The Commission has referred to Clause 10.26 to 10.27 of JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020, the Debt: Equity ratio of transmission project will be considered as per the following: -

“For a project declared under commercial operation on or after 1.04.2016, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity deployed is less than 30% of capital cost, the actual equity shall be considered for determination of tariff:”

6.43 As per Regulation 10.26 to 10.27 of the JSERC Transmission Tariff Regulations, 2020 Return on Equity shall be calculated as follows: -

“Return on Equity

10.26 The rate of return on equity shall be 14.00% (post-tax) for the Control Period.

10.27 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 10.23 of these Regulations on assets (in use) capitalized as on the beginning of the year; and b) 50% of the equity projected to be employed in accordance with Clause 10.24 of these Regulations on assets (in use) commissioned during the year.”

6.44 The Commission has also observed the addition in equity component considered by the Petitioner as nil, accordingly the Commission has approved equity as nil.

6.45 The closing equity as approved for the FY 2022-23 has been considered as opening equity for FY 2023-24. The Commission has accordingly approved the Return on Equity for FY 2023-24 as given in the table below:

Table 49: Return on Equity as approved by the Commission for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition	Approved
Opening Equity	350.61	1600.96	976.61
Additions	1.02	0.00	0.00
Closing Equity	351.63	1600.96	976.61
Average Equity	351.12	1600.96	976.61
Rate of Return	14.00%	14.00%	14.00%
Return on Equity	49.16	224.13	136.73

Interest on Working Capital

Petitioner's Submission

6.46 The Petitioner has submitted that the working capital requirement has been computed according to the applicable norms for Transmission function as provided in the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020, the calculation for which has been detailed in the table below. In line with the above Regulations actual MCLR rate prevailing on 30th September 2023 i.e. 8.55% plus 350 basis points has been taken into account for calculation of interest on working capital for FY 2023-24.

Table 50: Interest on Working Capital as submitted by the Petitioner for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition
O&M expenses for 1 month	9.99	18.52
Maintenance spares 15% of O&M expenses	17.99	33.33
45 days Receivables of Annual Fixed Charges	47.73	135.69
Total Working Capital	75.71	187.54
Interest Rate	10.50%	12.05%
Interest on Working Capital in Rs.Crore	7.95	22.60

Commission's Analysis

6.47 The Commission has considered the Interest on Working Capital (IoWC) as per norms specified in Clause 10.44 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020.

6.48 The rate of IoWC has been considered to be equal to the MCLR rate as applicable on September 30th, of the relevant financial year plus 350 basis points as per Clause 10.45 to 10.46 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020.

Table 51: Interest on Working Capital as approved by the Commission for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition	Approved
O&M expenses for 1 month	9.99	18.52	12.67
Maintenance spares 15% of O&M expenses	16.39	25.36	22.81



Particulars	MYT	Petition	Approved
45 days Receivables of Annual Fixed Charges	44.97	132.08	68.72
Total Working Capital	70.46	171.52	104.20
Interest Rate	10.50%	12.05%	12.05%
Interest on Working Capital in Rs.Core	7.40	18.01	12.56

Non-tariff Income

Petitioner's Submission

6.49 The Petitioner has submitted that Regulation 10.32 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 states non-tariff income as follows:

"10.50 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 by supervision charges, etc.;*
- j) Supervision charges for capital works;*
- k) Income from advertisements;*
- l) Income from sale of tender documents;*
- m) Profit from sale of assets (i.e. difference in Sale Value and Book Value)*
- n) Any other Non-Tariff Income:"*

6.50 The Petitioner for projection of the non-tariff income for FY 2023-24 has considered the non-tariff income of FY 2022-23 for FY 2023-24. Accordingly, the non-tariff income projected by the Petitioner for FY 2023-24 is summarized in the following table:

Table 52: Non-Tariff Income as projected by the Petitioner for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition
Non-tariff Income	12.79	18.90

Commission's Analysis

6.51 The Commission, on evaluation of the submission made by the Petitioner approves NTI for FY 2023-24 as shown in the table below:



Table 53: Non-Tariff Income as approved by the Commission for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition	Approved
Non-tariff Income	12.79	18.90	18.90

Summary of ARR Components and Revenue Gap/(Surplus)

Petitioner's Submission

6.52 The summary of ARR components as submitted by the Petitioner is mentioned in the table below.

Table 54: Summary of ARR Components as submitted by the Petitioner for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition
Operation and Maintenance Expense	120.55	222.22
Depreciation	127.44	167.60
Interest and Finance Charge	95.43	482.93
Return on Equity	49.16	224.13
Interest on Working Capital	7.95	22.60
Less: Non-tariff Income	12.79	18.90
Net Aggregate Revenue Requirement	387.74	1110.58

Commission's Analysis

6.53 The summary of ARR components as approved by the Commission is summarized in the table below:

Table 55: Summary of ARR Components as approved by the Commission for FY 2023-24(Rs.Cr)

Particulars	MYT	Petition	Approved
Operation and Maintenance Expense(excluding terminal benefits)	119.93	222.22	152.08
Depreciation	127.44	167.60	167.60
Interest and Finance Charge	95.43	482.93	107.32
Return on Equity	49.16	224.13	136.73
Interest on Working Capital	7.95	22.60	12.56
Less: Non-tariff Income	12.79	18.90	18.90
Net Aggregate Revenue Requirement	387.13	1100.58	557.38

6.54 The Commission has conducted the Annual Performance Review (APR) based on the un-audited annual accounts for FY 2023-23 and the additional data presented by the Petitioner. However, the same shall be reviewed while proceeding of True-up for FY 2023-24 based on audited accounts, in accordance with the provisions of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020.



Chapter 7: Business Plan for FY 2024-25 to FY 2025-26

7.1 The Petitioner has filed its Business Plan for the MYT Control Period FY 2021-22 to FY 2025-26 in line with the Transmission Tariff Regulations, 2015. The relevant extract of the Regulations is as under:

“6.5 The Transmission Licensee shall file for the Commission’s approval, a Business Plan approved by an authorised signatory, as per the timelines specified in Section A 24 of these Regulations.

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

(a) Capital Investment Plan: This should be commensurate with load growth and quality improvement proposed in the Business Plan. The Capital Investment Plan should also include corresponding capitalisation schedule and financing plan;

The Transmission 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) Operational Plan: Actual yearly Transmission Loss in the preceding Control Period along with year wise projection of Transmission Loss for the next Control Period.

(c) 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;

(d) A set of targets proposed for other controllable items such as transmission system availability, Transmission losses, return on equity, depreciation, working capital requirement, performance targets, Employee, R&M and A&G Expenses etc., along with detailed break up and any other information used for preparing projections of various performance parameters and other components during the Control Period. The targets shall be consistent with the Capital Investment Plan proposed by the Transmission Licensee;

(e) Proposals for Non-Tariff Income with item-wise description and details;

(f) Proposals in respect of income from Other Business; and

(g) 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, capacity enhancement plan, if any, proposed efficiency improvements and its cost benefit analysis, quality improvement measures undertaken, Employee Expenses, Repair & Maintenance Expenses 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.”

7.2 In line with the above provisions, JUSNL has submitted the Business Plan for the MYT Control Period FY 2021-22 to FY 2025-26.

Capital Investment Plan

Proposed Capital Expenditure for FY 2021-22 to FY 2025-26

7.3 For improving the transmission network availability and to strengthen the overall transmission network, JUSNL proposes massive Capital Expenditure in construction of new transmission lines and substation. The detailed breakup of proposed capital expenditure during the second control period FY 2021-22 to 2025-26 has been indicated below:

Table 56 Proposed Capital Expenditure for the MYT Control Period (in Rs.Cr)

Sl No.	Project	Estimated Amount (in Cr.)	Capital Expenditure Schedule				
			FY 22	FY 23	FY 24	FY 25	FY 26
1.	220/132/33 kV Grid sub-station, Koderma	43.99			4.40	17.60	22.00
2.	220/132/33 kV Grid sub-station, Patratu	90.44			9.04	36.18	45.22
3.	132/33 KV Grid Sub-Station, Kundhit	44.59			31.21	13.38	
4.	132 KV Jamtara – Madhupur Transmission line of propose LILO at Kundhit Grid	39.53			27.67	11.86	
5.	220/132/33 kV Grid Sub- Station, Hazaribagh	127.53			12.75	51.01	63.77
6.	220 KV D/C Tenughat – Hazaribagh Transmission line	86.96			8.70	34.78	43.48
7.	220/132/33 KV Grid Sub Station, Baliyapur	131.82			13.18	52.73	65.91
8.	LILO of 220 KV D/C Dumka - Govindpur at Baliyapur GSS	42.26			4.23	16.90	21.13
9.	220 kV Dhanbad (NKTL) –Baliyapur Transmission line	29.48			2.95	11.79	14.74
10.	220/132/33 kV, 2x200+2x80 MVA GSS, Gomia Grid Sub-station	131.82			13.18	52.73	65.91
11.	220 kV D/C TTPS-Gomia Transmission line	29.48			2.95	11.79	14.74
12.	220/132/33 kV Bero Grid Sub- station & associated transmission line	128.00				25.60	38.40
13.	220/132/33 Grid Sub Station, Sarwal & associated trasmission line	110.00				22.00	33.00
14.	220/132/33 Grid Substation, Palajori & associated	103.00				20.60	30.90



True Up FY23, APR FY 24 & ARR and Tariff for FY 25, JUSNL

Sl No.	Project	Estimated Amount (in Cr.)	Capital Expenditure Schedule				
			FY 22	FY 23	FY 24	FY 25	FY 26
	transmission line						
15.	Design, Engineering, Supply, Erection, Testing and Commissioning of 2x200 MVA, 220/132 kV Grid Sub Station (AIS) at Jadugoda (New) (220 KV- TRF Bay-02 Nos. Line Bay- 04 nos. B/C-01 nos. Bus Transfer Bay- 01 Nos, 132 KV- TRF Bay- 02 Nos, Line Bay-04 Nos, Transfer Bus coupler Bay-01 Nos) & 02 Nos of 132 Bay at 132/33 kV Grid Sub Station Dhalbhumgarh (Existing) with dismantling work for 02 Nos 132 KV Bay and 33 KV Bay Sub Station galvanized Steel structure of 132 KV New Jadugoda- Dhalbhumgarh Transmission line at 132/33 kV Grid Sub Station Dhalbhumgarh (Existing).	114.41				45.76	68.65
16.	Design, Engineering, Supply, Erection, Testing and commissioning of 220 kV D/C Transmission Line Chandil (New) – Jadugoda (New) (51.3KM), 220 kV D/C Transmission Line Chaibasa (PGCIL) – Jadugoda (New)(47.7 KM).	126.95				50.78	76.17
17.	Design, Engineering, Supply, Erection, Testing and Commissioning of 132 kV D/C Transmission Line Jadugoda (New) – Dhalbhumgarh (63.4KM).	63.93				25.57	38.36
18.	Supply, Installation, Testing & Commissioning of 02 nos. 132 kV bays at 220/132 kV Jasidih GSS, 02 nos. of 132 kV bay at 132/33 kV Chitra GSS, 01 nos 132 kV bay at 132/33 kV Simdega GSS, 02 nos. 132 kV bays at 132/33 kV Latehar GSS.	15.04			7.52	7.52	
19.	132/33 KV GSS, 100 MVA, AIIMS Devipur, Doghar and LILO of 132 KV DC Madhupur Jasidih TL at 132/33 KV Devipur	64.79				38.87	25.92
	Total	1524.01	0.00	0.00	137.78	547.46	668.28

7.4 It can be seen from the table given above that the JUSNL plans to invest Rs. 1524.01 Crore in various capital expenditure schemes during the 3rd MYT Control Period.

Proposed Capitalization

7.5 The capitalization proposed for the various capital expenditure schemes during the MYT Control Period is provided in the table below:

Table 57 Proposed Capitalization Schedule for the MYT Control Period

Sl No.	Project	Estimated Amount (in Cr.)	(Projected Capitalization Schedule)					
			FY 22	FY 23	FY 24	FY 25	FY 26	
1.	220/132/33 kV Grid sub- station, Koderma	43.99					43.99	
2.	220/132/33 kV Grid sub- station, Patratu	90.44					90.44	
3.	132/33 KV Grid Sub-Station, Kundhit	44.59				44.59		
4.	132 KV Jamtara - Madhupur Transmission line of propose LILO at Kundhit grid	39.53				39.53		
5.	220/132/33 kV Grid Sub- Station, Hazaribagh	127.53					127.53	
6.	220 KV D/C Tenughat - Hazaribagh Transmission line	86.96					86.96	
7.	220/132/33 KV Grid Sub Station, Baliyapur	131.82					131.82	
8.	LILO of 220 KV D/C Dumka - Govindpur at Baliyapur GSS	42.26					42.26	
9.	220 kV Dhanbad (NKTL) -Baliyapur Transmission line	29.48					29.48	



True Up FY23, APR FY 24 & ARR and Tariff for FY 25, JUSNL

Sl No.	Project	Estimated Amount (in Cr.)	(Projected Capitalization Schedule)					
			FY 22	FY 23	FY 24	FY 25	FY 26	
10.	220/132/33 kV,2x200+2x80 MVA GSS, Gomia Grid Sub-station	131.82					131.82	
11.	220 kV D/C TTPS- Gomia Transmission line	29.48					29.48	
12.	220/132/33 kV Bero Grid Sub- station & associated transmission line	128.00						
13.	220/132/33 Grid Sub Station, Sarwal & associated transmission line	110.00						
14.	220/132/33 Grid Sub Station, Palajori & associated transmission line	103.00						
15.	Design, Engineering, Supply, Erection, Testing and Commissioning of 2x200 MVA, 220/132 kV Grid Sub Station (AIS) at Jadugoda (New) (220 KV- TRF Bay-02 Nos. Line Bay- 04 nos. B/C-01 nos. Bus Transfer Bay- 0 Nos, 132 KV- TRF Bay- 02 Nos, Line Bay-04 Nos, Transfer Bus coupler Bay-01 Nos) & 02 Nos of 132 Bay at 132/33 kV Grid Sub Station Dhalbhumgarh (Existing) with dismantling work for 02 Nos 132 KV Bay and 33 KV Bay Sub Station galvanized Steel structure of 132 KV New Jadugoda- Dhalbhumgarh Transmission line at 132/33 kV Grid Sub Station Dhalbhumgarh (Existing).	114.41					114.41	
16.	Design, Engineering, Supply, Erection, Testing and Commissioning of 220 kV D/C Transmission Line Chandil (New) – Jadugoda (New) (51.3KM), 220 kV D/C Transmission Line Chaibasa (PGCIL) Jadugoda (New)(47.7 KM).	126.95					126.95	



True Up FY23, APR FY 24 & ARR and Tariff for FY 25, JUSNL

Sl No.	Project	Estimated Amount (in Cr.)	(Projected Capitalization Schedule)					
			FY 22	FY 23	FY 24	FY 25	FY 26	
17.	Design, Engineering, Supply, Erection, Testing and Commissioning of 132 kV D/C Transmission Line Jadugoda (New) – Dhalbhumgarh (63.4KM).	63.93					63.93	
18.	Supply, Installation, Testing & Commissioning of 02 nos. 132 kV bays at 220/132 kV Jasidih GSS, 02 nos. of 132 kV bay at 132/33 kV Chitra GSS, 01 nos 132 kV bay at 132/33 kV Simdega GSS, 02 nos. 132 kV bays at 132/33 kV Latehar GSS.	15.04				15.04		
19.	132/33 KV GSS, 100 MVA, AIIMS Devipur, Doghar and LILO of 132 KV DC Madhupur Jasidih TL at 132/33 KV Devipur	64.79					64.79	
	Total	1524.01	0.00	0.00	0.00	99.15	1083.86	

7.6 The following schemes shall be taken up for augmentation during the MYT Control Period:

Table 58 Proposed Augmentation Schedule for the MYT Control Period(in Rs.Cr)

Sl No.	Description	Amount
1	Replacement of 1x20 MVA by 1x50 MVA, 132/33 kV Transformer at GSS Gumla.	6.63
2	Replacement of 2x50 MVA by 2x80 MVA, 132/33 kV Transformer at GSS Govindpur.	18.55
3	Addition of 1x50 MVA, 132/33 kV Power transformer at GSS Sariya	5.16
4	Installation of 1x50 MVA 132/33 kV Power Transformer at GSS Deoghar along with repairing of existing transformer.	6.64
5	Replacement of 1x20 MVA by 1x50 MVA, 132/33 kV Transformer at GSS Jadugoda.	5.13
6	Installation of 1x50 MVA 132/33 kV Power Transformer at GSS Adityapur (Ramchandrapur).	5.16
7	Replacement of 220/132 kV 1x150 MVA Auto Transformer at GSS Adityapur (Ramchandrapur).	10.51
8	Augmentation of 132/33kV GSS Lohardaga from 3 nos. x 50 MVA to 2 nos. x 80 MVA + 1no. x 50 MVA along with 4 nos. additional 33 kV Feeder bays etc.	23.57
	Total	81.35

7.7 Out of Rs. 81.35 Crore, capital expenditure of Rs. 16.27 Crores shall be incurred during FY 2023-24 and the remaining amount shall be incurred during FY 2024-25. Further, all the schemes considered under augmentation shall be capitalized during the FY 2024-25.

7.8 The JUSNL will capitalize schemes valuing Rs. 1264.36 Crores during the 3rd MYT Control Period. The total capitalization is summarized as below:

Table 59 Proposed Capitalization Schedule for the MYT Control Period including Augmentation Schemes(in Rs.Cr)

S. No.	Particulars	Scheme Value	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26
1	Planned Schemes	1524.01	0.00	0.00	0.00	99.15	1083.86
2	Augmentation	81.35	0.00	0.00	0.00	81.35	0.00
	Total	1605.36	0.00	0.00	0.00	180.50	1083.86



Rational for Capital Expenditure

7.9 The capital expenditure is primarily for establishment of new substations along with associated transmission network to take care of the existing and future load demand. In addition to above, the Capital Expenditure is required for following purposes:

- To reduce load on existing substation and transmission lines.
- To meet demand & load growth.
- To reduce the loading on connecting 11 kV feeders and to maintain % voltage regulation and peak load with permissible limit.
- Due to erection of new sub stations, 11 KV feeders gets bifurcated hence the length of the 11KV line and peak load of 11KV feeder reduces considerably, which results in reduction of T&D losses.
- Some of the substation locations, where augmentation of sub stations / transmission line is not possible due to space constrain in switch yard/ control room to meet the existing and additional load demand, infrastructure is required to be developed.
- 33 KV System is normally developed based on the load requirement of Discoms. To support it, strengthening of 220 kV / 400 kV substations along with associated transmission network become essential.
- One single 33 kV feeder in GSS should not feed power to more than two PSS. This leads to power failure in major areas in case of unavailability of the 33 kV feeder. Therefore, new substations are required to be commissioned to minimize the dependency on a single feeder to ensure reliable power.
- Strengthen the transmission network for system improvement like voltage profile, catering more power and additional reactive compensation.

Justification for Implementation of the Capital Expenditure Schemes under Business Plan

• 132/33 kV GSS Khundit and associated transmission line:

Kundhit 132/33kV substation is proposed to be constructed along with LILO of Jamtara-Madhupur D/C line. The time frame is taken to be F.Y 2024-25, when Narayanpur 132/33 kV substation is also proposed to have already been commissioned with LILO of the same Jamtara-Madhupur D/C line. It is seen that Jamtara 132/33kV GSS is feeding the distribution PSS via long distance 33kV lines, towards the Kundhit area and along the Jharkhand-West Bengal border which results in voltage drop and loss at the 33kV & downstream. Hence with the proposed network condition it is seen that the voltage profile at 33kV bus and downstream improves due reduction in 33kV line length to the distribution PSS in the region which reduces loss to 0.6-0.7% approximately in the area with provision to meet the future local load growth along the region.

• 220/132 kV Hazaribagh & associated transmission line:



Jharkhand Urja Sancharan Nigam Ltd has to provide quality electric supply in Hazaribagh district. At present, there is no transmission network of JUSNL in Hazaribagh. Hazaribagh gets power from very old Grid Sub-station of DVC with daily load shedding of indefinite hours. DVC has not modernized or constructed new grid to reliable & quality supply power to Domestic & Commercial Consumers. In past five years, Domestic & Commercial consumers have been doubled and still DVC is not supplying power to Domestic consumers of the Hazaribagh area.

To overcome this problem, JUSNL has decided to construct a new 220/132/33 kV Grid Sub-station at Hazaribagh having capacity of 2x200+2x50 MVA. The proposed grid will be charged to 220 kV D/C Tenughat- Hazaribagh Transmission line.

After construction of above grid, district headquarter and adjacent area of Hazaribagh i.e. Hazaribagh, Pathargama, Barkagaon, Bishnugarh, Ichak, Tatijhariya, Chouparan, Barhi, Padma, Sadar etc. and other neighboring areas of Hazaribagh will also get quality and stable power. This will facilitate quality & stable power with improved voltage to the above mentioned PSS due to shorter length of 33 kV lines; this will reduce transmission losses also.

- **220/132 kV Baliyapur & associated transmission line:**

Jharkhand Urja Sancharan Nigam Ltd has to provide quality electric supply in Dhanbad district. At present, there is insufficient transmission network of JUSNL in Dhanbad district. Dhanbad gets power from very old Grid Sub-station of DVC with daily load shedding of indefinite hours. DVC has not modernized or constructed new grid to supply reliable & quality power to Domestic & Commercial Consumers. In past five years, Domestic & Commercial consumers have been doubled and still DVC is not supplying power to Domestic consumers of the Dhanbad area.

To overcome this problem, JUSNL has decided to construct a new 220/132/33 kV Grid Sub-station at Baliyapur having capacity of 2x200+2x80 MVA as well as 220 kV D/C 3 Ph Govindpur- Baliyapur and 132 kV D/C 3 Ph Mahuda-Baliyapur transmission line.

Construction of GSS is essential taking consideration of inadequate capacity of transmission network in adjacent area of Dhanbad district due to rapid growth in population, urbanization & industries as well as joint initiative of Govt. of India and Govt. of Jharkhand to meet 24x7 Power For All. Construction of Dhanbad Grid and associated transmission line is also essential for supply in adjacent area of Dhanbad i.e. Dhanbad, Baliyapur, Nirsa, Govindpur, Pathardih Putki, Tundi, Purbi Tundi, etc. This will facilitate quality & stable power with improved voltage to the above mentioned PSS due to shorter length of 33 kV lines. This will reduce transmission losses also.

- **220/132 kV Gomia & associated transmission line:**



Jharkhand Urja Sancharan Nigam Ltd has to provide quality electric supply in Bokaro district. At present, there is no transmission network of JUSNL in Bokaro district. Bokaro gets power from very old Grid Sub-station of DVC with daily load shedding of indefinite hours. DVC has not modernized or constructed new grid to supply reliable & quality power to Domestic & Commercial Consumers. In past five years, Domestic & Commercial consumers have been doubled and still DVC is not supplying power to Domestic consumers of the Bokaro area.

To overcome this problem, JUSNL has decided to construct a new 220/132/33 kV Grid Sub-station at Gomia having capacity of 2x200+2x80 MVA. The proposed grid will be charged by 220 kV D/C 3 Ph TTPS (Tenughat Thermal Power Station)-Gomia Transmission line.

After construction of above grid, adjacent area of Bokaro will get quality JUSNL power. Adjacent area of Bokaro i.e. 1. Dugda, 2. Chas, 3. Chandrapura 4. Bermo, 5. Nawadih, 6. Jaridih, 7. Kasmar, etc. and other neighboring areas of Dugda, etc. will also get quality and stable power. This will facilitate quality & stable power with improved voltage to the above mentioned PSS due to shorter length of 33 kV lines. This will reduce transmission losses also.

Construction of GSS is essential taking consideration of inadequate capacity of transmission network in adjacent area of Purbi Singhbhum district due to rapid growth in population, urbanization & industries as well as joint initiative of Govt. of India and Govt. of Jharkhand to meet 24x7 Power For All target by 2018-19. Construction of Jadugoda Grid and associated transmission line is also essential for supply in adjacent area of Purbi Singhbhum i.e. Chakuliya, Dhalbhumgarh, Bahragora, Gurabanda, Dumaria, Musabani, Ghatshila etc.

This will facilitate quality & stable power with improved voltage to the above-mentioned PSS due to shorter length of 33 kV lines; this will reduce transmission losses also. The following components will be built part the proposed strengthening project.

- New 220/132kV AIS Substation at Jadugoda
- 132 kV Bay Extension at Dalbhoomgarh
- 100 Km of 220kV D/C 3 Ph. Transmission Line starting PGCIL Chaibasa and passing through New Substations Jadugoda and terminates at New 400/220kV AIS Substation Chandil.
- 64 Km of 132 kV D/C 3 Ph. Transmission Line Jadugoda - Dalbhoomgarh (New) (64 KM)

• **Necessity for construction of 07 Nos of bay extension at existing Grid Substation.**

1. 01 Nos. of 132 KV Line bay at 132/33 KV Simdega GSS -

132/33 KV GSS at Kalebira GSS is being constructed under World bank



Funded project and for charging of this grid 132 KV D/C Kolebira Simdega Transmission line is also being constructed under World bank Funded project. For termination of this line at Existing Simdega Grid, one bay is required.

2. 02 Nos. of 132 KV Line bay at 132/33 KV Chitra GSS –

132/33 KV GSS at Sarath GIS is being constructed under World bank Funded project and for charging of this grid 132 KV D/C Sarath Chitra Transmission line is also being constructed under World bank Funded project. For termination of this line at Existing Chitra Grid, two (02) bays are required.

3. 02 Nos. of 132 KV Line bay at 220/132 KV Jasidih GSS –

132/33 KV GSS at Hansdiha GSS is being constructed under World bank Funded project and for charging of this grid 132 KV D/C Hansdiha-Jasidih Transmission line is also being constructed under World bank Funded project. For termination of this line at Existing Jasidih Grid, two (02) bays are required.

4. 02 Nos. of 132 KV Line bay at 132/33 KV Latehar GSS –

132/33 KV GSS at Mahuadanr GSS is being constructed under World bank Funded project and for charging of this grid 132 KV D/C Latehar Mahuadanr Transmission line is also being constructed under World bank Funded project. For termination of this line at Existing Latehar Grid, two (02) bays are required.

• **Augmentation technical report**

Presently there are 53 nos. of Grid Sub-Station with 9885 MVA transformation capacity of 400 kV, 220 kV & 132 kV voltage class supported by 3775 Km. and work for 43 nos. GSS with 5630 MVA transformation capacity along with 2509 Km. transmission line is under construction.

To ensure 24x7 continuous power availability, reliable and quality power to the people of Jharkhand, augmentation & upgradation of existing old & over loaded transmission system also become necessary simultaneously with aforesaid ongoing and planned project.

Keeping in view of strengthening of existing old & overload transmission network as well as fulfilment of N-1 criteria as per CEA guidelines, the following augmentation schemes are taken into consideration for F.Y. 2022-23 & 2023-24 :

- 1) **Gumla and adjoining area** : Presently Gumla and adjoining area are getting power from 132/33 kV GSS, Gumla through different 33/11



kV PSS and its transformation capacity is 40 MVA (2x20 MVA). But health of existing 01 no. 20 MVA power transformer are not good due to said transformers are very old. The load demand in such areas are gradually increasing. As such 01 no. 50 MVA power transformer is required to meet the load demand.

- 2) **Dhanbad & adjoining area** :- Presently Dhanbad and adjoining area are getting power from recently commissioned (in year 2021) 220/132/33 kV GSS, Govindpur through different 33/11 kV PSS and its transformation capacity is 100 MVA. The load demand in such areas are gradually increasing. To meet the load demand, it has been proposed for replacing 02 nos. existing 50 MVA power transformer with 02 nos. 80 MVA power transformer.
- 3) **Saria & adjoining area** :- 132/33 kV Grid Sub-Station, Saria is recently commissioned with 1x50 MVA power transformer instead of 2x50 MVA power transformer due to 01 no. 50 MVA power transformer was diverted to 132/33 kV GSS, Chitra. In compliance of CEA guidelines to fulfillment of N-1 criteria as well as supply of uninterrupted power, 01 no. transformer required to be installed.
- 4) **AIIMS Deoghar**:- AIIMS hospital is newly constructed near Devipur at Deoghar district. This hospital is getting power from 132/33 kV GSS, Deoghar and its transformation capacity was 3x50 MVA, but 01 no. 50 MVA transformer has recently in breakdown condition. This transformer will be sent to manufacturer for its repairing.
To achieve reliable and uninterrupted power supply to AIIMS Deoghar, dedicated transformer is required. As such 01 no. 50 MVA power transformer is required to be installed at GSS, Deoghar.
- 5) **Jadugora and adjoining area** : Presently Jadugora and adjoining area are getting power from 132/33 kV GSS, Jadugora through different 33/11 kV PSS and its transformation capacity is 90 MVA (1x50+2x20 MVA). But health of existing 02 nos. 20 MVA power transformers are not good due to said transformers are very old. The load demand in such areas is gradually increasing since 1988. As such 01 no. 50 MVA power transformer is required to meet the load demand.
- 6) **Jamshedpur & Adityapur and adjoining area**: Jamshedpur & Adityapur and adjoining area are getting power from 220/132 kV



GSS and 132/33 kV GSS at Adityapur (Ramchandrapur) through different 33/11 kV PSS and its total transformation capacity is 500 MVA (3x150 MVA & 1x50 MVA). The load demand in such areas are gradually increasing. But health of existing 01 nos. 150 MVA power transformer is not in good condition due to said transformers being very old. ERPC protection audit team also suggested for its replacement. As such replacement of this transformer becomes very necessary.

Further, 132/33 kV GSS, Adityapur was commissioned with 2x50 MVA power transformer. Due to urgency, 01 no. 50 MVA power transformer was diverted to 132/33 kV GSS, Golmuri on dated 08.07.2022. In compliance of CEA guidelines to fulfillment of N-1 criteria as well as supply of uninterrupted power, 01 no. transformer is required to be installed.

Transmission Network necessary to meet the Load Growth

- 7.10 That the peak load of Jharkhand was approx. 2000MW in 2017 (1400MW JBVNL+ 600MW DVC). As per earlier projection load growth of Jharkhand was 5161MW (4561MW JBVNL + 600MW DVC) till 2021-22 including DVC command Area.
- 7.11 That the present peak load of Jharkhand has gone up to 2800MW including 600MW of DVC. The present load is in the situation of insufficient Transmission network. A lot of Transmission Projects are under construction, which are delayed due to delay in forest clearances and ROW issues. After completion of these projects, the peak load of Jharkhand will grow substantially up to 3500MW. Further it is expected to grow the peak load of Jharkhand substantially up to 4500-5000MW in next five years.
- 7.12 That Jharkhand is rich state in terms of Forest and other natural resources. In the Jharkhand State, it has been observed that no transmission line is without Forest and forest clearance is very tedious job. It takes substantial time in forest clearance and resolving other ROW issues. From the past experience, it has been observed that forest clearance of Transmission lines takes approx. 4-5 years or even more in some cases. For example, PGCIL is constructing 400KV D/C Latehar- Patratu Transmission line of JUSNL since 2012 and forest clearance of this transmission line has not been given by forest



Department. Forest clearance of 132KV D/C Simdega – Gumla Transmission line and 220KV D/C Chatra – Latehar Transmission line took more than 6Years.

- 7.13 In order to meet the above mentioned projected load growth, it is essential to start the construction of required Transmission Projects immediately so that JUSNL may able to cater the load growth of JBVNL in time.

Business Plan in conformity with the CEA

- 7.14 The Business Plan submitted herewith was part of the Perspective Plan submitted by JUSNL with the CEA. The same has been approved by the CEA. The following has been stated in the Minutes of 1st meeting of ERSTC held on 16.07.2018: *“8.12 After deliberations members of the view that Jharkhand may not be able to attain the demand projected by them for 2021-22 time-frame, considering present trend in demand and also projections in 19th EPS. However, the system proposed by JUSNL at 8.2 was agreed with suggestions that the implementation of system may be done in phased manner matching with the growth of the electricity demand in the state.”*

Reduction of Technical Losses

- 7.15 The Ministry of Power from time to time has launched several Reform and Modernization (restructuring/modification) schemes to augment and modernize 33/11 kV sub stations. Normally the length of 33 kV line should be less than 30 kms as per the guidelines of R-APDRP Part B scheme launched in 2005.
- 7.16 Also, as per the JSERC (Distribution Licensees Standards of Performance Regulations, 2015) issued by the Hon’ble JSERC, any fault on the 33 kV line has to be rectified within 4 to 6 hrs.
- 7.17 Therefore, keeping in view the above, schemes have been implemented regarding installation and commissioning of the 220/132/33 kV GSS with a view that JUSNL GSS must be in proximity to 33/11 kV substations, so that the length of 33 kV feeder from 132 kV GSS is as per the guidelines of R-APDRP and is around the prescribed line length of 30 kms.
- 7.18 It is further submitted that 625 no. of 33/11 kV sub-stations have been constructed since 2015 in Jharkhand. In order to maintain healthy power system, on a 33 kV feeder, maximum 2 no. of substations are constructed to



provide optimum power supply to the consumers from 132 kv Feeder. However, in Jharkhand the average no. of substations constructed on a single 132 kv feeder with 5 no's of 33 kV feeders is way above the standard practice. In case the 132 kv feeder trips, power supply to all the substations is affected resulting in inconvenience to the consumers. Hence, JUSNL is constructing more no. of 132/33 kV grid substations so that so that the network utilization is optimized.

Board Approval Accorded

- 7.19 The approval for 132/33 kv GSS, Kundhit and 132 kv Jamtara - Madhupur Transmission line of propose LILO at Kundhit grid was accorded in the 46th meeting of the Board of Directors of JUSNL held on 04.05.2022.
- 7.20 The approval for 220/132/33 kv GSS, Hazaribagh, 220/132/33 kv GSS, Gomia and 220/132/33 kv GSS Baliyapur was accorded in the 51st meeting of the Board of Directors of JUSNL held on 14.02.2023.
- 7.21 The approval for 220/132 kv GSS, Jadugoda, 02 Nos of 132 kv Bay at 132/33 kV Grid Sub Station Dhalbhumgarh, 220 kV D/C Transmission Line Chandil (New) – Jadugoda (New), 220 kV D/C Transmission Line Chaibasa (PGCIL) –Jadugoda (New), 132 kV D/C Transmission Line Jadugoda (New) – Dhalbhumgarh was accorded in the 53rd meeting of the Board of Directors of JUSNL held on 26.06.2023.
- 7.22 The approval for 220/132/33 kV GSS, Patratu and 220/132/33 kV Grid sub- station, Koderma was accorded in the 54th meeting of the Board of Directors of JUSNL held on 03.08.2023.

Table 60 Summary of Approval of BOD and Sanction letters

S. No.	Name of Scheme	Approval of BOD	Sanction letter of State Government
1	<ul style="list-style-type: none"> 220/132/33 kV GSS, Patratu 220/132/33 kV Grid sub- station, Koderma 	54 th Meeting of BOD held on 03.08.2023	Letter no. 79, dated 19.07.2023 of Energy Department, GoJ



2	<ul style="list-style-type: none"> 132/33 kv GSS, Kundhit LILO of 132 kv Jamtara - Madhupur Transmission line 	46 th Meeting of BOD held on 04.05.2022	Resolution no. 1622, dated 05.08.2022 of Energy Department, GoJ Letter no. 199 dated 03.03.2023 of Energy Department, GoJ
3	<ul style="list-style-type: none"> 220/132/33 kv GSS, Hazaribagh, 220/132/33 kv GSS, Gomia 220/132/33 kv GSS Baliyapur 	51 st Meeting of BOD held on 14.02.2023	Letter no. 81 dated 19.07.2023 of Energy Department, GoJ
4	<ul style="list-style-type: none"> 220/132 kv GSS, Jadugoda, 02 Nos of 132 kv Bay at 132/33 kV Grid Sub Station Dhalbhumgarh, 220 kV D/C Transmission Line Chandil (New) – Jadugoda (New), 220 kV D/C Transmission Line Chaibasa (PGCIL) – Jadugoda (New), 132 kV D/C Transmission 	53 rd Meeting of BOD held on 26.06.2023	
5	<ul style="list-style-type: none"> Augmentation Schemes 	50 th Meeting of BOD held on 13.12.2022	Letter No.78 dated 19.07.2023 of GoJ

7.23 For the remaining schemes proposed in the Business Plan, the approval of the Board of Directors of JUSNL shall be sought as and when the schemes are planned to be implemented.

7.24 That the petitioner is submitting following documents in support of above transmission schemes: -

- Board of Directors (BoD) approval (Annexure-A)
- Government of Jharkhand Approval (Annexure-B)
- CEA approval (Annexure-C)
- Detailed Project Report (DPR) (Annexure-D)

Financing Plan

7.25 The capital expenditure for the MYT Control period is proposed to be funded through debt. The capital expenditure schemes shall be funded



through State Government Funds. The State Government Funds are being provided to the JUSNL in the form of Loan at an interest rate of 13%.

Commissions Analysis

7.26 The Commission has referred to clause 6.5 to 6.12 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 for approval of Business plan as submitted by the Petitioner. The relevant extract from the Regulation is referred below:

“Business Plan

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

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

(a) Capital Investment Plan: This should be commensurate with load growth and quality improvement proposed in the Business Plan. The Capital Investment Plan should also include corresponding capitalisation schedule and financing plan;

The Transmission 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) Operational Plan: Actual yearly Transmission Loss in the preceding Control Period along with year wise projection of Transmission Loss for the next Control Period.

(c) 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;

(d) A set of targets proposed for other controllable items such as transmission system availability, Transmission losses, return on equity, depreciation, working capital requirement, performance targets, Employee, R&M and A&G Expenses etc., along with detailed break up and any other information used for preparing projections of various performance parameters and other components during the Control Period. The targets shall be consistent with the Capital Investment Plan proposed by the Transmission Licensee;

(e) Proposals for Non-Tariff Income with item-wise description and details;

(f) Proposals in respect of income from Other Business; and

(g) 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, capacity enhancement plan, if any, proposed efficiency improvements and its cost benefit analysis, quality improvement measures undertaken, Employee Expenses, Repair & Maintenance Expenses 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.

Capital Investment Plan

6.7 The Transmission Licensee shall file for the Commission's approval a Capital Investment Plan for the entire Control Period along with the Business Plan planned in accordance with provisions stated in the Grid Code. The Capital Investment Plan shall be prepared scheme-wise and each scheme shall include:

- 1. Purpose of investment (e.g. replacement of existing assets, meeting load growth, improvement in quality and reliability of supply, etc);*
- 2. Approval of Competent Authority;*
- 3. Detail Project Report& Load Flow Analysis;*
- 4. Capital Structure;*
- 5.Capitalization Schedule;*
- 6. Implementation schedule including timelines;*
- 7 Cost-benefit analysis and Rate reasonability;*
- 8.Improvement in operational efficiency envisaged in the Control Period;*
- 9.Ongoing schemes that will spill over into the year under review along with justification;*
- 10. New schemes that will commence during the Control Period but may be completed within or beyond the Control Period.*

6.8 The Commission shall approve the system augmentation plan submitted by the Transmission Licensee, based on the load growth forecast during the Control Period. The same would be considered for computation of ARR, wherein the amount of electricity transmitted by the Transmission System shall be projected considering the estimated growth plan of its Beneficiaries and any plans of new transmission system, based on network expansion plans within the State:

6.9 The Capital Investment Plan shall be in conformity with the plans made by the CEA/CTU and with the Capital Investment Plans of the Distribution Licensees and



the Generating Companies and shall be developed as per the procedure specified in the Grid Code.

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

6.11 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 the actual capitalisation for the year for which True up has been filed and also ARR components for the year for which APR and Tariff has been sought.

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

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 Transmission Licensee may undertake such capital expenditure and submit the details for post-facto approval of the Commission along with the next Tariff Petition with all the relevant details.”

7.27 The Commission is aware of the fact that the Petitioner had initially filed Business Plan for the MYT control period FY 2021-22 to FY 2025-26 on 13.10.2022. However due to lack of proper justification and necessary approvals the Business plan corresponding to the Planed schemes were disallowed.

7.28 The Petitioner thereafter had filed review petition against the order for approval of Business Plan dated 23.06.2023 along with supplementary revised Business plan for MYT control period for FY 2021-22 to FY 2025-26 on 07.11.2023. The Commission vide order dated 20th February 2024 directed the Petitioner to file the Business plan for MYT control period FY 2021-22 to FY 2025-26 along with ARR and Tariff Petition for FY 2024-25. The Petitioner in accordance with the directions of the Commission has submitted the same.

7.29 The Commission has acknowledged the submission made by the Petitioner



- for approval of revised Business Plan for FY 2024-25 & FY 2025-26 wherein the Petitioner had submitted capital expenditure schedule and proposed capitalization against various schemes and projects for the period.
- 7.30 The Commission has also taken into account the submission made by the Petitioner against the proposed augmentation schedule for the period FY 2024-25.
- 7.31 The Commission has also acknowledged the rational submitted by the Petitioner for the proposed capital expenditure as highlighted in the above section of this order.
- 7.32 The Commission has observed that the Petitioner has provided justification for the augmentation of the existing transmission network to meet the proposed load growth anticipated for the future for which necessary infrastructure needs to be developed so the JUSNL may be able to cater the load growth in time.
- 7.33 On scrutinizing and analyzing the data/material/information on record submitted by the Petitioner, the Commission observed that the peak load of Jharkhand was approx. 2000MW in 2017 (1400MW JBVNL + 600MW DVC). As per earlier projection load growth of Jharkhand was 5161MW (4561MW JBVNL + 600MW DVC) till 2021-22 including DVC command Area.
- 7.34 It is submitted by the Petitioner that the present peak load of Jharkhand has gone up to 2800MW including 600MW of DVC. The present load is in the situation of insufficient Transmission network. Further it is expected that the peak load of Jharkhand shall substantially increase up to (4500-5000) MW in next five years.
- 7.35 The Commission has also taken into account the submission made by the Petitioner wherein the Petitioner has submitted that Jharkhand is rich state in terms of Forest and other natural resources. In the Jharkhand State, it has been observed that no transmission line is without Forest and forest clearance is very tedious job. It takes substantial time in forest clearance and resolving other ROW issues. From the past experience, it has been observed that forest clearance of Transmission lines takes approx. 4-5 years or even more in some cases. For example, PGCIL is constructing 400KV D/C Latehar- Patratu Transmission line of JUSNL since 2012 and forest clearance of this transmission line has not been given by forest Department. Forest clearance of 132KV D/C Simdega – Gumla



Transmission line and 220KV D/C Chatra – Latehar Transmission line took more than 6Years.

- 7.36 Further the Commission has observed that the Petitioner has submitted necessary approval of Board and sanction letters for the schemes proposed and same has been highlighted in the above para in Petitioners submission.
- 7.37 On scrutinizing the data, material and information on record the Commission allows spilled over works and related capital expenditure work from previous control period. However, the Petitioner is directed to strictly ensure that the approved schedule of capital expenditure should be adhered in toto.
- 7.38 With regards to new schemes as highlighted by the Petitioner in the above para the Commission has scrutinized the detailed scheme wise reports along with projected objective of the report, benefit of scheme, capital structure, financing plan and other aspect provided by the Petitioner for the schemes along with detailed justification and necessity of the schemes.
- 7.39 Further the Commission has reviewed the approval of Board of Directors against the various schemes highlighted by the Petitioner and hereby provisionally approves schemes for various projects as highlighted in the table below:

Table 61 Provisional approval of the various schemes against which Board of approval is accorded

S. No.	Name of Scheme	Approval of BOD	Sanction letter of State Government
1	<ul style="list-style-type: none"> 220/132/33 kV GSS, Patratu 220/132/33 kV Grid sub-station, Koderma 	54 th Meeting of BOD held on 03.08.2023	Letter no. 79, dated 19.07.2023 of Energy Department, GoJ.
2	<ul style="list-style-type: none"> 132/33 kV GSS, Kundhit LILO of 132 kV Jamtara - Madhupur Transmission line 	46 th Meeting of BOD held on 04.05.2022	Resolution no. 1622, dated 05.08.2022 of Energy Department, GoJ Letter no.199 dated 03.03.2023 of Energy Department, GoJ.
3	<ul style="list-style-type: none"> 220/132/33 kV GSS, Hazaribagh, 220/132/33 kV GSS, Gomia 220/132/33 kV GSS Baliyapur 	51 st Meeting of BOD held on 14.02.2023	Letter no. 81 dated 19.07.2023 of Energy Department, GoJ



4	<ul style="list-style-type: none"> 220/132 kV GSS, Jadugoda, 02 Nos of 132 kV Bay at 132/33 kV Grid Sub Station Dhalbhumgarh, 220 kV D/C Transmission Line Chandil (New) – Jadugoda (New), 220 kV D/C Transmission Line Chaibasa (PGCIL) – Jadugoda (New), 132 kV D/C Transmission 	53 rd Meeting of BOD held on 26.06.2023	
5	<ul style="list-style-type: none"> Augmentation Schemes 	50 th Meeting of BOD held on 13.12.2022	Letter No.78 dated 19.07.2023 of GoJ

7.40 Further for schemes proposed in Business Plan for which approval of Board of Directors is yet to be received the Commission provisionally approves the capital expenditure however the Petitioner is directed to submit the approval of capital expenditure plan including the spill over schemes duly approved by the Board to the Commission before carrying out such works.

7.41 The Petitioner in the previous Business plan petition had also filed capital expenditure scheme for 132/33 kV GSS at Barhet(2x50 MVA) for which the Commission had disallowed the same in Business plan order dated 23rd June 2023. However in the present scenario the Commission upon scrutinizing the additional submission along with supporting information as submitted by the Petitioner hereby allows the Capital expenditure for the scheme however same shall be ascertained during submission of the True up supported and verified by audited accounts.

7.42 The Commission has also referred to the capitalization schedule as proposed by the Petitioner over the years against the actual capitalization. A brief of the same is being highlighted below:

Table 62 Summary of Comparison of capitalization of the projects over the years(Rs.Cr)

Financial Year	MYT order	Actual in True Up Petition(Audited)	% Capitalization
FY 2016-17	127.14	42.61	34%
FY 2017-18	969.01	26.74	3%
FY 2018-19	922.57	108.40	12%
FY 2019-20	980.78	385.96	39%
FY 2020-21	2187.40	682.578	31%
FY 2021-22	103.26	87.62	85%
FY 2022-23	307.06	3.87	1%

7.43 The Commission from the above table has referred to the actual capitalization vis-a-vis as approved during MYT order and finds that actual



capitalization of the various projects is quite less than that being approved in MYT order. The Commission has also taken into consideration the fact over the genuine ROW issues and forest clearance which acts as a hindrance in timely execution and completion of Transmission projects. Accordingly, the Commission has not allowed the capitalization as proposed by the Petitioner for the FY 2024-25 & FY 2025-26 however the Commission shall review the same during True up for the respective years supported by audited accounts.

- 7.44 The Commission has also observed that most of the schemes of the Petitioner are financed at 13.00% rate of interest which is higher than the rates currently prevailing in the market. The Commission also notes that the Petitioner has not taken any step to get these schemes financed from the cheapest source at the first place. The Commission thus directs the petitioner to make all efforts to re-finance the loan for such schemes from the cheapest source available. The Petitioner may approach the State Government to convert the loans into grant. The Petitioner may also look for Viability Gap Funding. The Petitioner is directed to submit along with the next tariff petition, the steps taken towards refinancing of these schemes.

Chapter 8: Aggregate Revenue Requirement for FY 2024-25

8.1 The Petitioner in line with the provisions of the JSERC (Terms and Conditions of Determination of Transmission Tariff) Regulations, 2020, has submitted the Petition for determination of Annual Revenue Requirement (ARR) for the FY 2024-25.

Capital Expenditure and Capitalization

8.2 The Petitioner has projected capital expenditure and capitalization for FY 2024-25 and has considered the closing CWIP of FY 2023-24 estimated in APR of FY 2023-24 as the opening CWIP for FY 2024-25. Accordingly, the closing balance of CWIP has been computed.

8.3 The Capital Expenditure, Capitalization and CWIP as submitted by the Petitioner are given in the tables below:

Table 63: Capex, CWIP and Capitalization for FY 2024-25 as submitted by the Petitioner (Rs. Cr.)

Particulars	Projected
Opening CWIP	3813.84
Addition in Capital Expenditure	1474.58
Capitalization	819.14
Closing CWIP	4469.27

8.4 The Petitioner has considered closing GFA for FY 2023-24 as opening GFA of FY 2024-25. Based on the capital expenditure and capitalization proposed for the FY 2024-25, Rs. 819.14 Crore is proposed to be capitalized during the FY 2024-25.

8.5 The capital expenditure for the FY 2024-25 is proposed to be funded majorly through debt. The capital expenditure schemes are divided into two broad categories i.e. capital expenditure schemes funded through State Government Funds and schemes funded through World Bank Funds. The State Government Funds are being provided to the JUSNL in the form of Loan at an interest rate of 13%. The World Bank Funds are being provided in the form of loan and equity divided in the ratio of 70:30. The rate of interest of the World Bank Loan is 2.5%. The year wise requirement of debt and equity is shown in the table given below:



Table 64 Debt Equity Ratio as projected by Petitioner for FY 2024-25(Rs.Cr)

Particulars	FY 2024-25	
	Approved in MYT	Projected
Debt	2656.93	819.14
Equity	0.00	0.00
Total Capitalization	2656.93	819.14

8.6 The Petitioner has submitted that during the FY 2024-25, the proposed addition in the GFA shall be done through the state funded schemes which are funded through the loan provided by the State Government. Hence, the equity portion has been shown as nil during the FY 2024-25.

8.7 The Petitioner has requested the Commission to approve GFA for FY 2024-25 as provided in the table below.

Table 65: Gross Fixed Asset for FY 2024-25 as submitted by the Petitioner (Rs.Cr.)

Particulars	MYT	Petition
Opening Gross Fixed Asset	2360.40	4090.82
Asset Capitalized during the year	135.38	819.14
Closing Gross Fixed Asset	2495.78	4909.96

Commission Analysis

8.8 The Commission has considered opening GFA for FY 2024-25 equal to closing GFA for FY 2023-24, as approved in APR for FY 2023-24. Since the instant petition for ARR of FY 2024-25 has been filed based on projections made by the Petitioner hence, the Commission as of now has not considered the Capitalization projected by the Petitioner for FY 2024-25, however the Commission shall review the same during true up based on audited accounts.

8.9 The Commission has scrutinized the information submitted by the Petitioner and approves the GFA for FY 2024-25 wrt capitalization approved in the Business plan approved in earlier chapter. The GFA as approved by the Commission is given in the table below.

Table 66: Gross Fixed Assets as approved by the Commission for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition	Approved
Opening Gross Fixed Asset	2360.40	4090.82	4090.82
Asset Capitalized during the year	135.38	819.14	0.00
Closing Gross Fixed Asset	2495.78	4909.96	4090.82

Operation and Maintenance Expenses

Petitioner Submission

8.10 The Petitioner has submitted that the O&M expenses of JUSNL for the FY 2024-25 has been projected considering the historical expenses and the



projections in terms of capitalization etc. The O&M expenses of FY 2023-24 are being used as base figures, which are escalated to arrive at the future projections for FY 2024-25.

- 8.11 **Employee Expenses:** The Petitioner submits that the employee expenses primarily include the salaries, dearness allowances, dearness pay, other allowances, incentives and retirement and other benefits paid to the employees;
- 8.12 **Repair and Maintenance (R&M) Expenses:** The Petitioner has submitted that the R&M expense basically include all expenditure incurred on the maintenance and upkeep of all assets and regulatory purposes.
- 8.13 **Administrative and General Expenses:** The Petitioner has submitted that the A&G expenses basically include all expenditure incurred in operating a business such as telephone charges, vehicle and other hiring charges, legal expenses, consultancy fees, audit fees, conveyance and travel expenses, water charges and other expenses.
- 8.14 The Petitioner has projected the employee cost for the FY 2024-25 by escalating the employee cost (excluding the terminal benefits) for FY 2023-24 by the inflation factor of 6.09%. The same has been approved by the Hon'ble Commission in the MYT Order for the 3rd Control Period.
- 8.15 The Petitioner has also submitted that JUSNL proposes to induct 96 junior managers and 10 managers during the FY 2024-25. The estimated salary of the proposed new employees is projected at Rs. 8.38 Crores. The advertisement published in this regards is enclosed along with this petition as Annexure G. The computation of the salary of the proposed new employees is provided in the table below:

Table 67 Salary Computation of proposed New Employees

S.No	Particulars	FY 2024-25
1	No. of Manager proposed to be recruited	10
2	Per month Salary including Basic/DA/HRA/other allowances (Manager) (Rs.)	76320
3	Total Salary per month (Rs.)	763200
4	No. of Jr. Manager proposed to be recruited	96
5	Per month Salary including Basic/DA/HRA/other allowances (Jr.Manager) (Rs.)	64800
6	Total Salary per month (Rs.)	6220800
7	Total salary per year (Rs. Crore)	8.38



8.16 Thus, the employee cost projected by the Petitioner for the FY 2024-25 considering the inflation factor of 6.09% is summarized in the following table:

Table 68 Employee Cost as projected by the Petitioner for FY 2024-25(Rs.Cr)

Particulars	FY 2024-25	FY 2024-25
	MYT	Projected
Employee Expenses	52.37	97.07
Terminal Benefits	5.33	33.66
Total	57.70	130.72

8.17 The Petitioner has projected the A&G expenses for the FY 2024-25 by escalating the A&G expenses (excluding the legal expenses) of FY 2023-24 by the inflation factor of 6.09%.

8.18 Thus, the A&G expenses projected by the Petitioner for the FY 2024-25 is summarized in the following table:

Table 69 A&G Cost as projected by the Petitioner for FY 2024-25(Rs.Cr)

Particulars	FY 2024-25	FY 2024-25
	MYT	Projected
A&G Expenses	10.73	13.68
Total	10.73	13.68

8.19 The Petitioner has referred to regulation 10.21 of the Transmission regulations 2020 for the calculation of Repair of Maintenance expenses:

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

Where “K” is 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 years of the Base Year in the MYT Order after normalising any abnormal expenses; ‘GFA’ is opening value of the gross fixed asset of the nth year;”

8.20 As given above, the Regulations stipulate to compute the “K” factor governing the relationship between R&M costs and Gross Fixed Assets (GFA). JUSNL has thus considered the “K” factor as approved by the Hon’ble Commission in the MYT Order issued for the 3rd Control Period.

8.21 The R&M cost for the FY 2024-25 is computed by considering the opening GFA as determined for FY 2024-25, the “K” factor as determined here and the inflation factor of 6.09%. The R&M expenses proposed for the FY 2024-25 are given in the following table:



Table 70 R&M expenses projected for FY 2024-25 by the Petitioner (Rs.Cr)

Particulars	FY 2024-25	
	MYT	Projected
R&M Expenses	55.84	97.16

8.22 The Petitioner has requested the Honourable Commission to approve the O&M expenses for FY 2024-25 as given in the table below:

Table 71: O&M Expense as projected by the Petitioner for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition
Emp. Expenses	57.70	130.72
R&M Expenses	55.84	97.16
A&G Expenses	10.73	13.68
O&M Expenses	124.27	241.56

Commission's Analysis

5.50 The Commission has referred to provisions mentioned JSERC(Terms and Conditions for Determination of Transmission Tariff)Regulations,2020 for determination of O&M expenses as cited below:

Operation and Maintenance (O&M) expenses

10.18 Operation and Maintenance (O&M) expenses shall comprise the following:

- (a) Salaries, wages, pension contribution and other employee costs;
- (b) Administrative and General costs;
- (c) Repairs and maintenance expenses;

10.19 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 Transmission Licensees, estimates of the actuals for the Base Year, prudence check and any other factor considered appropriate by the Commission.

10.20 O&M expenses permissible towards ARR for each year of the Control Period shall be determined using the formula detailed below:

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) + \text{Terminal liabilities};$$

Where,

$R\&M_n$ – Repair and Maintenance Costs of the Transmission Licensee for the n th year;

$A\&G_n$ – Administrative and General Costs of the Transmission Licensee for the n th year;

EMP_n – Employee Costs of the Transmission Licensee for the n th year excluding terminal liabilities.

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



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

Where

‘K’ is 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 years of the Base Year in the MYT Order after normalising any abnormal expenses;

‘GFA’ is 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_{n-1} – Employee Costs of the Transmission Licensee for the (n-1)th year excluding terminal liabilities;

A&G_{n-1} – Administrative and General Costs of the Transmission Licensee for the (n-1)th year excluding legal/litigation expenses;

INDX_n– Inflation Factor to be used for indexing the employee cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year before the base year;

G_n– is 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_n shall be determined by the Commission in the MYT Order for meeting the additional manpower requirement based on the Transmission 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 or wage revision agreement, etc., will be considered separately by the Commission;

Note 3: Terminal Liabilities will be approved as per actual submitted by the Transmission Licensee or be established through actuarial studies.

A. Employee Expenses

- 8.23 The Commission has observed that the Petitioner has projected the employee expenses for FY 2024-25 by escalating projected employee cost(excluding terminal benefits) estimated for FY 2023-24 by the inflation factor of 6.09%.
- 8.24 The Commission has observed that the employee cost projected by the Petitioner for FY 2024-25 is much higher than the value approved in MYT order dated 23rd June 2023.



- 8.25 In this context the Commission has also held a technical valedictory session with the Petitioner and had raised concerns regarding high employee expense. The Petitioner in reply had stated the rise in employee expense over the years mainly due to revision in pay structure. The Commission in this regard had acknowledged the submission made by the Petitioner and had directed the Petitioner to provide a detailed breakup of the employee expense constituting the arrears and pay rise however the Petitioner has not submitted the break up and bifurcation as directed by the Commission.
- 8.26 In order to arrive at the employee expense for FY 2024-25 the Commission has adopted the same methodology as carried during True Up and APR of previous years in the earlier section of this order.
- 8.27 The Commission has considered the employee expense as approved in APR for FY 2023-24 and have escalated it with an inflation factor of 6.59% (average of last three years) to arrive at the employee cost for FY 2024-25. The Commission has not considered terminal benefits as of now as same shall be considered during submission of True up proceeding for the respective year supported by audited accounts.

B. A&G Expenses

- 8.28 The Commission has also observed that for A&G expenses as projected by the Petitioner the values considered exceeds that being approved in MYT order dated 23rd June 2023. In line with the approval for A&G expensed for FY 2024-25 the Commission had adapted the same methodology and has escalated the APR value for FY2023-24 with an inflation factor of 6.59% (average of last three years) to arrive at the A&G expense for FY 2024-25.

C. R&M Expenses

- 8.29 The Commission in the MYT order dated 23rd June 2023 had approved the R&M expenses for the respective years of the 3rd control period by considering the opening GFA as approved for the respective years along with K factor of 2.23% as determined by the Commission and had escalated it with escalation factor. In a similar manner the Commission has considered the opening GFA for FY 2024-25 as approved above and have multiplied with the K factor (i.e. 2.23%) along with inflation factor of 6.59% to arrive at the expense for R&M.
- 8.30 The O&M expenses as approved by the Commission in MYT order dated 23rd June 2023 and submitted by the Petitioner vis-à-vis as approved by the



Commission for FY 2024-25 is shown below:

Table 72: O&M expense as approved by the Commission for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition	Approved
Emp. Expenses(excluding terminal benefits)	52.37	97.07	53.43
R&M Expenses	55.84	97.16	97.24
A&G Expenses	10.73	13.68	10.94
O&M Expenses	118.94	207.91	161.60

Depreciation

Petitioner's Submission

8.31 The Petitioner has submitted that it has calculated the depreciation as per the rates prescribed in the schedule attached to the Regulation as Appendix-I of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020.

8.32 The Petitioner has calculated depreciation on the projected GFA as per the above-mentioned provisions and has projected depreciation which are in line with the MYT Regulations, 2020 provided in the table below:

Table 73 Depreciation rates considered by the Petitioner

Particulars	Depreciation Rates
Land and land rights	0.00%
Building	2.67%
Plant and Machinery	4.22%
Lines and Cable Network	4.22%
Vehicles	12.77%
Furniture and Fixture	6.33%
Office Equipment	6.33%
Spare Units/Service Units	4.22%
Others Civil Works	2.67%

8.33 The following table shows the depreciation projected by the Petitioner for FY 2024-25

Table 74: Depreciation as projected by the Petitioner for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition
Depreciation	130.93	189.42

Commission's Analysis

8.34 The Commission, in its MYT order dated 23.06.2023 has determined asset-wise depreciation with additions in asset during the year considered as per the approved capitalization for the year. The Commission has considered the depreciation rates for the various asset classes as per the Transmission Tariff



Regulations, 2020. Accordingly, the depreciation cost was approved by the Commission for the control period FY 2020-21 to FY 2025-26.

- 8.35 The Commission after scrutinizing the submission made by the Petitioner approves the depreciation based on the depreciation schedule attached to as Appendix-I to the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 and the capitalization as approved earlier in this order.
- 8.36 The Commission has adopted similar methodology for computing the depreciation for FY 2024-25 and approves the depreciation as shown in the table below:

Table 75: Depreciation as approved by the Commission for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition	Approved
Depreciation	130.93	189.42	172.22

Interest on Loan

Petitioner's Submission

- 8.37 The Petitioner has projected the interest charges based on the clauses 10.28 to 10.36 of the MYT Regulations, 2020. The Petitioner has stated that assets proposed to be capitalized during the FY 2024-25 have been funded by the State Government Funds and the World Bank Funds. The State Government Funds are being provided to the JUSNL in the form of Loan at an interest rate of 13%. The World Bank Funds are being provided in the form of loan and equity divided in the ratio of 70:30. The rate of interest of the World Bank Loan is 2.5%.
- 8.38 The Petitioner has stated that the rate of interest has been considered as 9.82% which is the weighted average rate of interest calculated on the basis of the actual loan portfolio of the JUSNL for the FY 2022-23. The computation of the interest rate is provided below:

Table 76 Weighted average rate of interest as submitted by the Petitioner

Rate of Interest	FY 2022-23
Opening Loan(Rs Cr)	4603.96
Loan for additional Capex(Rs Cr)	668.45
Loan Surrendered(Rs Cr)	376.99
Closing Loan(Rs Cr)	4895.42
Average Loan(Rs Cr)	4749.69
Interest during the Year(Rs Cr)	466.29
Interest Rate(%)	9.82%

- 8.39 The Petitioner has projected the interest charges for FY 2024-25 as shown in



the table below:

Table 77: Interest on loan as projected by the Petitioner for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition
Interest on Loan	1011.02	4942.89
Loan for additional Capex	96.39	819.14
Loan Repayment	131.18	189.42
Closing Loan	976.24	5572.62
Interest Cost on Avg.Loan	89.43	516.17

Commission's Analysis

8.40 As per Clause 7.10 of JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020, the Debt: Equity ratio of transmission project will be considered as per the following: -

“For a project declared under commercial operation on or after 1.04.2016, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity deployed is less than 30% of capital cost, the actual equity shall be considered for determination of tariff.”

8.41 As the Petitioner has submitted that all capitalization is carried out by taking loans from State Government funds and World Bank funds hence, the Commission has considered the entire capitalization during the year funded through loan (i.e. Debt: Equity is 100:0).

8.42 The repayment for the year of the tariff period has been considered to be equal to the depreciation allowed for that particular financial year. The closing loan values for the FY 2023-24 has been considered as opening loan value for FY 2024-25.

8.43 The Commission in the MYT tariff order dated 23rd June 2023 had considered the rate of interest as 9.00% for the respective years of the third control period. Hence the Commission has considered the same for computation of interest on loan for FY 2024-25. The Commission has considered the closing loan of FY 2023-24 as approved by the Commission as the opening loan for FY 2024-25. The Interest on loan as approved by the Commission for FY 2024-25 is given in the table below:

Table 78: Interest on loan as approved by the Commission for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition	Approved
Net Loan-Opening	1011.02	4942.89	1216.15



Particulars	MYT	Petition	Approved
Additions during the year	96.39	819.14	0.00
Repayment during the Year	131.18	189.42	172.22
Net Loan- closing	976.24	5572.61	1043.93
Average Loan	993.63	5257.75	1130.04
Interest on Loan (%)	9.00%	9.82%	9.00%
Interest on Loan	89.43	516.17	101.70

Return on Equity

Petitioner's Submission

8.44 The Petitioner has submitted that it has considered equity base of Rs.1600.96 Crore (Rs1598.96 Crore towards equity share capital + Rs. 2.00 Crore towards restructuring account pending adjustment) for FY 2024-25 as reflected in the annual unaudited accounts. The State Government has infused Rs. 626.00 Crore of equity during the FY 2020-21 in JUSNL. This equity pertains to the equity amount of the World Bank funded schemes being implemented by JUSNL. The applicable return on equity has been calculated considering 14.00% rate of return as per Regulation 10.26 of JSERC Transmission Tariff Regulations, 2020. The detailed calculation of return on equity is provided below:

Table 79: Return on Equity as projected by the Petitioner for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition
Opening Equity	351.63	1600.96
Additions	38.98	0.00
Closing Equity	390.61	1600.96
Average Equity	371.12	1600.96
Rate of Return	14.00%	14.00%
Return on Equity	51.96	224.13

Commission's Analysis

8.45 The Commission has referred to Clause 10.26 to 10.27 of JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020, the Debt: Equity ratio of transmission project will be considered as per the following: -

“For a project declared under commercial operation on or after 1.04.2016, if the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that where equity deployed is less than 30% of capital cost, the



actual equity shall be considered for determination of tariff.”

8.46 As per Regulation 10.26 to 10.27 of the JSERC Transmission Tariff Regulations, 2020 Return on Equity shall be calculated as follows: -

“Return on Equity

10.26 The rate of return on equity shall be 14.00% (post-tax) for the Control Period.

10.27 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 10.23 of these Regulations on assets (in use) capitalized as on the beginning of the year; and b) 50% of the equity projected to be employed in accordance with Clause 10.24 of these Regulations on assets (in use) commissioned during the year.”

8.47 The Commission has also observed the addition in equity component considered by the Petitioner as nil, accordingly the Commission has approved equity addition for FY 2024-25 as nil.

8.48 The closing equity as approved for the FY 2023-24 has been considered as opening equity for FY 2024-25. The Commission has accordingly approved the Return on Equity for FY 2024-25 as given in the table below:

Table 80: Return on Equity as approved by the Commission for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition	Approved
Opening Equity	351.63	1600.96	976.61
Additions	38.98	0.00	0.00
Closing Equity	390.61	1600.96	976.61
Average Equity	371.12	1600.96	976.61
Rate of Return	14.00%	14.00%	14.00%
Return on Equity	51.96	224.13	136.73

Interest on Working Capital

Petitioner’s Submission

8.49 The Petitioner has submitted that the working capital requirement has been computed according to the applicable norms for Transmission function as provided in the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020, the calculation for which has been detailed in the table below. In line with the above Regulations actual MCLR rate prevailing on 30th September 2023 i.e. 8.55% plus 350 basis points has been taken into account for calculation of interest on working capital for FY 2024-25.

Table 81: Interest On Working Capital as projected by the Petitioner for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition
O&M expenses for 1 month	10.36	20.13



Maintenance spares 15% of O&M expenses	18.64	36.23
45 days Receivables of Annual Fixed Charges	48.32	145.07
Total Working Capital	77.31	201.43
Interest Rate	10.50%	12.05%
Interest on Working Capital in Rs.Crore	8.12	24.27

Commission's Analysis

8.50 The Commission has considered the Interest on Working Capital (IoWC) as per norms specified in Clause 10.44 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020.

8.51 The rate of IoWC has been considered to be equal to the MCLR rate as applicable on September 30th, of the relevant financial year plus 350 basis points as per Clause 10.45 to 10.46 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020.

Table 82: Interest on Working Capital as approved by the Commission for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition	Approved
O&M expenses for 1 month	10.36	20.13	13.47
Maintenance spares 15% of O&M expenses	18.64	36.23	24.24
45 days Receivables of Annual Fixed Charges	48.32	145.07	69.82
Total Working Capital	77.31	201.43	107.53
Interest Rate	10.50%	12.05%	12.05%
Interest on Working Capital in Rs.Crore	8.12	24.27	12.96

Non-tariff Income

Petitioner's Submission

8.52 The Petitioner has referred to clause 10.32 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020 for Non-Tariff Income which states as follows:

"10.50 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 by supervision charges, etc.;*
- j) Supervision charges for capital works;*



- k) Income from advertisements;
- l) Income from sale of tender documents;
- m) Profit from sale of assets (i.e. difference in Sale Value and Book Value)
- n) Any other Non-Tariff Income:”

8.53 The Petitioner for projection of the non-tariff income has considered the non-tariff income as projected for FY 2023-24 similar to FY 2024-25. Accordingly, the non-tariff income projected by the Petitioner for FY 2024-25 is summarized in the following table:

Table 83: Non-Tariff Income as projected by the Petitioner for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition
Non-tariff Income	12.79	18.90

Commission’s Analysis

8.54 The Commission has considered the submission made by the Petitioner for consideration of Non-Tariff for FY 2024-25 and the same is summarized in the table below:

Table 84: Non-Tariff Income as approved by the Commission for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition	Approved
Non-tariff Income	12.79	18.90	18.90

Summary of ARR Components

Petitioner’s Submission

8.55 The summary of ARR components as submitted by the Petitioner is mentioned in the table below.

TABLE 85: SUMMARY OF ARR COMPONENTS FOR FY 2024-25 AS SUBMITTED BY THE PETITIONER (RS. CR.)

Particulars	MYT	Petition
Operation and Maintenance Expense	124.27	241.56
Depreciation	130.93	189.42
Interest and Finance Charge	89.43	516.17
Return on Equity	51.96	224.13
Interest on Working Capital	8.12	24.27
Less: Non-tariff Income	12.79	18.90
Net Aggregate Revenue Requirement	391.92	1176.66
Revenue from Operations	-	-
Revenue Gap / (Surplus)	-	-

Commission’s Analysis

8.56 The summary of ARR components as approved by the Commission is summarized in the table below:



Table 86: Summary of ARR Components as approved by the Commission for FY 2024-25(Rs.Cr)

Particulars	MYT	Petition	Approved
Operation and Maintenance Expense	118.94	207.91	161.60
Depreciation	130.93	189.42	172.22
Interest and Finance Charge	89.43	516.17	101.70
Return on Equity	51.96	224.13	136.73
Interest on Working Capital	8.12	24.27	12.96
Less: Non-tariff Income	12.79	18.90	18.90
Net Aggregate Revenue Requirement	386.38	1176.66	566.31

**O&M expenses: excluding terminal liability*

8.57 The Commission observes that the petition was required to be filed in accordance with Clause A 24 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020. However, the instant petition was filed on 29th February, 2024 as such, the Commission disallows the carrying on the net Gap/(Surplus) cost for the period of delay.



Chapter 9: Determination of Transmission Tariff for FY 2024-25

9.1 The Petitioner has stated that it considers power tariff as a sensitive subject having substantial impact on social, economic and financial well-being of the State as well as the viability and growth of power sector. The transmission tariff has been determined based upon the aggregate revenue requirement and transmission capacity of transmission system.

9.2 The Petitioner has referred to the Clause 10.58 to Clause 10.60 of the JSERC (Terms and Conditions of Determination of Transmission Tariff) Regulations, 2020:

“10.58 The fixed cost of the Transmission System shall be computed on annual basis, in accordance with norms contained in these Regulations, aggregated as appropriate, and recovered on monthly basis as transmission charge from the users.

10.59 The transmission charge (inclusive of incentive) payable for a calendar month for a Transmission System or part thereof shall be

a. For TAFM < 98% AFC x (NDM/NDY) x (TAFM/98%)

b. For TAFM: 98% < TAFM < 98.5% AFC x (NDM/NDY) x (1)

c. For TAFM: 98.5% < TAFM < 99.75% AFC x (NDM/NDY) x (TAFM/98.5%)

d. For TAFM > 99.75% AFC x (NDM/NDY) x (99.75%/98.5%)

Where, AFC = Annual Fixed Cost specified for the year, in Rupees;

NDM = Number of days in the month;

NDY = Number of days in the year; and

TAFM = Transmission system availability factor for the month, in percent, computed in accordance with Appendix –III to these Regulations.

10.60 The Transmission Licensee shall raise the bill for the transmission charge (inclusive of incentive) for a month based on its estimate of TAFM. Adjustments, if any, shall be made on the basis of the TAFM to be certified by the SLDC within 30 days from the last day of the relevant month.”

9.3 The Petitioner has referred to JSERC (Framework for sharing of charges for Intra-State Transmission System) Regulations, 2019:

“5.2 The Annual Transmission Charges shall be divided between Transmission System Users of the Transmission System on monthly basis based on the



Allotted Transmission Capacity.

5.3 If a Transmission System has been created for a particular Long-Term Transmission Customer including dedicated transmission line(s) for a generating station, transmission charges for such Transmission System shall be payable by that Long-Term Transmission Customer based on the Transmission Service Agreement.

5.4 For the Long-Term Transmission Customers and Medium-Term Transmission Customers, the transmission charges shall be shared in accordance to the share of capacity allotted:

Monthly Transmission Charges for Intra-State system payable by a Long Term Transmission Customer and Medium Term Transmission Customer of that Transmission System

$$= [ATC \times \text{Allotted Transmission capacity}] / [\text{Total Transmission Capacity} \times 12]''$$

- 9.4 The Petitioner has submitted that the ARR for the FY 2024-25 has been determined as Rs. 1176.66 Crore. The same is considered as the Annual Transmission Charges for the FY 2024-25. Further, the JUSNL has also considered the total revenue gap of Rs. 3328.43 Crore till FY 2022-23 for computation of the transmission charges for FY 2024-25. Thus JUSNL requests the Hon'ble Commission to approve Rs. 4505.09 Crore as the Annual Transmission Charges for the FY 2024-25.

Determination of Transmission Capacity of the system

- 9.5 The Petitioner has stated that the Transmission Capacity of the system has been determined by considering the total power purchase capacity allocated to the JBVNL and Railway in the state of Jharkhand. The total power purchase capacity allocated to JBVNL presently is 2742.39 MW (excluding DVC) and the total power purchase capacity allocated to Railway is 70 MW. The total power purchase capacity of JBVNL has been considered from the ARR and Tariff Petition filed by JBVNL for the FY 2024-25. Hence, the total transmission capacity of the system is 2812.39 MW.

Determination of Transmission Charges

- 9.6 The Petitioner has submitted monthly transmission charges to be recovered from JBVNL and Railway during the FY 2024-25 are as follows:



Table 87 Monthly Transmission Charges for JBVNL

S.No	Particulars	FY 2024-25
1	Annual Transmission Charges for FY 2024-25 (Rs. Crore)	4505.09
2	Total Transmission Capacity (MW)	2812.39
3	Total Transmission Capacity allocated to JBVNL (MW)	2742.39
4	Annual Transmission Charges to be levied to JBVNL (Rs. Crore)	4392.96
5	Monthly Transmission Charges to be levied to JBVNL (Rs. Crore)	366.08

Table 88 Monthly Transmission Charges for Railways

S.No	Particulars	FY 2024-25
1	Annual Transmission Charges for FY 2024-25 (Rs. Crore)	4505.09
2	Total Transmission Capacity (MW)	2812.39
3	Total Transmission Capacity allocated to JBVNL (MW)	70.00
4	Annual Transmission Charges to be levied to JBVNL (Rs. Crore)	112.13
5	Monthly Transmission Charges to be levied to JBVNL (Rs. Crore)	9.34

- 9.7 The Petitioner has submitted that while computing the transmission charges it has also included the cumulative revenue gap till FY 2022-23 of Rs. 3328.43 Crore. The Petitioner requests the Hon'ble Commission to approve the transmission charges including the total revenue gap incurred till FY 2022-23 as the same has to be recovered from the beneficiaries of the JUSNL.
- 9.8 The Petitioner has also requested the Hon'ble Commission to approve the Transmission Charges for JBVNL and Railways subject to target availability.
- 9.9 The Petitioner has also submitted to the Hon'ble Commission to approve the transmission tariff as per the JSERC (Framework for sharing of charges for Intra State Transmission System) Regulations, 2019. In the MYT Order dated 23.6.2023, the Hon'ble Commission has approved the transmission tariff on a per unit basis. However, the Regulations stipulate the licensee to levy the charges as per the allocated transmission capacity of the users. Hence, it is requested to approve the transmission charges on the basis of the allocated transmission capacity of the users of the JUSNL.

Determination of Transmission Charges for Short Term

Open Access Consumers

- 9.10 JUSNL has determined the short term open access charges as per the Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Intra-State Open Access) Regulations, 2016. As per Regulation 19.1 (b) of the Regulations:

“(b) The charges payable by a short-term Consumer shall be calculated in accordance with the following methodology:

$$ST_RATE = 0.5 \times [AFC / Av_CAP] / 365$$



Where:

“ST_RATE” is the rate for short-term access Consumer in Rs per MW per day.

“AFC” means the Annual Fixed Transmission/Distribution Charges of the S.T.U transmission or distribution licensee for the previous financial year determined by the Commission. “Av_CAP” means the average electrical power in MW served by the system during the previous financial year.

The charges payable by a short-term Consumer shall be for one day for availing access for each day or part thereof.

Non-availability of AFC for the system shall not be reason for delay in providing transmission access and where AFC for any transmission licensee are not available, the per MW per day charge applicable for the system owned by the State Transmission Utility of the region in which the system of transmission licensee is situate, shall be used.” Accordingly, the short term open access charges for the FY 2023-24 and FY 2024-25 have been worked out as follows:

Table 89 Short Term Open Access Charges for FY 2024-25

Particulars	Unit of Measurement	FY 2024-25
AFC (FY 2023-24)	Rs. Crore	1100.58
Av_CAP (FY 2023-24)	MW	1394.05
ST Rate	Rs./MW/Day	10814.85
ST Rate	Rs./MWhr	450.62

9.11 The Petitioner has requested the Hon’ble Commission to approve the short term open access charges for the FY 2024-25.

Commission’s Analysis

9.12 The Commission, in this order, has approved the Tariff for FY 2024-25, based on the projected demand of JUSNL as submitted in form S4 of the tariff formats and on the Approved ARR for the year as shown in the table below,

Table 90 : Determination Of Transmission Charges As Approved By The Commission

Particulars	UoM	FY 24-25
Operation and Maintenance Expense	Rs.Cr	161.60
Depreciation	Rs.Cr	172.22
Interest and Finance Charge	Rs.Cr	101.70
Interest on Working Capital	Rs.Cr	12.96
Return on Equity	Rs.Cr	136.73
Less: Non-tariff Income	Rs.Cr	18.90
Aggregate Revenue Requirement	Rs.Cr	566.31
Energy Input into the System	MU	15373.51
Tariff for Transmission for the year	Rs./kWh	0.37



- 9.13 The Commission approves transmission tariff of Rs 0.37/kWh, which shall be applicable from August 1st,2024 and shall remain applicable till amended or modified or extended by an order of this Commission.

Transmission Charges for Short Term Open Access Consumers

- 9.14 The Commission has referred to Section A19 of the JSERC (Intra State Open Access) Regulations,2016 which is referred below:

“A19: TRANSMISSION/ DISTRIBUTION CHARGES

19.1 *The charges for use of the system of the licensee for intra-State transmission or distribution shall be regulated as under, namely: -*

(a) The charges for use of the intra-state transmission system/ distribution system shall be determined by the Commission in accordance with the terms and conditions of tariff notified by the Commission from time to time and after deducting the adjustable revenue from the short-term Consumers, these charges shall be shared by the long-term open access Consumers and medium-term open access Consumers as per allotted capacity proportionately;

(b) The charges payable by a short-term Consumer shall be calculated in accordance with the following methodology:

$$ST_RATE = 0.5 \times [AFC / Av_CAP] / 365$$

Where: “ST_RATE” is the rate for short-term access Consumer in Rs per MW per day.

“AFC” means the Annual Fixed Transmission/Distribution Charges of the S.T.U transmission or distribution licensee for the previous financial year determined by the Commission.

“Av_CAP” means the average electrical power in MW served by the system during the previous financial year.

The charges payable by a short-term Consumer shall be for one day for availing access for each day or part thereof.

Non-availability of AFC for the system shall not be reason for delay in providing transmission access and where AFC for any transmission licensee are not available, the per MW per day charge applicable for the system owned by the State Transmission Utility of the region in which the system of transmission licensee is situate, shall be used.

(c) Every licensee shall declare and exhibit short-term Open Access rate worked out as per these regulations in Rs per MW per day. Rates shall remain fixed for a period of one year.



(d) 50% of the charges collected from the short-term Consumer shall be retained by the licensee and the balance 50% shall be adjusted towards reduction in the charges payable by the long-term and medium term consumers.”

9.15 The Commission in line with the above provisions of the JSERC (Terms and Conditions for Intra-State Open Access) Regulations, 2016 has computed the short term open access charges for consumers as given in the table below:

Table 91 STOA charges as approved by the Commission for FY 2024-25

STOA Charges FY 2024-25	UOM	Petition	Approved
AFC(FY 2023-24)	Rs.Cr	1,100.58	557.38
Av_CAP(FY 2023-24)	MW	1394.05	1394.05
ST Rate	Rs/MW/Day	10814.82	5477.07
ST Rate	Rs/MW hr	450.62	228.21



Chapter 10: Directives

Data adequacy in the next Petition

- 6.1 The Commission has observed that the Petitioner has not submitted the required data/supporting documents in proper format with the petition. In spite of sufficient time and several reminders, the Petitioner couldn't provide justifiable reasons regarding the discrepancy pointed out by the Commission specially in connection with addition of capex expenditure and capitalization during the year. The Commission directs the Petitioner to submit the petition along with relevant formats, failure to do so may lead to non-acceptance of the petition. The Petitioner is also directed to submit its claim with justifiable reasons and documentary proof.

Timeliness and Data Adequacy in the Next Tariff Petition

- 6.2 The Commission directs the licensee to file the next tariff petition, after removing the deficiencies highlighted in this tariff order. The Petitioner should ensure that the data submitted to the Commission is accurate with proper certification. The Commission also directs the licensee to ensure submission of the next tariff petition within the time frame as stipulated in Section A 24 of the JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2015 and JSERC (Terms and Conditions for Determination of Transmission Tariff) Regulations, 2020. Failure to comply with the directions will make the Petitioner liable for appropriate action under the provisions of the Electricity Act, 2003.

Re-financing of State Government Loans

- 6.3 The Commission observes that most of the schemes of the Petitioner are financed at 13% rate of interest which is higher than the rates currently prevailing in the market. The Commission also notes that the Petitioner has not taken any step to get these schemes financed from the cheapest source at the first place. The Commission thus directs the petitioner to make all efforts to re-finance the loan for such schemes from the cheapest source available. The Petitioner may approach the State Government to convert the loans into grant or equity. The Petitioner may also look for Viability Gap Funding for schemes which may be developed for social cause. The Petitioner is directed to submit along with the next tariff petition, the steps taken towards refinancing of these schemes and efforts made with the State Government to convert the loans from them to a viability gap funding/ soft loan/grant/ equity



This order is signed and issued by the Jharkhand State Electricity Regulatory Commission on July 03rd, 2024.

Date: 03.07.2024

Place: Ranchi

Sd/-

Atul Kumar

MEMBER (Technical)

Sd/-

Mahendra Prasad

Member(Law)



ANNEXURE - I

List of Participants in the Public Hearing

Sl. No	Name	Address/Organization
1.	Shailesh Prakash	DGM(Operation),SLDC
2.	D Mahapatra	GM(IA)JUSNL
3.	Gaurav Kumar	Senior Manager(C&RA)
4.	Ravi Ranjan	Senior Manager(C&M)
5.	Chandra Shekhar Kumar	Senior Manager CRITL
6.	Avinash Alda	Senior Manager(C&RA),JUSNL
7.	Shyam Mahato	GM(I.T) JUSNL
8.	Nutan Bharti	DGM(F&A),JUSNL
9.	Rimil Topno	Senior Manager,SLDC,JUSNL
10.	Sani Ahmed	Comp Operator
11.	Deepak Kumar	Manager(C&RA)JUSNL
12.	Ashish Kumar	G.M.(C&RA)JUSNL
13.	Amit Banerjee	ED,JUSNL
14.	M.K Kamal	ED(Operation)
15.	Shashi Bhushan Kumar	JBVNL
16.	Ujjwala Kalyani Guria	JBVNL
17.	Anita Prasad	JBVNL
18.	Shipra Sinni	PWC Consultant(JBVNL)
19.	R.K Tripathy	PWC Consultant(JBVNL)
20.	Ravi Shankar Kumar	JBVNL
21.	Eshan Singh	APNRL
22.	Birendra Kisku	JBVNL
23.	S.N Singh	IPL
24.	Sanjay Singh	IPL
25.	Satya Narayan Prasad	Rubs and Co,Ranchi
26.	Karuna Sinha	Rubs and Co,Ranchi
27.	Amit Kumar Chaudhary	IOIA,Lalpur
28.	Dhiresk Kumar	Ranchi
29.	Vishal K Singh	Ranchi
30.	Umesh Kumar Singh	Ranchi
31.	Rajeev Ranjan	DGM(C&RA),JUSNL
32.	Gaurav Lohani	Consultant,JUSNL