



# **Petition for Approval of Business Plan For FY 2026-27 to FY 2030-31**

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**BEFORE**

**THE HON'BLE JHARKHAND STATE ELECTRICITY  
REGULATORY COMMISSION, RANCHI, JHARKHAND**

**March 2026**



**TENUGHAT VIDYUT NIGAM LIMITED**  
Smart City, Dhurwa, Ranchi - 834004



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## Glossary

| Abbreviation   | Full form                                          |
|----------------|----------------------------------------------------|
| <b>A&amp;G</b> | Administration & General                           |
| <b>BMD</b>     | Boiler Maintenance Department                      |
| <b>C&amp;I</b> | Control & Instrumentation                          |
| <b>CIP</b>     | Capital Investment Plan                            |
| <b>CHP</b>     | Coal Handling Plant                                |
| <b>CWIP</b>    | Capital Work In Progress                           |
| <b>DPR</b>     | Detailed Project Report                            |
| <b>EA</b>      | Electricity Act                                    |
| <b>EM</b>      | Electrical Maintenance                             |
| <b>FGD</b>     | Flue Gas Desulfurization                           |
| <b>GFA</b>     | Gross Fixed Assets                                 |
| <b>HR</b>      | Human Resource                                     |
| <b>IT</b>      | Information Technology                             |
| <b>JBVNL</b>   | Jharkhand Bijli Vitran Nigam Limited               |
| <b>JSERC</b>   | Jharkhand State Electricity Regulatory Commission  |
| <b>kW</b>      | Kilowatt                                           |
| <b>kWh</b>     | Kilowatt Hour                                      |
| <b>MOEFCC</b>  | Ministry of Environment, Forest and Climate Change |
| <b>MU</b>      | Million Unit                                       |
| <b>MW</b>      | Megawatt                                           |
| <b>MWh</b>     | Megawatt Hour                                      |
| <b>MYT</b>     | Multi Year Tariff                                  |
| <b>NAPAF</b>   | Normative Plant Availability Factor                |
| <b>NAPLF</b>   | Normative Plant Load Factor                        |
| <b>O&amp;M</b> | Operation & Maintenance                            |



| Abbreviation | Full form                      |
|--------------|--------------------------------|
| PAF          | Plant Availability Factor      |
| PLF          | Plant Load Factor              |
| R&M          | Renovation & Modernization     |
| SFC          | Secondary Fuel Consumption     |
| SHR          | Station Heat Rate              |
| SLDC         | State Load Dispatch Centre     |
| TMD          | Turbine Maintenance Division   |
| TTPS         | Tenughat Thermal Power Station |
| TVNL         | Tenughat Vidyut Nigam Limited  |



## 1. Introduction

### 1.1 Background

- 1.1.1 Tenughat Vidyut Nigam Limited (A Govt. of Jharkhand Undertaking) is a power generating company incorporated on 26.11.1987 under Companies Act, 1956, Head Quarter at Ranchi.
- 1.1.2 Keeping in view the availability of abundance source of water and coal from the adjacent coal mines, the Government of Bihar commissioned the Tenughat Thermal Power Project.
- 1.1.3 The Government of India granted the permission for the first phase in 1979. The first phase of the work was accomplished in 1995 with a total capital investment of Rs.915 crores. This Thermal Power station was dedicated to the nation on 9th December 1995 by the then Chief Minister of Bihar. But due to some technical snags the first phase came to a standstill on February 5, 1996.
- 1.1.4 Unit II was synchronized in the year of 1996. It was put under commercial operational from September 1997 and was producing electricity of 210 MW continuously producing electricity according to its capacity.
- 1.1.5 The project known as Tenughat Thermal Power Station (TTPS) is located at village Lalpania in the District of Bokaro (Jharkhand). It is situated on the left bank of Tenughat reservoir. The nearest railway station is Gomia which is at a distance of 20 KM (approx.) by road. The project site is developed with all modern infrastructure like school, hospital, bank, post office, marketing complex etc.
- 1.1.6 The total installed capacity of Tenughat Thermal Power Station is 420 MW (2X210 MW). The first unit was put in commercial operation in September 1996 and second unit in September 1997. Existing units are performing well above the national standards.
- 1.1.7 The daily requirement of coal for full load generation for both of its Units is approximately 7000 MT which is being fulfilled by road and rail transport from its nearby collieries. The organization is run by dedicated & competent team of employees.
- 1.1.8 TTPS has an acquired land of 1800 acres (approx.). TVNL has planned its future expansion of existing site/plant by addition of 2X660 MW super critical units. The consultant for extension project has been appointed and the consultancy work is under progress. The DPR has been prepared and Global tender for selection of EPC contractor shall be floated shortly for installation of 2X660 MW units. The needed fuel requirement will be met from its allocated coal block Rajbar E & D located in the district of Latehar. Activity for commencement of coal mining is under progress. Water requirement will be met from Tenu Reservoir of water Resources Department of Govt. of Jharkhand. With grey field expansion the total installed capacity of 1740 (2X210 + 2X660) MW of TTPS shall be dedicated to the service of the State/Nation.



## 1.2 Key achievements of TVNL

1.2.1 Some of the key achievements of TVNL during the last few financial years are as follows:

- Highest one day generation/PLF - 10.38 MU/102.98% on 23.10.2011.
- TTPS achieved monthly Plant Load Factor (PLF) of 90.20% during the month of Feb'2013.
- TTPS achieved highest Annual Generation of 2924.87 MU at a Plant Load Factor (PLF) of 79.50% during the FY 2012-13 which is a record since its inception.
- Unit No. I:
  - Highest one day Generation/PLF: 5.19 MU /102.98% on 23.10.2011.
  - Highest Monthly PLF: 100.68% in Feb'2012.
  - Highest Monthly Station Loading Factor: 100.70% in Feb'2012.
- Unit No. II:
  - Highest one day Generation/PLF: 5.19 MU/102.98% ON 23.10.2011.
  - Highest Monthly Loading Factor: 100.16% in Jan'2012.
- Allocation of the coal block Rajbar E&D for TVNL
- State Cabinet has accorded approval for installation of TTPS expansion project of 2X660 MW super critical units at TTPS, Lalpania.
- TTPS achieved Annual Generation of 2636.51 MU during the F.Y. 2015-16 at a Plant Load Factor (PLF) of 71.46% which is above national average.
- Rail transportation of coal to TTPS has been successfully operationalized since Oct'2015.
- SAP ERP system introduced w.e.f. 01.04.2016 for transparent operations.

## 1.3 Challenges and Opportunities for TVNL

1.3.1 TVNL over the years of its operation is facing a lot of challenges:

- There has been a decline in PLF due to continuous backing down by the SLDC as the load growth in the state hasn't been quite encouraging and due to the increase in renewable power purchase by the state discom, JBVNL.
- Some of the key technical parameters like SHR and auxiliary consumption have deteriorated due to the ageing of the units (Unit-I being in the 30<sup>th</sup> year of operation and Unit - II being in the 29<sup>th</sup> year of operation)
- The ageing of the units has also affected the R&M expenses specially through the increase in the cost of spares and other maintenance expenses.
- Also, the non-payment of energy dues by JBVNL has adversely impacted the performance of TVNL. As on 31<sup>st</sup> March 2025, JBVNL owes TVNL cumulative dues of INR 6928.31 Cr.



## 1.4 Regulatory Background

1.4.1 Starting from 2003, TVNL has filed Petitions in accordance with Section 62 of EA 2003. The details of the previous Orders issued by JSERC are given below:

**Table 1: Previous orders for TVNL issued by JSERC**

| Order                                                                                                                                                                                        | Date                    |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|
| Order on True-up for FY 2016-17 to FY 2020-21 for Tenughat Vidyut Nigam Limited                                                                                                              | 30.09.2024              |
| Order on Petition for Business Plan and Multi Year Tariff for the period FY 2021-22 to FY 2025-26, for Tenughat Vidyut Nigam Limited                                                         | 14.12.2023              |
| Order on Petition for Multi Year Tariff for the period FY 2017-21 (Including truing-up For FY 2014-15 & provisional true-up of FY 2015-16) For Tenughat Vidyut Nigam Limited (TVNL)          | 28.02.2020 & 14.10.2020 |
| Order on Petition for Annual Performance Review for FY 2014-15 (Including truing-up For FY 2012-13 & FY 2013-14) for Tenughat Vidyut Nigam Limited (TVNL)                                    | 30.09.2016              |
| Order on Petition for Annual Performance Review for FY 2012-13 (including truing-up for FY 2011-12) for Tenughat Vidyut Nigam Limited (TVNL)                                                 | 02.07.2014              |
| MYT Order on Business Plan and Annual Revenue Requirement and Determination of Generation Tariff for First Control Period of FY 2012-13 to 2015-16 for Tenughat Vidyut Nigam Limited (TVNL). | 30.05.2012              |
| Tariff Order on Annual Revenue Requirement and Determination of Generation Tariff for Financial Years FY 2010-11 & 2011-12 for Tenughat Vidyut Nigam Limited (TVNL).                         | 31.05.2011              |
| Tariff Order on Annual Revenue Requirement and Determination of Generation Tariff for Financial Years FY 2009-10 & 2010-11 for Tenughat Vidyut Nigam Limited (TVNL)                          | 22.11.2010              |
| Tariff Order on ARR and Determination of Generation Tariff for FY 2008-09 & 2009-10 for Tenughat Vidyut Nigam Limited (TVNL)                                                                 | 05.03.2010              |
| Tariff Order for TVNL FY 2007-2008                                                                                                                                                           | 03.01.2008              |
| Tariff Order for Tenughat Vidyut Nigam Limited (TVNL) FY 2005-06                                                                                                                             | 30.03.2006              |
| Tariff Order for TVNL FY 2004-2005                                                                                                                                                           | 23.08.2004              |



- 1.4.2 The Hon'ble Commission has notified the JSERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2025 published on 15<sup>th</sup> October 2025 (Hereinafter referred to as JSERC Generation Tariff Regulations, 2025) in exercise of the powers conferred by Section 61 and 62 read with Section 181 of the Electricity Act, 2003.
- 1.4.3 The sub-clause 6.2 of Clause A6 (Guiding Principles for the MYT Framework) of these regulations require the generating company, to prepare and file Business Plan of the Generating Station for the Control Period FY 2026-27 to FY 2030-31 and get the same approved by the Hon'ble Commission. In line with the said requirement, the Petitioner is filing this business plan.

## 1.5 Objective of this Petition

- 1.5.1 The Hon'ble Commission, in exercise of the powers conferred by the Electricity Act 2003, notified the Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025.
- 1.5.2 Regulation 6.5 of JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2025 (hereafter referred as JSERC Generation Tariff Regulations, 2025) states that:

*"Each Generating Company shall file for the Commission's approval a Business Plan approved by an authorized signatory, as per the timelines specified in Section A39 of these Regulations"*

- 1.5.3 Further Regulations 6.6 of JSERC Generation Tariff Regulations, 2025 states that:

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

*a) Capital Investment Plan: The Generating Company shall submit the Capital Investment Plan for the entire Control Period, detailing the investments planned by the Generating Company along with the corresponding capitalization schedule and financing plan. This Plan shall also include capacity enhancement plan, if any, and proposed efficiency improvements and its cost benefit analysis. It shall also submit plant-wise details of Capital Structure and cost of Financing (interest on Debt) and return on equity, after considering the existing market conditions, terms of the existing loan agreements, risk associated in generating business and creditworthiness;*

*b) Operational Plan: A set of targets proposed for performance parameters such as Annual Plant Availability Factor (PAF), Plant Load Factor (PLF), Gross Station Heat Rate (SHR), Secondary Fuel Oil Consumption, Auxiliary Power Consumption (Aux)etc., and shall also include Unit-wise Outage Plan;*

*c) Human Resource Plan: Human Resource Plan with manpower planning including details of the estimated year wise manpower addition and retirements for the Control Period to run the power plant efficiently and effectively;*



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

*e) Income from Other Business: Proposals in respect of income from Other Business; and*

*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. In case of a new generating plant, such information is required to be submitted for the period of operations up to the start of the Control Period."*

- 1.5.4 Accordingly, in order to comply with relevant regulation of JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025, TVNL is filing instant Business Plan for Control Period FY 27 to FY 31.



## 2. Past Performance Analysis

This section elucidates TVNL's overview of power business into technical and financial performance for the previous years. A comparative analysis of the performance for various years in relation to technical parameters, O&M Expenses, CAPEX incurred, Capitalization, etc. are discussed herewith.

### 2.1 Plant Availability Factor (PAF)

2.1.1 The Plant Availability Factor (PAF) of TVNL has improved over the years, compared to FY 2021-22 due to proper maintenance and upkeep of equipment and due to prevention of breakdowns. TVNL has focused a lot on improving its PAF to meet the target of power dispatch as scheduled by the SLDC.

**Table 2: PAF - FY 22 to FY 26**

| Particular                           | FY 2021-22 | FY 2022-23 | FY 2023-24 | FY 2024-25 | FY 2025-26* |
|--------------------------------------|------------|------------|------------|------------|-------------|
| <b>Plant Availability Factor (%)</b> | 59.58%     | 81.85%     | 76.41%     | 75.38%     | 71.06%      |

\* As of December 2025

2.1.2 The Commission had considered Normative Annual Plant Availability Factor (NAPAF) of 85% as specified in the Generation Tariff Regulations, 2020 for projection of Availability during each year of the Control Period i.e. from FY 2021-22 to FY 2025-26.

2.1.3 TVNL was unable to achieve the Normative Annual Plant Availability Factor (NAPAF) of 85% as specified by the Commission due to unplanned maintenance activities conducted at the plant and delays in supply of primary fuel. Being an old plant entering into the 25<sup>th</sup> year at the start of the control period of FY 22 to FY 26, frequent shutdowns have had a major impact on all technical parameters leading to their degradation.

### 2.2 Plant Load Factor (PLF)

2.2.1 The Plant Load Factor (PLF) of TVNL has increased over the control period of FY 2021-22 to FY 2025-26 compared to FY 2021-22 due to increase in electrification and load growth of JBVNL which has led to a PLF of over 60% for the last two financial years and a gross generation of over 2250 MU.

**Table 3: PLF - FY 22 to FY 26 (%)**

| Particular                   | FY 2021-22 | FY 2022-23 | FY 2023-24 | FY 2024-25 | FY 2025-26* |
|------------------------------|------------|------------|------------|------------|-------------|
| <b>Plant Load Factor (%)</b> | 48.08%     | 70.33%     | 64.36%     | 61.16%     | 52.61%      |

\* As of December 2025



2.2.2 The Commission had considered Normative Plant Load Factor (PLF) of 85% as specified in the Generation Tariff Regulations, 2020 for each year of the Control Period i.e. from FY 2021-22 to FY 2025-26.

2.2.3 TVNL was unable to achieve the Normative Annual Plant Load Factor (NAPLF) of 85% as specified by the Commission due to backing down by SLDC, Jharkhand. Further, increase in installed renewable capacity (must run plants) has led to increase in instances of backing down by the SLDC.

## 2.3 Gross Station Heat Rate (SHR)

2.3.1 TVNL has improved its Station Heat Rate (SHR) over the control period of FY 2021-22 to FY 2025-26 due to various improvement measures undertaken for monitoring of coal quality, upkeep of equipment and efficient plant operation.

**Table 4: Actual SHR - FY 22 to FY 26**

| Particular                   | FY 2021-22 | FY 2022-23 | FY 2023-24 | FY 2024-25 | FY 2025-26* |
|------------------------------|------------|------------|------------|------------|-------------|
| Station Heat Rate (kcal/kWh) | 2590.29    | 2547.24    | 2564.73    | 2569.31    | 2563.02     |

\* As of December 2025

2.3.2 The Commission has approved the station heat rate for the control period as per the norms given in the Generation Tariff Regulations, 2020 as follows:

**Table 5: SHR approved by Commission - FY 22 to FY 26**

| Particular                   | FY 2021-22 | FY 2022-23 | FY 2023-24 | FY 2024-25 | FY 2025-26 |
|------------------------------|------------|------------|------------|------------|------------|
| Station Heat Rate (kcal/kWh) | 2547       | 2547       | 2547       | 2547       | 2547       |

2.3.3 TVNL could not control its SHR within Commission approved numbers for each year of the Control Period FY 2021-22 to FY 2025-26 except for FY 2022-23, due to a lower Plant Load Factor (PLF), frequent plant outages, and the deviation of technical parameters from the original design, resulting in overall plant degradation.

## 2.4 Secondary Fuel Consumption (SFC)

2.4.1 TVNL has reduced its Secondary Fuel Consumption (SFC) considerably over the years of the control period of FY 2021-22 to FY 2025-26 except FY 2024-25 to FY 2025-26, due to frequent outages and increase in the instances of backing down by SLDC.



**Table 6: Secondary Fuel Consumption - FY 22 to FY 26**

| Particular                                 | FY 2021-22 | FY 2022-23 | FY 2023-24 | FY 2024-25 | FY 2025-26* |
|--------------------------------------------|------------|------------|------------|------------|-------------|
| <b>Secondary Fuel Consumption (ml/kWh)</b> | 0.879      | 0.526      | 0.895      | 1.135      | 1.45        |

\* As of December 2025

2.4.2 The Commission has approved the Secondary Fuel Consumption (SFC) of 1.00 ml/kWh for the control period as per the norms given in the Generation Tariff Regulations, 2020.

2.4.3 TVNL was able to achieve its SFC within Commission approved numbers for each year of the Control Period FY 2021-22 to FY 2025-26 except FY 2024-25 to FY 2025-26, due to frequent outages and increase in the instances of backing down by SLDC.

## 2.5 Auxiliary Consumption

2.5.1 The Auxiliary Consumption of TVNL has reduced over the years of the Control Period FY 2021-22 to FY 2025-26, due to increase in PAF% and PLF%.

**Table 7: Auxiliary Consumption - FY 22 to FY 26**

| Particular                            | FY 2021-22 | FY 2022-23 | FY 2023-24 | FY 2024-25 | FY 2025-26* |
|---------------------------------------|------------|------------|------------|------------|-------------|
| <b>Auxiliary Consumption (ml/kWh)</b> | 9.85%      | 10.05%     | 9.70%      | 9.62%      | 9.35%       |

\* As of December 2025

2.5.2 As per Regulation 6.11 of the Generation Tariff Regulations, 2020 the auxiliary consumption is a “controllable parameter”. Further, the Commission had considered the auxiliary consumption at 9.50% for the Control Period FY 2021-22 to FY 2025-26.

2.5.3 TVNL was unable to achieve the Normative Auxiliary Consumption of 9.50% as specified by the Commission except FY 2025-26, The reason is ageing of the generation units (Unit-I being in the 30<sup>th</sup> year of operation and Unit – II being in the 29<sup>th</sup> year of operation) and as such the efficiency levels have reduced.



## 2.6 O&M Expenditure

2.6.1 The O&M expenses of TVNL for the Control Period of FY 2021-22 to FY 2025-26, based on audited financial accounts for FY 2021-22 to FY 2025-26 are as follows:

**Table 8: Breakup of O&M expenses - FY 22 to FY 26 (INR Crore)**

| Particular                       | FY 2021-22 | FY 2022-23 | FY 2023-24 | FY 2024-25 |
|----------------------------------|------------|------------|------------|------------|
| <b>Employee Benefits Expense</b> | 138.71     | 108.41     | 140.92     | 134.66     |
| <b>A&amp;G expense</b>           | 30.35      | 28.16      | 30.67      | 33.09      |
| <b>R&amp;M expense</b>           | 74.57      | 93.73      | 131.84     | 122.73     |

*\*The audited financial statements for the fiscal year 2025-26 are yet to be finalized/prepared.*

## 2.7 Analysis of Capital Expenditure

2.7.1 The Capital Expenditure of TVNL for the last 5 years, based on financial accounts for FY 2021-22 to FY 2025-26, is as shown below:

**Table 9: Analysis of Capital Expenditure (INR Crore)**

| Particular                      | FY 2021-22     | FY 2022-23     | FY 2023-24     | FY 2024-25     | FY 2025-26* |
|---------------------------------|----------------|----------------|----------------|----------------|-------------|
| CWIP: Opening                   | 63.60          | 77.81          | 97.41          | 117.82         |             |
| Add: Adjustment/Capitalization  | 14.21          | 0.00           | 0.00           | 1.14           |             |
| Add: Capex                      | 0.00           | 19.60          | 20.40          | 32.96          |             |
| <b>CWIP: Closing</b>            | <b>77.81</b>   | <b>97.41</b>   | <b>117.82</b>  | <b>151.91</b>  |             |
| <b>Gross Fixed Assets (GFA)</b> |                |                |                |                |             |
| Opening GFA                     | 1646.83        | 1564.44        | 1585.77**      | 1587.83        | 1631.62     |
| Add: Adjustment                 | -82.39         | 0.04           | 0.00           | 14.50          |             |
| Add: Capex                      | 0.00           | 8.48           | 2.06           | 29.28          |             |
| <b>Closing GFA</b>              | <b>1564.44</b> | <b>1572.96</b> | <b>1587.83</b> | <b>1631.62</b> |             |
| <b>Net Fixed Assets</b>         |                |                |                |                |             |
| Opening: Net FA                 | 256.25         | 242.69         | 234.87         | 249.06         | 271.59      |
| Add: Capex                      | 0.00           | 8.52           | 26.61          | 43.79          |             |
| Less: Depreciation              | 13.56          | 16.34          | 12.41          | 21.26          |             |
| <b>Closing: Net FA</b>          | <b>242.69</b>  | <b>234.87</b>  | <b>249.06</b>  | <b>271.59</b>  |             |

*\* The financial statements for the fiscal year 2025-26 are yet to be finalized/prepared.*

*\*\* INR 12.81 Crore adjustment in opening and closing GFA.*



### 3. Operational Plan

#### 3.1 Regulatory Provisions for Operational Plan

- 3.1.1 As per Clause 6.6 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025:

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

**Operational Plan:** *A set of targets proposed for performance parameters such as Annual Plant Availability Factor (PAF), Plant Load Factor (PLF), Gross Station Heat Rate (SHR), Secondary Fuel Oil Consumption, Auxiliary Power Consumption (Aux)etc., and shall also include Unit-wise Outage Plan”*

#### 3.2 Broad Methodology

- 3.2.1 As per Clause 16.1 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025.

*“The values for operational norms for the existing generating stations have been decided, based on the past operational data of these plants. The norms of operation as given hereunder shall apply for existing thermal power stations in the State”*

- 3.2.2 TVNL is committed to bringing its operational parameters in line with the target set by the Hon’ble Commission in JSERC Generation Tariff Regulations, 2025 in the next Control Period in order to provide cheap power to consumers in state of Jharkhand.

#### 3.3 Plant Availability Factor (PAF)

- 3.3.1 As per Clause 16.1 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025, TVNL projects Normative Annual Plant Availability Factor (%) of 85% for the Control Period FY 2026-27 to FY 2030-31.

**Table 10: Normative PAF - FY 27 to FY 31**

| Particular                                     | FY 2026-27 | FY 2027-28 | FY 2028-29 | FY 2029-30 | FY 2030-31 |
|------------------------------------------------|------------|------------|------------|------------|------------|
| <b>Normative Plant Availability Factor (%)</b> | 85%        | 85%        | 85%        | 85%        | 85%        |

- 3.3.2 The Commission after prudence check may finalize these norms of operation, after considering the capital investments approved for any Renovation and Modernisation activities undertaken.



### 3.4 Plant Load Factor (PLF)

- 3.4.1 As per Clause 16.1 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025, TVNL projects Normative Annual Plant Load Factor (%) of 85% for the Control Period FY 2026-27 to FY 2030-31.

**Table 11: Normative PLF - FY 27 to FY 31**

| Particular                             | FY 2026-27 | FY 2027-28 | FY 2028-29 | FY 2029-30 | FY 2030-31 |
|----------------------------------------|------------|------------|------------|------------|------------|
| <b>Normative Plant Load Factor (%)</b> | 85%        | 85%        | 85%        | 85%        | 85%        |

### 3.5 Gross Station Heat Rate (SHR)

- 3.5.1 As per Clause 16.1 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025, TVNL projects Gross Station Heat Rate of 2547 kcal/kWh for the Control Period FY 2026-27 to FY 2030-31.

**Table 12: Gross Station Heat Rate for FY 27 to FY 31**

| Particular                                | FY 2026-27 | FY 2027-28 | FY 2028-29 | FY 2029-30 | FY 2030-31 |
|-------------------------------------------|------------|------------|------------|------------|------------|
| <b>Gross Station Heat Rate (kcal/kWh)</b> | 2547       | 2547       | 2547       | 2547       | 2547       |

### 3.6 Secondary Fuel Consumption (SFC)

- 3.6.1 As per Clause 16.1 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025, TVNL projects Secondary Fuel Consumption of 1.0 ml/kWh for the Control Period FY 2026-27 to FY 2030-31.

**Table 13: Secondary Fuel Oil Consumption for FY 27 to FY 31**

| Particular                                     | FY 2026-27 | FY 2027-28 | FY 2028-29 | FY 2029-30 | FY 2030-31 |
|------------------------------------------------|------------|------------|------------|------------|------------|
| <b>Secondary Fuel Oil Consumption (ml/kWh)</b> | 1.00       | 1.00       | 1.00       | 1.00       | 1.00       |

### 3.7 Gross Generation

- 3.7.1 TVNL projects the gross generation for both units for the Control Period FY 2026-27 to FY 2030-31 as follows:



**Table 14: Gross Generation for FY 27 to FY 31**

| Particular                   | FY 2026-27 | FY 2027-28 | FY 2028-29 | FY 2029-30 | FY 2030-31 |
|------------------------------|------------|------------|------------|------------|------------|
| <b>Gross Generation (MU)</b> | 3127.32    | 3135.89    | 3127.32    | 3127.32    | 3127.32    |

### 3.8 Auxiliary Consumption

- 3.8.1 As per Clause 16.1 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025, TVNL projects Auxiliary Consumption of 9.50% for the Control Period FY 2026-27 to FY 2030-31.

**Table 15: Auxiliary Consumption for FY 27 to FY 31**

| Particular                       | FY 2026-27 | FY 2027-28 | FY 2028-29 | FY 2029-30 | FY 2030-31 |
|----------------------------------|------------|------------|------------|------------|------------|
| <b>Auxiliary Consumption (%)</b> | 9.50%      | 9.50%      | 9.50%      | 9.50%      | 9.50%      |

### 3.9 Net Generation

- 3.9.1 TVNL projects the net generation, on the basis of gross generation and auxiliary consumption for both generation units for the Control Period FY 2026-27 to FY 2030-31 as follows:

**Table 16: Net Generation for FY 27 to FY 31**

| Particular                 | FY 2026-27 | FY 2027-28 | FY 2028-29 | FY 2029-30 | FY 2030-31 |
|----------------------------|------------|------------|------------|------------|------------|
| <b>Net Generation (MU)</b> | 2830.22    | 2837.98    | 2830.22    | 2830.22    | 2830.22    |

### 3.10 Transit Loss

- 3.10.1 As per Clause 17.11 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025:

*“The landed cost of fuel for the month shall include price of fuel corresponding to the grade and quality of fuel inclusive of royalty, taxes and duties as applicable, transportation cost by rail/road or any other means, and, for the purpose of computation of energy charge, and in case of coal/lignite shall be arrived at after considering normative transit and handling losses as percentage of the quantity of coal or lignite dispatched by the coal or lignite supply company during the month as given below:*

*Pithead generating stations: 0.2%*

*Non-pithead generating stations: 0.8%*



*Provided that in case of pithead stations if coal or lignite is procured from sources other than the pithead mines, which is transported to the station through rail, transit loss of 0.8% shall be applicable:*

*Provided further that in case of imported coal, the transit and handling losses shall be 0.2%."*

3.10.2 As per Clause 17.11 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025, a transit loss of 0.8% can be considered for arriving at the landed cost of fuel per month for non-pithead generating plants. Since the operationalization of the railway line, TVNL has been using the same to procure coal from the allocated mines located at a distance of 40-60 kms. Earlier, the same was made available to the plant via road.

3.10.3 Accordingly, TVNL projects a transit loss of 0.8% for the Control Period FY 2026-27 to FY 2030-31 as follows:

**Table 17: Transit Loss - FY 27 to FY 31**

| Particular              | FY 2026-27 | FY 2027-28 | FY 2028-29 | FY 2029-30 | FY 2030-31 |
|-------------------------|------------|------------|------------|------------|------------|
| <b>Transit Loss (%)</b> | 0.8%       | 0.8%       | 0.8%       | 0.8%       | 0.8%       |

### 3.11 Unit-wise Outage Plan

3.11.1 In accordance with Clause 6.6 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025, TVNL proposes the following unit wise outage plan for the Control Period FY 2026-27 to FY 2030-31 for planned maintenance activities.

**Table 18: Unit wise outage plan for FY 27 to FY 31**

| Outage Plan (In Days and Hours) | FY 2026-27          | FY 2027-28          | FY 2028-29          | FY 2029-30          | FY 2030-31          |
|---------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| <b>Unit I</b>                   | 30 days (720 hours) | 30 days (720 hours) | 30 days (720 hours) | 30 days (720 hours) | 30 days (720 hours) |
| <b>Unit II</b>                  | 30 days (720 hours) | 30 days (720 hours) | 30 days (720 hours) | 30 days (720 hours) | 30 days (720 hours) |

3.11.2 TVNL proposes for a month's shutdown for each unit for each year due to ageing of the units (Unit-I being in the 30<sup>th</sup> year of operation and Unit - II being in the 29<sup>th</sup> year of operation) and as such the efficiency levels have reduced. Accordingly, enhanced focus on Repair and Maintenance activities becomes even more essential for efficient operation and running of the plant.



## 4. Capital Investment Plan

### 4.1 Regulatory Provisions for Capital Investment Plan

4.1.1 Clause 6.6 (a) and 6.7 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025 state the following:

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

*a) **Capital Investment Plan:** The Generating Company shall submit the Capital Investment Plan for the entire Control Period, detailing the investments planned by the Generating Company along with the corresponding capitalisation schedule and financing plan. This Plan shall also include capacity enhancement plan, if any, and proposed efficiency improvements and its cost benefit analysis. It shall also submit plant-wise details of Capital Structure and cost of Financing (interest on Debt) and return on equity, after considering the existing market conditions, terms of the existing loan agreements, risk associated in generating business and creditworthiness;*

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

- 1. Purpose of investment;*
- 2. Approval of Competent Authority;*
- 3. Detailed Project Report;*
- 4. Capital Structure;*
- 5. Capitalisation Schedule;*
- 6. Implementation schedule including timelines;*
- 7. Cost-benefit analysis& Rate reasonability;*
- 8. Improvement in operational efficiency envisaged in the Control Period;*
- 9. On-going schemes that will spill over into next financial 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.”*

4.1.2 As per Regulation 14.11 of JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025, a generating company may opt to avail a special allowance for meeting the requirement of expenses including R&M beyond the Useful Life of the generating station or a Unit thereof, and in such an event, revision of the capital cost shall not be allowed and the applicable operational norms shall not be relaxed but the special allowance shall be included in the annual fixed cost.



- 4.1.3 TVNL Unit-I is completing 25 years in FY 2021-22 and Unit-II is completing 25 years in FY 2022-23. Accordingly, TVNL shall require opting for special allowance for Unit-I & II from FY 2026-27 onwards as per Regulation 14.12 of JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025.
- 4.1.4 Additionally, in order to achieve revised emission norms for coal-based power plants as issued by MoEFCC; TVNL also proposes installation of FGD, D-NO<sub>x</sub> and ESP systems as per Regulation 14.13 of JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025. These expenditures are due to change in law and hence should not be regarded as CAPEX/Capitalization including Renovation & Modernization CAPEX and hence can be availed along with special allowance.
- 4.1.5 In accordance with the specified provisions 14.11 and 14.12 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025, TVNL prays to allow special allowance for both units during the MYT control period from FY 2026-27 to FY 2030-31.

*“14.11 In case of coal fired generating stations, the Generating Company, at its discretion, may opt to avail a special allowance in accordance with the norms specified in this Regulation, as compensation for meeting the requirement of expenses including renovation and modernization beyond the Useful Life of the generating station or a Unit thereof, and in such an event revision of the capital cost shall not be allowed and the applicable operational norms shall not be relaxed but the special allowance shall be included in the annual fixed cost:*

*Provided also that such option shall not be available for a generating station or Unit, which is in a depleted condition or operating under relaxed operational and performance norms.*

*14.12 A Generating Company (coal-based/lignite fired thermal generating station) on opting for Special Allowance shall be allowed@ Rs. 9.50 lakh/MW/year for the Control Period from FY 2021-22 to FY 2025-26, Unit-wise from the financial year following the completion of useful life of the respective Unit of generating station:*

*Provided that if a Unit is in commercial operation for more than 25 years as on April 01, 2021, this allowance shall be admissible from FY 2021-22:*

*Provided further that if special allowance is granted by the Commission, the expenditure incurred or utilized from special allowance shall be maintained separately by the generating station and details of same shall be made available to the Commission immediately thereafter.”*



## 5. Human Resource Plan

### 5.1 Introduction

5.1.1 As per Sub-Clause (c) of Regulation 6.6 of JSERC Generation Tariff Regulations, 2025, TVNL is required to submit HR Plan as part of its Business Plan. The Regulation is reproduced here-under:

***“Human Resource Plan:** Human Resource Plan with manpower planning including details of the estimated year wise manpower addition and retirements for the Control Period to run the power plant efficiently and effectively”*

5.1.2 Accordingly, TVNL hereby is providing details of addition in Employees in next Control Period and rationale there-off in subsequent paragraphs.

### 5.2 Employees Addition Details

5.2.1 TVNL proposes no manpower addition for the Control Period FY 2026-27 to FY 2030-31. The department and function wise number of personnel to retire in the next Control Period is mentioned in the table below:

**Table 19: Manpower to be retired in next Control Period - FY 27 to FY 31**

| Retirement              |               | FY 2026-27 | FY 2027-28 | FY 2028-29 | FY 2029-30 | FY 2030-31 | Total |
|-------------------------|---------------|------------|------------|------------|------------|------------|-------|
| <b>Technical Stream</b> | C.E/E.I.C     | 0          | 0          | 0          | 0          | 1          | 1     |
|                         | E.S.E         | 0          | 0          | 2          | 3          | 0          | 5     |
|                         | E.E           | 3          | 3          | 2          | 4          | 5          | 17    |
| <b>Non-Technical</b>    | C.E           | 0          | 0          | 0          | 0          | 0          | 0     |
|                         | E.S.E         | 0          | 0          | 0          | 0          | 0          | 0     |
|                         | E.E           | 0          | 0          | 0          | 0          | 0          | 0     |
| <b>HR</b>               | HR Posts      | 0          | 0          | 0          | 0          | 0          | 0     |
| <b>Finance</b>          | Finance Posts | 0          | 2          | 2          | 1          | 1          | 6     |



## 6. Non-Tariff Income and Income from Other Business

### 6.1 Non-Tariff Income

6.1.1 As per Sub-Clause (d) of Regulation 6.6 of JSERC Generation Tariff Regulations, 2025, TVNL is required to provide non-tariff income as part of its Business Plan. The Regulation is reproduced here-under:

*“Non-Tariff Income: Proposals for Non-Tariff income with item-wise description and details”*

6.1.2 Clause 15.48 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025 states the following:

*“The amount of Non-Tariff Income relating to the generating business as approved by the Commission shall be deducted from the ARR in determining the Tariff of the generating business; Provided that the Generating Company shall submit full details of its forecast of Non-Tariff Income to the Commission in such form as may be stipulated by the Commission”*

6.1.3 For the purpose of projecting Non-Tariff Income, the average year-on-year growth rate of Non-Tariff Income from FY 2021-22 to FY 2024-25, as derived from the audited financial accounts, has been considered. This results in an average annual decline of 7.91%. Accordingly, the Non-Tariff Income for FY 2026-27 has been estimated by applying a reduction of 7.91% to the previous year's figure, as specified in the FY 2025-26 MYT order. The same rate of decline of 7.91% has been consistently applied for the estimation of Non-Tariff Income across the Control Period from FY 2027-28 to FY 2030-31.

**Table 20: Non-Tariff Income- FY 27 to FY 31 (INR Crore)**

| Particular                           | FY 2026-27 | FY 2027-28 | FY 2028-29 | FY 2029-30 | FY 2030-31 |
|--------------------------------------|------------|------------|------------|------------|------------|
| <b>Non-Tariff Income (INR Crore)</b> | 19.97      | 18.39      | 16.93      | 15.59      | 14.36      |

### 6.2 Income from Other Business

6.2.1 As per Sub-Clause (e) of Regulation 6.6 of JSERC Generation Tariff Regulations, 2025 TVNL is required to provide non-tariff income as part of its Business Plan. The Regulation is reproduced here-under:

*“Income from Other Business: Proposals in respect of income from other business”*



- 6.2.2 As per Clause 15.51 of Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2025 which states that:

*“The revenue from Other Business shall be deducted from the ARR in calculating the revenue requirement of the Generating Company in a prudent, just and fair manner:*

*Provided that the Generating Company shall follow a reasonable basis for allocation of all joint and common costs between the Generating Business and the Other Business and shall submit the Allocation Statement as approved by the Board of Directors to the Commission along with his application for determination of tariff:*

*Provided further that where the sum total of the direct and indirect costs of such Other Business exceeds the revenues from such Other Business, no amount shall be allowed to be added to the ARR of the Generating Company on account of such Other Business.”*

- 6.2.3 TVNL has not undertaken any Other Business activities that utilize the infrastructure or manpower of its regulated operations. Accordingly, the income from other business has been considered as Nil for the Control Period of FY 2026-27 to FY 2030-31.



## 7. Prayer

TVNL prays the following before the Hon'ble Commission to:

- 7.1.1 To consider the submissions and approve the instant Capital Investment Plan for consideration of tariff impact of proposed special allowance during the control period as prayed in the instant petition.
- 7.1.2 To exercise the 'Power to Relax' and 'Power to Remove Difficulty' and such other powers including inherent powers vested with the Hon'ble Commission as implied/ pleaded / prayed in relevant sections.
- 7.1.3 To condone any inadvertent omissions/ errors/ shortcomings and permit to add/ change/ modify/ alter this filing and make further submissions as may be required.
- 7.1.4 To allow recovery of petition filing fee and advertisement expenses.
- 7.1.5 To pass such any other suitable relief to the petitioner which Hon'ble Commission may find deem fit.