

FILING OF PETITION
FOR TRUE-UP OF FY 2021-22 & FY 2022-23
OF THIRD CONTROL PERIOD (FY 2021-22 to FY 2025-26)



Submitted by:



TENUGHAT VIDYUT NIGAM LIMITED
(A Govt. of Jharkhand Undertaking)
Hinoo, Doranda, Ranchi - 834002

To:

Jharkhand State Electricity Regulatory Commission
(JSERC)



July 2025



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List of Abbreviations

Sl. No.	Abbreviations	Descriptions
1.	MW	Megawatt
2.	TVNL	Tenughat Vidyut Nigam Limited
3.	BU	Billion Units
4.	RES	Renewable Energy Sources
5.	CEA	Central Electricity Authority
6.	FGD	Flue Gas Desulphurization
7.	GW	Gigawatt
8.	NTPC	National Thermal Power Corporation Ltd.
9.	PVUNL	Patratu Vidyut Utpadan Nigam Limited
10.	JBVNL	Jharkhand Bijli Vitran Nigam Limited
11.	DVC	Damodar Valley Corporation
12.	JSERC	Jharkhand State Electricity Regulatory Commission
13.	EA	Electricity Act
14.	SERC	State Electricity Regulatory Commission
15.	TTPS	Tenughat Thermal Power Station
16.	KM	Kilometre
17.	MT	Metric Tonne
18.	DPR	Detailed Project Report
19.	EPC	Engineering, Procurement & Construction
20.	PLF	Plant Load Factor
21.	PAF	Plant Availability Factor
22.	MU	Million Units
23.	ERP	Enterprise Resource Planning
24.	SLDC	State Load Dispatch Centre
25.	SHR	Station Heat Rate
26.	R&M	Repair & Maintenance
27.	MYT	Multi Year Tariff
28.	ARR	Annual Revenue Requirement
29.	A&G	Administrative and General
30.	NAPAF	Normative Annual Plant Availability Factor
31.	SFC	Secondary Fuel Consumption
32.	O&M	Operation & Maintenance
33.	AE	Assistant Engineer
34.	JE	Junior Engineer
35.	CE	Chief Engineer
36.	SE	Superintending Engineer
37.	EE	Executive Engineer
38.	FY	Financial Year
39.	LFC	Landed fuel cost
40.	AFC	Annual Fixed Cost
41.	CWiP	Capital Works In Progress
42.	GCV	Gross Calorific Value
43.	GFA	Gross Fixed Assets
44.	SBI	State Bank of India



True-up Petition for Tenughat Vidyut Nigam Limited for FY 2021-22 and FY 2022-23 of the Third Control Period

**BEFORE THE JHARKHAND STATE ELECTRICITY REGULATORY
COMMISSION**

Filing No: _____

Case No: _____

IN THE MATTER OF:

Filing of Petition for True-up for FY 2021-22 and FY 2022-23 of Third Control Period of FY 2021-22 to FY 2025-26 for TVNL under JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 and its subsequent amendments issued by the Hon'ble Jharkhand State Electricity Regulatory Commission (JSERC), hereinafter referred to as Hon'ble Commission.

AND

IN THE MATTER OF:

Tenughat Vidyut Nigam Limited ("TVNL")

Hinoo, Doranda, Ranchi

Jharkhand – 834002

..... PETITIONER

The Petitioner respectfully submits



Chapter 1: Introduction

1.1 Introduction

1.1.1. Tenughat Vidyut Nigam Limited is a power generating company incorporated on 26th November 1987 under Indian Company's Act, 1956. With the creation of Jharkhand State on 15th November 2000 from the erstwhile Bihar State, TVNL became an undertaking of the Government of Jharkhand. TVNL owns and operates an installed power generation capacity of 420 MW with two units of 210 MW each at Tenughat Thermal Power Station located at Lalpania at the banks of Tenughat reservoir in Bokaro district with its head office at Ranchi. The units are under commercial operation as detailed below:

- a) Unit I - September 1996
- b) Unit II - September 1997

1.1.2. 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.

1.1.3. 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 the Govt. of Jharkhand. With grey field expansion the total installed capacity of 1740 (2x210 + 2x660 MW) MW of TTPS shall be dedicated to the service of the State/Nation.

1.2. Regulatory Background

1.2.1. Starting from 2003, TVNL has filed Petitions in accordance with Section 62 of Electricity Act 2003. The details of the previous Orders issued by JSERC on these Petitions are tabulated 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 (TVNL)	30.09.2024
Order on True-up for FY 2012-13 to FY 2015-16, for Tenughat Vidyut Nigam Limited (TVNL)	14.12.2023



True-up Petition for Tenughat Vidyut Nigam Limited for FY 2021-22 and FY 2022-23 of the Third Control Period

Order	Date
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 (TVNL)	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

1.2.2. The Hon'ble Commission has notified the JSERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020 published on 12th November 2020 (Hereinafter referred to as JSERC Generation Tariff Regulations, 2020) in exercise of the powers conferred by Section 61 and 62 read with Section 181 of the Electricity Act, 2003.

1.2.3. Further Regulations 6.11, 6.12, 6.13, 6.14, 6.15, 6.17, 7.1, 7.2, 7.3 and 7.4 of JSERC Generation Tariff Regulations, 2020 and its first amendment, 2023 states that:

"6.11 The Commission has stipulated following performance parameters that are deemed to be controllable in nature:-

- a) Normative Annual Plant Availability Factor (NAPAF);*
- b) Station Heat Rate (SHR);*
- c) Auxiliary Energy Consumption (Aux);*
- d) Secondary Fuel Oil Consumption;*
- e) Transit Loss;*
- f) O&M Expenses.*



6.12 The variation from performance targets set for the controllable parameters as specified in Clause 6.11 of these Regulations shall be subject to incentive and penalty framework, as detailed in Clause 6.13 to Clause 6.15 of these Regulations. Incentive and Penalty Framework

6.13 Any financial loss on account of underperformance with respect to the performance parameters as specified in Clause 6.11 of these Regulations will not be reviewed during the Control period and is not recoverable through tariff. In case of any financial gain with respect to the performance parameters as specified in

Clause 6.14, the gain shall be shared in the manner specified in Clause 6.14.

6.14 Sharing of gains due to variation in norms: The Generating Company shall workout gains based on the actual performance of applicable controllable parameters as under:-

1. Station Heat Rate;
2. Secondary Fuel Oil Consumption;
3. Auxiliary Energy Consumption; and
4. Operations and Maintenance Expenses.

The financial gains by the Generating Company, on account of above controllable parameters shall be shared between the Generating Company and the beneficiaries on annual basis. The financial gains on account of parameters (1) to (3) shall be computed as per the following formula for a thermal generating station and shall be shared in the ratio of 50:50 between the generating stations and beneficiaries.

Provided that for generating stations that have signed coal linkage agreement through Shakti Scheme, sharing of gains in the ratio of 75:25 between the generating stations and beneficiaries shall be applicable due to variation in normative controllable operational parameters.

6.15 The financial gains on account of Operations and Maintenance Expenses for thermal and hydro stations shall be shared in the ratio of 50:50 between the generating stations and beneficiaries at the time of truing up.

6.16 The Commission shall also permit pass-through of variations in performance parameters on account of Force Majeure events and due to Change in Law event(s) in the tariff, based on the submission of actual values by the Generating Company and subsequent validation and approval by the Commission.

A 7. Truing-up

7.1 The Generating Company shall submit the Petition for truing up for each year of the Control Period on the basis of annual Audited Accounts as per the timelines stipulated in Section A 39.

7.2 Where after the truing up, the revenue recovered exceeds the trued up value approved by the Commission under these Regulations, the Generating Company shall refund to the Beneficiaries, the surplus amount so recovered as specified in Clause 7.4 of these Regulations.



7.3 Where after the truing up, the revenue recovered is less than the trued up value approved by the Commission under these Regulations, the Generating Company shall recover from the Beneficiaries, the gap amount in accordance with Clause 7.4 of these Regulations.

7.4 The amount under-recovered or over-recovered, along with simple interest at the rate equal to Bank Rate as on April 01 of the respective year plus 350 basis points, shall be recovered or refunded by the Generating Company in six equal monthly instalments starting within three months from the date of the Tariff Order issued by the Commission:

Provided that no carrying cost on the duration of delay shall be allowed on unrecovered gap if the Generating Company fails to submit the Petition as per timelines stipulated in Section A 39:

Provided further that any adverse financial impact on account of variation in uncontrollable items due to lapse on part of the Generating Company or its suppliers/contractors shall not be allowed in truing up."

1.3. MYT Order for Third Control Period FY 2021-22 to FY 2025-26 and present true-up Petition

- 1.3.1. The Hon'ble Commission in its order dated 14th December 2023 has determined the ARR for the Control Period FY 2021-22 to FY 2025-26.
- 1.3.2. In compliance to the directives of the Hon'ble Commission, the petitioner herewith submits the true-up petition for the FY 2021-22 and FY 2022-23 of Third Control Period based on the internal annual accounts of the aforesaid period under JSERC (Terms and Conditions for determination of Generation Tariff) Regulations, 2020.
- 1.3.3. TVNL respectfully submits that the filing of the True-Up Petitions for FY 2021-22 and FY 2022-23 was delayed due to the non-finalization of its audited annual accounts for the respective years. The delay in completion of the statutory audit process affected the timely preparation of the petitions. In this regard, TVNL had also communicated with the Hon'ble Commission, explaining the reasons for the delay in filing. A copy of the said correspondence is enclosed herewith **as Annexure-A** for reference.
- 1.3.4. TVNL also submits the Operational Performance Review for FY 2021-22 and FY 2022-23 of Third Control Period based on the actual generation data and internal Annual Accounts.
- 1.3.5. In light of the above mentioned situation, the Petitioner therefore prays to the Hon'ble Commission to admit this True Up petition for FY 2021-22 and FY 2022-23 and Review of Operational Parameters for FY 2021-22 and FY 2022-23 of the Third Control Period.



Chapter 2: True-up for FY 2021-22 and FY 2022-23

For the purpose of True Up, TVNL has compared the actual cost incurred for the FY 2021-22 and FY 2022-23 with the cost approved by the Hon'ble Commission in MYT Tariff Order dated 14th December 2023 in which Hon'ble Commission has determined ARR for the Third Control Period FY 2021-22 to FY 2025-26.

The various parameters for the process of True-up have been discussed below:

2.1 Plant Availability Factor

2.1.1 The table below summarizes the actual Plant Availability Factor (PAF based on Declared Capacity in %) during the FY 2021-22 and FY 2022-23 of Third Control Period. The same may be verified from system reports generated on daily basis which are then compiled for generating monthly data.

Table 2: Actual parameters for the Third Control Period

Particular	FY 2021-22	FY 2022-23
PAF (%)	59.58%	81.85%

2.1.2 Against the actual PAF for the FY 2021-22 and FY 2022-23 as mentioned above, the petitioner would like to mention that the Hon'ble Commission had approved figures of 85% for the Control Period FY 2021-22 to FY 2025-26 in the MYT order dated 14th December 2023.

Table 3: Approved vis-à-vis actual parameters for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
PAF (%)	85%	59.58%	85%	81.85%

2.1.3 However, due to a critical shortage of coal during the FY 2021-22 only one unit could be operated for extended periods, while the other unit remained under shutdown to optimize the limited fuel availability. Consequently, the overall generation performance indicators for the year fell below as compared to approved norms.

2.1.4 The petitioner submits that this reduction is not reflective of plant inefficiency or operational lapses but is solely due to external factors beyond the control of the utility, specifically the constrained coal supply.

2.1.5 TVNL requests the Hon'ble Commission to approve PAF as per actual values for the purpose of true-up of the Control Period FY 2021-22 to FY 2025-26.

2.2 Gross Generation and Plant Load Factor

2.2.1 It is submitted that the actual gross generation (in MUs) for the FY 2021-22 and FY 2022-23 along with the MYT approved values is summarized in the following table.

Table 4: Approved vis-à-vis actual Gross Generation for the FY 2021-22 and FY 2022-23



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Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
Gross Generation (MUs)	3127	1768.80	3127	2587.53

- 2.2.2 However, due to a critical shortage of coal during the FY 2021-22 only one unit could be operated for extended periods, while the other unit remained under shutdown to optimize the limited fuel availability. Consequently, the overall generation performance indicators for the year fell below as compared to approved numbers in MYT order.
- 2.2.3 The petitioner submits that this reduction is not reflective of plant inefficiency or operational lapses but is solely due to external factors beyond the control of the utility, specifically the constrained coal supply.
- 2.2.4 Thus, TVNL requests the Hon'ble Commission to approve the gross generation (In MUs) as per actual values for the purpose of true-up of the FY 2021-22 and FY 2022-23 of the Control Period.
- 2.2.5 The table below summarizes the actual Plant Load Factor (PLF in %) during the FY 2021-22 and FY 2022-23.

Table 5: Actual parameters for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
Plant Load Factor	48.08%	70.33%

- 2.2.6 Against the actual PLF for the FY 2021-22 and FY 2022-23 as mentioned above, the petitioner would like to mention that the Hon'ble Commission had approved figures of 85% for the Control Period FY 2021-22 to FY 2025-26 in the MYT order dated 14th December 2023.

Table 6: Approved vis-à-vis actual parameters for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
PLF (%)	85%	48.08%	85%	70.33%



2.2.7 The actual PLF for FY 2021-22 was also low because of critical shortage of coal during the FY 2021-22.

2.2.8 TVNL requests the Hon'ble Commission to approve PLF as per actual values for the purpose of true-up of the FY 2021-22 and FY 2022-23.

2.3 Auxiliary Consumption

2.3.1 TVNL requests the Hon'ble Commission to approve the Auxiliary Consumption (In %) as per actual values submitted for the FY 2021-22 and FY 2022-23 of the Control Period mentioned in the table below.

2.3.2 The petitioner would like to submit that the deviation from normative auxiliary consumption values is due to operational constraints arising from coal shortages. The coal shortage necessitated operation of generating units at partial load and, at times, required frequent cycling between units, both of which adversely affect auxiliary consumption efficiency. The increase is thus a technical consequence of unavoidable operating conditions and not due to plant inefficiency.

Table 7: Actual Auxiliary Consumption (In %) for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
Auxiliary Consumption (%)	9.85%	10.05%

2.3.3 Furthermore, TVNL reiterates its submission that Regulation 6.3B of CERC (Indian Electricity Grid Code) (Fourth Amendment) Regulations, 2016 also provides the compensation for auxiliary consumption and Station Heat Rate on account of partial load operations.

2.3.4 In view of CERC Order dated 5th May 2017 Central Generating Stations have been granted relief on account of part load operation and multi start/stop of units and accordingly are claiming the compensation charge to beneficiaries.

2.3.5 In light of the plant operating under a flexible operation mode and nearing the completion of its useful life of 25 years, TVNL respectfully requests the Hon'ble Commission to exercise its power of relaxation under Section A 33 of the JSERC Regulations, 2020. TVNL seeks approval for the Auxiliary Consumption based on actual values.

2.4 Net Generation

2.4.1 The actual net generation of TVNL for the FY 2021-22 and FY 2022-23 is as mentioned in the table below.

Table 8: Actual Net Generation (In MUs) for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
Net Generation (MU)	1594.51	2327.47



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2.4.2 Against the actual values of Net Generation for the FY 2021-22 and FY 2022-23, the values of Net Generation (In MUs) as approved by the Hon'ble Commission in MYT Order dated 14th December 2023 are provided below:

Table 9: Approved vis-à-vis actual Net Generation for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
Net Generation (In MUs)	2830.2	1594.51	2830.2	2327.47

2.4.3 TVNL requests the Hon'ble Commission to approve the net generation (In MUs) as per data based on actual PLF (%) and actual auxiliary consumption (%) in the Third Control Period for FY 2021-22 and FY 2022-23 provided in the table above.

2.5 Station Heat Rate (SHR)

2.5.1 The actual Station Heat Rate (SHR) of TVNL for the FY 2021-22 and FY 2022-23 is as mentioned in the table below:

Table 10: Actual Station Heat Rate (SHR) for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
Station Heat Rate (In kcal/kWh)	2590.29	2547.24

2.5.2 The petitioner would further like to submit that over the years it has taken several measures to improve its Station Heat Rate which is also evident from the data of SHR submitted during previous Control period True Up. The Station Heat Rate has been improved from 2795.41 kCal/kWh in FY 2016-17 to 2547.24 kcal/kWh in FY 2022-23.

2.5.3 Against the actual values of Station Heat Rate (SHR) for the FY 2021-22 and FY 2022-23, the values of Station Heat Rate (SHR) as approved by the Hon'ble Commission in MYT Order dated 14th December 2023 are provided below:

Table 11: Approved vis-à-vis actual Gross Generation for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
Station Heat Rate (In kcal/kWh)	2547	2590.29	2547	2547.24



- 2.5.4 The petitioner reiterates that Regulation 6.3B of CERC (Indian Electricity Grid Code) (Fourth Amendment) Regulations, 2016 also provides the compensation for auxiliary consumption and Station Heat Rate on account of partial load operations.
- 2.5.5 In light of the plant operating under a flexible operation mode and nearing the completion of its useful life of 25 years, TVNL respectfully requests the Hon'ble Commission to exercise its power of relaxation under Section A 33 of the JSERC Regulations, 2020. TVNL seeks approval for the SHR based on actual values.

2.6 Specific Oil Consumption

- 2.6.1 It is submitted that the specific oil consumption of TVNL for FY 2021-22 and FY 2022-23 is as mentioned below:

Table 12: Actual Specific Oil Consumption (ml/kWh) for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
Specific Oil Consumption (In ml/kWh)	0.88	0.53

- 2.6.2 From the actual values of specific oil consumption for FY 2021-22 and FY 2022-23, it is evident that the petitioner is in constant endeavour to improve its specific oil consumption which has improved significantly from 4.21 ml/kWh in FY 2016-17 to 0.53 ml/kWh in FY 2022-23 because of various R&M works undertaken during the period.
- 2.6.3 Against the actuals for the FY 2021-22 and FY 2022-23, the petitioner would like to mention that the Hon'ble Commission had approved specific oil consumption of 1 ml/kWh for Third control period in the MYT order dated 14th December 2023 based on "Generation Tariff Regulations, 2020", where the normative specific oil consumption for TTPS has been specified as 1 ml/kWh.
- 2.6.4 Therefore, Petitioner would like to requests the Hon'ble Commission to approve specific oil consumption as per actuals submitted for the FY 2021-22 and FY 2022-23.

2.7 Gross Calorific Value (GCV) Of Primary and Secondary Fuel

- 2.7.1 TVNL requests the Hon'ble Commission to approve the GCV of Primary Fuel and GCV of Secondary Fuel for the FY 2021-22 and FY 2022-23 of Third Control Period as mentioned in the table below:

Table 13: GCV of primary and secondary fuel for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
GCV of primary fuel (kcal/kg)	3592.34	3476.17
GCV of secondary fuel (kcal/L)	9359.00	9359.00



2.7.2 The GCV of Secondary Fuel Oil is in line with the approved figures for FY 2021-22 and FY 2022-23 in the MYT order dated 14th December 2023.

2.8 Price of primary fuel

2.8.1 TVNL submits the actual fuel cost for the FY 2021-22 and FY 2022-23 as mentioned in the table below:

Table 14: Price of primary fuel for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
Cost of primary fuel (Rs/MT)	3416.88	3952.10

2.8.2 Against the actual values of Cost of primary fuel (Rs/MT) for FY 2021-22 and FY 2022-23, the values of Cost of primary fuel (Rs/MT) as approved by the Hon'ble Commission in MYT Order dated 14th December 2023 are provided below:

Table 15: Approved vis-à-vis actual cost of primary fuel for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
Primary fuel cost (Rs/MT)	3583.2	3416.88	3583.2	3952.10

2.8.3 In view of the submissions made in previous sections regarding performance parameters, TVNL humbly prays to the Hon'ble Commission to approve the actual fuel cost for the FY 2021-22 and FY 2022-23 as mentioned in the table above.

2.9 Energy Charge Rate

2.9.1 The table below summarizes the results of True up of plant parameters and fuel cost determinants for the two Units of Tenughat Thermal Power Station for the FY 2021-22 and FY 2022-23 of Third Control Period.

Table 16: Plant parameters and fuel cost determinants (Approved vis-à-vis actual) for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
Capacity (MW)	420	420	420	420
PAF (%)	85%	59.58%	85%	81.85%
PLF (%)	85%	48.08%	85%	70.33%
Gross Generation (MU)	3127	1768.80	3127	2587.53
Auxiliary consumption (%)	9.50%	9.85%	9.50%	10.05%



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Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
Net Generation (MU)	2830.2	1594.51	2830.2	2327.47
Station Heat rate (kcal/kWh)	2547.0	2590.29	2547.0	2547.24
GCV of coal (kcal/kg)	3583.2	3592.34	3583.2	3476.17
Transit loss (%)	0.80%	0.80%	0.80%	0.80%
Total coal consumption including Transit losses (Million MT)	2.23	1.28	2.23	1.91
Cost of coal (Rs. /MT)	3349.8	3416.88	3349.8	3952.10
Total cost of coal (Rs. Cr.)	747.90	437.91	747.90	753.93
Specific oil Consumption (ml/kWh)	1.00	0.88	1.00	0.53
Total Oil Consumption (kL)	3127.3	1554.60	3127.3	1361.80
Cost of oil (Rs/kL)	40083	61754.29	40083	89346.02
Total oil cost (Rs. Cr.)	12.54	9.60	12.54	12.17
Energy Charge Rate (Rs/kWh)	2.69	2.81	2.69	3.29



2.9.2 TVNL request the Hon'ble Commission to approve the Energy Charge rate based on actual basis for FY 2021-22 and FY 2022-23 of Third Control Period.

2.10 Additional capitalization

2.10.1 As per clause 14.1, 14.2, 14.3 and 14.4 of JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 which states that:

"14.1 The additional capital expenditure in respect of a new project or an existing project incurred or projected to be incurred, on the following counts within the original Scope of Work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

- a) Undischarged liabilities recognized to be payable at a future date;*
- b) Works deferred for execution;*
- c) Procurement of initial capital spares within the original scope of work, subject to ceiling norms specified in this Regulation;*
- d) Liabilities to meet award of arbitration or for compliance of the order or directions of any statutory authority, or order or decree of any court of law;*
- e) On account of change in law or in compliance to any existing law; and*
- f) Capital Expenses incurred due to force majeure conditions:*

Provided that in case of any replacement/up gradation of the assets, the additional capitalization shall be worked out after adjusting the gross fixed assets and cumulative depreciation of the assets replaced on account of de-capitalization;

Provided further that the details of work included in the original scope of work along with estimates of expenditure, undischarged liabilities and works deferred for execution shall be submitted along with the application for determination of tariff.

14.2 The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check on the following counts:

- a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
- b) Change in law or compliance of any existing law;*
- c) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- d) Liability for works executed prior to the cut-off date;*
- e) Force Majeure events;*



f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and

g) Raising of ash dyke as a part of ash disposal system.....”

2.10.2 The capital expenditure incurred post COD of both the units is reflected in the books of accounts for the respective financial years. As per the books of accounts for the financial year 2021-22, TVNL has incurred additional capital expenditure amounting to ₹5.83 crore. Since both Unit-1 and Unit-2 were within their useful life during FY 2021-22, the entire amount of ₹5.83 crore is claimed for tariff purposes under additional capitalisation, in line with the applicable provisions of the Regulations.

2.10.3 In FY 2022-23, however, Unit-1 of the station completed 25 years of operation prior to the commencement of the financial year. As per Regulation 14.11 and 14.12 of the JSERC Tariff Regulations, 2020, the Generating Company, at its discretion, may opt to avail a special allowance in accordance with the norms specified in the Regulation, as compensation for meeting the requirement of expenses including renovation and modernization beyond the Useful Life of the generating station. Accordingly, TVNL is not claiming any additional capitalisation for Unit-1 during FY 2022-23, and instead has opted for Special Allowance, as detailed in the subsequent section. The additional capital expenditure booked in the accounts for FY 2022-23 is ₹8.47 crore, which includes capitalisation of assets that are common to both the units. Since special allowance is being claimed for Unit-1, only the apportioned share corresponding to Unit-2 (i.e. on capacity basis) is being claimed as additional capital expenditure. Therefore, an amount of ₹4.24 crore is being claimed as additional capitalisation for FY 2022-23, which pertains to Unit-2.

2.10.4 In line with specified provisions of JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020, TVNL respectfully submits the additional capitalization for consideration and approval by the Hon'ble Commission, as detailed below:

Table 17: Additional Capital Expenditure as claimed for FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
Additional Capitalisation (Rs. Cr.)	5.83	4.24

Table 18: Summary of capitalization (In Rs. Cr.)

Capital Expenditure	FY 2021-22	FY 2022-23
Opening GFA	1571.70	1577.53
GFA conversion from capitalization	5.83	4.24
Closing GFA	1577.53	1581.77



2.11 O&M Expenses

2.11.1 The Operations & Maintenance expenses of a company includes:

- Employee expenses
- Repair & Maintenance expenses
- Administrative and General expenses

2.11.2 Employee expenses consist of salaries, overtime allowance, leave salary and expenses for staff & officers' welfare.

2.11.3 Repair and Maintenance is meant for the upkeep of the generating station. Further, as every asset requires repair and maintenance at some point, to keep the thermal generating station healthy and reliable the petitioner must infuse certain amounts of funds on R&M activities. TVNL is trying its best to ensure achievement of parameters as specified by the Hon'ble Commission and accordingly making necessary expenditure on R&M activities.

2.11.4 Administrative and General expenses mainly consist of rents, telephone and other communication expenses, professional charges, conveyance and travelling allowances and other debits.

2.11.5 As per para 6.40 of MYT order for Third control period dated 14th December 2023 as stated below:

"The Commission has analyzed the submissions made by the Petitioner, and has noted the fact that the Petitioner has not conducted True Up of the second control period. In the absence of audited data for FY 2017-21 the Commission has considered the figures approved by the Commission for the second control period and has accordingly escalated the same with an escalation factor of 6.09% and has arrived at the figures for the third control period. However, the Commission shall consider additional expenditure incurred if any towards O&M expenses during true up of the respective years of the third control period provided that should be supported by audited accounts."

2.11.6 The Hon'ble Commission, in its MYT Order for the third control period, had clearly stated that in the absence of audited data for FY 2017-21, O&M figures were estimated by escalating the previously approved values, and further noted that additional expenditure, if any, towards O&M shall be considered at the time of true-up, provided it is supported by audited accounts.

2.11.7 The petitioner respectfully submits that the Operation and Maintenance (O&M) expenses for FY 2021-22 & FY 2022-23 may kindly be considered on an actual basis, as reflected in the books of accounts. It is also submitted that TVNL has been making continuous efforts to improve operational reliability and plant availability, which has led to a rise in certain maintenance-related costs. These expenditures are essential for sustaining performance, ensuring compliance, and maintaining equipment health.



2.11.8 The petitioner also submits that the increase in Employee Benefit Expenses for FY 2021-22 is primarily due to the revision in actuarial valuation of long-term employee benefit obligations, such as Pension & Gratuity. The actuarial valuation, performed by an independent certified actuary, resulted in a higher provision which directly impacted the liability recognized in the accounts. Also, this impact on the valuation is inherently uncontrollable by the utility, as the assumptions are based on prevailing market conditions, statistical models, and demographic factor. The detailed Actuarial Valuation Report is enclosed as **Annexure - B** for reference. The increase reflects a mandatory accounting adjustment rather than any operational increase in costs. TVNL respectfully request the Hon'ble Commission to consider the above and allow the claim as part of admissible expenses.

2.11.9 In view of the above, TVNL humbly prays that the Hon'ble Commission may kindly allow the actual O&M expenses for FY 2021-22 & FY 2022-23 as per actuals mentioned in table below:

Table 19: O&M expenses approved vis-à-vis actuals for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
Employee expenses (Rs. Cr.)	58.49	138.71	62.05	108.41
R&M expenses (Rs. Cr.)	62.05	53.48	65.83	60.88
A&G expenses (Rs. Cr.)	23.21	28.35	24.63	40.22
Total O&M Expenses (Rs. Cr.)	155.75	220.53	164.51	209.51

2.12 Other Charges

2.12.1 As per JSERC (Terms and Conditions for Determination of Generation Tariff) First amendment, 2023 principal Regulations Clause 15.46 shall be substituted as follows:

"15.46. The Water Charges, Security Expenses and Capital Spares for thermal generating stations shall be allowed separately after prudence check:

Provided that Water Charges shall be allowed based on water consumption, depending upon type of plant, type of cooling water system, subject to prudent check. The details regarding the same shall be furnished along with the Petition.

Provided that the generating station shall submit the details of year wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through special allowance as per Clause 14.11 and 14.12 of the Regulation or claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization."



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2.12.2 In accordance with the above amendment, TVNL respectfully submits the security expense incurred as per annual accounts for FY 2021-22 and FY 2022-23 as tabulated below:

Particular	FY 2021-22	FY 2022-23
Security Expense (Rs. Cr.)	23.09	20.78

2.12.3 In view of the above, TVNL humbly prays that the Hon'ble Commission may kindly allow the actual Security Expense for FY 2021-22 & FY 2022-23.

2.12.4 TVNL respectfully also requests the Hon'ble Commission to address the issue of unclaimed water consumption charges. Due to delays in finalizing the methodology to accurately calculate water usage, TVNL has been unable to make payments for water consumed over the past few years. TVNL is working to resolve the technical and administrative challenges causing these delays. For the FY 2021-22 and FY 2022-23 of the third control period, the water charges have not been claimed for the same reason mentioned above. Thus, TVNL respectfully requests the Commission to allow the inclusion of these unaccounted water charges from previous and current years (FY 2021-22 and FY 2022-23) in future true-up petitions and to permit these claims along with the water charges claimed in upcoming petitions.

2.13 Depreciation

2.13.1 The depreciation for the FY 2021-22 and FY 2022-23 has been computed based on the asset classification, cost of acquisition and additional capitalization of assets during the Control Period.

2.13.2 The petitioner has followed "JSERC Generation Tariff Regulations, 2020" for the calculation of depreciation expense which has following methodology –

"15.28 Depreciation shall be calculated every year, on the amount of Capital Cost of the assets as admitted by the Commission. In case tariff of multiple Units of a generating station is determined, weighted average life for the generating station shall be applied:

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

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

2.13.3 TVNL submits the actual depreciation expenses for the FY 2021-22 and FY 2022-23 as mentioned in table below:

Table 20: Depreciation expenses for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
Depreciation expenses (Rs. Cr.)	18.36	16.33



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2.13.4 Against the actual values of depreciation Cost (In Rs. Cr.) for FY 2021-22 and FY 2022-23, the values of depreciation Cost (In Rs. Cr.) as approved by the Hon'ble Commission in MYT Order dated 14th December 2023 are provided below:

Table 21: Approved vis-à-vis actual depreciation expenses (In Rs. Cr.) for the Third Control Period

Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
Depreciation Expense (Rs. Cr.)	18.31	18.36	18.31	16.33

2.13.5 Accordingly, TVNL requests the Hon'ble Commission to approve the depreciation as per actuals for FY 2021-22 and FY 2022-23 of Third Control Period.

2.14 Interest on loan

2.14.1 As per the JSERC Generation Tariff Regulations, 2020:

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

15.15 The repayment for each year of the Control Period shall be deemed to be equal to the depreciation allowed for that financial year....."

2.14.2 In the MYT tariff order dated 14th December 2023, the Hon'ble Commission had followed Generation Tariff Regulations, 2020 to approve Interest on Loan as mentioned in the table below for the FY 2021-22 and FY 2022-23.

Table 22: Interest on loan approved for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
Interest on loan (Rs. Cr.)	13.45	11.80

2.14.3 Against the approved values of interest on loan (In Rs. Cr.) for FY 2021-22 and FY 2022-23 by the Hon'ble Commission in MYT Order dated 14th December 2023, the actual values of interest on loan (In Rs. Cr.) as per accounts are provided below:

Table 23: Approved vis-à-vis actual values of interest on loan (In Rs. Cr.) for the FY 2021-22 and FY 2022-23



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Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
Interest on loan (Rs. Cr.)	13.45	103.27	11.80	108.84

2.14.4 The Petitioner would like to submit to the Hon'ble Commission that it is difficult for TVNL to service its debt timely due to delayed and partial payments being made by JBVNL. As on 31st March 2022, JBVNL owes TVNL cumulative dues of Rs. 4999.81 Crores. Due to the late payment of dues by JBVNL to TVNL, debt could not be serviced timely in the past and hence in the Third Control Period for FY 2021-22 and FY 2022-23 TVNL had to pay penalties along with the Interest on Loan.

2.14.5 Therefore, TVNL requests the Hon'ble Commission to approve the actual interest on loan as per table above for FY 2021-22 and FY 2022-23.

2.15 Interest on working capital

2.15.1 As per JSERC Generation Tariff Regulations, 2020 the norms for calculation of interest on working capital is as follows:

- "Cost of coal or lignite and limestone towards stock, if applicable, for 10 days for pit-head generating stations and 20 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity, whichever is lower;
- Cost of coal or lignite and limestone for 30 days for generation corresponding to normative annual plant availability factor;
- Cost of secondary fuel oil for two months for generation corresponding to the Normative Annual Plant Availability Factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil;
- Operation and Maintenance expenses, including water charge and security expenses for one month;
- Maintenance spares @ 20% of Operation and Maintenance Expenses;
- Receivables equivalent to 45days of capacity charges and energy charges for sale of electricity calculated on the Normative Annual Plant Availability Factor:"

2.15.2 Against the actual values of interest on working capital (In Rs. Cr.) for FY 2021-22 and FY 2022-23, the values of interest on working capital (In Rs. Cr.) as approved by the Hon'ble Commission in MYT Order dated 14th December 2023 are provided below:

Table 24: Approved vis-à-vis actual interest on working capital (In Rs. Cr.) for the FY 2021-22 and FY 2022-23



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Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
Cost of coal for 40 days considering NAPAF (Rs. Cr.)	102.45	83.39	102.45	99.67
Cost of secondary fuel oil for two months (Rs. Cr.)	2.06	3.22	2.06	4.66
O&M expenses for 1 month (Rs. Cr.)	12.98	20.30	13.71	19.19
Maintenance spares @20% of O&M expenses (Rs. Cr.)	31.15	48.72	32.90	46.06
Receivables for 45 days (Rs. Cr.)	121.56	145.97	122.37	165.35
Total working capital (Rs. Cr.)	270.20	301.60	273.49	334.93
Rate of interest (%)	10.50%	10.90%	10.50%	11.05%
Interest on working capital (Rs. Cr.)	28.37	32.87	28.72	37.01

2.15.3 TVNL request the Hon'ble Commission to approve the interest on working capital as per actuals submitted for FY 2021-22 and FY 2022-23.

2.16 Return on Equity

2.16.1 As per JSERC Generation Tariff Regulations, 2020 and it's first amendment, 2023:

"The return on equity shall be computed on post-tax basis at the base rate of 14.50% for thermal generating stations, and run of the river hydro generating station, and at the base rate of 15.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage for generating stations whose Date of Commercial Operation is after April 01, 2021:

The return on equity shall be computed on post-tax basis at the base rate of 15.00% for thermal generating stations, and run of the river hydro generating station, and at the base rate of 16.00% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage for generating stations whose Date of Commercial Operation is before April 01, 2021:"



2.16.2 As the COD of both the units is before April 01, 2021, the return on equity shall be calculated on post-tax basis at the base rate of 15% to be grossed up with the normal tax rate applicable to the generating company.

2.16.3 Since there is no income tax paid by the petitioner during the FY 2021-22 and FY 2022-23, the post-tax rate of equity has been considered.

2.16.4 In the MYT tariff order dated 14th December 2023, the Hon'ble Commission had followed Generation Tariff Regulations, 2020 to approve Return on Equity as mentioned in the table below for FY 2021-22 and FY 2022-23.

Table 25: Return on Equity approved for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
Return on Equity (Rs. Cr.)	27.70	27.70

2.16.5 Against the approved values of return on equity (In Rs. Cr.) for FY 2021-22 and FY 2022-23 by the Hon'ble Commission in MYT Order dated 14th December 2023, the actual values of return on equity (In Rs. Cr.) as per actuals are provided below:

Table 26: Approved vis-à-vis actual Return on Equity (In Rs. Cr.) for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
Equity (Opening balance) (Rs. Cr.)	184.64	229.05	184.64	230.80
Net additions during the year (Rs. Cr.)	-	1.75	-	1.27
Equity (Closing balance) (Rs. Cr.)	184.64	230.80	184.64	232.07
Average equity (Rs. Cr.)	184.64	229.92	184.64	231.44
Rate of return on equity (%)	15.00%	15.00%	15.00%	15.00%
Return on equity (Rs. Cr.)	27.70	34.49	27.70	34.72

2.16.6 TVNL request the Hon'ble Commission to approve the return on equity as per actuals submitted for FY 2021-22 and FY 2022-23 of the Third Control Period.

2.17 Special Allowance

2.17.1 As per JSERC Generation Tariff Regulations, 2020:

"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:"

2.17.2 TVNL respectfully submits that Unit-1 of Tenughat Thermal Power Station (2x210 MW), having completed 25 years of useful life in the year 2021, qualifies for Special Allowance in accordance with the provisions of Regulation 14.11 and 14.12 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020.

2.17.3 As per the said regulation, a generating company operating a coal-fired thermal unit beyond its useful life may, at its discretion, opt for Special Allowance in lieu of capital cost revision or renovation and modernization (R&M). The allowance is admissible unit-wise, at the rate of ₹9.50 lakh/MW/year for the period from FY 2021-22 to FY 2025-26.

2.17.4 Accordingly, TVNL has exercised its regulatory option to claim Special Allowance for Unit-1 for FY 2022-23, as the unit:

- Has completed its useful life of 25 years as per the prescribed norms;
- Continues to be in operational condition, and
- Has not been proposed for any capital addition or R&M expenditure for the said period.

2.17.5 In support of the above, TVNL has already submitted a Residual Life Assessment (RLA) Report conducted by M/s Becquerel Industries Pvt. Ltd., dated 29th September 2023, which certifies the turbine and generator of Unit-1 to be fit for continued operation for a further period of 5 years, subject to routine condition monitoring and non-destructive testing (NDT). This assessment confirms the structural and operational integrity of the unit and affirms that the unit is not in a depleted condition.

2.17.6 In light of the above, TVNL humbly requests the Hon'ble Commission to approve the claim of Special Allowance for Unit-1 for FY 2022-23 at the applicable normative rate of ₹9.50 lakh/MW/year as tabulated below:

Particular	FY 2021-22	FY 2022-23
Special Allowance (Rs. Cr.)	0	19.95



2.18 Non-tariff income

2.18.1 TVNL requests the Hon'ble Commission to approve the non-tariff income as per accounts for the FY 2021-22 and FY 2022-23 as provided in the table below:

Table 27: Non-tariff for the FY 2021-22 and FY 2022-23 as per audited accounts

Particular	FY 2021-22	FY 2022-23
Non-tariff income (Rs. Cr.)	28.89	23.49

2.19 Cost of secondary fuel oil

2.19.1 The Hon'ble Commission has followed JSERC Generation Tariff Regulations, 2020 to calculate the cost of secondary fuel oil on normative plant availability. The cost of secondary fuel oil (In Rs. Cr.) as approved by the Hon'ble Commission in the MYT Order dated 14th December 2023 is as mentioned in the table below:

Table 28: Cost of secondary fuel oil (In Rs. Cr.) as approved for the Third Control Period

Particular	FY 2021-22	FY 2022-23
Cost of secondary fuel oil (Rs. Cr.)	9.60	12.17

2.19.2 The computation of cost of secondary fuel oil is presented in the table below:

Table 29: Secondary fuel oil cost (In Rs. Cr.) as per actuals for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
Gross Generation (MUs)	1768.80	2587.53
Specific oil consumption (ml/kWh)	0.88	0.53
Cost of oil (Rs. /KL)	61754.29	89346.02
Oil consumption (KL)	1554.60	1361.80
Total cost of oil (Rs. Cr.)	9.60	12.17



2.19.3 TVNL request the Hon'ble Commission to approve the cost of secondary fuel oil as per actuals submitted for FY 2021-22 and FY 2022-23.

2.20 Summary of fixed costs

2.20.1 In the MYT tariff order dated 14th December 2023, the Hon'ble Commission had followed Generation Tariff Regulations, 2020 to approved total fixed costs as mentioned in the table below for FY 2021-22 and FY 2022-23 of Third Control Period.

Table 30: Total fixed cost approved for the FY 2021-22 and FY 2022-23 (In Rs. Cr.)

Particular	FY 2021-22	FY 2022-23
O&M Expenses	155.75	164.51
Depreciation	18.31	18.31
Interest on loans	13.45	11.80
Return on equity	27.70	27.70
Interest on working capital	28.37	28.72
Less: Non-tariff income	18.00	18.00
Total fixed cost	225.58	232.17

2.20.2 The total fixed costs filed for true-up of FY 2021-22 and FY 2022-23 of Third Control Period is submitted below:

Table 31: Total fixed cost filed for true-up for the FY 2021-22 and FY 2022-23 (In Rs. Cr.)

Particular	FY 2021-22	FY 2022-23
O&M Expenses	220.53	209.51
Other Expenses	23.09	20.78
Depreciation	18.36	16.33
Interest on loans	103.27	108.84
Return on equity	34.49	34.72
Interest on working capital	32.87	37.01
Special Allowance	0	19.95
Less: Non-tariff income	28.89	23.49
Total fixed cost	403.72	423.65



2.20.3 TVNL request the Hon'ble Commission to approve the total fixed costs as per MYT approved values and actuals as per accounts for FY 2021-22 and FY 2022-23.

2.21 Revenue gap/surplus

2.21.1 The total fixed and variable charges for TVNL for FY 2021-22 and FY 2022-23 of the Third Control Period works out to be as mentioned in the table below:

Table 32: Approved vis-à-vis actual total fixed costs (In Rs. Cr.) for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22		FY 2022-23	
	MYT approved	Final true-up submission	MYT approved	Final true-up submission
O&M Expenses	155.75	220.53	164.51	209.51
Other Charges		23.09		20.78
Depreciation	18.31	18.36	18.31	16.33
Interest on loans	13.45	103.27	11.80	108.84
Return on equity	27.70	34.49	27.70	34.72
Interest on working capital	28.37	32.87	28.72	37.01
Special Allowance	0	0	0	19.95
Total fixed cost	243.58	432.61	251.03	447.15
Total energy charges		447.51		766.10
Total expenses		880.12		1213.25
Less: NTI	18.00	28.89	18.00	23.49
Net total expenses	225.58	851.23	232.17	1189.76
Total amount billed by TVNL as per accounts		599.58		966.99
Gap/(Surplus) for the year		251.66		222.76

2.21.2 The regulatory provisions for Carrying Cost/Holding Cost provided in the JSERC Generation Tariff Regulations 2010 are extracted for reference as under:

"6.16 If the Tariff already recovered is more than the Tariff determined after true up, the Generating Company shall refund to the Beneficiaries the excess amount so recovered along with simple interest at the rate equal to short term prime lending rate of State Bank of India as on 1st April of the respective Year.

6.17 Similarly, in case the Tariff already recovered is less than the Tariff determined after true up, the Generating Company shall recover from the Beneficiaries, the less recovered amount along with simple interest at the rate



True-up Petition for Tenughat Vidyut Nigam Limited for FY 2021-22 and FY 2022-23 of the Third Control Period

equal to short term prime lending rate of State Bank of India as on 1st April of the respective Year/Years subject to adhering to the timelines specified by the Commission for filling of True-up application. In case, it is found that the filling of True-up is delayed due to the reasons attributable to the Generating Company, the under recovery shall not bear any interest expenses.

6.18 The amount under-recovered or over-recovered, along with simple interest, shall be recovered or refunded by the Generating Company, in six equal monthly instalments starting within three months from the date of the tariff order issued by the Commission after the truing up exercise.”

2.21.3 The table below provides the computation of carrying cost and the resultant final true-up Surplus for FY 2021-22 and FY 2022-23 as follows:

Table 33: Total gap/(Surplus) and carrying cost (In Rs. Cr.) for the FY 2021-22 and FY 2022-23

Particular	FY 2021-22	FY 2022-23
Gap/(surplus) for the year	251.66	222.76
Carrying cost	145.33	104.20
Total revenue gap/(surplus)	396.99	326.96
Total revenue gap/(surplus) for the control period	723.95	



Chapter 3: Prayer

TVNL respectfully prays to the Hon'ble Commission:

1. To admit this true-up Petition for FY 2021-22 and FY 2022-23 of Third Control Period.
2. To approve Revenue Requirement and Capital Expenditure for FY 2021-22 and FY 2022-23 of Third Control Period.
3. To approve the operational and financial parameters as proposed by TVNL considering the constraints of the old machines and consider the same for recovery of full fixed cost.
4. To approve the Station's operating parameters viz. PAF, Auxiliary Consumption, Station Heat Rate, Transit Loss, Specific Oil Consumption and actual fuel rate for recovery of variable cost considering the constraints of the old machines as well as site specific constraints.
5. To condone the delay in filing this Petition.
6. To grant any other relief as the Hon'ble Commission may consider appropriate.
7. To approve the ARR based on the operating parameters as per the norms provided in the Regulation and allow the Petitioner to retain the gains on account of the efficiency improvement in the Operating Parameters.
8. The Petitioner craves leave of the Hon'ble Commission to allow further submissions, addition and alteration to this Petition as may be necessary from time to time.
9. Pass any other order as the Hon'ble Commission may deem fit and appropriate under the circumstances of the case and in the interest of justice.

Declaration that the subject matter of the petition has not been raised by the petitioner before any other competent forum, and that no other competent forum is currently seized of the matter or has passed any orders in relation thereto.



True-up Petition for Tenughat Vidyut Nigam Limited for FY 2021-22 and FY 2022-23 of the Third Control Period

ANNEXURES



True-up Petition for Tenughat Vidyut Nigam Limited for FY 2021-22 and FY 2022-23 of the Third Control Period

ANNEXURE-A: A copy of the correspondence with the Hon'ble Commission dated 15.04.2025



Tenughat Vidyut Nigam Limited

(A Govt. of Jharkhand Undertaking)

ABD Area, Smart City, Dhurwa, Ranchi-834004
CINU40101JH1987SGC013153

Letter No.....40/25-26

Dated: 15/04/25

The Secretary,

Jharkhand State Electricity Regulatory Commission,
1st Floor, Jharkhand State Housing Board (Old Head Quarter),
Harmu Housing Colony Ranchi-834002.

E-mail: info@jserc.org

Sub: Submission of required Petitions as per JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 & 2020 - Regarding.

Ref: Discussion held on 11.04.2025.

Sir,

With reference to the captioned subject and in the matter of Filing of True-Up Petition for FY 2021-22 to FY 2023-24 and APR of FY 2022-23 to FY 2024-25 of Tenughat Vidyut Nigam Limited, it is to intimate that Filing of True-Up Petitions of Tenughat Vidyut Nigam Limited was held up due to none readiness of Audited Accounts of TVNL which is required to be Audited by Statutory Auditor appointed by CAG.

Process for preparation of Petition for True -up of Third Control Period FY 2021-22 to FY 2023-24 has already been initiated. Directive of the Hon'ble Commission has been taken seriously by TVNL and Filing of True-Up Petition for FY 2021-22 to FY 2023-24 and APR of FY 2022-23 to FY 2024-25 of Tenughat Vidyut Nigam Limited before Hon'ble Commission based on Statutory Audited Accounts & Internal Audited Accounts will be done by May 2025.

Yours faithfully

(Signature)
15/04/2025

(S. R. Singh)

Electrical Superintending Engineer (Reg. & IT)

CC: Managing Director TVNL Ranchi for kind information.



True-up Petition for Tenughat Vidyut Nigam Limited for FY 2021-22 and FY 2022-23 of the Third Control Period

ANNEXURE B: Detailed Actuarial Valuation Report for FY 2021-22

TENUGHAT VIDYUT NIGAM LIMITED

ACTUARIAL VALUATION OF GRATUITY LIABILITY AS AT 31.03.2022

**B. CHATTERJEE INTERNATIONAL CONSULTANT
(BCIC)**

Report dated July 14, 2022

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TENUGHAT VIDYUT NIGAM LIMITED

ACTUARIAL VALUATION OF GRATUITY LIABILITY AS AT 31.03.2022

I N D E X

- 1. FORENOTE**
- 2. COVERAGE**
- 3. CONTINGENCY OF PAYMENTS**
- 4. SCALE OF PAYMENT**
- 5. WAITING PERIOD**
- 6. ANALYSIS OF DATA**
- 7. VALUATION BASES**
- 8. RATIONALE OF VALUATION**
- 9. RESULT OF VALUATION**

**ACTUARIAL VALUATION OF GRATUITY LIABILITY OF
TENUGHAT VIDYUT NIGAM LIMITED
DETAIL REPORT**

1. FORENOTE

Company maintains an Income Tax approved Gratuity Scheme for payment of Gratuity.

The aim of this valuation is to work out:

1.1 Actuarial Liability of accrued benefits as at 31.03.2022.

1.2 Contribution required supporting the benefits.

2. COVERAGE

All employees irrespective of quantum of monthly salary, being Basic Salary and D.A., are covered.

3. CONTINGENCY OF PAYMENTS

Gratuity will be payable on:

3.1 Death at any time during period of Service.

3.2 Reaching Normal Retirement age 60.

3.3 On exit due to other causes from Company's service at ages earlier than Normal Retirement age provided that, by that date employee has rendered at least 5 years of service.

3.4 On Disablement at any time during period of Service.

4. SCALE OF PAYMENT

Gratuity is computed as half-months Salary, at exit, per year of Service, subject to payment of Maximum Gratuity of Rs20,00,000/-, where service is counted as nearest year.

Symbolically

Gratuity = $15/26 \times \text{Salary at exit} \times \text{Service at exit}$

If Gratuity is more than Rs. 20,00,000/-, then Gratuity is taken as Rs. 20,00,000/-.

5. WAITING PERIOD

Although Gratuity is payable on exit due to 3.2 & 3.3 on completion of 5 years of service, for purpose of valuation it has been assumed that Gratuity will accrue from date of appointment. Alternative would be to accrue gratuity for 5 years then value it on 6th year - this will produce humps in the liability.

Since valuation is carried out every year, consequently on exit of an employee not being eligible for Gratuity, valuation reserve for that employee will be released and the Fund liability will automatically be adjusted.

6. ANALYSIS OF DATA

6.1 Data for this Valuation was supplied by way of email.

6.2 The data was subjected to usual correlation tests of:

Age - Salary

Age - Service

Salary - Service

Such tests have not shown any inconsistency thereon. Accordingly, the data has been used in valuation without amendments.

7. VALUATION BASIS

We summarize the Basis of Actuarial Valuation as below:

7.1 STAFF MORTALITY TABLE IALM (2012-14) ULTIMATE

7.2 RESIGNATION/DISMISSAL/DISABLEMENT

All causes combined
per 1000 Employees

10 Exits p.a. distributed as below:
6 below age 30 &
3 between age 30 and age 40 &
1 above age 40

7.3 AGE-RETIREMENT 60 Years

7.4 SALARY SCALE 5.50% p.a.

7.5 INTEREST RATE 7.32% p.a.

8. RATIONALE OF VALUATION**8.1 Valuation Factor**

Using Actuarial bases as detailed in 7 above, valuation factor is worked out for each age being C- Factor for each contingencies of death, disablement, retirement at age x. This aggregate of C-Factor is divided by L-Factor to arrive at Valuation Factors for each age x for the periods between x and Normal Retirement Age.

8.2 Valuation Formula

The valuation has been carried out using **Projected Unit Credit Method** as per Guidelines APS27 issued by Institute of Actuaries of India.

Consider an employee at 31.03.2022 to be aged x years
 with Past Service up to 31.03.2022 - SERV(x)
 with Salary at 31.03.2022 - SAL(x)

Accordingly Gratuity payable to this employee would be computed as

$$\text{GRAT}(x) = 15/26 \times \text{SAL}(x) \times \text{SERV}(x)$$

Subject to a Maximum of Rs. 20,00,000/-.

Accordingly if he leaves 't' years from now, then Gratuity arising out of his service up to now would be increased due to salary escalation during these years. Accordingly Gratuity payable would be

$$\text{GRAT}(x+t) = 15/26 \times \text{SAL}(x) \times (1+j)^t \times \text{SERV}(x)$$

when j is the rate of increase of salary

This gratuity will be payable if he dies in service in year t.

Probable Gratuity on death = $\text{GRAT}(x+t) \times \text{probability of dying during age } x+t$

Present value of gratuity payable on death during age x+t will be arrived by discounting at rate j for t years.

Accordingly

$$\begin{aligned} \text{VGRAT}(x+t) &= \text{GRAT}(x+t) \times \text{probability of dying age during } x+t / (1+i)^t \\ &= \text{GRAT}(x+t) \times \text{death factor at age } x+t \\ &\text{when } i \text{ is the discounting rate} \end{aligned}$$

Where Death

$$\text{Factor} = \text{Probability of dying during age } x+t / \text{Number at age } X \times \text{discounting for } t \text{ years}$$

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Similarly Gratuity payable on withdrawal and retirement is worked out. Accordingly present value of Gratuity payable at age x if one exits during age $x+t$ is

$$VGRAT(x+t) = GRAT(x+t) \times \{\text{Death Factor} + \text{withdrawal Factor} + \text{Retirement Factor}\}$$

Aggregate of $VGRAT(x+t)$ for ages from x till Retirement Age is therefore, present value of Gratuity payable to that individual - this is expressed as $V(x)$.

Aggregate of $V(x)$ for all individual constitutes the Gratuity liability of the Fund.

Incremental liability of the Fund shall form the Contribution for the year, which is shown below.

9. RESULT OF VALUATION

Number of Employees	-	677
Salary as at 31.03.2022	-	4,65,71,030
Liability as at 31.03.2022	-	41,79,21,528



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TENUGHAT VIDYUT NIGAM LIMITED

ACTUARIAL VALUATION OF EARNED LEAVE LIABILITY AS AT 31.03.2022

**B. CHATTERJEE INTERNATIONAL CONSULTANT
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Report dated July 14, 2022

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TENUGHAT VIDYUT NIGAM LIMITED

ACTUARIAL VALUATION OF EARNED LEAVE LIABILITY AS AT 31.03.2022

I N D E X

- 1. FORENOTE**
- 2. COVERAGE**
- 3. CONTINGENCY OF PAYMENTS**
- 4. SCALE OF PAYMENT**
- 5. WAITING PERIOD**
- 6. ANALYSIS OF DATA**
- 7. VALUATION BASES**
- 8. RATIONALE OF VALUATION**
- 9. RESULT OF VALUATION**

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ACTUARIAL VALUATION OF EARNED LEAVE LIABILITY OF TENUGHAT VIDYUT NIGAM LIMITED DETAIL REPORT

1. FORENOTE

Company maintains an Income Tax approved EARNED LEAVE Scheme for payment of EARNED LEAVE.

The aim of this valuation is to work out:

1.1 Actuarial Liability of accrued benefits as at 31.03.2022.

1.2 Contribution required supporting the benefits.

2. COVERAGE

All employees irrespective of quantum of monthly salary, being Basic Salary and D.A., are covered.

3. CONTINGENCY OF PAYMENTS

EARNED LEAVE will be payable on:

3.1 Death at any time during period of Service.

3.2 Reaching Normal Retirement age 60.

3.3 On exit due to other causes from Company's service at ages earlier than Normal Retirement age.

3.4 On Disablement at any time during period of Service.

4. SCALE OF BENEFIT

Fresh leave is credited every year, but accumulated leave shall not exceed 300 days

5. WAITING PERIOD

Leave is paid on Retirement/Death and Disablement. As per Actuarial Practice Standard APS27, uniform Accrual of Leave without any Waiting Period, has been assumed.

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6.2 The data was subjected to usual correlation tests of:

Age - Salary

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Salary - Service

Such tests have not shown any inconsistency thereon. Accordingly, the data has been used in valuation without amendments.

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We summarize the Basis of Actuarial Valuation as below:

7.1 STAFF MORTALITY TABLE

IALM (2012-14) ULTIMATE

7.2 RESIGNATION/DISMISSAL/DISABLEMENT

All causes combined
per 1000 Employees

10 Exits p.a. distributed as below:
6 below age 30 &
3 between age 30 and age 40 &
1 above age 40

7.3 AGE-RETIREMENT

60 Years

7.4 SALARY SCALE

5.50% p.a.

7.5 INTEREST RATE

7.32% p.a.

8. RATIONALE OF VALUATION

Consider one aged x

Salary S
Accrued Leave $P.L$

We further assume that Encashment = (Days of leave x Salary at date of Exit)/30.

In his case Encashment " t " year from now will be

$$EN(x+t) = P.L \times \frac{S}{30} \times (1+j)^t$$

when j is the rate at which salary increases per annum

Probability that such leave will be payable at age $x+t$

$$p(x+t) = \frac{r(x+t) + d(x+t) + w(x+t)}{l(x)}$$

when $l(x)$ = Number of employees aged x now

$r(x+t)$ = Number retiring at age $x+t$, on
Retrenchment/Superannuation or Disablement

$d(x+t)$ = Number dying at age $x+t$

$w(x+t)$ = Number leaving at age $x+t$ other
than by resignation

Accordingly the amount of probable leave will be

$$= EN(x+t) \times p(x+t)$$

Discounted value at age x of benefit payable at age $x+t$

$$\text{will be } V(x+t) = EN(x+t) \times p(x+t) \times (1+i)^{-t}$$

when i is the rate of discounting

Summarising $V(x+t)$ for all values of t from 0 to $60 - x$ we arrive at leave liability for the individual.

Aggregate of leave liability for all individuals, constitute the leave liability of the Company.

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9. RESULT OF VALUATION

Number of Employees	-	677
Salary as at 31.03.2022	-	4,65,71,030
Days Leave	-	1,58,133
Liability as at 31.03.2022	-	32,68,26,829



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TENUGHAT VIDYUT NIGAM LIMITED

ACTUARIAL VALUATION OF PENSION LIABILITY AS AT 31.03.2022

B. CHATTERJEE INTERNATIONAL CONSULTANT (BCIC)

Report dated July 15, 2022

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TENUGHAT VIDYUT NIGAM LIMITED.**ACTUARIAL VALUATION OF PENSION LIABILITY**
AS AT 31.03.2022**CERTIFICATE AS PER ACCOUNTING STANDARD 15**

I certify that,

1. The data to the Actuarial Valuation was supplied by the Company. This data was found acceptable for valuation purpose. This data was subjected to age-service, salary-service, age-salary consistency tests. These tests have not shown any discrepancies.
2. Actuarial bases of valuation related to salary progression, mortality, interest rate and retirement are detailed here under.
 - (i) Mortality : IALM 2012-14 ULTIMATE
 - (ii) Attrition : 10 Per Thousand per annum
 - (iii) Discount Rate : 7.32% p.a
 - (iv) Normal age of retirement : 60 years
 - (v) Salary Escalation (For Active Staff)
Basic+DA : 5.50% p.a.
Salary Escalation (For pensioners) N/A
 - (vi) Method : Projected Unit Credit Method

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- 3 I confirm that based on salary as at 31.03.2022. Employees Pension has been worked out to :

Active Staff

Number of Employees	-	401
Salary	-`	3,14,60,118
Liability as at 31.03.2022	-`	161,46,42,003

Existing Pensioner

Number	-	75
Liability as at 31.03.2022	-`	65,07,77,504

Family Pensioner

Number	-	51
Liability as at 31.03.2022	-`	35,19,73,795



DR. R. KANNAN
ACTUARY