

Jharkhand State Electricity Regulatory Commission



Order on
True-up for FY 2016-17 to FY 2020-21,
for
Tenughat Vidyut Nigam Limited
(A Govt of Jharkhand Undertaking)
Ranchi

Ranchi
September 30 , 2024



Contents

Chapter 1: INTRODUCTION	8
Jharkhand State Electricity Regulatory Commission.....	8
Tenughat Vidyut Nigam Limited.....	10
Petitioners Prayer.....	12
Chapter 2: PROCEDURAL HISTORY	13
Background	13
Information Gaps in the Petition	14
Inviting Public Comments/Suggestions.....	15
Submission of Comments/Suggestions and Conduct of Public Hearing	16
Chapter 3: BRIEF FACTS OF THE PETITION.....	17
True-up for FY 2016-17 to FY 2020-21:	17
Chapter 4: PUBLIC CONSULTATION PROCESS.....	21
Plant Load Factor.....	21
Auxiliary Consumption.....	21
SHR	22
Specific Oil Consumption	23
Operation & Maintenance.....	23
Chapter 5: TRUE-UP FOR FY 2016-17 to FY 2020-21.....	25
Operation & Maintenance Expense	46
Depreciation	50
Interest on Debt	53
Return on Equity	55
Interest on Working Capital	56
Non-Tariff Income	60
Revenue from Sale of Power	60
Summary of Fixed Cost Determinants & Annual Revenue Requirement.....	61
Chapter 6: Gap/(Surplus) for FY 2016-17 to FY 2020-21.....	64
Chapter 7: STATUS OF EARLIER DIRECTIVES	66
Chapter 8: DIRECTIVES	69
Chapter 9: ANNEXURE.....	71



List of Abbreviations

Abbreviation	Description
AAD	Advance Against Depreciation
A&G	Administrative and General
ARR	Aggregate Revenue Requirement
ATE	Appellate Tribunal for Electricity
BOQ	Bill of Quantity
CCL	Central Coal Fields
CEA	Central Electricity Authority
COD	Date of Commercial operation
DPR	Detailed Project Report
EA	Electricity Act
ECR	Energy Charge Rate
FY	Financial Year
GCV	Gross Calorific Value
GFA	Gross Fixed Assets
GOI	Government of India
JSEB	Jharkhand State Electricity Board
JSERC	Jharkhand State Electricity Regulatory Commission
IDC	Interest During Construction
Kcal	Kilocalorie
Kg	Kilogram
kWh	Kilowatt-Hour
MAT	Minimum Alternative Tax
ml	Milliliter
MT	Metric Tonnes
MU	Million Units
MW	Megawatt
MYT	Multi Year Tariff
NAPAF	Normative Annual Plant Availability Factor
O&M	Operation and Maintenance
PAF	Plant Availability Factor
PLF	Plant Load Factor
PLR	Prime Lending Rate
PPA	Power Purchase Agreement
R&M	Repair and Maintenance
RoE	Return on Equity
Rs	Rupees
SBI	State Bank of India
SERC	State Electricity Regulatory Commission
SFC	Secondary Fuel Consumption
SLDC	State Load Dispatch Centre
SLM	Straight Line Method
TTPS	Tenughat Thermal Power Station



List of Tables

Table 1:List of newspapers and dates of publication of public notice by the Petitioner	15
Table 2:List of newspapers and dates of publication of Public Notice by the Commission	16
Table 3:Summary of Operational Parameters of FY 2016-17 to FY 2020-21	17
Table 4 Summary of Annual Fixed Cost as submitted by the Petitioner for FY 2016-17 to FY 2020-21(Rs.Cr)	18
Table 5 Summary of ARR & Gap/(Surplus) for FY 2016-17 to FY2020-21(Rs.Cr)	19
Table 6 Summary of Cumulative Gap/(Surplus) for the second control period (Rs.Cr)	19
Table 7: Plant availability factor(%) as submitted by the Petitioner for FY17 to FY21	26
Table 8:Plant Load Factor(%) as submitted by the Petitioner for FY17 to FY21	26
Table 9 Plant availability factor(%) as approved by the Commission for FY17 to FY 21	28
Table 10 Plant Load Factor(%) as approved by the Commission for FY 2016-17 to FY 2020-21	28
Table 11 Gross Generation(MUs) submitted by the Petitioner for FY17 to FY21	28
Table 12 Gross Generation(MUs) as approved by the Commission for FY17 to FY21	29
Table 13 Auxiliary Consumption (%) as submitted by the Petitioner for FY 17 to FY21	29
Table 14 Auxiliary Consumption(%) as approved by the Commission for FY17 to FY21	30
Table 15 Net Generation(MUs) as submitted by the Petitioner for FY 17 to FY21	31
Table 16 Net Generation(MU) as approved by the Commission for FY 2016-17 to FY 2020-21	31
Table 17 Station Heat Rate (kcal/kWh) as submitted by the Petitioner for FY17 to FY21	31
Table 18 Station Heat Rate(kcal/kWh) as approved in the MYT order dated 28.02.2020	32
Table 19 Station Heat Rate(kcal/kWh) as approved by the Commission for FY17 to FY21	33
Table 20 Secondary fuel oil consumption(ml/kWh) as submitted by the Petitioner for FY17 to FY21	33
Table 21 Secondary fuel oil consumption (ml/kWh) as approved by the Commission for FY17 to FY21	35
Table 22: Gross Calorific Value of Primary fuel(kCal/kg) & Secondary Fuel(kCal/ltr) as submitted by the Petitioner for FY17 to FY21	35
Table 23 Gross Calorific value(kcal/kg) of primary fuel as approved by the Commission for FY17 to FY21.	36
Table 24 GCV of secondary fuel(kcal/ltr) as approved by the Commission for FY17 to FY21	36
Table 25:Cost of Primary Fuel(Rs./MT) as submitted by Petitioner for FY17 to FY21	37
Table 26 Cost of Primary Fuel (Rs./MT) as approved by the Commission for FY	



17 to FY21	37
Table 27 Cost of Secondary fuel oil(Rs.Cr) as submitted by the Petitioner for FY17 to FY21	37
Table 28 Cost of Secondary fuel oil(Rs/Kltr) as approved by the Commission for FY17 to FY21	38
Table 29 Transit loss(%) as submitted by the Petitioner for FY17 to FY21	38
Table 30 Transit loss(%) as approved by the Commission for FY17 to FY21	40
Table 31 Approved Energy Charge Rate(Rs./kWh) for the second control period i.e. FY 2016-17 to FY 2020-21	41
Table 32 Gross Fixed Asset (RsCr) as submitted by the Petitioner for FY17 to FY21	43
Table 33 Addition in GFA as submitted by the Petitioner for FY 17 to FY 21(Rs.Cr)	44
Table 34 Additional Capitalization as approved by the Commission for FY 2016-17 to FY2020-21(Rs.Cr)	46
Table 35:O&M Expense(Rs.Cr) as submitted by the Petitioner for the second control period i.e. FY 2016-17 to FY 2020-21	47
Table 36 :O&M Expense (Rs.Cr) approved by the Commission for the second control period i.e. FY 2016-17 to FY 2020-21	50
Table 37: Depreciation(Rs.Cr) as submitted by the Petitioner for FY 2016-17 to FY 2020-21(Rs.Cr)	50
Table 38 Depreciation(Rs.Cr) as approved by the Commission for FY 2016-17 to FY 2020-21	52
Table 39: Interest on loan(Rs.Cr) as submitted by the Petitioner for FY 2016-17 to FY 2020-21	53
Table 40 Interest on Loan(Rs.Cr) as approved by the Commission for FY 2016-17 to FY 2020-21	55
Table 41 Return on Equity(Rs.Cr) as submitted by the Petitioner for FY 2016-17 to FY 2020-21	55
Table 42 ROE(Rs.Cr) as approved by the Commission for FY 2016-17 to FY 2020-21	56
Table 43:Interest on working capital(Rs.Cr) as submitted by the Petitioner for FY 2016-17 to FY 2020-21	57
Table 44: Interest on working capital(Rs.Cr) as approved by the Commission for FY 2016-17 to FY 2020-21	59
Table 45 Non-Tariff Income(Rs.Cr) as submitted by the Petitioner for FY 2016-17 to FY 2020-21	60
Table 46 Non-Tariff Income (Rs.Cr) approved by the Commission for FY 2016-17 to FY 2020-21.	60
Table 47 Revenue from sale of power(Rs.Cr) for the second control period as submitted by Petitioner	61
Table 48 Revenue approved by the Commission from sale of power for FY 2016-17 to FY 2020-21 (Rs.Cr)	61
Table 49 Summary of ARR & Fixed cost approved by the Commission for the second control period (Rs.Cr.)	63
Table 50 Gap/(Surplus) as submitted by the Petitioner for the second control period (Rs.Cr)	64
Table 51 Gap/(Surplus) as approved by the Commission for the second control period i.e. FY 2016-17 to FY 2020-21(Rs.Cr)	65
Table 52:Status of earlier directives issued by the Commission	66



TVNL - Order on True-up for FY 2016-17 to FY 2017-21

Table 53 List of participants in the Public hearing held on 10th September 2024 at Jade Square Ranchi

71



BEFORE

**Jharkhand State Electricity Regulatory Commission,
Ranchi**

Case (Tariff) No.: 06 of 2024

In the matter of:

Petition for

True-up for Second control period i.e. FY 2016-17 to FY 2020-21.

In the matter:

Tenughat Vidyut Nigam Limited
Hinoo, Doranda,
Ranchi-834002.....

Petitioner

PRESENT

Hon'ble Mahendra Prasad
Hon'ble Atul Kumar

Member(Law)
Member(Technical)

**Order dated
September 30, 2024**

Tenughat Vidyut Nigam Limited (hereinafter referred to as 'TVNL' or 'the Petitioner') has filed the Petition dated May 28, 2024 for approval of Trueing-up for the second control period i.e. FY 2016-17 to FY 2020-21.



Chapter 1: INTRODUCTION

Jharkhand State Electricity Regulatory Commission

- 1.1 The Jharkhand State Electricity Regulatory Commission (hereinafter referred to as the 'JSERC' or 'the Commission') was established by the Government of Jharkhand under Section 17 of the Electricity Regulatory Commission Act, 1998 on August 22, 2002. The Commission became operational with effect from April 24, 2003.
- 1.2 The Government of Jharkhand vide its notification dated August 22, 2002 had defined the functions of JSERC as per Section 22 of the Electricity Regulatory Commission Act, 1998 to be the following, namely:
- a) to determine the tariff for electricity, wholesale, bulk, grid or retail, as the case may be, in the manner provided in section 29;
 - b) to determine the tariff payable for the use of the transmission facilities in the manner provided in section 29;
 - c) to regulate power purchase and procurement process of the transmission utilities and distribution utilities including the price at which the power shall be procured from the generating companies, generating stations or from other sources for transmission, sale, distribution and supply in the State;
 - d) to promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purposes of this Act.
- 1.3 After the Electricity Act, 2003 (hereinafter referred to as the 'Act') came into force, the earlier Electricity Regulatory Commissions Act, 1998 stands repealed and the functions of SERCs are now defined under Section 86 of the Act.
- 1.4 In accordance with Section 86 (1) of the Act, the JSERC discharges the following functions:



TVNL - Order on True-up for FY 2016-17 to FY 2020-21

- a) determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State;
- b) Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;
- c) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;
- d) facilitate intra-State transmission and wheeling of electricity;
- e) issue licenses to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;
- f) promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;
- g) adjudicate upon the disputes between the licensees and generating companies; and to refer any dispute for arbitration;
- h) levy fee for the purposes of this Act;
- i) specify State Grid Code consistent with the Grid Code specified under Clause (h) of sub-section (1) of Section 79;
- j) specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
- k) fix the trading margin in the intra-state trading of electricity, if considered, necessary;



TVNL - Order on True-up for FY 2016-17 to FY 2020-21

- l) discharge such other functions as may be assigned to it under this Act.
- 1.5 The Commission has to also advise the State Government as per sub section 2 of Section 86 of the Act, on all or any of the following matters, namely:
- a) promotion of competition, efficiency and economy in activities of the electricity industry;
 - b) promotion of investment in electricity industry;
 - c) reorganization and restructuring of electricity industry in the State;
 - d) matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by that Government.
- 1.6 The State Commission ensures transparency while exercising its powers and discharging its functions.
- 1.7 In discharge of its functions, the State Commission is also guided by the Tariff Policy notified by the Government of India under Section 3 of the Act. The objectives of the Tariff Policy are to:
- a) ensure availability of electricity to consumers at reasonable and competitive rates;
 - b) ensure financial viability of the sector and attract investments;
 - c) promote transparency, consistency and predictability in regulatory approaches across jurisdictions and minimize perceptions of regulatory risks;
 - d) promote competition, efficiency in operations and improvement in quality of supply.

Tenughat Vidyut Nigam Limited



TVNL - Order on True-up for FY 2016-17 to FY 2020-21

1.8 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 from below timelines:

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

1.9 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, market complex etc.

1.10 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 Rajbhar 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.



Petitioners Prayer

1.11 The Petitioner in the Petition for True up of the second control period i.e. FY 2016-17 to FY 2020-21 has prayed before the Commission:

- a) To admit this true-up Petition for the Second Control Period of FY 2016-17 to FY 2020-21.
- b) To approve Revenue Requirement and Capital Expenditure for the Second control period of FY 2016-17 to FY 2020-21.
- c) To approve the operational and financial parameters as proposed by TVNL considering the constraints of the old machines and to consider the same for recovery of full fixed cost.
- d) 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.
- e) To condone the delay in filing this Petition.
- f) To grant any other relief as the Hon'ble Commission may consider appropriate.
- g) 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.
- h) 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.

- i) 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.

1.12 The Petitioner has filed for the truing up for FY 2016-17 to FY 2020-21 based on audited Annual Accounts for the period FY 2016-17 to FY 2020-21 wherein the accounts for FY 2016-17 has been audited by Lodha Patel Wadhwa & Co, Ranchi (appointed by CAG) and for the remaining years internal audit has been completed and CAG audit is in process.

Chapter 2: PROCEDURAL HISTORY

Background

- 2.1 The Commission had issued Tariff Order of TVNL for FY 2004-05 on 23.08.2004.
- 2.2 On March 30,2006, the Commission had approved Tariff Order for Tenughat Vidyut Nigam Limited(TVNL) for FY 2005-06.
- 2.3 The Commission had passed Tariff Order for TVNL for FY 2007-08 on 03.01.2008.
- 2.4 On March 05,2010, the Commission had issued the Tariff Order on ARR and Determination of Generation Tariff for FY 2008-09 & FY2009-10 for Tenughat Vidyut Nigam Limited (TVNL)
- 2.5 The Commission had passed the Tariff Order on Annual Revenue Requirement and Determination of Generation Tariff for FY 2009-10 & FY 2010-11 for Tenughat Vidyut Nigam Limited (TVNL) on 22.11.2010.
- 2.6 The Commission had passed the Tariff Order on Annual Revenue Requirement and Determination of Generation Tariff for FY 2010-11 & FY



TVNL - Order on True-up for FY 2016-17 to FY 2020-21

- 2011-12 for Tenughat Vidyut Nigam Limited (TVNL) on 31.05.2011.
- 2.7 The Commission had passed the MYT Order on Business Plan and Annual Revenue Requirement and Determination of Generation Tariff for Second control period of FY 2012-13 to FY2015-16 for Tenughat Vidyut Nigam Limited (TVNL) on 30.05.2012.
- 2.8 The Commission had passed the Order on Petition for Annual Performance Review for FY 2012-13 (including truing-up for FY 2011-12) for Tenughat Vidyut Nigam Limited (TVNL) on 02.07.2014.
- 2.9 The Commission had passed the 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) on 30.09.2016.
- 2.10 The Commission had passed 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) on 28.02.2020.
- 2.11 The Commission had passed order on Petition for True up for FY 2012-13 to FY 2015-16 on 14.12.2023.
- 2.12 The Commission had also passed order on Multi Year Tariff for the third control period i.e. FY 2021-22 to FY 2025-26 on 14.12.2023.
- 2.13 In the instant petition, the Petitioner has sought Truing-up for FY 2016-17 to FY 2020-21 based on audited accounts as submitted by the Petitioner.

Information Gaps in the Petition

- 2.14 In exercise of Tariff determination process, several deficiencies/information gaps were found in the Petition submitted by the



TVNL - Order on True-up for FY 2016-17 to FY 2020-21

Petitioner and the same was communicated to the Petitioner vide letter no. JSERC/Case (Tariff) no:06 of 2024/139 dated 12.06.2024 & letter no JSERC/Case(Tariff)no:06 of 2024/269 dated 16.08.2024.

- 2.15 In response, the Petitioner furnished additional data/ information to the Commission vide letter no: Ref 346/24-25 dated 05.07.2024 & Ref 594/24-25 dated 26.08.2024 respectively.
- 2.16 The Commission has scrutinized the Petition and the additional data/information furnished by the Petitioner with respect to its discrepancies identified and has considered the same while passing this Order.
- 2.17 In order to provide adequate opportunities to all stakeholders and general public, as mandated under Section 64 (3) of the Electricity Act 2003 and in relevant provisions of Regulations framed by the Commission and in order to ensure transparency in the process of tariff determination, the Commission decided to hold Public Hearing on September 10, 2024.

Inviting Public Comments/Suggestions

- 2.18 On scrutiny of the Petition, the Commission had directed the Petitioner to publish a Public Notice inviting comments/suggestions from public and to make available copies of the Petition to the members of general public on request.
- 2.19 Accordingly, Public Notice was published by the Petitioner in the newspapers and a period of twenty-one (21) days was given for submitting the comments/suggestions by the general public:

Table 1:List of newspapers and dates of publication of public notice by the Petitioner

Newspaper	Language	Date of Publication
Dainik Bhaskar	Hindi	13.07.2024 & 14.07.2024
Hindustan Times	English	13.07.2024 & 14.07.2024
Prabhat Khabar	Hindi	13.07.2024 & 14.07.2024



TVNL - Order on True-up for FY 2016-17 to FY 2020-21

Newspaper	Language	Date of Publication
Times of India	English	13.07.2024 4.07.2024

2.20 The Commission in order to further provide adequate opportunities to all stakeholders and general public, as mandated under Section 64 (3) of the Electricity Act 2003 and in relevant provisions of Regulations framed by the Commission also held a public hearing on 10th of September 2024.

2.21 The details of newspapers wherein the Notice was published by the Commission are as under:

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

Newspaper	Language	Date of Publication
Prabhat Khabar	Hindi	03.09.2024 & 10.09.2024
Dainik Bhaskar	Hindi	03.09.2024 & 10.09.2024
The Times of India	English	03.09.2024 & 10.09.2024
The Hindustan Times	English	03.09.2024 & 10.09.2024

Submission of Comments/Suggestions and Conduct of Public Hearing

2.22 No comments/Suggestions on the Petition has been received upon publication of public notice, however comments were raised during public hearing of the petition which has been discussed in details in Chapter 4 of this Order.



Chapter 3: BRIEF FACTS OF THE PETITION

3.1 The following chapter summarizes the Petition for true-up of FY 2016-17 to FY 2020-21 as filed by the Petitioner for Commission's approval.

True-up for FY 2016-17 to FY 2020-21:

3.2 Summary of Operational Parameter and Energy Charge Rate as submitted by the Petitioner for FY 2016-17 to FY 2020-21 as submitted by the Petitioner has been tabulated below:

Table 3: Summary of Operational Parameters of FY 2016-17 to FY 2020-21

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	MYT	Petition	MYT	Petition	MYT	Petition	MYT	Petition	MYT	Petition
Capacity (MW)	420	420	420	420	420	420	420	420	420	420
PAF (%)	85%	48.38%	85%	65.04%	85%	53.05%	85%	69.12%	85%	69.66%
PLF (%)	85%	38.62%	85%	52.60%	85%	45.85%	85%	65.65%	85%	60.82%
Gross Generation (MU)	3127	1421	3127	1935	3127	1687	3127	2422	3127	2244
Auxiliary Consumption (%)	9.50%	13.67%	9.50%	13.08%	9.50%	12.12%	9.50%	11.94%	9.50%	11.39%
Net Generation(MU)	2830.2	1226.7	2830.2	1682.1	2830.2	1482.5	2830.2	2132.8	2830.2	1982.82
Station Heat Rate (KCal/kwh)	3043	2795.4	2908	2691.2	2773	2709.2	2638	2609.7	2503	2696.2
Specific Oil Consumption (ml/kwh)	1.00	4.21	1.00	2.01	1.00	1.80	1.00	1.06	1.00	1.04
GCV of Primary Fuel (kCal/kg)	3615.2	3643	3615.2	3654.6	3615.2	3684.7	3615.2	3681.5	3615.2	3774.9
Transit Loss(%)	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Total Primary Fuel consumed(MT)	2.63	1.08	2.51	1.42	2.4	1.24	2.28	1.71	2.16	1.6
Total Oil Consumed(KL)	3127.3	5976.3	3127.3	3884.1	3127.3	3039.8	3127.3	2560.1	3127.3	2331.1

TVNL - Order on True-up for FY 2016-17 to FY 2020-21



Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	MYT	Petition	MYT	Petition	MYT	Petition	MYT	Petition	MYT	Petition
Rate of Primary Fuel (Rs./MT)	2458.2	2542.8	2458.2	2718.1	2458.2	3170.1	2458.2	3370.4	2458.2	3346.1
Rate of Secondary Fuel(Rs/KL)	60000	41428	60000	44626	60000	54832	60000	53759	60000	39515
Cost of Primary Fuel(Rs Cr)	646.37	276	617.61	388	588.84	394	561.61	581	531.32	539
Cost of Secondary Oil(Rs Cr)	18.71	24.76	18.71	17.33	18.71	16.67	18.76	13.76	18.76	9.21
Energy Charge Rate(Rs/kWh)	2.32	2.45	2.22	2.41	2.12	2.77	2.02	2.79	1.92	2.76

3.3 Summary of fixed cost as submitted by the Petitioner for FY 2016-17 to FY 2020-21 has been tabulated below:

Table 4 Summary of Annual Fixed Cost as submitted by the Petitioner for FY 2016-17 to FY 2020-21(Rs.Cr)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	MYT	Petition	MYT	Petition	MYT	Petition	MYT	Petition	MYT	Petition
O&M expenses	143.57	199.04	151.85	198.72	160.67	168.05	170.03	229.32	179.99	186.65
Employee Exp	68.63	92.73	72.95	68.70	77.55	64.03	82.43	135.68	87.62	92.25
A&G exp	17.13	20.03	18.21	20.06	19.36	20.50	20.58	22.36	21.88	33.27
R&M exp	45.81	86.28	48.69	109.96	51.76	83.52	55.02	71.28	58.49	61.13
Water Charges	12.00	0.00	12.00	0.00	12.00	0.00	12.00	0.00	12.00	0.00
Depreciation	26.01	17.65	26.01	16.37	26.01	24.83	26.01	9.82	26.01	9.50
Interest on loans	35.83	103.20	32.45	103.22	29.07	101.10	25.69	103.22	22.31	103.22
Return on Equity	28.62	33.20	28.62	34.81	28.62	35.17	28.62	35.29	28.62	35.41



Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	MYT	Petition	MYT	Petition	MYT	Petition	MYT	Petition	MYT	Petition
Interest on working capital	33.72	19.65	33.00	23.12	32.31	21.40	31.68	31.03	31.01	25.65
Total fixed cost	267.75	372.74	271.93	376.24	276.68	350.55	282.03	408.68	287.95	360.43
Non-Tariff Income	34.29	33.49	34.29	35.94	34.29	36.61	34.29	42.51	34.29	36.92
Annual Fixed Charges	233.45	339.25	237.64	340.29	242.37	313.94	247.74	366.16	253.66	323.51

3.4 Summary of ARR and Gap/(Surplus) as submitted by the Petitioner for FY 2016-17-FY 2020-21 has been tabulated below:

Table 5 Summary of ARR & Gap/(Surplus) for FY 2016-17 to FY2020-21(Rs.Cr)

Particulars	FY 2016-17		FY 2017-18		FY 2018-19		FY 2019-20		FY 2020-21	
	MYT	Petition	MYT	Petition	MYT	Petition	MYT	Petition	MYT	Petition
Annual Fixed Charges	233.46	339.25	237.64	340.30	242.39	313.94	247.74	366.17	253.66	323.51
Total Energy Charges	-	273.80	-	385.40	-	391.50	-	577.60	-	535.40
Net ARR	-	613.05	-	725.70	-	705.44	-	943.77	-	858.91
Total Billed Amount	-	423.60	-	566.38	-	596.08	-	779.28	-	698.73
Gap/(Surplus)		189.5	-	159.3	-	109.4	-	164.5	-	160.2

3.5 Summary of Cumulative Gap/(Surplus) as submitted by the Petitioner for FY 2016-17 to FY 2020-21 has been tabulated below:

Table 6 Summary of Cumulative Gap/(Surplus) for the second control period (Rs.Cr)

TVNL - Order on True-up for FY 2016-17 to FY 2020-21



Particulars	FY17	FY18	FY19	FY20	FY21
Gap/(Surplus) for the Year	216.00	179.1	128.5	181.9	172.7
Carrying Cost	216.7	154.7	93.5	107.5	83.2
Total Revenue gap/(surplus)	432.7	333.8	222.0	289.4	255.9
Total Revenue gap/(surplus) for the period	1533.8				



Chapter 4: PUBLIC CONSULTATION PROCESS

- 4.1 Several stakeholders have responded on the Petitioners Petition. A Public Hearing was held by the Commission on September 10th, 2024 for giving additional opportunity to all the stakeholders to submit their comments/suggestions on the said petition for ensuring maximum public participation and transparency. Accordingly, stakeholders voiced their comments and suggestions and the list of the attendees is mentioned in Chapter-9 of this Order.
- 4.2 The comments and suggestions of the public along with the response of the Petitioner and the views of the Commission are summarized in this Chapter. The issues raised by the stakeholders which do not have any significance to petition have not been discussed in this Chapter.

Plant Load Factor

Public Comments/Suggestions

- 4.3 The Objector has submitted that the Petitioner was not able to maintain the PAF as approves by the Hon'ble Commission and the PLF had been fluctuating a lot in the control period.
- 4.4 This has led to very less generation from the plants, that is affecting the power procurement plan of JBVNL leading to higher cost of power procurement from short term market that is not approved by the Hon'ble Commission.

Auxiliary Consumption

Public Comments/Suggestions

- 4.5 The Objector has submitted that auxiliary consumption was very high during the control period. This need to be properly investigated as what



constitutes the auxiliary consumption of the generating units as excess energy is being shown as consumed in auxiliary consumption.

- 4.6 It may be observed that the actual auxiliary consumption claimed is much higher than the approved figures resulting in higher energy charge rate. Since Auxiliary consumption is a controllable and a performance parameter as per JSERC Generation Tariff Regulations, 2010 no change in normative or approved figures should be considered.
- 4.7 The Petitioner has submitted that the said regulation told that the CGS or ISGS may be directed by concerned RLDC to operate its unit(s) at or above the technical minimum but below the normative plant **availability factor " on account of grid security or due to the fewer schedules given by the beneficiaries**. However, this was never the case. The said regulation says The CGS or ISGS compensation to be provided on monthly basis that should be duly supported by relevant data verified by RLDC or SLDC, AS the case may be. However, this is not applicable to TVNL.
- 4.8 As far as point no 2.3.5 is concerned, the order stated that under specific conditions this will be allowed and detailed out the procedure.

SHR

Public Comments/Suggestions

- 4.9 More the SHR, more consumption of primary fuel to produce 1 unit of electricity. Any deviation in SHR is a direct burden to the consumer and hence, should not be passed on to the consumers.
- 4.10 As such, it may be observed that the actual SHR claimed is much higher than the approved figures. Since Station heat rate is controllable and a performance parameter as JSERC Generation Tariff Regulations, 2015 no change in normative or approved figures should be considered. Also, the



petitioner has not given suitable justification of increase in GSHR values and hence, it should be out rightly rejected.

Specific Oil Consumption

Public Comments/Suggestions

- 4.11 The specific consumption of oil is way above the approved rate of JSERC. The in efficiency of TVNL should not be passed on to the JBVNL. This is a clear case of in efficiency.
- 4.12 A higher GCV indicates better quality of fuel and also lower fuel cost, since it lowers the consumption of fuel needed for producing the required amount of energy. This lowering value of GCV increase the fuel cost that is ultimately passed on to the Consumers. Hence, this should not be allowed.

Interest on Loan

Public Comments/Suggestions

- 4.13 The higher amount of interest on loan is a prime factor of increase in ARR.

Operation & Maintenance

Public Comments/Suggestions

- 4.14 The Objector has submitted that the O&M expenses should be properly checked as the O&M cost is at a higher side

Interest on Loan

Public Comments/Suggestions

- 4.15 The higher amount of interest on loan is a prime factor of increase in



ARR.

Revenue Gap

Public Comments/Suggestions

4.16 This is due to inflated cost of fixed component and other cost incurred of controllable factor. This huge gap should not be passed on to the JBVNL by Licensee in the tariff of TVNL

On debt repayment

Public Comments/Suggestions

4.17 The Petitioner has submitted that the interest on loan claimed is way too high for the control period. Such high interest rate should not be passed to the JBVNL. The question is why the interest burden is too high and why TVNL is unable to pay off the loan that is gradually increasing. The trend shows that it is increasing order despite no new asset addition.

Petitioner's Response

4.18 The Petitioner has not submitted any response till the issuance of this Order.

Views of the Commission

4.19 The Commission has noted the submission of parties and deliberate later in the Order.



Chapter 5: TRUE-UP FOR FY 2016-17 to FY 2020-21

- 5.1 The Commission had approved the MYT Order for the 2nd Control Period i.e. FY 2016-17 to FY 2020-21 and determined the Energy Charge Rate and Fixed Charges for FY 2016-17 to FY 2020-21 vide its Order dated February 28th, 2020, based on the principles specified in the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015.
- 5.2 In the instant petition the Petitioner has now sought approval for True-up for FY 2016-17 to FY 2020-21, based on the audited accounts taking into consideration the provisions of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations 2015 and the methodology adopted by the Commission in the previous Orders.
- 5.3 While conducting the true up of FY 2016-17 to FY 2020-21, the Commission has taken into consideration:
- (a) Audited accounts for FY 2016-17 to FY 2020-21 of the Petitioner;
 - (b) Principles and provisions laid down in the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015;
 - (c) Materials placed before the Commission;
 - (d) Methodology adopted by the Commission in its previous Orders.
- 5.4 The component-wise details, filed by the Petitioner and the Commission's analysis and discussion is made in the upcoming paragraph.

Plant Availability Factor(PAF) & Plant Load Factor(PLF)

Petitioner's Submission

- 5.5 The Petitioner in its Tariff Petition has submitted the PAF for FY 2016-17 to FY 2020-21 as per actual data as shown in table below against the PAF



of 85% as approved by the Commission in its previous MYT Tariff Order for the second control period.

Table 7: Plant availability factor(%) as submitted by the Petitioner for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
PAF(%)	48.38%	65.04%	53.05%	69.12%	69.66%

5.6 The Petitioner in its Tariff Petition has submitted the PLF for FY 2016-17 to FY 2020-21 as per actual data available as shown in the table below against PLF of 85%, as approved by the Commission in its previous MYT Tariff Order for the second control period.

Table 8: Plant Load Factor(%) as submitted by the Petitioner for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
PLF(%)	38.62%	52.60%	45.85%	65.65%	60.82%

5.7 The Petitioner has submitted reasons for low PAF for the second control period and not being able to achieve the Commission approved PAF due to the following reasons:

FY 2016-17:

- a) Seven times TPF due to tripping of Transmission Line (dated 03.04.16, 21.05.16, 23.05.16, 31.05.16, 10.06.16, 22.06.16, 07.11.16).
- b) Unit -II kept under shut down from 20.04.16 to 25.06.16(66 days) due to generator excitation problem and its rectification.
- c) Capital Overhauling of Unit-I from 10.07.16 to 24.10.16(107 days).
- d) Only one feeder TTPS-PTPS transmission line available during period from 21.07.16 to 14.07.16 (54 days) due to collapsed of three no of towers of TTPS-Bihar Shariff feeder on dated 21.07.16.
- e) TTPS-Bihar Shariff transmission line kept under shut down



from 08.01.17 to 26.01.17(18 days) to raise the height of the towers either side of railway traction at location no.07 to 78.

- f) During above period only one unit was on load and other unit kept under shutdown due to restriction of load upto 200MW. (Maximum load bearing capacity of one transmission line).
- g) Unit-II kept under shutdown from 08.11.16 to 31.03.2017(145 days) due to damage of turbine and turbine bearings during TPF on 07.11.16.

FY 2017-18

- a) Unit-II continuously kept under shut down from 01.04.17 to 05.06.17(66 days) due to damage of turbine and turbine bearings during TPF on 07.11.16.
- b) Unit-I kept under shut down for 192 days and Unit-II kept under shut down for 75 days due to shortage of coal.

5.8 The Petitioner has also submitted reasons for low PLF for the period and not being able to achieve Commission approved PLF due to the following reasons:

- a) Due to the backing down of the plant and other uncontrollable factors there has been loss in Gross generation which is reflected in the actual numbers for Plant Load Factor (%) and Plant Availability Factor (%) during the Control Period.
- b) Actual plant load factor is low because of partial load operation and backing down. The petitioner also submits that frequent stop/start after reserve shutdown and running of units under backing down has affected the performance of the units.

Commission's Analysis

5.9 As per clause 8.4 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015, the normative availability allowable for the Power Plant for FY 2016-17 to FY 2020-21 is 85%, as



also approved by the Commission in the previous Tariff Order.

5.10 The Commission has scrutinized and verified the actual availability during FY 2016-17 to FY 2020-21 from SLDC certificates and accordingly approves a final availability of the plant vis-à-vis normative availability for the second control period as mentioned in table below:

Table 9 Plant availability factor(%) as approved by the Commission for FY17 to FY 21

Particulars	Petition					Approved				
	FY 17	FY 18	FY 19	FY 20	FY 21	FY 17	FY 18	FY 19	FY 20	FY 21
Actual PAF(%)	48.38%	65.04%	53.05%	69.12%	69.66%	48.39%	65.04%	53.05%	69.13%	69.66%
Normative PAF(%)	85%	85%	85%	85%	85%	85%	85%	85%	85%	85%

5.11 The Commission upon scrutinizing the documents and information submitted by the Petitioner finds that there is an ambiguity wrt the gross generation and the PLF considered for the period. The Commission has taken into consideration the gross generation as submitted by the Petitioner and has approved PLF for the second control period i.e. FY 2016-17 to FY 2020-21 as mentioned in table below:

Table 10 Plant Load Factor(%) as approved by the Commission for FY 2016-17 to FY 2020-21

Particulars	FY17	FY 18	FY19	FY 20	FY 21
PLF(%)	38.67%	52.51%	45.91%	65.54%	60.85%

Gross Generation

Petitioner's Submission

5.12 The Petitioner in its Tariff Petition has submitted that the actual gross generation for both units during FY 2016-17 to FY 2020-21 is as mentioned in table below:

Table 11 Gross Generation(MUs) submitted by the Petitioner for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Gross generation(MU)	1421	1935	1687	2422	2243

**Commissions Analysis**

5.13 The Commission upon scrutinizing and verifying the documents submitted by the Petitioner and considering the PLF as approved in para 5.11 above, approves gross generation of the plant for FY 2016-17 to FY 2020-21 as mentioned in the table below:

Table 12 Gross Generation(MUs) as approved by the Commission for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY 21
Gross Generation(MU)	1421.02	1935.38	1687.02	2422.13	2237.61

Auxiliary Consumption**Petitioner's Submission**

5.14 The Petitioner has submitted that the actual auxiliary consumption for both the units for FY 2016-17 to FY 2020-21 is mentioned in the table below:

Table 13 Auxiliary Consumption (%) as submitted by the Petitioner for FY 17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Auxiliary Consumption(%)	13.67%	13.08%	12.12%	11.94%	11.39%

5.15 The Petitioner has also submitted that the deviation from normative auxiliary consumption is due to frequent stop/start after reserve shutdown and running of units under backing down. During backing down, power generation is reduced, but most of the auxiliaries remains running at nearly full load, which results in an increase in actual auxiliary consumption. The Petitioner has also mentioned that, it is in constant endeavor to improve the auxiliary consumption to meet the values approved by the Hon'ble Commission.



Commission’s Analysis

5.16 Auxiliary consumption refers to the quantum of energy consumed by the auxiliary equipment of the generating station. Higher auxiliary consumption reduces the net generation of a generating station and leads to higher cost per unit of generation.

5.17 The Commission upon prudence check of the information and data submitted by the Petitioner and after due scrutiny of the documents placed before the Commission has found that the actual auxiliary consumption is higher than the values submitted by the Petitioner. The Commission has considered the gross generation as submitted by the Petitioner and the net energy exported to JBVNL for the period and has accordingly calculated and approved the auxiliary consumption which is mentioned in the table 14 below.

5.18 The Commission, refers to Regulation 8.4 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 which specifies norms for the auxiliary consumption for the Petitioner for FY 2016-17 to FY 2020-21 as 9.50%. Further, as per the said regulations auxiliary consumption is a “controllable parameter”. Therefore, Commission has considered the normative auxiliary consumption as 9.50% for calculation of energy charge rate for the respective year of the control period.

Table 14 Auxiliary Consumption(%) as approved by the Commission for FY17 to FY21

Particulars	Petition					Approved				
	FY17	FY18	FY19	FY20	FY21	FY17	FY18	FY19	FY20	FY21
Actual Auxiliary Consumption	13.67%	13.08%	12.12%	11.94%	11.39%	13.67%	13.08%	12.12%	11.94%	11.39%
Normative Auxiliary Consumption	-	-	-	-		9.50%	9.50%	9.50%	9.50%	9.50%



Net Generation

Petitioner's Submission

5.19 The Petitioner has submitted the net generation of the plant for FY 2016-17 to FY 2020-21 as mentioned in the table below:

Table 15 Net Generation(MUs) as submitted by the Petitioner for FY 17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Net Generation(MU)	1226.67	1682.13	1482.46	2132.82	1982.82

Commission's Analysis

5.20 The Commission, after scrutiny of the documents, finds a difference in the values of net generation wrt to the data submitted by the Petitioner and as per the actual net energy exported to JBVNL for the period. The Commission upon prudence check of the documents has considered the net energy exported to JBVNL as the net generation of TVNL for FY 2016-17 to FY 2020-21 and approves net generation as mentioned in the table below:

Table 16 Net Generation(MU) as approved by the Commission for FY 2016-17 to FY 2020-21

Particulars	FY17	FY18	FY19	FY20	FY21
Net Generation(MU)	1216.55	1672.00	1472.25	2122.73	1972.6

Station Heat Rate

Petitioner's Submission

5.21 The Petitioner has submitted the actual Station heat rate for the second control period i.e. FY 2016-17 to FY 2020-21 as mentioned in the table below:

Table 17 Station Heat Rate (kcal/kWh) as submitted by the Petitioner for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Station Heat Rate(kcal/kWh)	2795.41	2691.16	2709.18	2609.72	2696.24

5.22 The Petitioner has also submitted that over the years it has taken several measures to improve its Station Heat Rate. The Station Heat Rate has



been improved from 2795.41 kCal/kWh in FY 2016-17 to 2696.24 kcal/kWh in FY 2020-21.

Commissions Analysis

5.23 The Commission has specified the norms of operation for the two Units of TVNL in the clause 8.4 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015. As already noted by the Commission in its MYT Order dated February 28th ,2020, the norms of operation were fixed by the Commission after study of the past performance for each plant in the state and as per the data made available by the Generating companies including the two units of the Petitioner. Before finalization of the norms, the Commission had also conducted a public hearing in which all the stakeholders, including the Petitioner, participated. The Commission after due deliberation has finalized the Regulations.

5.24 The Regulations have been notified accordingly and the norms of operation are applicable and binding on each of the generation plants covered under the Regulations. Accordingly, the Commission does not find any merit in allowing relaxation of the norms fixed for SHR in the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015.

5.25 The Station Heat Rate as approved by the Commission for the two units of TVNL in the MYT order dated 28.02.2020 for the second control period is given in the table below:

Table 18 Station Heat Rate(kcal/kWh) as approved in the MYT order dated 28.02.2020

Particulars	FY17	FY18	FY19	FY20	FY21
Station Heat Rate(kcal/kWh)	3043	2908	2773	2638	2503

5.26 However, the Commission has observed that in certain years of the second control period, the station heat rate is lower than the values



approved in its MYT order dated February 28, 2020. Consequently, the Commission has approved the station heat rate for the second control period as detailed in the table below:

Table 19 Station Heat Rate(kcal/kWh) as approved by the Commission for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Station Heat Rate(kcal/kWh)	2795.41	2691.16	2709.18	2609.72	2503.00

Secondary Fuel Oil Consumption

Petitioners Submission

5.27 The Petitioner has submitted secondary fuel oil consumption for FY 2016-17 to FY 2020-21 as mentioned in table below:

Table 20 Secondary fuel oil consumption(ml/kWh) as submitted by the Petitioner for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Secondary fuel consumption(ml/kWh)	4.21	2.01	1.80	1.06	1.04

5.28 The Petitioner further stressed the fact, that from the actual values of specific oil consumption for the Second control period of FY 2016-17 to FY 2020-21, it is evident that the Petitioner is in constant endeavor to improve its specific oil consumption which has improved significantly from 4.21 ml/kWh in FY 2016-17 to 1.04ml/kWh in FY 2020-21 because of various R&M works undertaken during the period.

5.29 The Petitioner has also submitted that historically the actual specific oil consumption for TVNL has been in the range of 2-3 ml/kWh. Due to the works carried out under R&M, TVNL has been able to achieve a specific oil consumption of 1.04ml/kWh in FY 2020-21 which is a considerable improvement.

5.30 The petitioner has also submitted precedence of other similar aged profile plants in other states having specific consumption of around 2.0 ml/kWh



– 3.5 ml/kWh and has been approved by the respective Hon'ble Commissions.

5.31 The Petitioner has further submitted that it has been able to recover lesser cost of secondary fuel oil due to this norm and hence it requests relaxation of at least 2.0 ml/kWh i.e. in line with precedence for similar profile power plants in the country.

Commissions Analysis

5.32 The Commission has referred to clause 6.11 to 6.12 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 which specifies as:

“6.11 The Commission shall set targets for each year of the Control Period for the items or parameters that are deemed to be “controllable” and which includes:

(a) Gross Station Heat Rate;

(b) Normative Annual Plant Availability Factor;

(c) Auxiliary Energy Consumption;

(d) Secondary Fuel Oil Consumption;

(e) Operation and Maintenance Expenses;

(f) Financing Cost which includes cost of debt (interest), cost of equity (return); and

(g) Depreciation.

6.12 Any financial loss on account of underperformance on targets for parameters specified in clause 6.11 (a) to (e) of these Regulations is not recoverable through tariffs. Similarly, any financial gain on account of over-performance with respect to these parameters is to the Generating Company's benefit and shall not be adjusted in tariffs”.

5.33 The Commission, upon verifying the secondary fuel oil consumption submitted by the Petitioner in the table 20 above, finds it to be higher than the norm of 1ml/kWh as specified in clause 8.4 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015

and also as approved in MYT order for the control period by the Commission.

- 5.34 Clause 6.11 read with clause 6.12 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2010 clearly specifies that any financial loss on account of underperformance on targets of Secondary Fuel Oil consumption is not recoverable through tariffs. Accordingly, the Commission approves the normative specific oil consumption for the second control period as mentioned in the table below:

Table 21 Secondary fuel oil consumption (ml/kWh) as approved by the Commission for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Secondary fuel oil consumption(ml/kWh)	1.00	1.00	1.00	1.00	1.00

Gross Calorific Value(GCV) of Primary and Secondary Fuel

Petitioners Submission

- 5.35 The gross calorific value of coal and secondary fuel as submitted by the Petitioner for the second control period i.e. FY 2016-17 to FY 2020-21 is mentioned in table below:

Table 22: Gross Calorific Value of Primary fuel(kCal/kg) & Secondary Fuel(kCal/ltr) as submitted by the Petitioner for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
GCV of Primary Fuel(kCal/kg)	3642.95	3654.62	3684.71	3681.46	3774.89
GCV of Secondary Fuel(kCal/Ltr)	9359	9359	9359	9359	9359

Commissions Analysis

- 5.36 Calorific value of a fuel refers to the amount of heat released on burning of one unit of the fuel. Thus, a higher GCV indicates better quality of fuel and also lowers fuel cost, since it lowers the consumption of fuel needed for producing the required amount of energy.

- 5.37 The Commission had directed the Petitioner to submit information on

consumption and GCV of coal and secondary fuel oil for the second control period i.e. FY 2016-17 to FY 2020-21 as a part of additional data requirements during the process of initial scrutiny of the Petition.

5.38 The Commission, upon prudence check of the documents submitted by the Petitioner, has analyzed month wise coal quantity and GCV as fired data submitted by the Petitioner and accordingly approves the GCV of coal for the second control period i.e. FY 2016-17 to FY 2020-21 as mentioned in table below:

Table 23 Gross Calorific value(kcal/kg) of primary fuel as approved by the Commission for FY17 to FY21.

Particulars	FY17	FY18	FY19	FY20	FY21
GCV of Primary fuel(kCal/kg)	3642.90	3652.42	3684.71	3691.75	3782.63

5.39 The Commission, upon prudence check of the information's submitted by the Petitioner has found that the Petitioner has not submitted the actual GCV of the secondary fuel. In its place, it has submitted the GCV value of secondary fuel as 9359 kCal/ltr as approved in MYT order. The Commission has taken note of the same and has approved the GCV of secondary fuel for the second control period i.e. FY 2016-17 to FY 2020-21 as mentioned in the table below:

Table 24 GCV of secondary fuel(kcal/ltr) as approved by the Commission for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
GCV of Secondary fuel(kCal/ltr)	9359	9359	9359	9359	9359

Cost of Primary Fuel

Petitioners Submission

5.40 The Petitioner has submitted the actual cost of primary fuel for the second control period i.e. FY 2016-17 to FY 2020-21 as mentioned below:



Table 25: Cost of Primary Fuel(Rs./MT) as submitted by Petitioner for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Cost of Primary Fuel(Rs./MT)	2542.81	2718.10	3170.11	3370.36	3346.05

Commissions Analysis

5.41 The Commission, upon scrutinizing and analyzing the documents submitted by the Petitioner, and also upon verification of the figures as per audited accounts, approves the cost of primary fuel for the second control period as follows:

Table 26 Cost of Primary Fuel (Rs./MT) as approved by the Commission for FY 17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Cost of Primary Fuel(Rs./MT)	2507.61	2718.10	3170.11	3370.36	3346.05

Cost of Secondary Fuel Oil

Petitioners Submission

5.42 The Petitioner has made the following submissions with respect to the cost of secondary fuel for the period FY 2016-17 to FY 2020-21 as mentioned in the table below:

Table 27 Cost of Secondary fuel oil(Rs.Cr) as submitted by the Petitioner for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Gross Generation(MU)	1421	1935	1687	2422	2244
Sp.Oil Consumption(ml/kWh)	4.21	2.01	1.80	1.06	1.04
Cost of secondary fuel(Rs/Kltr)	41428.36	44626.30	54832.05	53758.53	39515
Oil Consumption(KL)	5976.3	3884.1	3039.8	2560.1	2331.1
Total Cost of oil(Rs.Cr)	24.76	17.33	16.67	13.76	9.21

Commission's Analysis

5.43 The Commission, upon scrutinizing and verifying the documents submitted by the Petitioner and considering the specific fuel consumption as approved in table no 21 above hereby approves the cost of secondary fuel for FY 2016-17 to FY 2020-21 as given in the table below:



Table 28 Cost of Secondary fuel oil(Rs/Kltr) as approved by the Commission for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Gross Generation(MU)	1421.02	1935.38	1687.02	2422.13	2237.61
Sp.Oil Consumption(ml/kWh)	1	1	1	1	1
Cost of Secondary fuel(Rs/Kltr)	41428.36	44626.30	54832.05	53758.53	39515
Oil Consumption(KL)	1420.91	1935.38	1687.02	2422.13	2237.61
Total Cost of oil(Rs.Cr)	5.89	8.64	9.25	13.02	8.84

Transit Loss

Petitioners Submission

5.44 The Petitioner had initially submitted a transit loss for the second control period as mentioned in table below:

Table 29 Transit loss(%) as submitted by the Petitioner for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Transit Loss(%)	0.2%	0.2%	0.2%	0.2%	0.2%

5.45 However, the Petitioner vide letter No. Ref 486/24-25 dated 06.08.24 has submitted before the Commission that there has been an inadvertent error by the Petitioner in submission of transit loss which should have been 0.8%.

5.46 The Petitioner has stated that the MGR for Tenughat has been commissioned and is operational from 28.10.2015 and TVNL has been procuring coal through railways from CCL mines located at distance of more than 50km and hence the transit loss (%) should be considered as 0.8% for non-pit head generating stations.

5.47 The Petitioner has also referred to clause 8.21 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 which stated as follows:

“.....

Provided that in case of pit head stations if coal or lignite is procured from



sources other than the pit head mines which is transported to the station through rail, transit loss of 0.8% shall be applicable:”

Commissions Analysis

5.48 The Commission is aware of the fact that the Petitioner is a pit head generating station and has allowed a transit loss of 0.2% in the first control period as per has referred to clause 8.19 of the Generation Tariff Regulations 2010.

5.49 The Commission has also referred to MYT order dated 28th February 2020 wherein the Commission has allowed a transit loss of 0.2% for FY 2016-17 to FY 2020-21.

5.50 However as per submission of the Petitioner for second control period the Petitioner has stated that inspite of being a pit head generating station it had procured coal from other sources through rail which qualifies the Petitioner for claiming a transit loss of 0.8 % as also referred in clause 8.21 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulation 2015 as referred below:

“.....

Pithead generating stations: 0.2%

Non-pithead generating stations: 0.8%

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

5.51 The Petitioner vide letter Ref:486/24-25 dated 06.08.2024 had submitted that it had procured coal from CCL coal mines through rail located at a distance of more than 50km. The Commission has taken a note of the of the submission made by the Petitioner and has verified the documents submitted and in accordance with clause 8.21 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 allows the transit loss for FY 2016-17 to FY 2020-21 as given in the table



TVNL - Order on True-up for FY 2016-17 to FY 2020-21

below:

Table 30 Transit loss(%) as approved by the Commission for FY17 to FY21

Particulars	FY 17	FY18	FY19	FY20	FY 21
Transit Loss(%)	0.8%	0.8%	0.8%	0.8%	0.8%



Summary of Plant Parameters & Fuel Cost Determinants as approved by the Commission for FY 2016-17 to FY 2020-21

5.52 The Petitioner, during the Public Hearing held on 10.09.2024 at Hotel Jade Square, Ranchi, stated that an inadvertent mistake was made by not including the secondary fuel cost in the ECR calculation. The Petitioner has corrected this error and submitted a revised ECR, now accounting for the secondary fuel cost.

5.53 The Commission has taken note of the Petitioner's submission and accordingly approves the Energy Charge Rate (ECR) of the plant for the second control period, i.e., FY 2016-17 to FY 2020-21, in accordance with the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015, along with the approved parameters mentioned above. The approved ECR is provided in the table below:

Table 31 Approved Energy Charge Rate(Rs./kWh) for the second control period i.e. FY 2016-17 to FY 2020-21

Particulars	FY17			FY18			FY19			FY20			FY21		
	MYT	Petn	App	MYT	Petn	App	MYT	Petn	App	MYT	Petn	App	MYT	Petn	App
Capacity(MW)	420	420	420	420	420	420	420	420	420	420	420	420	420	420	420
PAF(%)	85	48.38	48.39	85	65.04	65.04	85	53.05	53.05	85	69.12	69.13	85	69.66	69.66
PLF(%)	85	38.62	38.67	85	52.60	52.51	85	45.85	45.91	85	65.65	65.54	85	60.82	60.85
Gross Generation (MU)	3127	1421	1420.91	3127	1935	1935.38	3127	1687	1687.02	3127	2422	2422.13	3127	2237	2237.61
Auxiliary Consumption (%)	9.50	13.67	9.5	9.50	13.08	9.5	9.50	12.12	9.5	9.50	11.94	9.5	9.50	11.39	9.5

TVNL - Order on True-up for FY 2016-17 to FY 2020-21



Particulars	FY17			FY18			FY19			FY20			FY21		
	MYT	Petn	App	MYT	Petn	App	MYT	Petn	App	MYT	Petn	App	MYT	Petn	App
Net Generation (MU)	2830	1227	1216.55	2830	1682	1672	2830	1482	1472.25	2830	2133	2122.73	2830	1983	1972.6
Station Heat Rate (kcal/kWh)	3043	2795	2795.41	2908	2691	2691.16	2773	2709	2709.18	2638	2610	2609.72	2503	2696	2503
Specific oil consumption (ml/kWh)	1	4.21	1	1	2.01	1	1	1.80	1	1	1.06	1	1	1.04	1
GCV of Coal(kcal/kg)	3615.24	3643	3642.90	3615.24	3655	3642.42	3615.24	3685	3684.71	3615.24	3681	3691.75	3615.24	3775	3782.63
Transit Loss(%)	0.2	0.8	0.8	0.2	0.8	0.8	0.2	0.8	0.8	0.2	0.8	0.8	0.2	0.8	0.8
Cost of Coal (Rs/MT)	2458.18	2543	2507.61	2458.18	2718	2718.1	2458.18	3170	3170.11	2458.18	3370	3370.36	2458.18	3346	3346.05
Total Cost of Coal (Rs.Cr)	-	276	274.68	-	388	389.35	-	3914	394.99	-	577.63	579.61	-	535.40	497.53
Cost of Oil(Rs/Kl)	-	41428	41428.36	-	44626	44626.30	-	54832	54832.05	-	53759	53758.53	-	39515	39515
Total cost of Oil(Rs.Cr)	-	24.76	5.89	-	17.33	8.64	-	16.67	9.25	-	13.76	13.02	-	9.21	8.84
Energy Charge Rate (Rs/kWh)	2.324	2.45	2.306	2.222	2.41	2.380	2.120	2.77	2.746	2.019	2.79	2.792	1.917	2.76	2.567

***MYT: Values approved in MYT order dated 28.02.2020**

Petn: Values filed by the Petitioner

App: Values approved by the Commission.



Determination of Fixed Cost

Capital Investment and additional capitalization

Petitioners Submission

5.54 The Petitioner has carried out various capitalization and has submitted addition in gross fixed asset for the second control period as given in the table below:

Table 32 Gross Fixed Asset (RsCr) as submitted by the Petitioner for FY17 to FY21

Particulars	FY17	FY18	FY19	FY20	FY21
Opening GFA	1493	1551.21	1562.45	1566.53	1567.57
Addition	58.21	11.24	4.08	1.05	4.12
Closing GFA	1551.21	1562.45	1566.53	1567.57	1571.70

Commissions Analysis

5.55 The Commission has referred to clause 6.6 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 wherein provision of capital investment plan has been stated as cited below:

“6.6.....

(a) Capital Investment Plan: This shall include details of the investments planned by the Generating Company, along with the corresponding capitalization schedule and financing plan. This plan shall be commensurate with capacity enhancement and proposed efficiency improvements for various plants of the Company and shall include cost benefit analysis;

5.56 The Commission has further referred to MYT order for the second control period i.e. for FY 2016-17 to FY2020-21 dated 28.02.2020 wherein the Commission had not approved any capital expenditure however had given the Petitioner the liberty to carry out capital expenditure and submit the detailed expense along with supporting documents, cost benefit analysis etc. during submission of True up petitions. The relevant extract from the order is referred below:



“7.46 The Petitioner had submitted the capital investment plan along with the Petition. The Commission had directed the Petitioner to submit specific details on the capital expenditure proposed in the petition. The details should include specific head (land, building, P&M etc.), costs to be incurred, justification etc. duly certified by statutory auditors. The Petitioner was directed to submit detailed DPRs, Cost Benefit Analysis, assumptions considered for cost benefit analysis and impact on tariff with justifications which highlight the need for the investment.

7.47 However, the Petitioner in its reply to the discrepancy did not submit any cost benefit analysis, detailed justifications etc. Also, due to delay on the part of the Petitioner in submitting audited accounts of FY 2014-15, the process of tariff determination got delayed and as of issue of this order, FY 20 is nearing closure. The Commission has decided not to approve any estimated capital expenditure now as submitted by the Petitioner.

7.48 However, the Commission gives liberty to the Petitioner to submit the detailed capital expenditure as incurred along with supporting documents, cost benefit analysis etc. along with the True-up Petition of the respective years supported by audited accounts and detailed justification. The Commission will review the details of the capital expenditure and capitalization in its accounts and after a prudence check, will take a decision for allowing capital expenditure in the control period.

7.49 Due to the reasons given above, the Commission has not approved any capital expenditure.”

5.57 The Commission upon scrutinizing the documents has found that the Petitioner has carried out additional capitalization during the second control period as referred in the table below:

Table 33 Addition in GFA as submitted by the Petitioner for FY 17 to FY 21(Rs.Cr)

Particulars	FY17	FY18	FY19	FY20	FY21
Additional Capitalization(Rs.Cr)	58.21	11.24	4.08	1.05	4.12



- 5.58 The Commission on multiple occasions vide letter no JSERC/Case(Tariff)No.06 of 2024/139 dated 12.06.2024 and JSERC/Case(Tariff)No.06 of 2024/269 dated 16.08.2024 had sought details from the Petitioner regarding cost benefit analysis, reasons for capitalization etc however the Petitioner in both the occasions did not provide any detailed justification on the capitalization carried out during the second control period however had submitted audited accounts verifying the same.
- 5.59 The Commission has taken serious note of the Petitioner's non-compliance in providing the necessary details sought by the Commission. The Commission would like to emphasize that, in accordance with the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015, the Petitioner is required to submit a detailed justification for the proposed activities or capitalization for each year of the control period. This submission must include supporting documents that demonstrate capacity enhancement, proposed efficiency improvements for the Company's various plants, and a comprehensive cost-benefit analysis.
- 5.60 The Commission has however verified the audited accounts and has found to be in line with the submission made by the Petitioner. Accordingly, the Commission approves the additional capitalization made by the Petitioner for the second control period.
- 5.61 However, the Commission directs the Petitioner to submit a detailed cost-benefit analysis, along with supporting documents, for all proposed schemes, including capitalization schedule for all future petitions of the Petitioner. The Commission would also like stress the fact that failure to provide these details may result in non-approval by the Commission for the additional capitalization.



5.62 In accordance with the audited accounts submitted by the Petitioner, the Commission approves the additional capitalization and has adopted the 70:30 debt-to-equity ratio for the additional capitalization during the second control period, as detailed in the table below:

Table 34 Additional Capitalization as approved by the Commission for FY 2016-17 to FY2020-21(Rs.Cr)

Particulars	FY17	FY18	FY19	FY20	FY21
Opening GFA	1493	1551.21	1562.45	1566.53	1567.57
Addition	58.21	11.24	4.08	1.05	4.12
Closing GFA	1551.21	1562.45	1566.53	1567.57	1571.70
Addition in debt(70%)	40.74	7.87	2.86	0.73	2.89
Addition in Equity(30%)	17.46	3.37	1.22	0.31	1.24

Operation & Maintenance Expense

Petitioners Submission

5.63 The Petitioner has submitted the details of the O&M Expenses divided into A&G Expenses, R&M Expenses and Employee Expenses and has claimed as per approved in MYT order.

5.64 The Petitioner has clarified that employee expenses as submitted, consists of salaries, overtime allowance, leave salary and expenses for staff & officers' welfare.

5.65 The Petitioner has also clarified that repair and maintenance as submitted, is meant for the up keep 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 has infused certain amount 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 makes necessary expenditure on R&M activities.

5.66 The Petitioner has also mentioned about administrative and general



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

5.67 The Petitioner has submitted the O&M Expenses for FY 2016-17 to FY 2020-21 as below:

Table 35: O&M Expense (Rs. Cr) as submitted by the Petitioner for the second control period i.e. FY 2016-17 to FY 2020-21

Particulars	FY 17	FY18	FY19	FY20	FY21
Employee Expense	92.73	68.70	64.03	135.68	92.25
A&G Expense	86.28	109.96	83.52	71.28	61.13
R&M Expense	20.03	20.06	20.50	22.36	33.27
Total (Rs. Cr)	199.00	198.70	168.00	229.30	186.60

Commissions Analysis

5.68 The Commission has referred to clause 7.40 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 which specifies the O&M expenses as cited below:

“Operation and Maintenance (O&M) expenses

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

- (a) Salaries, wages, pension contribution and other employee costs;*
- (b) Administrative and General costs;*
- (c) Repairs and maintenance expenses; and*
- (d) Other miscellaneous expenses statutory levies and taxes (except corporate income tax).”*

5.69 The Commission has also referred to clause 6.11 to clause 6.15 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 which highlights performance targets to be specified by the Commissions for the controllable parameters along with necessary provisions for adjustment of financial loss/gains on account of under-performance or over performance for the specified targets. The relevant details is cited below:

“Performance Targets

6.11 The Commission shall set targets for each year of the Control Period for



the items or parameters that are deemed to be “controllable” and which includes:

- (a) Gross Station Heat Rate;*
- (b) Normative Annual Plant Availability Factor*
- (c) Auxiliary Energy Consumption;*
- (d) Secondary Fuel Oil Consumption;*
- (e) Operation and maintenance Expenses;*
- (f) Financing cost which includes cost of debt (interest) ,cost of equity (return); and*
- (g) Depreciation*

6.12 Any financial loss on account of underperformance on targets for parameters specified in clause 6.11 (a) to (e) of these Regulations is not recoverable through tariffs. Similarly, any financial gain on account of over-performance with respect to these parameters is to the Generating Company’s benefit and shall not be adjusted in Tariffs.

6.13 The Commission shall carry out truing up of tariff of generating station based on the performance of following Uncontrollable parameters:

- (a) Force Majeure;*
- (b) Change in Law; and*
- (c) Primary Fuel Cost.*

True up during Control Period

6.14 The true up across various controllable parameters shall be conducted as per principles stated below: -

(a) During the control period, the Commission shall undertake true up of parameters except those mentioned in point(b) below in accordance with Clauses 14.1 to 14.3 of this Regulation;

(b) Any surplus and deficit on account of O&M expenses shall be to the account of the generating company and shall not be trued up in ARR. The Commission shall also not undertake true up of actual capital cost incurred vis-à-vis target as well as related depreciation and financing cost during the control period;

(c) at the end of the control period –

i..the Commission shall review actual capital investment vis-à-vis approved capital investment.



ii. Depreciation and financing cost, which includes cost of debt including working capital (interest), cost of equity (return) shall be trued up on the basis of audited/authenticated information and prudence check by the Commission.

6.15 Notwithstanding anything contained in these Regulations, the gains or losses in the controllable items of ARR on account of force majeure factors shall be passed on as an additional charge or rebate in ARR over such period as may be laid down in the order of the Commission.

- 5.70 Based on the above reference of the Regulation, it is clear that O&M expenses are classified as controllable parameters. Therefore, the Petitioner is expected to make every effort to keep these expenses within the targets set by the Commission. For the financial years 2016-17 to 2020-21, the Commission has noted a significant increase in O&M expenses, particularly in relation to employee costs and repair and maintenance (R&M) expenses.
- 5.71 The Commission vide data gap reply had asked the Petitioner giving detailed justification for the increase to which the Petitioner stated that the increase in employee expense during the second control period was due to revision of pay scale/pay structure on the recommendations of the 7th Central Pay Commission with effect from 01.01.2016.
- 5.72 Furthermore, for the R&M expense the petitioner has stated that it has claimed R&M expenses based on values provided in Note:22(General, Administrative and other Expenses) in the audited accounts.
- 5.73 The Commission, after scrutinizing the information's submitted by the Petitioner, finds that the Petitioner has claimed employee expense, repair & maintenance expense and administrative and general expense as per audited accounts.
- 5.74 The Commission however is of the opinion that since O&M expense are controllable in nature hence the Petitioner should make all effort to keep

it within the specified limit set by the Commission. Hence the Commission upon verifying the audited accounts and after giving due diligence on the submission of the Petitioner and the methodology adopted in earlier orders approves O&M expense for the year FY 2016-17 to FY 2020-21 as given below:

Table 36 :O&M Expense (Rs.Cr) approved by the Commission for the second control period i.e. FY 2016-17 to FY 2020-21

Particulars	FY17		FY 18		FY19		FY20		FY21	
	Petn	App	Petn	App	Petn	App	Petn	App	Petn	App
Employee Expense	52.37	43.18	54.43	45.90	59.46	48.79	88.61	51.86	59.56	55.13
Terminal Liabilities	40.37	40.37	14.27	14.27	4.58	4.58	47.07	47.07	32.68	32.68
A&G Expense	20.03	17.13	20.06	18.21	20.50	19.36	22.36	20.58	33.27	21.88
R&M Expense	86.28	45.81	109.96	48.69	83.52	51.76	71.28	55.02	61.13	58.49
Total	199.05	146.49	198.72	127.07	168.06	124.49	229.32	174.52	186.64	168.18

- Petn: As submitted by the Petitioner in True Up petition
- App: As approved by the Commission for the True Up petition.

Depreciation

Petitioners Submission

5.75 The Petitioner has submitted depreciation expenses for the second control period i.e. FY 2016-17 to FY 2020-21 as mentioned in below table:

Table 37: Depreciation(Rs.Cr) as submitted by the Petitioner for FY 2016-17 to FY 2020-21(Rs.Cr)

Particulars	FY17	FY18	FY19	FY20	FY21
Depreciation(Rs.Cr)	17.65	16.37	24.83	9.82	9.50

5.76 The Petitioner has submitted that the depreciation for the Second control period of FY 2016-17 to FY 2020-21 has been computed based on the asset classification, cost of acquisition and additional capitalization of assets during the Control Period.

Commissions Analysis

5.77 The Commission has referred to clause 7.28 and clause 7.29 of the



JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 which specifies:

“Depreciation

7.28 Depreciation shall be calculated for each year of the tariff period, on the amount of Capital Cost of the assets admitted by the Commission; Provided that depreciation shall not be allowed on assets funded by any capital subsidy / grant.

7.29 The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset. Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site:”

5.78 The Commission has reviewed the depreciation details submitted by the Petitioner and has also checked the audited accounts of FY 2016-17 to FY 2020-21. The Auditor has specifically highlighted the following in the audited accounts under note 9:

“The company has not conducted the physical verification of Fixed Assets as well as technical review of the physical damage during the year. As such the company is unable to identify the impairment if any .”

5.79 Since, there is no verification and reconciliation of the Fixed assets, the Commission is not inclined to accept the Fixed Asset schedule submitted by the Petitioner along with the Petition.

5.80 The Commission reviewed the methodology adopted for the calculation of depreciation in the audited accounts. The following is mentioned in the audited accounts of FY 2016-17 to FY 2020-21 under heading H as follows:

a. Depreciation is charged on straight line method as per rates prescribed by Government of India, Department of Power, New Delhi vide notification No. S.O. 93 E, dated 23.01.1992 [as amended by Notification No. 151 dated 29.03.1994 & L-7/25(5)/2003- CERC dated 26th of March 2004], and 2nd amendment by Central Electricity Regulatory Commission, New Delhi vide



TVNL - Order on True-up for FY 2016-17 to FY 2020-21

Notification No. 7/145(160)/2008-CERC dated 19th January 2009 and same has been notified by the JSERC vide notification no. 590, JSERC (Terms and Condition of Determination of generation tariff) Regulation, 2010 dated 27th Oct 2010, issued under the Electricity (Supply) Act, 2003 which are applicable to the generating stations.

- b. The assets capitalized/purchased before 31.03.2004 has been depreciated fully and salvage value has been taken as Re 1/- as per Notification No. 5.0. 93(E), dated 23.01.1992 Assets purchased on or after 01.04.2004 has been depreciated upto 90% as per amended Notification No. 151 dated 29.03.1994 & L-7/25(5)/2003-CERC dated 26th of March 2004 .Further assets purchased/capitalized on or after 01.11.2010 is being depreciated up to 70% at prescribed rate and balance 20% after keeping 10% salvage value is charged in equal installment for remaining life of the assets as per Notification No. 590, JSERC (Terms and Condition of Determination of generation tariff) Regulation, 2010 dated 27th Oct 2010.
- c. In respect of assets, where rate has not been prescribed under the aforesaid Act, depreciation is provided on straight line method as per rates prescribed under the Companies Act, 2013.
- d. Depreciation on fixed assets is provided from the year following the year in which the assets become available for use.

5.81 As per the above paragraph it is evident that the value of depreciation mentioned in the audited accounts is as per the Regulation.

5.82 Hence for the second control period, i.e. FY 2016-17 to FY 2020-21, the Commission approves the depreciation as per audited accounts as submitted by the Petitioner which is mentioned in the table below:

Table 38 Depreciation(Rs.Cr) as approved by the Commission for FY 2016-17 to FY 2020-21

Particulars	FY17	FY18	FY19	FY20	FY21
Depreciation (Rs.Cr)	17.65	16.37	24.83	9.82	9.50



Interest on Debt

Petitioners Submission

5.83 The Petitioner has submitted the interest & finance charges for the second control period i.e. FY 2016-17 to FY 2020-21 as per below table:

Table 39: Interest on loan(Rs.Cr) as submitted by the Petitioner for FY 2016-17 to FY 2020-21

Particulars	FY17	FY18	FY19	FY20	FY21
Interest on Loan(Rs.Cr)	103.20	103.22	101.10	103.22	103.22

5.84 The Petitioner has also submitted 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 2016, JBVNL owes TVNL cumulative dues of Rupees Three Thousand Eighty-Two Crores Seventy-One Lakhs only i.e., INR 3,082.71 Crores. Due to late payment of dues by JBVNL to TVNL, debt could not be serviced timely in the past and hence in the Second control period of FY 2016-17 to FY 2020-21 TVNL had to pay penalties along with the Interest on Loan.

5.85 The Petitioner has requested the Commission to approve the actual interest on loan as highlighted in table above which is based on audited accounts.

Commissions Analysis

5.86 The Commission has referred to clause 7.20 and 7.21 of the generation Tariff Regulation 2015 which specifies as follows:

“Interest and Finance Charges

.....

7.20 The normative loan outstanding as on 1st April 2016 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31st March 2016 from the gross normative loan

7.21 The repayment for any year during the Tariff Period shall be deemed to be equal to the depreciation allowed for that Year.”



5.87 The Commission, upon prudence check of the audited accounts, finds that the Petitioner had availed loan from Government of Jharkhand, Government of Bihar and had liability to vendors of BSEB all of which had been included under long term borrowing.

5.88 The Commission, upon scrutiny of the audited accounts under note:4 long term borrowing has referred to the comments specified by the auditor as mentioned below:

- *The Govt. of Jharkhand had Sanctioned a sum of Rs. 27 crores for completion of balance work of MGR Systems, which was paid in 3 installments and a sum of Rs. 30 crores for capital overhauling of TTPS Plant, which was paid in 2 installments. The rate of interest on loan & penal interest was 13% and 2.5% respectively. The loan was repayable in 10 equal instalments; however, the installment payments is pending since its due date. MGR system has already been capitalized on 27.06.2014*
- *The Govt. of undivided Bihar had Sanctioned a sum of Rs. 608 crores for construction of 2 x 210 MW TTPS Units which was paid in 28 instalments. The rate of interest on loan & penal interest was 13% and 2.5% respectively. The loan was repayable in 10 equal installments; however, the instalment payments is pending since its due date.*
- *The expenditures incurred prior to 01.04.1988 by the Bihar State Electricity Board and transferred to TVNL amounting to Rs.168.40 crores have been shown as BSEB Vendor's Account under Unsecured Loans. Interest has not been provided on BSEB vendors Account.*

5.89 As per the above paragraph it is evident that the installment of payment of loans as availed by TVNL has been pending since their due date i.e. no payment has been made in this regard. The provision for interest on the above loans is made at interest rate of 13%. Also, a provision for penal interest at 2.5% is kept in the accounts.

5.90 Since, no installments have been paid as per the audited accounts, the Commission has not approved the entire interest value as claimed by the

Petitioner at the interest rate of 13%.

5.91 As the Petitioner has not made any payment on its actual loan hence the Commission for the True-up of FY 2016-17 to FY 2020-21 is following the approach taken in the previous tariff order and is approving the interest on loan on normative basis with rate of interest @13% as approved in MYT Tariff order dated 28.02.2020.

5.92 The repayment of loan is being considered to the depreciation approved for the respective years. The Interest on loan approved by the Commission is given in the table below:

Table 40 Interest on Loan(Rs.Cr) as approved by the Commission for FY 2016-17 to FY 2020-21

Particulars	FY17	FY18	FY19	FY20	FY21
Opening Balance	413.88	436.97	428.47	406.49	397.40
Addition	40.74	7.87	2.86	0.73	2.89
Repayment	17.65	16.37	24.83	9.82	9.50
Closing Balance	436.97	428.47	406.49	397.40	390.79
Average Loan	425.43	432.72	417.48	401.95	394.10
Rate of Interest	13.00%	13.00%	13.00%	13.00%	13.00%
Interest Amount(Rs.Cr)	55.31	56.97	54.27	52.25	51.23

Return on Equity

Petitioners Submission

5.93 The Petitioner has submitted return on equity for the second control period i.e. FY 2016-17 to FY 2020-21 as per details mentioned in table below:

Table 41 Return on Equity(Rs.Cr) as submitted by the Petitioner for FY 2016-17 to FY 2020-21

Particulars	FY17	FY18	FY19	FY20	FY21
Return on Equity(Rs.Cr)	33.20	34.81	35.17	35.29	35.41

5.94 The Petitioner has also submitted that since there is no income tax paid by the petitioner during the Second control period of FY 2016-17 to FY 2020-21 hence the post-tax rate of equity has been considered.



Commissions Analysis

5.95 The Commission has referred to clause 7.15 to clause 7.18 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 which specifies provisions on Return on Equity wherein return on equity for thermal generating station shall be computed on pre-tax basis at base rate of 15.50%. Moreover, the RoE shall be computed by grossing up the base rate with the normal applicable tax rate for the Financial year.

5.96 The Commission has considered the addition in equity wrt the approved capitalization, as outlined in Table 34 of this order. In accordance with the regulatory provisions and considering the Petitioner's submission that no tax has been paid, the Commission approves the Return on Equity after examining and verifying the documents provided by the Petitioner, as detailed in the table below:

Table 42 ROE(Rs.Cr) as approved by the Commission for FY 2016-17 to FY 2020-21

Particulars	FY17	FY18	FY 19	FY20	FY21
Opening Balance	205.44	222.90	226.27	227.50	227.81
Addition	17.46	3.37	1.22	0.31	1.24
Closing Balance	222.90	226.27	227.50	227.81	229.05
Average	214.17	224.59	226.89	227.65	228.43
Rate of Equity	15.50%	15.50%	15.50%	15.50%	15.50%
ROE(Rs.Cr)	33.20	34.81	35.17	35.29	35.41

Interest on Working Capital

Petitioners Submission

5.97 The Petitioner while computing the working capital and Interest thereon as per the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 has considered the working capital as the sum of the following:

- a) *Cost of coal or lignite and limestone towards stock, if applicable, for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative*



TVNL - Order on True-up for FY 2016-17 to FY 2020-21

annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;

- b) Cost of coal or lignite and limestone for 30 days for generation corresponding to normative annual plant availability factor;
- c) 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;
- d) Maintenance spares @ 20% of Operation and maintenance expenses specified in clauses 7.40 to 7.48 of these regulations;
- e) Operation and Maintenance expenses for 1 month; and
- f) Receivables equivalent to 2 months of capacity charges and energy charges for sale of electricity calculated on the Normative Annual Plant Availability Factor.

5.98 Interest on Working Capital, as submitted by the Petitioner for FY 2016-17 to FY 2020-21 is given as per table below:

Table 43: Interest on working capital(Rs.Cr) as submitted by the Petitioner for FY 2016-17 to FY 2020-21

Particulars	FY17	FY18	FY19	FY20	FY21
Cost of coal for 45 days considering NAPAF	33.77	47.52	48.27	71.21	66.01
Cost of secondary fuel oil for two months	4.13	2.89	2.78	2.29	1.54
O&M expenses for 1 month	16.59	16.56	14.00	19.11	15.55
Maintenance Spares @20% of O&M expenses	39.81	39.74	33.61	45.86	37.33
2 months receivables (capacity & energy charges @NAPAF)	59.20	76.74	76.75	108.74	99.75
Working capital requirement	153.49	183.45	175.40	247.20	220.1



Particulars	FY17	FY18	FY19	FY20	FY21
Interest rate applicable	12.80%	12.60%	12.20%	12.55%	11.65%
IOWC(Rs.Cr)	19.65	23.12	21.40	31.03	25.65

Commission's Analysis

5.99 The Commission has referred to clause 7.34 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 which specifies the components of working capital to be considered as cited below:

“Working Capital

7.34 The Commission shall determine the Working Capital requirement for coal-based generating stations containing the following components:

- (a) Cost of coal or lignite and limestone towards stock, if applicable, for 15 days for pit-head generating stations and 30 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;*
- (b) Cost of coal or lignite and limestone for 30 days for generation corresponding to normative annual plant availability factor;*
- (c) 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;*
- (d) Maintenance spares @ 20% of Operation and maintenance expenses specified in clauses 7.40 to 7.48 of these regulations;*
- (e) Operation and Maintenance expenses for 1 month; and*
- (f) Receivables equivalent to 2 months of capacity charges and energy charges for sale of electricity calculated on the Normative Annual Plant Availability Factor.”*

5.100 The Commission has also referred to clause 7.38 and 7.39 for consideration of rate of interest on working capital as specified below:



“Interest on working Capital

7.38 Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 01.04.2016 or as on 1st April of the year during the tariff period 2016-17 to 2020-21 in which the generating station or a unit thereof, is declared under commercial operation, whichever is later. Provided that the rate of interest on working capital shall be trued up on the basis of actual bank rate as on 1st April of the respective year at the time of true up for that year.

7.39 The interest on working capital shall be payable on normative basis notwithstanding that the generating company has not taken working capital loan from any outside agency or has exceeded the working capital loan based on the normative figures.”

5.101 The Commission has also observed that the Petitioner has erred in calculating the interest on working capital on certain components however, the Commission after scrutinizing the information and documents submitted by the Petitioner and after prudence check of the audited data and as per JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015, has approved interest on working capital for the second control period i.e. FY 2016-17 to FY 2020-21 as per below table:

Table 44: Interest on working capital(Rs.Cr) as approved by the Commission for FY 2016-17 to FY 2020-21

Particulars	FY17	FY18	FY19	FY20	FY21
Cost of coal for 45 days considering NAPAF	33.86	48.00	48.27	71.26	61.34
Cost of secondary fuel oil for two months	0.98	1.44	1.54	2.17	1.47
O&M expenses for 1 month	12.21	10.59	10.37	14.54	14.01
Maintenance Spares @20% of O&M expenses	29.30	25.41	24.90	34.90	33.64
2 months receivables (capacity & energy charges @NAPAF)	86.77	103.39	104.93	142.55	126.90
Working capital requirement	163.12	199.84	190.01	265.44	237.37



Particulars	FY17	FY18	FY19	FY20	FY21
Interest rate applicable	12.80%	12.60%	12.20%	12.55%	11.65%
IOWC(Rs.Cr)	20.88	23.79	23.18	33.31	27.65

Non-Tariff Income

Petitioners Submission

5.102 The Petitioner has submitted the non-tariff income for the second control period i.e. FY 2016-17 to FY 2020-21 as per details mentioned in the table below:

Table 45 Non-Tariff Income(Rs.Cr) as submitted by the Petitioner for FY 2016-17 to FY 2020-21

Particulars	FY17	FY18	FY19	FY20	FY21
Non-Tariff Income(Rs.Cr)	33.49	35.94	36.61	42.51	36.92

Commissions Analysis

5.103 The Commission has scrutinized the non-tariff income of the Petitioner from the audited annual accounts and has found that it is accrued through various income sources including sale of tender paper, rent received, interest on fixed deposits, miscellaneous receipts etc.

5.104 The Commission approves the Non-Tariff income for the second control period i.e. FY 2016-17 to FY 2020-21 as per audited accounts submitted by the Petitioner as below:

Table 46 Non-Tariff Income (Rs.Cr) approved by the Commission for FY 2016-17 to FY 2020-21.

Particulars	FY17	FY18	FY19	FY20	FY21
Non-Tariff Income(Rs.Cr)	33.49	35.94	36.61	42.51	36.92

Revenue from Sale of Power

Petitioners Submission

5.105 The Petitioner has submitted revenue from sale of power for the second



control period i.e. from FY 2016-17 to FY 2020-21 as mentioned in the table below:

Table 47 Revenue from sale of power(Rs.Cr) for the second control period as submitted by Petitioner

Particulars	FY17	FY18	FY19	FY20	FY21
Revenue from Sale of Power (Rs.Cr)	423.60	566.38	596.08	779.28	698.73

Commissions Analysis

5.106 The Commission approves the revenue for sale of power for the second control period i.e. from FY 2016-17 to FY 2020-21 as per the audited report submitted by the Petitioner as below:

Table 48 Revenue approved by the Commission from sale of power for FY 2016-17 to FY 2020-21 (Rs.Cr)

Particulars	FY17	FY18	FY19	FY20	FY21
Revenue from Sale of Power (Rs.Cr)	423.60	566.38	596.08	779.28	698.73

Summary of Fixed Cost Determinants & Annual Revenue Requirement

5.107 The Commission has referred to Section A8 and Clauses 8.1 to 8.3 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015, which outline the tariff components, including the fixed costs of the thermal generating station and the energy charges that the station can claim to determine the Aggregate Revenue Requirement for the plant. A detailed extract is provided below:

“A8: THERMAL POWER GENERATING STATIONS

Components of tariff

8.1 The Tariff for supply of electricity from a thermal generating station shall comprise of two parts, namely, capacity charge (for recovery of annual fixed cost) and energy charge (for recovery of primary fuel cost and secondary



fuel cost and limestone where applicable) to be worked out in the manner provided hereinafter.

8.2 The annual fixed cost of a thermal generating station shall consist of the following components: (a) Return on Equity;

(b) Interest and Financing Charges on Loan Capital;

(c) Depreciation;

(d) Operation and Maintenance Expenses;

(e) Interest Charges on Working Capital;

(f) Special allowance in lieu of R&M or separate compensation allowance, wherever applicable:

8.3 Energy Charge: Energy charges shall be derived on the basis of the landed fuel cost (LFC) of a generating station (excluding hydro) and shall consist of the following cost:

a) Landed Fuel Cost of primary fuel; and

b) Cost of secondary fuel oil consumption: Provided that any refund of taxes and duties along with any amount received on account of penalties from fuel supplier shall have to be adjusted in fuel cost.

5.108 The Commission, after due diligence and prudence check of the documents and information's submitted by the Petitioner approves the fixed cost and ARR of the plant for the second control period i.e. from FY 2016-17 to FY 2020-21 in terms of the Petitioner's submission and the approval granted by the Commission as mentioned in the following table:

Order on True up for FY 2016-17 to FY 2020-21 of Tenughat Vidyut Nigam Ltd



Table 49 Summary of ARR & Fixed cost approved by the Commission for the second control period (Rs.Cr.)

Particulars	FY17			FY18			FY19			FY20			FY21		
	MYT	Petn	App	MYT	Petn	App	MYT	Petn	App	MYT	Petn	App	MYT	Petn	App
Employee Expense including Terminal Liability	68.63	92.74	83.55	72.95	68.70	60.17	77.55	64.04	53.37	82.43	135.68	98.93	87.62	92.24	87.81
A&G Expense	17.13	20.03	17.13	18.21	20.06	18.21	19.36	20.50	19.36	20.58	22.36	20.58	21.88	33.27	21.88
R&M Expense	45.81	86.28	45.81	48.69	109.96	48.69	51.76	83.52	51.76	55.02	71.28	55.02	58.49	61.13	58.49
Water Expense	12.00	0.00	0.00	12.00	0.00	0.00	12.00	0.00	0.00	12.00	0.00	0.00	12.00	0.00	0.00
O&M Expense	143.57	199.05	146.49	151.85	198.72	127.07	160.66	168.06	124.49	170.02	229.32	174.52	179.99	186.64	168.18
Depreciation	26.01	17.65	17.65	26.01	16.37	16.37	26.01	24.83	24.83	26.01	9.82	9.82	26.01	9.50	9.50
Interest on loans	35.83	103.20	55.31	32.45	103.22	56.25	29.07	101.10	54.27	25.69	103.22	52.25	22.30	103.22	51.23
Return on Equity	28.62	33.20	33.20	28.62	34.81	34.81	28.62	35.17	35.17	28.62	35.28	35.29	28.62	35.41	35.41
Interest on working capital	33.72	19.65	20.88	33.00	23.12	23.79	32.31	21.40	23.18	31.68	31.03	33.31	31.01	25.65	27.65
Total Fixed Cost	267.74	372.74	273.52	271.93	376.24	258.30	276.67	350.56	261.94	282.02	408.67	305.20	287.94	360.41	291.97
Non-Tariff Income	34.29	33.49	33.49	34.29	35.94	35.94	34.29	36.61	36.61	34.29	42.51	42.51	34.29	36.92	36.92
Annual Fixed Charge	233.45	339.25	240.03	237.64	340.30	222.36	242.38	313.95	225.33	247.73	366.16	262.69	253.65	323.49	255.05
Total Energy Charges	657.68	273.89	280.57	628.81	383.88	397.98	599.95	391.52	404.24	571.36	577.61	592.63	542.50	535.39	506.37
Annual Revenue Requirement	891.13	613.14	520.60	866.45	724.17	620.35	842.32	705.47	629.57	819.09	943.77	855.32	796.14	858.89	761.42

*MYT: As approved in MYT order dated 28.02.2020

Petn: As submitted by the Petitioner in True Up Petition

App: As approved by the Commission now in True Up order



Chapter 6: Gap/(Surplus) for FY 2016-17 to FY 2020-21

Petitioners Submission

6.1 The Petitioner has submitted Gap/(Surplus) for the second control period i.e. FY 2016-17 to FY 2020-21 as per below table:

Table 50 Gap/(Surplus) as submitted by the Petitioner for the second control period (Rs.Cr)

Particulars	FY17	FY18	FY19	FY20	FY21
Gap/(Surplus) for the year	189.54	159.33	109.39	164.51	160.17
Carrying cost	190.15	137.62	79.55	97.22	75.26
Total revenue gap/(surplus)	379.69	296.95	188.94	261.73	235.43
Total revenue gap/(surplus) for the control period	1362.74				

Commissions Analysis

6.2 The Commission has referred to clause 6.16 to 6.18 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 as described below:

“Adjustment of Excess/Deficit Amount

6.16 *Where after the truing up, the tariff recovered exceeds the tariff approved by the Commission under these regulations, the generating company shall refund to the beneficiaries as the case may be, the excess amount so recovered shall be as specified in the Clause 6.18 of this regulation.*

6.17 *Where after the truing up, the tariff recovered is less than the tariff approved by the Commission under these regulations; the generating company licensee shall recover from the beneficiaries the under-recovered amount shall be as specified in the Clause 6.18 of this regulation.*

6.18 *The amount under-recovered or over-recovered, along with simple interest at the rate equal to the bank rate as on 1st April of the respective year, 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.”*



6.3 The Commission after consideration of total fixed cost and total energy charges as approved with respect to revenue realized by the Petitioner has calculated and approved the gap/(surplus) for FY 2016-17 to FY 2020-21 as mentioned in table below:

Table 51 Gap/(Surplus) as approved by the Commission for the second control period i.e. FY 2016-17 to FY 2020-21(Rs.Cr)

Particulars	FY 17	FY18	FY19	FY20	FY21
ARR	520.60	620.35	629.57	855.32	761.42
Revenue	423.60	566.38	596.08	779.28	698.73
Opening Gap/(Surplus)	(271.77)	(203.35)	(171.61)	(157.01)	(95.90)
Addition during the FY	97.00	53.97	33.49	76.04	62.69
Closing Gap/(Surplus)	(174.77)	(149.38)	(138.12)	(80.97)	(33.21)
Average Gap/(Surplus)	(223.27)	(176.37)	(154.86)	(118.99)	(64.56)
Interest Rate	12.80%	12.60%	12.20%	12.55%	11.65%
Carrying Cost for respective Financial Year	(28.58)	(22.22)	(18.89)	(14.93)	(7.52)
Gap/(Surplus) inclusive of Carrying Cost	(203.35)	(171.61)	(157.01)	(95.90)	(40.73)

6.4 The Petitioner is directed to comply as per the provisions given in Regulation 6.16 to Regulation 6.18 of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015.



Chapter 7: STATUS OF EARLIER DIRECTIVES

7.1 The Commission over the years has issued various directives to the Petitioner and the status of compliance is given in the table below:

Table 52: Status of earlier directives issued by the Commission

S.No	Directive	Compliance to the Directive
1	Minimization of outages and strengthening of evacuation arrangement for TTPS	The Petitioner would like to submit that the commissioning and charging of the 220kV Tenughat-Govindpur transmission line has been completed on 3 rd November 2021 and the line has been charged.
2	Filing of True Up Petition for FY 2014-15 and APR for FY 2015-16	The Petitioner has submitted the petition however there has been delay in submission of the same. The Petitioner submits that it always strives to file petition on time before the Commission. However, on certain occasions there are some unavoidable delays in the same.
3	The Commission directs the Petitioner to submit True-Up Petition for FY 2015-16 based on the audited accounts along with adjustments to be carried out as per Regulation 6.14 of the Generation Tariff Regulation's 2010 within 3 months from the date of this order. Further the Petitioner is also directed to submit petition with requisite supporting data so that processing be done within appropriate time and without undue delay.	The Petitioner has submitted the True-up petition along with audited accounts for the period FY 2012-13 to FY 2015-16 as per Regulation 6.14 of the Generation Tariff Regulation 2010.
4	TVNL is directed to reconcile the	The Petitioner is in the process of



S.No	Directive	Compliance to the Directive
	fixed assets register after physical verification and submit detailed asset wise register along with asset wise depreciation schedule before the Commission. Without the reconciled asset and depreciation schedule, the Commission is unable to approve the fixed assets ,additions and calculate correctly the depreciation of assets.	appointing an agency for physical asset verification as per the cutover date of 31.03.2016 uploaded in the SAP-FICO module of ERP system.
5	The Commission directs the petitioner to submit the True up petition for the year FY 2016-17, FY 2017-18 and FY 2018-19 along with audited accounts before the Commission within three months of the order.	The Petitioner has submitted the True-up petition for the second control period of FY 2016-17 to FY 2020-21 on 28.05.2024 (JSERC/Case(Tariff)No.06 of 2024/139)
6	The Commission directs the Petitioner to note the data deficiencies highlighted in this petition and submit required details and certificates while submitting the next petition.	The Petitioner has strived to submit this petition along with all relevant data and information. The left out deficiencies would be addressed in True-Up petition to be filed.
7	The Commission emphasizes the urgency of the situation by directing the petitioner to submit RLA report for both the units of the plant at the earliest as the plant has already exhausted its useful life of 25 years.	The petitioner would like to appraise the Hon'ble Commission that RLA for Unit-I has already been completed and the report for the same has been submitted to the Commission; the RLA for Unit-II shall be undertaken in the next capital overhauling cycle.
8	The Commission directs the Petitioner to submit true up petition for the Second Control Period with respect to audited accounts for FY 2016-17 to FY 2020-21 within two months from the date of issue of the order.	The Petitioner has submitted the True-up Petition for the Second Control Period of FY 2016-17 to FY 2020-21 on 28.05.2024 (JSERC/Case (Tariff) No. 06 of 2024/139).



S.No	Directive	Compliance to the Directive
9	<p>The Commission notes with concern that the operational performance of the Petitioner is very low. In particular, the SHR and PLF can be improved further to the extent of approved operational norms. The Commission directs the petitioner to submit an improvement plan for both its units within three months of the issue of this order.</p>	<p>The petitioner would also like to appraise the Commission that as a result of various initiatives the Station Heat Rate (SHR) has further improved from 2,795.41 kcal/kWh in FY 2016-17 to 2,547.24 kcal/kWh in FY 2022- 23. It is evident that the petitioner is in constant endeavour to improve upon its operational parameters for an ageing plant which remains a constant challenge. The Petitioner requests the Commission to kindly approve the Capital Investment Plan after the Residual Life Assessment (RLA) is concluded so that performance improvement interventions can be undertaken further.</p>
10	<p>The Commission has observed that the Petitioner has not mentioned regarding ash utilization and its management which can be looked upon as a source of revenue. Moreover, Ministry of Environment, Forest and Climate Change on 31st December 2021 has notified the norms for fly ash utilization by coal fired power plants. In this regard the Commission directs the petitioner to submit information of the existing practice adopted by the Petitioner.</p>	<p>The petitioner would like to apprise the Commission that 100% utilization of ash is being done by the petitioner on a regular basis.</p>



Chapter 8: DIRECTIVES

Filing of True Up Petition for the third control period i.e. FY2021-22 to FY 2025-26

8.1 The Commission expresses concern that the True-Up petition for the third control period, specifically FY21 and FY22 is yet to be submitted by the Petitioner. The Commission directs the Petitioner to submit the True-Up petition for the third control period, based on the audited accounts for FY21 & FY 22, within three months from the date of this order.

Fixed Asset Register

8.2 The Commission, in multiple previous orders, had instructed the Petitioner to submit the fixed asset register. However, the Petitioner has not yet complied with this directive. The Commission takes serious note of this non-compliance and once again directs the Petitioner to compile the fixed asset register and submit it along with the next tariff petition.

CAPEX Plan approval

8.3 The petitioner is directed to provide appropriate supporting documents, including cost-benefit analysis outlining efficiency improvements, for all ongoing and future schemes proposed for capitalization, for the Commission's approval. Additionally, the petitioner must submit these documents along with the Tariff Petition, justifying the need for such schemes. The Commission will not approve any scheme for capitalization in future if the required documents are not being submitted.

Data Adequacy in Next Tariff petition

8.4 The Commission directs the Petitioner to note the data deficiencies highlighted in this petition and submit required details and certificates while submitting the next Petition.



This Order is signed and issued by the Jharkhand State Electricity Regulatory Commission on September 30, 2024.

Date: 30.09.2024

Place: Ranchi

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

**Sd/-
Mahendra Prasad
Member(Law)**



Chapter 9: ANNEXURE

Table 53 List of participants in the Public hearing held on 10th September 2024 at Jade Square Ranchi

S No.	Name	Address/Organization
1	Radha Krishna Tripathy	PWC,JBVNL Consultant
2	Prince Ranjan	TVNL
3	Nitish Kumar	TVNL
4	Shouvik Mukherjee	Deloitte,TVNL Consultant
5	Rishi Chatterjee	Deloitte,TVNL Consultant
6	Tanmoy Chatterjee	Deloitte,TVNL Consultant
7	Anita Prasad	DGM,JBVNL
8	Yogendra Prasad	TVNL,Ranchi
9	AK Sharma	TVNL,Hinoo
10	Nurul Huda	TVNL,Hinoo
11	Rajesh Ranjan	TVNL,Hinoo
12	Uday Kr.Singh	TVNL
13	Arun Prasad	TVNL
14	S.R.Singh	ESE,TVNL
15	R.Prasad	EEE(Commercial)TVNL
16	Krishna Kumar Singh	Dy.Director(Accounts),TVNL
17	P.R Ramran	P.S TVNL
18	Ghanshyam Kumar	TVNL,Hinoo