Jharkhand State Electricity Regulatory Commission

Order on

True-up for FY 2023-24,

Annual Performance Review for FY 2024-25

for

Adhunik Power and Natural Resources Limited (APNRL)

Ranchi

APRIL 30, 2025

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List of Abbreviations

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

LIST OF TABLES

BEFORE

Jharkhand State Electricity Regulatory Commission, Ranchi

Case (Tariff) No.: 11 of 2024

In the matter of:

Petition for

True-up for FY 2023-24, and

Annual Performance Review for FY 2024-25

In the matter:

Adhunik Power and Natural Resources Limited (APNRL)
H-29, Harmu Housing Colony, Harmu, Ranchi-834002.. **Petitioner**

PRESENT

Shri Mahendra Prasad	Member (Law)
Shri Atul Kumar	Member (Technical)

Order dated April 30, 2025

Adhunik Power and Natural Resources Limited (hereinafter referred to as APNRL or the Petitioner) has filed the Petition dated November 28, 2024 for Truing up for FY 2023-24 and Annual Performance Review for FY 2024-25.

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 has 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 came into force, the earlier Electricity Regulatory Commission Act of 1998 stands repealed and the functions of State Electricity Regulatory Commission are now defined under Section 86 of the Act.

1.4 In accordance with Section 86 (1) of the Act, the JSERC discharges the following functions:

(a) determine the tariff for generation, supply, transmission, and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State:

Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;

(b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;

(c) facilitate intra-state transmission and wheeling of electricity;

(d) issue licenses to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;

(e) promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;

(f) adjudicate upon the disputes between the licensees and generating companies; and to refer any dispute for arbitration;

(g) levy fee for the purposes of this Act;

(h) specify State Grid Code consistent with the Grid Code specified under Clause (h) of sub-section (1) of Section 79;

(i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees;

(j) fix the trading margin in the intra-state trading of electricity, if considered, necessary;

(k) discharge such other functions as may be assigned to it under this Act.

1.5 The Commission 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 shall ensure transparency while exercising its powers and discharging its functions.

1.7 In discharge of its functions, the State Commission is also guided by the National Tariff Policy, 2016 as brought out by Government of India in compliance to Section 3 of the Act. The objectives of the National Tariff Policy are to:

(a) ensure availability of electricity to consumers at reasonable and competitive rates;

(b) ensure financial viability of the sector and attract investments;

(c) promote transparency, consistency and predictability in regulatory approaches across jurisdictions and minimize perceptions of regulatory risks;

(d) promote competition, efficiency in operations and improvement in quality of supply;

(e) Promote generation of electricity from Renewable sources;

(f) Promote Hydroelectric Power generation including Pumped Storage Projects (PSP) to provide adequate peaking reserves, reliable grid operation and integration of variable renewable energy sources;

(g) Evolve a dynamic and robust electricity infrastructure for better consumer services;

(h) Facilitate supply of adequate and uninterrupted power to all categories of consumers;

(i) Ensure creation of adequate capacity including reserves in generation, transmission and distribution in advance, for reliability of supply of electricity to consumers.

Adhunik Power and Natural Resources Limited

1.8 Adhunik Power and Natural Resources Limited (hereinafter referred to as APNRL or the Petitioner) is a company incorporated under the provisions of the Indian Companies Act, 1956.

1.9 Originally incorporated as “Adhunik Thermal Energy Ltd.” (ATEL), in the year 2007, ATEL was renamed to “Neepaz Thermal Energy Limited” (NTEL) and subsequently renamed as “Adhunik Power & Natural Resources Ltd.” (APNRL) in the year 2008 after complying with the applicable provisions of the Companies Act, 1956.

1.10 ATEL, in October 2005, had signed a Memorandum of Understanding (hereinafter referred to as “the MoU”) with Government of Jharkhand to develop a 1,000 MW coal based thermal power plant. Further in January 2007, the Petitioner and Government of Jharkhand agreed to extend the validity period of the MoU further for a period of 12 months. In February 2008, the Petitioner and Government of Jharkhand agreed to extend the validity period of the MoU further for a period of three years upto October 31, 2010. Subsequently in May 2011, the validity of the MoU was again extended for a period of three years from November 1, 2010 to October 31, 2013. In November 2013, the validity of MoU was again extended for a period of three years from November 1, 2013 to October 31, 2016.

1.11 Accordingly, APNRL has set up a 540 MW coal based power plant in Stage-1 (consisting of Unit 1 and Unit 2 of 270 MW each) and is planning to develop an additional 540 MW coal based power plant in Stage-2. Unit 1 of the power plant was synchronized on November 13, 2012 and COD for the same was declared on January 21, 2013. Unit 2 of the power plant was synchronized on March 29, 2013 and COD for the same was declared on May 19, 2013.

1.12 Further, as per the provisions of the MOU, the Government of Jharkhand or Distribution Licensees authorized by it will have the first right of claim on purchase upto 25% of power delivered to the system by the proposed power station.

1.13 Further, the extension of the MoU stipulates that the Government of Jharkhand moved to Government of India for the policy decision through suitable arrangements for making available to the State, 12% of the total power generated at variable cost, by APNRL. Hence, as stated above, as per MoU and its extension's conditions, JSEB will have first right of claim on purchase upto 25% of power delivered to the system, out of which 12% power will be made available to the state at variable cost only.

1.14 Pursuant to the MoU signed between Government of Jharkhand and APNRL, APNRL signed a Power Purchase Agreement (hereinafter also referred to as "the PPA") with Jharkhand State Electricity Board (now Jharkhand Urja Vikas Nigam Limited or "JUVNL") on September 28, 2012 for supplying contracted capacity of 122.85 MW (25% of 491.4 MW, i.e., gross capacity of 2 units of 270 MW each, totaling to 540 MW less normative auxiliary consumption) from Stage-1 of the Project on long term basis.

1.15 As per the terms of the PPA, 63.882 MW capacity, i.e., 13% of Net Capacity of Stage-1 shall be supplied to JSEB (now JUVNL) at total tariff and the balance 58.968 MW capacity, i.e. 12% of total Net Capacity of Stage-1 shall be supplied at variable cost only.

1.16 As per clause 3.1 (ii) and (iii) of the PPA entered into by the Petitioner and JSEB (now JUVNL), the tariff payable shall be determined by the State

Commission:

> *3.1(ii) "The tariff for sale of power by seller to procurer for the contracted capacity of 63.882 MW shall be payable by the procurer as determined by JSERC in accordance with the "Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2010 as amended from time to time or any other competent authority authorized from time to time. The annual fixed charges determined in accordance with the "Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2010 shall be recoverable from the net saleable capacity of 432.432 MW (i.e. Gross capacity minus auxiliary consumption minus 12% power to be supplied to procurer at energy charge)".*

> *3.1(iii) The energy charge for sale of power by seller to procurer for the contracted capacity of 59.968 MW shall be payable by the procurer as determined by the JSERC in accordance with the "Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2010", as amended from time to time."*

Overview of the Thermal Station

1.17 The Petitioner had achieved COD of its two units of 270 MW each in the year 2013. Both these units are subject to ARR and Tariff determination. The following table summarizes the information pertaining to both the units:

Sr. no.	Unit	Installed Capacity (MW)	Status of Operation	Actual Date of Commercial Operation
1	Unit 1	270 MW	Operational	January 21, 2013
2	Unit 2	270 MW	Operational	May 19, 2013

The Petitioner's Prayers

1.18 The Petitioner in the instant Petition made the following prayers before the Commission:

- Approve the True-up for supplying the regulated Contracted Capacity of 122.85 MW to Discom for 2023-24 and APR for FY 2024-25;

- Approve the submission of water charges and provide directions to the Respondents to pay for the charges and any penalty from such date as per the judgement of the Hon'ble High Court as and when the same is awarded;
- Approve the expenses as claimed towards Ash -disposal/transportation charges and Capital Spares from the Discom for FY 2023-24.
- Allow Shakti Discount as pass through.
- Condone any inadvertent omissions/ errors/ rounding off difference/ shortcomings and permit the Petitioner to add/alter this filing and make further submissions as may be required by this Hon'ble Commission;
- Pass such further and other Order, as this Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case;

Chapter 2: PROCEDURAL HISTORY

Background

2.1 The Commission had passed the Provisional Order on the Petition for approval of Capital Cost, Business Plan, and MYT Petition for FY 2012-13 to FY 2015-16 for Adhunik Power and Natural Resources Limited (APNRL) by Order May 26, 2014.

2.2 The Commission had passed Order on petition for approval of final Capital Cost of 540MW (2x270) Coal Based Thermal Power Plant in Jharkhand, True Up of ARR for FY 2012-13, FY 2013-14, APR of FY 2014-15 and ARR and Tariff Determination for FY 2015-16 on September 01, 2016. Further, the Petitioner had filed a petition on September 29, 2016 seeking review of Order dated September 01, 2016. Accordingly, the Commission has issued review order by Order dated January 09, 2018.

2.3 The Commission vide Order dated February 19, 2018 had passed the True-up for FY 2014-15 and FY 2015-16, Business Plan, ARR and Tariff for Multi Year Tariff Period from FY 2016-17 to FY 2020-21.

2.4 The Commission vide Order dated April 10, 2019 issued the Corrigendum Order in Case No. 05 of 2018.

2.5 The Commission had passed Order on True-up for FY 2016-17 and Annual Performance Review for FY 2017-18 by Order dated May 22, 2023.

2.6 The Commission had passed Order on True-up for FY 2017-18, FY 2018-19, FY 2019-20 and Annual Performance Review for FY 2020-21 by order dated June 22, 2023.

2.7 The Commission had passed Order on MYT & Business plan for 3rd Control period i.e. from FY 2021-22 to FY 2025-26 by Order dated December 14, 2023.

2.8 The Commission had passed review order case no. 17 of 2023 vide order dated July 23, 2024 based on principles specified in the JSERC

Generation Tariff Regulations, 2015, and JSERC Generation Tariff Regulations 2020 along with amendment thereof.

2.9 The Commission had passed Order on True-Up for FY 2020-21 to FY 2022-23 by Order dated August 22, 2024.

Information Gaps in the Petitions

2.10 In response to the True-up petition for FY 2023-24, and APR for FY 2024-25 the petitioner has submitted additional/data/information to the Commission vide letter no. APNRL/JSERC/FY 24-25/45 dated December 19, 2024.

2.11 The petitioner submitted additional affidavit rectifying few clerical errors in the instant petition vide letter no. APNRL/JSERC/FY 24-25/51-1 on January 17,2025

2.12 The Commission has thoroughly examined the Petition along with the additional data and information provided by the petitioner concerning the identified discrepancies and has duly considered these factors in issuing this Order.

Inviting Public Comments/Suggestions

2.13 On scrutiny of the petition, the Commission has directed the Petitioner to publish a Public Notice inviting comments/suggestions from public and to make available copies of the Petition to the consumer/public on request.

2.14 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	Date of Publication
Hindustan Times (English)	29.01.2025 & 30.01.2025
Morning India (English)	29.01.2025 & 30.01.2025

Hindustan (Hindi)	29.01.2025 & 30.01.2025
Sanmarg (Hindi)	29.01.2025 & 30.01.2025

2.15 Further, the Commission had organized a Public Hearing on March 12, 2025, at Chanakya BNR Hotel, Ranchi where an additional opportunity to all the Stakeholders was provided to submit their comments/suggestions on the instant petition. The newspapers wherein the Notice was published by the Commission are mentioned below:

Table 2: List of newspapers and dates of publication of public notice by the Commission.

Newspaper	Date of Publication
Dainik Bhaskar	28.02.2025 & 11.03.25
Hindustan Dainik (Hindi)	28.02.2025
The Times of India (English)	28.02.2025 & 11.03.25
The Hindustan Times (English)	28.02.2025 & 11.03.25
Dainik Jagran (Hindi)	11.03.25

Submission of Comments/Suggestions and Conduct of Public Hearing

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

Chapter 3: BRIEF FACTS OF THE PETITION

3.1 This Chapter summarizes the Petition of Truing-up for FY 2023-24, and Annual Performance Review for FY 2024-25 as filed by the Petitioner for the Commission's approval.

Truing up for FY 2023-24

3.2 The table below summarizes the Annual Revenue Requirement for FY 2023-24 as submitted by the petitioner against approved in the MYT Order dated December 14, 2023.

Table 3: Annual Revenue Requirement (Rs. Cr.) as submitted by the Petitioner for FY 2023-24.

Particulars	UoM	Unit-1	Unit-2
		Petition	Petition
Net Energy Supplied to JUVNL/JBVNL	MU	461.27	461.27
Rate of Energy Charge	Rs/kWh	2.84	2.84
AFC Entitlement on True Up	Rs. Cr.	41.07	41.65
Incentives	Rs. Cr.	0.13	0.13
Energy Charge Entitlement upon True up	Rs. Cr.	130.85	130.92
Water Charges	Rs. Cr.	2.87	2.87
Capital Spares	Rs. Cr.	1.36	1.36
Ash disposal charges	Rs. Cr.	0.66	0.66
Security Expenses	Rs. Cr.	0.28	0.28
Petition filing charges	Rs. Cr.	0.04	0.04
Less: Sharing of Gain due to operational parameter	Rs. Cr.	0.00	0.00
Total ARR for Jharkhand	**Rs. Cr.**	**177.24**	**177.90**
Revenue Billed			
Annual Fixed Cost	Rs. Cr.	41.35	42.16
Energy Charge	Rs. Cr.	119.01	120.67
FPA	Rs. Cr.	5.51	3.76
Incentive	Rs. Cr.	0.00	0.00

Particulars	UoM	Unit-1	Unit-2
		Petition	Petition
Imported Coal Bill	Rs. Cr.	0.00	0.00
Total Revenue Billed to JUVNL/JBVNL	Rs. Cr.	**165.87**	**166.59**
Gap/(Surplus)	**Rs. Cr.**	**11.38**	**11.31**
Shakti Discount	**Rs. Cr.**	1.59	1.59
Net Gap/(Surplus)	**Rs. Cr.**	9.79	9.72
Carrying Cost	**Rs. Cr.**	2.36	2.35
Net Gap/(Surplus) incl. carrying Cost	**Rs. Cr.**	**12.16**	**12.07**

Table 4: Annual Revenue Requirement (Rs. Cr.) as submitted by the Petitioner for FY 2024-25.

Particulars	UoM	Unit-1	Unit-2
		Petition	Petition
Net Energy Supplied to JUVNL/JBVNL	MU	466.30	466.30
Rate of Energy Charge	Rs/kWh	3.04	3.04
AFC Entitlement on True Up	Rs. Cr.	40.65	41.18
Incentives	Rs. Cr.	0.00	0.00
Energy Charge Entitlement upon True up	Rs. Cr.	141.83	141.87
Water Charges	Rs. Cr.	3.08	3.08
Capital Spares	Rs. Cr.	1.36	1.36
Ash disposal charges	Rs. Cr.	0.68	0.68
Security Expenses	Rs. Cr.	0.28	0.28
Petition filing charges	Rs. Cr	0.04	0.04
Less: Sharing of Gain due to operational parameter	Rs. Cr.	0.00	0.00
Total ARR for Jharkhand	**Rs. Cr.**	**187.91**	**188.48**
Revenue Billed			
Annual Fixed Cost	Rs. Cr.	41.13	41.91
Energy Charge	Rs. Cr.	120.30	121.98

Particulars	UoM	Unit-1	Unit-2
		Petition	Petition
FPA	Rs. Cr.	19.70	17.93
Incentive	Rs. Cr.	0.00	0.00
Imported Coal Bill	Rs. Cr.	0.00	0.00
Total Revenue Billed to JUVNL/JBVNL	**Rs. Cr.**	**181.13**	**181.82**
Gap/(Surplus)	**Rs. Cr.**	6.78	6.66
Shakti Discount	**Rs. Cr.**	1.39	1.39
Net Gap/(Surplus)	**Rs. Cr.**	5.39	5.27
Carrying Cost	**Rs. Cr.**	0.00	0.00
Net Gap/(Surplus) incl. carrying Cost	**Rs. Cr.**	**5.39**	**5.27**

Chapter 4: PUBLIC CONSULTATION PROCESS

4.1 On the Petitioner's plea several stakeholders responded. The Public Hearing was held on March 12, 2025, at Chanakya BNR Hotel, Ranchi to ensure maximum public participation and transparency wherein Stakeholders put forth their comments and suggestions before the Commission. The list of attendees is attached as **Chapter 9** to 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 don't fall in the line of True-up, and APR have not been discussed in this Chapter.

Querist- JBVNL

Weighted average cost of coal for FY 2023-24 and FY 2024-25

4.3 *"(a) In true up petition for FY 2023-24, M/s APNRL has claimed weighted average cost of coal as Rs: 3630/MT whereas JBVNL observe that the weighted average cost of shakti coal for the month of Jan 24 is Rs. 3530/MT including (extra burden imposes on JBVNL) Rake supervision charge Rs. 150/MT as submitted by M/s APNRL*

(b) In APR petition for FY 2024-25 M/s APNRL has claimed weighted average cost of coal as Rs. 3960/MT whereas JBVNL observe that the weighted average cost of Shakti coal for the month of Nov 24 is Rs. 3537/MT and for the month of Dec 24 is Rs. 3495/MT respectively including (extra burden imposes on JBVNL) Rake supervision charge Rs. 150/MT as submitted by M/s APNRL"

4.4 The Petitioner in its objection has stated that in aforesaid perspective the methodology for determination of coal cost in the true-up exercise, as well as in Annual Performance Review (APR), is based on the weighted average cost for the entire financial year. It is not methodologically appropriate to rely on isolated monthly prices to derive or contest the yearly weighted average.

4.5 It is pertinent to mention here that the coal prices are subject to fluctuation due to domestic demand-supply dynamics. Consequently, monthly variations are inherent, and a prudent approach is to evaluate the cost on an annual weighted average basis, which the Petitioner has consistently followed.

4.6 Supervision of coal transportation is a recognized prudent practice across the power sector, especially when dealing with issues like theft, under loading, or adulteration. The cost incurred is reasonable and in line with industry norms, and such measures are essential for ensuring transparency and operational efficiency.

4.7 Hence, considering the above submissions, the Petitioner humbly requests the Commission to allow the claims as made in the True-up and APR petitions in full.

Billed GCV vis-à-vis GCV as received basis

4.8 The Petitioner in its objection has stated that it is important to clarify that the GCV billed by Coal India Ltd and its subsidiaries is typically provided on an Equilibrated GCV (EGCV). However, for the purpose of computing the Energy Charge Rate (ECR), the GCV on 'As Received Basis' (ARB) is used, which is derived from an empirical formula.

4.9 The GCV on Equilibrated GCV (EGCV) represents the calorific value measured in a controlled laboratory environment under specifie conditions (5% moisture, 60% relative humidity and 40°C temperature), These controlled conditions do not reflect the actual operating environment in a thermal power plant.

4.10 On the other hand, GCV on as received basis (ARB) represents the calorific value of coal in real-world conditions, accounting for the natural moisture content and other losses that occur during transportation and storage. Since the coal received at the plant and the coal fired in the boiler exist under different conditions than the laboratory environment, heat loss due to inherent moisture must be considered, Consequently, GCV-ARB is always lower than GCV-EGCV Recognizing this practical scenario, the Commission in its regulations has adopted the methodology of computing ECR by considering the GCV on as received basis and further adjusting it with a stacking loss of 85 kCal/kg to arrive at the GCV on Fired Basis. This adjustment accounts for coal storage and handling losses within the plant premises. The relevant excerpt from the JSERC Tariff Regulations is reproduced below for reference:

"17.8:

Energy Charge Rate (ECR) (in Rs./kWh) on an ex-power plant basis shall be determined to three decimal places in accordance with the following formula:

For coal based stations and lignite fired stations:

ECR = {(SHR - SFC X CVSF) X LPPF / CVPF + SFC X LPSFi + LC X LPL}/(1-Aux)

Where,

*CVPF: **Weighted Average Gross Calorific Value of coal as received (ARB)**, in kCal per kg, for coal-based stations " (**Emphasis Supplied**)"*

4.11 Therefore, the computation of Energy Charges based on GCV-ARB is fully compliant with the JSERC Tariff Regulations.

4.12 It is pertinent to mention here that the representative from JBVNL intermittently visit the generating station of the Petitioner and observe the process of GCV measurement at station end.

4.13 Hence, the Petitioner submitted that the objection raised by JBVNL is misconceived and does net align with the regulatory framework prescribed by the Commission.

Fly Ash Transportation cost recovered through monthly basis or yearly basis

4.14 The Petitioner submitted that, as per the guidelines issued by the Ministry of Power (MoP) dated 15.03.2024, the cost related to fly ash disposal shall be passed on to the beneficiaries, subject to prudence check by the Commission. The relevant excerpt from the MoP guidelines is reproduced below for reference:

"The Appropriate Commission shall scrutinize any expenses regarding ash utilization proposed to be passed through in tariff by the Generation Company (GENCO) in accordance with these guidelines to ensure that the least possible burden is passed on to electricity consumers while Generating Company fully complies with MoEF&CC notification dated 31.12.2021 and its amendments on 30.12.2022 and 01.01.2024 and full transparency is ensured by Generating Company as envisaged in these Guidelines."

4.15 In light of the above guidelines and the notifications issued by the Ministry of Environment, Forest, and Climate Change (MoEF&CC), the Petitioner understands that the fly ash transportation cost approved by the Commission in the MYT Order should be recovered on a monthly basis.

4.16 The rationale for monthly recovery are as following:

- Monthly recovery of fly ash transportation costs will ensure that consumers do not face an undue financial burden at the time of True-Up.
- If the cost is recovered on a yearly basis, it will be subject to carrying costs, which will ultimately increase the financial burden on consumers.
- Monthly recovery ensures a smoother cash flow for all stakeholders and avoids unnecessary accumulation of costs over the year.

4.17 In view of the above, the Petitioner has requested the Commission to approve the recovery of fly ash transportation costs on a monthly basis instead of a yearly basis to prevent undue financial burden on consumers.

Comparison of charges (Fixed and Variable) with other DISCOMs

4.18 In this regard the Petitioner submitted that, the request made by the JBVNL overlooks the fundamental legal and regulatory differences between the various Power Purchase Agreements (PPAs) entered into by the Petitioner across states. The nature of the tariff and the regulatory jurisdiction governing each arrangement is different, and hence any direct comparison is not prudent or meaningful.

- Haryana and Tamil Nadu; The PPAs executed with the distribution companies of Haryana and Tamil Nadu are governed under Section 63 of the Electricity Act, 2003, where tariffs are discovered through a transparent, competitive bidding process and adopted by their respective Hon'ble State Commissions. Therefore, these tariffs are outside the purview of cost-plus determination and hence cannot be compared with the tariff under Section 62, as applicable in the case of JBVNL.

- West Bengal (WBSEDCL): While the supply arrangement with WBSEDCL is governed under Section 62 of the Electricity Act, 2003, the tariff determination is carried out in accordance with the Tariff Regulations of the Hon'ble WBERC, which differ from the JSERC Regulations. Tariff regulations across states are formulated independently, taking into account local economic, operational, and policy considerations. Hence, even under Section 62, comparing tariffs across two distinct regulatory regimes is not tenable.

4.19 It is pertinent to mention here that, the Petitioner supplies power to JBVNL using SHAKTI coal and extends the benefit of SHAKTI discount to JBVNL. However, no such coal linkage under SHAKTI was available to the Petitioner for supply to WBSEDCL during FY 2023-24.

4.20 Without prejudice to its rights and contentions, the Petitioner further submits that a substantial portion of the contracted power (12%) is being supplied to JBVNL at only variable cost, which has severely impacted the Petitioner's ability to recover even the normative Return on Equity (RoE). It is important to note that the financial burden of this arrangement is borne entirely by the Petitioner, and no such provision or concession is extended to West Bengal or any other state utility.

4.21 This adverse impact is illustrated below:

Particulars	FY 2023-24	
	Unit – 1	**Unit – 2**
RoE attributable for 122.85 MW capacity (A) upon rate of return @15.00% (Rs. Cr.)	19.11	19.26
RoE entitled to APNRL after considering 12% power only on variable cost to DISCOM (B) (Rs. Cr.)	11.29	11.38
Rate of return after supplying 12% power only on variable cost	8.86%	8.86%
Less: SHAKTI discount (C) (Rs. Cr.)	1.59	1.59
RoE after SHAKTI Discount (Rs. Cr.)	9.71	9.80
Rate of Return after SHAKTI discount (considering RoE for 122.85 MW)	7.62%	7.62%

4.22 This shows a reduction of nearly 50% in the return that the Petitioner is entitled to recover under the JSERC Regulations. Moreover, it is submitted that the Petitioner is paying interest on long-term debt at a rate of approximately 9%, which is higher than the actual RoE being recovered, thereby further eroding financial viability.

4.23 In light of the above, it is respectfully submitted that:

- The Petitioner is not passing any additional burden to JBVNL, but rather is absorbing substantial financial pressure in order to continue reliable power supply at a significantly concessional rate.

4.24 The Petitioner, therefore, requests the Commission to ignore the submissions made by JBVNL and to allow the claims made in the Petitioner's True-Up and APR Petitioner.

Additional submission regarding the supply of 12% of power only on variable cost.

4.25 The Petitioner submitted that without prejudice to its rights and contentions, the Petitioner respectfully submits that, as elaborated in the preceding sections, the RoE of the Petitioner has been significantly depleted due to the contractual obligation to supply 12% of contracted power to JB VNL solely at variable cost, coupled with the additional burden of SHAKTI discount.

4.26 This arrangement has resulted in the Petitioner recovering less than half of the normative RoE presented under the JSERC Tariff Regulations, thereby undermining the financial sustainability of the project and its long-term viability

4.27 The Commition in its order dated 22.08.2024, has duly acknowledged the Petitioner's concerns regarding this issue and observed that:

"The Commission recognizes the Petitioner's concerns regarding the provision of a 12% power supply at variable cost to JBVNL. However, as this obligation stems from contractual agreement, it falls outside the Commission's authority to modify the terms established in the existing Power Purchase Agreement (PPA). The Commission, in this order, has instructed the Petitioner to address this matter with JBVNL and the Energy Department. In case, these discussions not yield a resolution, the Petitioner may to submit a separate Petition for additional review before this Commission."

4.28 In compliance with the above-stated directions of the Commission, the Petitioner has made multiple good-faith attempts to initiate discussions with JBVNL to esolve the matter amicably:

- Letters sent to JBVNL dated 21.10.2024 and 12.11.2024 (pursuant to the Commission's Order)
- Subsequent letters dated 16.12.2024, 07.02.2025, and 11.03.2025, following the filing of the True-Up Petition for FY 2023-24 and APR for FY 2024-25

4.29 All of the above correspondences were issued with the clear intent to engage with JBVNL in acceptance with the spirit of the Commission's guidance. However, even after submitting reminder letter to JBVNL no response has been received from them till the date of this submission.

4.30 Additionally, the Petitioner has also submitted an RTI application to the Energy Department, Government of Jharkhand, seek further clarification on the matter as per the Commission's directions. A reply to the same is still awaited.

4.31 All relevant communications have been submitted to the Hon'ble Commission.

4.32 In its objection, JBVNL has stated that

"...the PPA signed between APNRL and JBVNL are sacrosanct, and any issues and disputes should be discussed mutually for an amicable solution, if need arises according to the provision of PPA."

4.33 The Petitioner respectfully submits that this statement contradicts the conduct of the Respondent, which has not responded to any of the Petitioner's formal communications made over a sustained period. Despite repeated efforts, JBVNL has failed to engage in the consultative process advised by this Commission.

4.34 Hence, JBVNL present objection appears to be an attempt to deflect attention from its own non-compliance with the directives of the Hon'ble Commission and to mislead the proceedings by placing the onus on the Petitioner.

4.35 In light of the above, the Petitioner respectfully requests that the Commission take due cognizance of:

- The financial distress faced by the Petitioner due to the continuing obligation of supplying 12% of net power at variable cost only.
- The proactive and sincere efforts made by the Petitioner to comply with the Commission's directions.

4.36 The non-cooperative stance of the Respondent in resolving the issue despite claiming to be open to mutual discussion.

4.37 Accordingly, the Petitioner reserves the right to file a separate petition as permitted by the Commission in the order dated 22.08.2024, should the Respondent continue to refrain from engaging in the matter.

Commission analysis

4.38 The Commission has noted the Stakeholder's objection and Petitioner's response on the said issue.

Chapter 5: TRUE-UP FOR FY 2023-24

5.1 In the instant petition the Petitioner has sought approval for True-up for FY 2023-24 based on the Generation Tariff Regulation 2020 and Generation Tariff (1st Amendment) 2023 and the methodology adopted by the Commission in the previous Tariff Order.

5.2 The Commission on the basis of provisions of the Tariff Regulations, 2020, has determined the True-up for FY 2023-24 on consideration of:

- Audited account for FY 2023-24;
- Certified Document submitted by the Petitioner;
- Methodology adopted by the Commission in its earlier Orders.

Operational Performance

Plant Availability Factor (PAF)

Petitioner's Submission

5.3 The Petitioner, in data gap reply has submitted that as per the PPA, there is no restriction on the Petitioner to supply a certain capacity from a certain unit. The PPA gives the liberty to the Petitioner to supply 122.85 MW of power from 491.4 MW of Net capacity (Including both units). Hence, the petitioner calculates the cumulative plant availability factor considering both units. Accordingly, the Petitioner has submitted that the actual plant availability for both Unit-1 & Unit-2 is 86.02% for FY 2023-24.

Commission's Analysis

5.4 The Commission on scrutinizing the MOU, observed that the Government of Jharkhand or distribution licensees authorized by it will have the first right to claim on purchase up to 25% of power delivered to the system by the Power station under terms of the PPA mutually agreed on the basis of existing laws and regulation in force and the tariff for such purchases will be determined by the appropriate Regulatory Commission.

5.5 In accordance with ***'clause 16.1'*** of JSERC Generation Tariff Regulation (1st Amendment) 2023, the Commission approves the Normative Plant Availability factor as 85.00% for both units.

5.6 On scrutinizing and analyzing additional document submitted by Petitioner as annexed in ***'annexure A'***, the Commission approves the actual plant availability for FY 2023-24 as 86.02% for both units respectively as shown below.

Table 5: Plant Availability Factor as approved by the Commission.

Particulars	UoM	Unit-1	Unit-2
		Approved	Approved
Normative Ex-bus generation against Contracted Capacity (122.85 MW)	MU	539.56	539.56
Actual Availability	MU	464.13	464.13
Actual PAF	**%**	**86.02**	**86.02**

Auxiliary Consumption

Petitioner's Submission

5.7 The Petitioner has submitted that the actual Auxiliary Power Consumption of Unit-1 and Unit-2 for FY 2023-24 has been at 8.56% as compared to Normative Auxiliary Power Consumption of 9.00% for each Unit as specified in Generation Tariff Regulation 2020. Accordingly, the Petitioner has been considered the Normative auxiliary consumption as 9.00% for both Unit-1 and Unit-2 for computation of ECR and 8.56% for sharing of Gain/Loss on account of variation in Operational Parameter.

Commission's Analysis

5.8 In accordance with ***clause 16.1*** of JSERC Generation Tariff Regulation (1st Amendment) 2023, the Commission approves the normative auxiliary Consumption as 9.00% for both units.

5.9 On scrutinizing and analyzing the data submitted by the Petitioner, the Commission approves the actual auxiliary consumption of 8.56% for both units and same has been considered for computation of sharing of Gain/Loss on account of variation in Operational Parameter.

Plant Load Factor and Generation

Petitioner's Submission

5.10 The Petitioner has submitted that the PPA gives liberty to supply 122.85 MW of power from 491.4 MW of net capacity (including both units). Hence the Petitioner has calculated the cumulative plant load factor considering the cumulative energy supplied from both the Unit.

5.11 The Petitioner has claimed the actual gross generation from Unit-1 and Unit-2 of generating station as 2078.80 MUs and 1661.49 MUs respectively. Likewise, the Petitioner has submitted net generation (ex-bus generation) for Unit-1 and Unit-2 as 1900.81 MUs and 1519.22 MUs respectively.

Commission's Analysis

5.12 The Commission has noted the additional reply submitted by the Petitioner as annexed in '***annexure-A***'. Accordingly, the Commission approves the gross generation for FY 2023-24 as 2078.80 MU for Unit-1 & 1661.49 MU for Unit-2.

5.13 On scrutinizing and analyzing the material, information, actual figure and details submitted by the Petitioner and on prudent check the Commission approves the Gross Generation, Net Generation, and Plant Load Factor for FY 2023-24 is given below.

Table 6: Generation as approved by the Commission.

Particulars	UoM	MYT	Petition	Approved
UNIT-I				
Gross Generation	MU	2010.42	2078.80	2078.80
Net Generation	MU	1829.48	1900.81	1900.81
UNIT-II				

Particulars	UoM	MYT	Petition	Approved
Gross Generation	MU	2010.42	1661.49	1661.49
Net Generation	MU	1829.48	1519.22	1519.22

Table 7: Plant Load Factor as approved by the Commission.

Particulars	UoM	Unit-1	Unit-2
		Approved	Approved
Normative Ex-bus generation against Contracted Capacity (122.85 MW)	MU	539.56	539.56
Scheduled Energy	MU	461.27	461.27
Actual PLF	**%**	**85.49**	**85.49**

Gross Station Heat Rate (GHR)

Petitioner's Submission

5.14 The Petitioner has submitted the actual Gross Station Heat Rate (GHR) for FY 2023-24 as 2531.80 kCal/kWh for Unit-1 and 2532.31 kCal/kWh for Unit-2 against the normative approved value of 2387.00 kCal/kWh for both the Units.

Commission's Analysis

5.15 In accordance with ***clause 16.1*** of JSERC Generation Tariff (1st Amendment) Regulation, 2023, the Commission approves the Normative Station Heat Rate as 2387.00 kCal/kWh for both the Units for computation of energy charge rate later in this order.

5.16 Further the Commission approves the actual station heat rate for FY 2023-24 as 2531.80 kCal/kWh for Unit-1 and 2532.31 kCal/kWh for Unit-2 for computation of sharing of gain/loss on variation in operational parameter later in this order.

5.17 On scrutinizing and analyzing the material, information, actual figure and details submitted by the Petitioner, the Commission approves the Actual Gross Station Heat Rate for FY 2023-24 is given below.

Table 8: Gross Station Heat Rate (GHR) as approved by the Commission

Particulars	UoM	MYT	Petition	Approved
UNIT-I				
Normative Station Heat Rate	kCal/kWh	2387.00	2387.00	2387.00
Actual Gross SHR	kCal/kWh	-	2531.80	2531.80
UNIT-II				
Normative Station Heat Rate	kCal/kWh	2387.00	2387.00	2387.00
Actual Gross SHR	kCal/kWh	-	2532.31	2532.31

Specific Fuel Oil Consumption

Petitioner's Submission

5.18 The Petitioner has submitted the specific fuel oil consumption as 0.50 ml/kWh for both the Units for purpose of True-up for FY 2023-24. It has further submitted that actual specific fuel oil consumption is 0.11 ml/kWh for Unit-1 and 0.16 ml/kWh for Unit-2, for the purpose of computing gain due to actual operational performance.

Commission's Analysis

5.19 In accordance with ***clause 16.1*** of JSERC Generation Tariff Regulation (1st Amendment) 2023, the Commission approves the specific fuel oil consumption as 0.5 ml/kWh for both the Units.

Table 9: Specific Fuel Oil Consumption as approved by the Commission.

Particulars	UoM	MYT	Petition	Approved
UNIT-I				
Specific Fuel Oil Consumption	ml/kWh	0.50	0.50	0.50
Actual Specific Fuel Oil Consumption	ml/kWh	-	0.11	0.11
UNIT-II				
Specific Fuel Oil Consumption	ml/kWh	0.50	0.50	0.50
Actual Specific Fuel Oil Consumption	ml/kWh	-	0.16	0.16

Fuel Cost Parameter

Coal Mix and Gross Calorific Value (GCV) of Primary Fuel

Petitioner's Submission

5.20 The Petitioner has submitted that there is variation in coal mix, GCV and landed price of primary fuel against the approved value in MYT Order dated December 14, 2023. Further, the Petitioner has added that the reason for variation is not attributable to Petitioner.

5.21 The Petitioner has submitted the source wise and unit-wise quantity of coal, weighted average cost of coal and weighed average GCV of Coal during FY 2023-24 duly certified by the auditor in support of his claim as annexed in **'*annexure-7*'** of main petition.

5.22 Furthermore, the Petitioner has claimed the GCV on actual weighted average GCV less 85.00 kCal/kg in terms of storage and handling loss inside the plant.

Table 4: Coal Mix and GCV for FY 2023-24 as submitted by the Petitioner.

Particulars	Fuel Mix (%)		GCV (kCal/kg)	
	Unit-1	Unit-2	Unit-1	Unit-2
Shakti B-II	83.13%	83.13%	3582.25	3582.25
Other Coal	16.87%	16.87%	3040.29	3040.29
Wtg. Avg. GCV			**3490.82**	**3490.82**

Commission's Analysis

5.23 The Commission has taken note of submission made by the Petitioner and statutory audited document detailing year wise quantity consumed, GCV of coal, and landed price of coal for FY 2023-24 of each Unit as annexed in ***annexure-7***.

5.24 The Commission has observed that there has been significant deviation in the blending ratio, GCV of primary fuel-mix and its price as compared to the approved values by the Commission in MYT.

5.25 Considering the facts submitted by the Petitioner and after due diligence, the Commission approves the coal mix and weighted average GCV of coal for Unit-1 and Unit-2 of APNRL Generation station for FY 2023-24 as tabulated hereunder.

Table 10: Coal Mix and GCV for Unit-1 as approved by the Commission.

Particulars	Fuel Mix (%)			GCV (kCal/kg)		
	MYT	Petition	Approved	MYT	Petition	Approved
Shakti B-II	-	83.13%	83.13%		3582.25	3582.25
Other Coal	-	16.87%	16.87%		3040.29	3040.29
Wtg. Avg. GCV				**3394.51**	**3490.82**	**3490.82**

Table 11: Coal Mix and GCV for Unit-2 as approved by the Commission.

Particulars	Fuel Mix (%)			GCV (kCal/kg)		
	MYT	Petition	Approved	MYT	Petition	Approved
Shakti B-II	-	83.13%	83.13%		3582.25	3582.25
Other Coal	-	16.87%	16.87%		3040.29	3040.29
Wtg. Avg. GCV				**3373.15**	**3490.82**	**3490.82**

Transit Loss

Petitioner's Submission

5.26 The Petitioner has claimed the normative Transit Loss as 0.8% for domestic coal and 0.2% for imported coal in accordance with ***Clause 17.11*** of the Generation Tariff Regulations 2020.

Commission's Analysis

5.27 The Commission has noted the CA certificate submitted by the Petitioner stating the wt. Avg. Price of coal and its GCV. The landed price of coal has been worked out based on the wt. Avg. Price of coal as given in ***annexure-7*** by factoring the normative transit loss on it. Hence, the Commission for determination of energy for true up of FY 2023-24 approves the normative transit loss.

Landed Cost of Coal

Petitioner's Submission

5.28 The Petitioner has submitted the source wise actual landed price of coal from each source after incorporating the normative transit loss.

Commission's Analysis

5.29 The Commission is of opinion that, in accordance with ***clause 6.13*** of JSERC Generation Tariff Regulation 2020, the price of primary fuel cost is uncontrollable parameter. Hence, this Commission rely on the auditor report as annexed in the ***'annexure-7'*** of main petition. Accordingly, the Commission has considered the auditor's report for wt. Avg. Price of coal and arrived at the landed cost by grossing up the same at normative transit loss. This approved landed price of primary fuel has been considered for energy charge rate later in this chapter.

5.30 Based on above excerpt the Landed price of primary fuel for FY 2023-24 is tabulated hereunder.

Table 12: Landed Price of Primary Fuel (Rs/MT) for Unit-1 as approved by the Commission.

Particulars	Rs./MT		
	MYT	Petition	Approved
Shakti B-II		3372.93	3372.93
Other Coal		4737.34	4737.34
Wtg. Avg. Landed Primary Fuel Cost	**3,230.62**	**3603.13**	**3603.13**

Table 13: Landed Price of Primary Fuel (Rs/Ton) for Unit- 2 as approved by the Commission.

Particulars	Rs./MT		
	MYT	Petition	Approved
Shakti B-II		3372.93	3372.93
Other Coal		4737.34	4737.34
Wtg. Avg. Landed Primary Fuel Cost	**3,253.68**	**3603.13**	**3603.13**

Calorific value and Cost of Secondary Fuel

Petitioner's Submission

5.31 The Petitioner has submitted that the month wise landed price and GCV of secondary fuel duly certified by the auditor.

Commission's Analysis

5.32 The Commission has analyzed the month wise quantity of secondary fuel consumption, GCV and landed price of secondary fuel duly certified by the auditor.

5.33 The Commission on scrutinizing the additional data submitted by the Petitioner (as annexed in ***annexure-A3)*** along with the tariff model, observes that the weighted average landed price of oil is Rs 81481.25/KL for Unit-1 and Rs 84239.39/KL for Unit-2. While the weighted average GCV of oil is 9467.04 kCal/KL for Unit-1 and 9502.47 kCal/KL for Unit-2.

5.34 On scrutinizing and analyzing the data, information and submission made by the Petitioner and on prudent check, the Commission has observed that the landed price of secondary fuel had increased drastically as compared to the previous years. Accordingly, the Commission directs the Petitioner to ensure price discipline while purchasing the secondary fuel.

5.35 The Commission on aforesaid observation approves Calorific value and Landed price of Secondary Fuel for each Unit for FY 2023-24 as shown below:

Table 14: Calorific value & Landed Price of Secondary fuel as approved by the Commission.

Particulars	Calorific Value (kcal/L)			Landed Price (Rs./kL)		
	MYT	Petition	Approved	MYT	Petition	Approved
UNIT-1	9350.00	9467.04	9467.04	44672.00	81481.25	81481.25
UNIT-2	9350.00	9502.47	9502.47	45943.72	84239.39	84239.39

Energy Charge Rate (ECR)

Petitioner's Submission

5.36 The Petitioner has submitted the Energy Charge Rate (ECR) as Rs. 2.837/kWh and Rs. 2.838/kWh for Unit-1 and Unit-2 respectively for FY 2023-24 before taking into account the discount of Shakti Coal.

5.37 The Petitioner has considered the operational parameters at normative level as specified in MYT Tariff Order dated December 14, 2023 i.e. Specific Fuel Consumption at 0.50 ml/kWh, Auxiliary Power Consumption of 9.00% for each units and station Heat rate as 2387.00 kCal/kWh for both unit, for the purpose of computing the Energy Charge Rate for FY 2023-24.

5.38 Further, the Petitioner has considered the storage and handling loss of 85.00 kCal/kg in received GCV for Computation of ECR.

Commission's Analysis

5.39 The Commission has outlined ***clause 17.7, clause 17.8*** of JSERC Generation Tariff Regulation, 2020, and ***clause 7.1*** of JSERC Generation Tariff (1st Amendment) Regulation, 2023 for the approval of the Energy Charge Rate (ECR) as reproduced below:

> *"17.7 Total Energy charge payable to the Generating Company for a month shall be = Energy charge rate (in Rs. /kWh) x Scheduled energy (ex-bus) for the month (in kWh.)*
>
> *17.8 Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae:*
>
> *a) For coal based stations*
>
> *ECR = {(SHR – SFC x CVSF) x LPPF/ CVPF + SFC x LPSFi + LC x LPL} x 1/ (1 – AUX)}*
>
> *Where,*
>
> *AUX - Normative auxiliary energy consumption in percentage;*

CVPF- (a) Weighted Average Gross calorific value of coal as received, in kCal per kg for coal based stations;

(b) Weighted Average Gross calorific value of primary fuel as received in kCal per kg, per litre or per standard cubic meter, as applicable for lignite, gas and liquid fuel based stations;

(c) In case of blending of fuel from different sources, the weighted average Gross calorific value of primary fuel shall be arrived in proportion to blending ratio;

CVSF - Calorific value of secondary fuel, in kCal per ml

ECR - Energy charge rate, in Rupees per kWh.

SHR - Gross station heat rate, in kCal per kWh.

LC = Normative limestone consumption in kg per kWh

LPPF - Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month. (In case of blending of fuel from different sources, the weighted average landed price of primary fuel shall be arrived in proportion to blending ratio)

LPSFi=Weighted Average Landed Price of Secondary Fuel in Rs./ml during the month

LPL = Weighted average landed price of limestone in Rupees per kg.

SFC - Specific fuel oil consumption, in ml per kWh ….”

Generation Tariff (1st Amendment) Regulation 2023

*7.1 Provided that the cost of primary fuel shall be based on the landed cost incurred (taking into account normative transit and handling losses) by the generating station and gross calorific value of the fuel on **‘as received basis’ less 85 kCal/Kg** on account of variation during storage at generating station as per actual weighted average for three months preceding the first month for which tariff is to be determined:*

5.40 In accordance with ***clause 10.1*** of JSERC (Generation Tariff Regulation) 1st Amendment 2023, the Commission approves the normative operational parameter such as normative auxiliary consumption, Normative station Heat Rate, Specific fuel oil Consumption.

5.41 Further, in accordance with clause 7.1 of JSERC Generation Tariff Regulation (1st Amendments) 2023, the Commission approves the gross calorific value of the fuel on 'as received basis' less 85.00 kCal/kg.

5.42 Accordingly, the Commission has computed the ECR for FY 2023-24 based on GCV of primary fuel, GCV of secondary fuel, landed price of primary and secondary fuel, normative operational parameter as approved earlier in this Order is tabulated hereunder.

Table 15: Energy Charge Rate (ECR) for Unit-1 as approved by the Commission.

Particulars	UoM	MYT	Petition	Approved
Normative Auxiliary Consumption (AUX)	%	9.00	9.00	9.00
Normative SHR	kCal/kWh	2387.00	2387.00	2387.00
Normative SFC	mL/kWh	0.50	0.50	0.50
Calorific Value of Oil (CVSF)	kCal/ml	9.35	9.47	9.47
GCV of Primary Fuel (CVPF)	kCal/kg	3309.51	3405.82	3405.82
Landed Price of Primary Fuel (LPPF)	Rs./kg	3.23	3.63	3.63
Landed Price of Secondary Fuel (LPSFi)	Rs./ml	0.04	0.081	0.0815
Energy Charge Rate (ECR)	**Rs/kWh**	**2.580**	**2.837**	**2.837**

Table 16: Energy Charge Rate (ECR) for Unit-2 as approved by the Commission.

Particulars	UoM	MYT	Petition	Approved
Normative Auxiliary Consumption (AUX)	%	9.00	9.00	9.00
Normative SHR	kCal/kWh	2387.00	2387.00	2387.00
Normative SFC	mL/kWh	0.50	0.50	0.50
Calorific Value of Oil (CVSF)	kCal/ml	9.35	9.50	9.50
GCV of Primary Fuel (CVPF)	kCal/kg	3288.15	3405.82	3405.82
Landed Price of Primary Fuel (LPPF)	Rs./kg	3.25	3.63	3.63
Landed Price of Secondary Fuel (LPSFi)	Rs./ml	0.05	0.08	0.08
Energy Charge Rate (ECR)	**Rs/kWh**	**2.616**	**2.838**	**2.838**

Determination of Fixed Cost

Additional Capitalization

Petitioner's Submission

5.43 It is submitted by the Petitioner that an additional capitalization and de-capitalization of Rs. 2.12 Crore and Rs. 0.09 Crore respectively for Unit-1 and Rs. 1.00 Crore and Rs. 0.09 Crore respectively for Unit-2 of the generating station has been incurred for FY 2023-24.

5.44 The details of additional capitalization and de-capitalization as claimed by the Petitioner for FY 2023-24 as annexed in ***annexure-3*** of main petition is tabulated hereunder. The petitioner has given detailed justification for the additional capitalization in ***annexure-4*** of main petition

Table 17: GFA, Additional Capitalization and De-capitalization for Unit-1 (Rs. Cr) as submitted by the Petitioner.

Particulars	As on 31st March 2023	Addition during the FY 2023-24	Deduction during the FY 2023-24	As on 31st March 2024
Land under Full title	39.48			39.48
Land held under lease	11.20			11.20
Plant and Machinery	1,429.25	1.64	0.03	1,430.86
Building & Civil Engineering works	212.76	0.27		213.02
Office furniture & fitting	0.10			0.10
Office Equipment	0.39			0.39
Transformers and others	0.03			0.03
Others Assets	7.66	0.21	0.05	7.82
Any Other assets not covered above	0.29			0.29
Total	**1,701.16**	**2.12**	**0.09**	**1,703.19**

Table 18: GFA, Additional Capitalization and De-capitalization for Unit-2 (Rs. Cr) as submitted by the Petitioner.

Particulars	As on 31st March 2023	Addition during the FY 2023-24	Deduction during the FY 2023-24	As on 31st March 2024
Land under Full title	39.48			39.48

Particulars	As on 31st March 2023	Addition during the FY 2023-24	Deduction during the FY 2023-24	As on 31st March 2024
Land held under lease	11.20			11.20
Plant and Machinery	1,444.62	0.52	0.03	1,445.11
Building & Civil Engineering works	211.37	0.27		211.64
Office furniture & fitting	0.10			0.10
Office Equipment	0.39			0.39
Transformers and others	0.03	0.00	0.00	0.03
Others	7.66	0.21	0.05	7.82
Any Other assets not covered above	0.29			0.29
Total	**1,715.15**	**1.00**	**0.09**	**1,716.06**

Table 19: Additional Capitalization for FY 2023-24 for Unit-1 & Unit-2 (Rs. Cr) as submitted by the Petitioner.

Sl. No	Particulars	Additional Capitalization
1	DCS Hardware & Software upgradation in Ash Handling Plant for Unit-1	0.82
2	Variable Frequency Derive	1.04
3	BFP Scoop Electromechanical Actuator for Unit-1 and Portable Vibration Meter	0.30
4	Balance work in residential colony	0.53
5	Vehicle	0.23
6	Other Assets	0.19
Total		**3.11**

Commission's Analysis

5.45 The Commission has outlined ***clause 14.1*** to ***clause 14.6*** of JSERC Generation Tariff Regulation, 2020 for approval of any additional capitalization for a generating station as reproduced below:

"Additional Capitalization

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

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

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

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

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

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

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

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

14.3 In case of replacement/ up gradation of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:

(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;

(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;

(c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and

(d) The replacement of such asset or equipment has otherwise been allowed by the Commission.

14.4 The capital expenditure, in respect of existing generating station incurred or projected to be incurred on the following counts beyond the original scope, may be admitted by the Commission, subject to prudence check:

(a) Liabilities to meet award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;

(b) Change in law or compliance of any existing law;

(c) Force Majeure events;

(d) Any additional works/services, which have become necessary for efficient and successful operation of the generating station, but not included in the original project cost;

(e) Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security;

(f) Deferred works relating to ash pond or ash handling system in addition to the original scope of work, on case to case basis:

Provided also that if any expenditure has been *claimed under Renovation and Modernisation or repairs and maintenance under O&M expenses, the same shall not be claimed under this Regulation;*

(g) Usage of water from sewage treatment plant in thermal generating station.

14.5 In case there is additional capitalization proposed during the fag end of the project (at least 5 years before the Useful life or extended Useful life) of the plant, the Generating Company is required to submit the detail justification of its necessity during the fag year, Cost-Benefit analysis, DPR, if any and rate reasonability along with the residual life assessment report of the Project. The Commission may carry out prudence check based on the detail submitted by the Generating Company, its necessity, its financial viability before approval of such additional capitalization.

14.6 In case of de-capitalisation of assets of a Generating Company, the original cost of such asset as on the date of decapitalization duly certified by its Statutory Auditor shall be deducted from the value of gross fixed asset and corresponding outstanding loan on such assets as well as equity shall be deducted from loan and the equity balances respectively. Such deductions shall be carried out in the year such de-capitalisation takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan shall be carried out duly taking into consideration the year in which it was capitalized"

5.46 The Commission has scrutinized the submission supplied by the Petitioner regarding the Capitalization of assets, and its justification for FY 2023-24. Accordingly, the Commission on prudent check approves the Capitalization as per audited book of account as annexed in ***annexure-2*** of main petition as shown below:

Table 20: Additional Capitalization for Unit-1 & Unit-2 (Rs. Cr) as approved by the Commission

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
1	DCS Hardware & Software upgradation in	0.82	The Petitioner has submitted that, the capital expenditure for the upgradation of the DCS (Distributed Control System) Operating System, application software, and hardware

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
	Ash Handling Plant for Unit-1		for the Ash Handling Plant (AHP) has been incurred to ensure the continued safe and efficient operation of the thermal power plant. The existing DCS hardware and software, originally supplied by the OEM during the project phase in 2011-12, are now obsolete. Specifically, the current system operates on Windows XP, which has not only become outdated but is also no longer supported by Microsoft. This absence of service and security updates poses a significant risk, including vulnerability to cybersecurity threats such as virus attacks. A system failure or crash could severely impact plant operations, potentially halting ash handling processes critical to the plant's overall performance. The petitioner has further submitted that the technology available at the time of commissioning in 2011-12 was sufficient for initial operations; however, the rapid pace of technological advancements and the OEM's cessation of support for older systems necessitated this upgrade. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
2	Variable Drive Frequency	1.04	The Petitioner has stated the VFD allows for precise control over the Revolutions Per Minute (RPM) of the CEP motor, enabling the plant to adjust the motor speed based on real-time operational requirements. Prior to the installation of the VFD, the CEP motor operated at a constant speed, regardless of fluctuating demand. This led to inefficient energy use and higher operational costs. By implementing the VFD, the motor's speed can now be optimized, which results in a significant reduction in power consumption. This not only improves the overall energy efficiency of the plant but also reduces wear and tear on the motor, potentially lowering maintenance costs and extending the equipment's operational lifespan.

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
3	BFP Scoop Electromechanical Actuator for Unit-1 and Portable Vibration Meter	0.30	The Petitioner has submitted that the Electromechanical Actuator was procured to enhance the control and operation of the BFP Scoop. This actuator provides more precise control over the scoop, which regulates the output of the BFP. By implementing this actuator, the BFP scoop can now be operated more efficiently and with improved reliability, minimizing the risk of operational disruptions that could impact the entire feed water supply system. The existing mechanism had limitations in terms of control accuracy and reliability, leading to potential performance inefficiencies. The new electromechanical actuator ensures smoother and more accurate control, which is critical for maintaining optimal boiler feed water levels and, consequently, the overall operational stability of the power plant. The Portable Vibration Meter was acquired for the critical task of measuring and monitoring the vibration parameters of various rotating equipment within the plant, including the BFP. This device is capable of measuring vibration in terms of velocity, acceleration, and displacement in RMS, peak, and peak-to-peak modes. It includes a vibration transducer with a cable, allowing for accurate, real-time data collection and diagnostics. Regular vibration monitoring is essential for predictive maintenance, as it helps in identifying early signs of wear or malfunction in rotating equipment. This allows for timely corrective actions, thereby avoiding unplanned outages and reducing downtime. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
4	Balance work in residential colony	0.53	The Petitioner has submitted that to fulfil the infrastructural requirements for housing plant employees and supporting staff, ensuring a stable and conducive living

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			environment, the residential colony was necessary. The balance work in the residential colony could not be completed before the COD due to the prioritization of plant commissioning and financial constraints. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
5	Vehicle	0.23	The Petitioner has submitted that the capital expenditure for the procurement of vehicles was incurred to support essential operations within the plant. Vehicles are a critical asset for ensuring efficient mobility of personnel, tools, and equipment across the large operational area of the thermal power plant, facilitating quicker response times for maintenance, inspections, and other operational needs. These vehicles contributed directly to the operational efficiency of the plant by minimizing delays in addressing critical tasks, improving workflow, and supporting safety by ensuring swift access to all areas of the plant during emergencies. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
6	Other Assets	0.19	The petitioner has submitted that the capital expenditure incurred for the procurement of various other assets, including cameras, laptops, air conditioning units, fans, and UPS systems, was essential to support the smooth and efficient functioning of plant operations. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
Total (Rs. Crore)		**3.11**	

5.47 The Commission has observed that all the assets capitalized during the FY 2023-24 were not part of the original project. But, these assets may be necessary for efficient and successful operation and security of generating station and related switchyard. Accordingly, the Commission on his own prudent, approves the aforesaid capitalization in accordance with 14.4 (d) of JSERC Tariff Regulations 2020.

5.48 The Commission has examined the audited books of accounts for FY 2023-24 as annexed in ***annexure-2*** and as per ***Note-4 (Property, Plant and Equipment)*** of audited accounts, substantiates the fact that Rs. 3.11 Crore (cumulative for both the Units) of assets is capitalized during the FY 2023-24. Based on the submission and justification made by the Petitioner and after a prudent check, the Commission approves the additional capitalization of Rs. 3.11 Crore (cumulative for both the Units) for FY 2023-24 under clause 14.4(d) of JSERC Tariff Regulations 2020. Furthermore, the additional capitalization as per the audited accounts of 2023-24 is leading to closing value of GFA as on 31st March, 2024 as Rs. 3,419.24 Crores.

Table 21: Capitalization and Decapitalization (Rs. Crore) as approved by the Commission.

Particulars	Unit-1			Unit-2		
	MYT	Petition	Approved	MYT	Petition	Approved
Capitalization	4.75	2.12	2.12	4.75	1.00	1.00
Decapitalization	-	0.09	0.09	-	0.09	0.09

Depreciation

Petitioner's Submission

5.49 The Petitioner has submitted that depreciation is calculated based on 'Single Line Method' and at the depreciation rates provided in Appendix I of the clause 15.30 of JSERC Generation Tariff Regulations 2020.

5.50 Further, the Petitioner has submitted that the depreciation so allowed shall be up to maximum of 90% of the capital cost of the project and the balance is to be considered as the salvage value of the asset.

Table 22: Depreciation (Rs. Crore) as submitted by the Petitioner.

Particulars	Depreciation Rate	Unit-1	Unit-2
Land under Full title	0	0	0.00
Land held under lease	2.67%	0.30	0.30

Particulars	Depreciation Rate	Unit-1	Unit-2
Plant and Machinery	4.22%	60.35	60.97
Building & Civil Engineering works	2.67%	5.68	5.65
Office Furniture and fittings	6.33%	0.01	0.01
Office Equipment	6.33%	0.02	0.02
Other Assets	5.28%	0.33	0.33
Transformers and others	4.22%	0.00	0.00
Any Other assets not covered above	4.22%	0.01	0.01
Net Depreciation		**66.70**	**67.29**

Commission's Analysis

5.51 The Commission has outlined ***clause 15.28*** to ***clause 15.34*** of JSERC Generation Tariff Regulation, 2020 for the approval of Depreciation for a generating station as reproduced below:

> *"15.28 Depreciation shall be calculated every year, on the amount of Capital Cost of the assets as admitted by the Commission. In case tariff of multiple Units of a generating station is determined, weighted average life for the generating station shall be applied:*
>
> *Provided that depreciation shall not be allowed on assets funded by Consumer Contribution and Capital Subsidies/Grants. Provision for replacement of such assets shall be made in the Capital Investment Plan.*
>
> *15.29 Depreciation for each year shall be determined based on the methodology as specified in these Regulations along with the rates and other terms specified in these Regulations.*
>
> *15.30 Depreciation shall be calculated annually, based on the straight-line method, at the rates specified at Appendix-I. The base value for the purpose of depreciation shall be original cost of the asset:*
>
> *Provided that the Generating Company shall ensure that once the individual asset is depreciated to the extent of seventy (70) percent of the Book Value of that asset, remaining depreciable value as on March 31 of the year closing shall be*

spread over the balance useful life of the asset;

Provided that in case the tenure of PPA executed between the Generating plant and Beneficiaries is more than that of the Useful life of the plant, the Commission after prudence check may consider the PPA life for spreading the remaining depreciable value as on March 31 of the year instead of useful life;

Provided that in case after carrying out the residual life assessment, it is found that the residual life of the generating station or unit as the case may be is beyond the useful life specified in these regulations the Commission after prudence check, may spread the remaining depreciable value to be recovered over the extended life of the plant.

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

Provided that any depreciation disallowed on account of lower availability of the generating station shall not be allowed to be recovered at a later stage during the useful life and the extended life.

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

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

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

Year.

15.34 In case of de-capitalization of assets in respect of Generating Station or Unit thereof the cumulative depreciation shall be adjusted by taking into account the depreciation recovered through tariff towards decapitalization asset during its useful services.

5.52 In accordance with rate specified in Appendix-I of JSERC Generation Tariff Regulation 2020, the Commission has considered the asset class depreciation rate for FY 2023-24

5.53 Further, the Commission has computed the depreciation for both the Unit in accordance with the above mentioned regulations. The table below shows the depreciation approved by the Commission against that submitted by the Petitioner.

Table 23: Depreciation (Rs. Crore) as approved by the Commission.

Particulars	Asset class Depreciation Rate	Unit-1			Unit-2		
		MYT	Petition	Approved	MYT	Petition	Approved
Land held under lease	0.00%		0	-		0.00	-
Plant and machinery	2.67%		0.30	0.30		0.30	0.30
Plant & Machinery	4.22%		60.35	60.35		60.97	60.97
Building & civil works	2.67%		5.68	5.68		5.65	5.65
Office furniture & fitting	6.33%		0.01	0.01		0.01	0.01
Office Equipment	6.33%		0.02	0.02		0.02	0.02
Transformer	4.22%		0.00	0.00		0.00	0.00
Other Assets	4.22%		0.33	0.34		0.33	0.34
Any other assets not covered	4.22%		0.01	0.01		0.01	0.01
Net Depreciation (Rs.cr.)		**66.37**	**66.70**	**66.72**	**67.09**	**67.29**	**67.29**

Operation & Maintenance Expenses

Petitioner's Submission

5.54 The Petitioner has claimed the Operation and Maintenance (O&M) expenses under the following broad categories: -

- Projected O&M Expenses for the Control Period FY 2021-22 to 2025-26;
  - Employee Expenses without Terminal Liabilities;
  - Repairs & Maintenance (R&M) Expenses;
  - Administrative and General (A&G) Expenses;
- Petition application Fee;
- Ash Disposal Expenses;
- Raw water Expenses;
- Legal & Consulting Expenses
- Security Expenses
- Capital Spares

5.55 **Employee Expenses:** The petitioner has submitted that it has arrived at employee expenses for FY 2023-24 using inflation factor of 3.71% and growth factor of 0.00%, the same is shown below.

5.56 In view of the reasons mentioned above, the Petitioner has prayed to allow the O&M expenses as mentioned below.

Table 24: Normative Employee Expenses (Rs. Crore) as submitted by the Petitioner.

Particulars	UoM	UNIT-1		UNIT-2	
		MYT	Petition	MYT	Petition
Employee Expenses	**Rs. Cr.**	**15.03**	**15.13**	**15.03**	**15.13**

5.57 **A&G Expenses:** the petitioner has submitted that in order to arrive the revised normative A&G expenses for the period FY 2023-24, the Petitioner has used the inflation factor of 3.71% over the expenses approved for the FY 2022-23 by the Commission in the order dated August 22, 2024, the same has been depicted below:

Table 25: Normative A&G Expenses (Rs. Crore) as submitted by the Petitioner.

Particulars	UoM	UNIT-1		UNIT-2	
		MYT	Petition	MYT	Petition
A&G Expenses	**Rs. Cr.**	**39.69**	**39.39**	**39.69**	**39.39**

5.58 **R&M expenses:** The Petitioner has submitted that to arrive the revised normative R&M expenses for FY 2023-24, the Petitioner has used the inflation factor of 3.71% and "K-factor" of 1.14% as approved by the Commission in the MYT order dated 14.12.2023. Further, the opening GFA for FY 2023-24 has been taken as the closing GFA of FY 2022-23. R&M expenses derived by the petitioner has been depicted below:

Table 26: Normative R&M Expenses (Rs. Crore) as submitted by the Petitioner.

Particulars	UoM	UNIT-1		UNIT-2	
		MYT	Petition	MYT	Petition
R&M Expenses	**Rs. Cr.**	**23.02**	**20.11**	**23.02**	**20.28**

5.59 **Legal & Consultancy expenses:** The Petitioner has submitted that it has carried out legal & consultancy expenses as per clause 15.43 of JSERC Tariff Regulation 2020. Further, the Petitioner has incurred expenses for various litigation, regulatory, financial and technical matters along with internal audit, through legal and consulting firms. Accordingly, the Petitioner is claiming the legal & consultancy expenditure towards the same for the FY 2023-24 as depicted below.

Table 27: Legal & Consultancy Expenses (Rs. Crore) as submitted by the Petitioner.

Particulars	UoM	UNIT-1		UNIT-2	
		MYT	Petition	MYT	Petition
Legal & Consultancy Expenses	**Rs. Cr.**	**0.22**	**6.78**	**0.22**	**6.78**

5.60 Based on the above submission the Petitioner has submitted the net O&M expenses for FY 2023-24 as show below:

Table 28: Normative O&M Expenses (Rs. Crore) as submitted by the Petitioner.

Particulars	UoM	UNIT-1		UNIT-2	
		MYT	Petition	MYT	Petition
Employee Expenses	Rs. Cr.	15.03	15.13	15.03	15.13
A&G Expenses	Rs. Cr.	33.69	33.39	33.69	33.39
R&M Expenses	Rs. Cr.	23.02	20.11	23.02	20.28

Particulars	UoM	UNIT-1		UNIT-2	
		MYT	Petition	MYT	Petition
Legal & Consulting Expenses	Rs. Cr.	0.22*	6.78	0.22*	6.78
Net Normative O&M Expenses	**Rs. Cr.**	**77.96**	**81.42**	**77.96**	**81.58**

**attributed to 122.85 MW only*

Commission's Analysis

5.61 The Commission has outlined ***clause 15.35*** and ***clause 15.40*** of JSERC Generation Tariff Regulation, 2020 for the approval of Operation & Maintenance Charges for a generating station as reproduced below:

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

1. *Salaries, wages, pension contribution and other employee costs;*
2. *Administrative and General costs;*
3. *Repairs and maintenance expenses;*

For Existing Thermal Generating Stations: -

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

5.62 Considering above clauses and the facts and circumstances of the petition, the Commission approves the normative Employee Expenses for FY 2023-24, incorporating the inflation and growth factors of the respective financial year.

Table 29: Revised Growth Factor as approved by the Commission.

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24
Number of Employees	432	438	438	438
G (Growth Factor)		1.39%	0.00%	0.00%

Table 30: Normative Employee Expenses (Rs. Crore) as approved by the

Commission.

Particulars	UoM	Approved
Employee Cost of Previous Year	Rs. Cr.	29.18
Inflation Factor	%	3.72%
Growth Factor	%	0.00%
Normative Employee Expenses	**Rs. Cr.**	**30.26**

5.63 Accordingly, the Commission approves the unit wise normative employee expenses for FY 2023-24 as tabulated hereunder.

Table 31: Normative Employee Expenses (Rs. Crore) as approved by the Commission for each unit.

Particulars	UoM	Approved	
		Unit-1	Unit-2
Normative Employee Expenses	**Rs. Cr.**	**15.13**	**15.13**

5.64 Likewise, the Commission approves the normative A&G Expenses for FY 2023-24 based on the approved normative A&G Expenses for previous year (excluding petition filing fee) by multiplying the actual inflation factor of the financial year.

Table 32: Normative A&G Expenses (Rs. Crore) as approved by the Commission.

Particulars	UoM	Approved
A&G (n-1) Year	Rs. Cr.	75.97
Inflation Factor	%	3.72%
Normative A&G Expenses	**Rs. Cr.**	**78.79**

5.65 Accordingly, the Commission approves the unit wise normative A&G expenses for FY 2023-24 as tabulated hereunder.

Table 33: Normative A&G Expenses (Rs. Crore) as approved by the Commission for each unit.

Particulars	UoM	Approved	
		Unit-1	Unit-2
Normative A&G Expenses	**Rs. Cr.**	**39.40**	**39.40**

5.66 For the purpose of evaluating the normative R&M Expenses, the Commission has taken the approved opening value of GFA for FY 2022-

23 and multiplied it with the "K" factor as approved by the Commission in the MYT Order and actual inflation factor for FY 2023-24 as tabulated hereunder:

Table 34: Normative R&M Expenses (Rs. Crore) as approved by the Commission.

Particulars	UoM	Approved
Opening GFA	Rs. Cr.	3415.33
K-factor	%	1.14%
Inflation Factor	%	3.72%
Normative R&M Expenses	**Rs. Cr.**	**40.38**

5.67 Accordingly, the Commission approves the unit wise normative A&G expenses for FY 2023-24 as tabulated hereunder.

Table 35: Normative R&M Expenses (Rs. Crore) as approved by the Commission for each unit.

Particulars	UoM	Approved	
		Unit-1	Unit-2
Normative R&M Expenses	**Rs. Cr.**	**20.19**	**20.19**

5.68 In accordance with ***clause 15.43*** of JSERC (Terms & Condition of determination of Generation Tariff) Regulation, 2020, the Commission approves the legal expenses for FY 2023-24 as Rs. 6.78 Cr. for each of the Units.

5.69 The O&M expense projected by the Petitioner vis-à-vis as approved by the Commission for FY 2023-24 is given below.

Table 24: Normative O&M Expenses (Rs. Crore) as approved by the Commission for FY 2023-24

Particulars	UoM	UNIT-1			UNIT-2		
		MYT	Petition	Approved	MYT	Petition	Approved
Employee Expenses	Rs. Cr.	15.03	15.13	15.13	15.03	15.13	15.13
A&G Expenses	Rs. Cr.	33.69	33.39	39.40	33.69	33.39	33.40
R&M Expenses	Rs. Cr.	23.02	20.11	20.19	23.02	20.28	20.19
Legal & Consulting Expenses	Rs. Cr.	0.22*	6.78	6.78	0.22*	6.78	6.78
Net Normative O&M Expenses	**Rs. Cr.**	**77.96**	**81.42**	**81.50**	**77.96**	**81.58**	**81.50**

*attributed to 122.85 MW only

Water Charges, Capital Spare

Petitioner Submission

5.70 The Petitioner has submitted that water requirement of the generating station of the petitioner is met from Subarnarekha River and the Petitioner has to make payment from FY 2023-24 based on the rate specified for the industries for using the water from water source as downstream, as specified in the notification dated January 17, 2023 of Water Resource department ("WRD") of Jharkhand, attached as Annexure-8 in the main petition.

5.71 Considering above facts the Petitioner has paid Rs.22.93Cr towards the water charges and same has been accounted in the books of account of FY 2023-24. The water charges attributable to JBVNL is shown below:

Table 36: Water charges (Rs. Crore) as submitted by Petitioner

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
Water Charges for Unit 1 and 2 (Attributable to contracted capacity of 122.85 MW) as claimed in the instant petition	2.82	2.87	2.82	2.87

5.72 The Petitioner further mention that prior to FY 2023-24 there was a dispute regarding the source of water and for that the Petitioner had made representation before the Hon'ble High Court at Ranchi, which is still sub-judice before the Hon'ble High Court. In line with Clause 18 of the Water Agreement and as per the request of the Petitioner to reduce the water quantity to 17.60 MCM per annum as compared to original allotment of 35.60 MCM per annum on the basis of installation of reduced capacity i.e. only 540 MW power plant as against the original plan of 1000 MW power plant, the Government of Jharkhand has principally agreed to consider approximately 17.60 MCM as water quantity with effect from 1st April, 2023 with a provision for further reduction to 11.46 MCM per annum based on measurement of actual consumption with effect for signing of the renewed agreement.. In regard to quantity and source of water prior to 1st April, 2023, both parties have agreed to abide by the final decision from the competent court for the existing disputes lying before the Hon'ble High Court of Ranchi, Jharkhand both for quantity as well as source of water, which will automatically determine the applicable rate of the water.

5.73 In this regard, the Commission in its previous True-Up orders of past years till FY 2022-23 had granted the Petitioner the liberty to adjust the expenditure to the extent approved by the Hon'ble High Court, in the event that the judgment in the aforesaid matter is contrary to the Petitioner's position. However, the matter remains sub-judice before the Hon'ble High Court of Ranchi. The Petitioner undertakes to apprise this to the Commission once the Hon'ble High Court delivers its judgment.

5.74 Regarding the expenditure of Capital Spares, the Petitioner has submitted that "Based on the total expenditure of Rs. 10.85 Crores incurred by the Petitioner in FY 2023-24 respectively on account of Capital Spares, the proportionate expenditure towards the contracted capacity supplied to JBVNL, works out at Rs. 2.71 Crores and the same was not funded through special allowance as per ***clause 14.11 and 14.12*** of the Regulation or claimed as a part of additional capitalization or consumption of store and spares and renovation and modernization. The Commission is requested to allow Capital Spares as mentioned by the Petitioner below and the detailed list of the Capital Spares consumed by the Petitioner during FY 2023-24 is attached and marked as ***Annexure-9*** in the main petition".

Table 37: Capital expenses (Rs. Crore) as submitted by Petitioner.

Particulars	Capital Spare
Capital Spares for Unit-1 and Unit-2 (Attributable to contracted capacity of 122.85 MW)	2.71

5.75 The Petitioner has further claimed the security expenses in accordance with the MYT Order dated December 14, 2024 and ***clause 15.46*** of JSERC Generation Tariff Regulation (1st Amendments) 2023 as depicted below:

Table 38: Security Expenses (Rs. Crore) as submitted by Petitioner.

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
Security expenses for Unit 1 and 2 (Attributable to contracted capacity of 122.85 MW) as claimed in the instant petition	0.69	0.28	0.69	0.28

Commission Analysis

5.76 The Commission has outlined ***clause 15.46*** JSERC Generation Tariff Regulation (1st Amendment), 2023 for the approval of Water Charges, capital spare, security expenses for a generating station as reproduced below:

> *"The Water Charges, Security expenses, and Capital Spare for thermal generating stations shall be allowed separately after prudent check".*

5.77 The Commission has gone through the submissions of the Petitioner and observed that the matter related to Water Tax is sub-judice before the Hon'ble Jharkhand High Court. Thus, the Commission in the instant petition approves the water charges as per ***'note 31'*** of audited books of account for FY 2023-24 in proportion of allocated to JBVNL. However, the Commission has reserved the liberty to the Petitioner that if any liability arises due to the judgement of the Hon'ble Jharkhand High Court Order the same shall be claimed.

5.78 In regard to Capital spares, the Commission is of the view that in compliance to 2nd proviso of clause 9.1 of the JSERC Generation Tariff 1st Amendment Regulations 2023, the Petitioner is required to submit the details of year wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through special allowance as per ***clause 14.11 and 14.12*** of the JSERC Generation Tariff Regulations or claimed as a part of additional capitalization or consumption of stores and spares and renovation and modernization. In compliance, the

Petitioner has submitted the details of critical spares consumed in FY 2023-24 duly certified by auditor along with the purpose of consumption in ***annexure-9*** of main petition.

5.79 The Commission has examined the details of critical spares consumed in FY 2023-24 duly certified by auditor. The Commission approves Rs. 1.36 Crore (each units) based on the ratio of the power allocation to JBVNL.

5.80 In accordance with ***clause 15.46*** of JSERC (Terms and Condition for determination of Tariff) Regulation (1st Amendments) 2023, and **note-31** of annual books of account the Commission approves the cumulative security expenses for both the Units as Rs 0.55 crore for FY 2023-24 respectively attributed to contracted capacity of 122.85 MW.

5.81 Based on the above excerpt, the overall capital spare, water charges and security expenses are well within the ***clause 15.46*** of JSERC Generation Tariff Regulation 2020 read with 1st Amendment Regulation 2023. Accordingly, the Commission approves the capital spare, water charge and security expenses for FY 2023-24 are shown below:

Table 39: Water charges, capital expenses & security expenses (Rs. Crore) as approved by the Commission.

Particulars	Unit-1	Unit-2
	Approved	Approved
Water Charge for Unit-1 and Unit-2 (Attributable to contracted capacity of 122.85 MW)	2.87	2.87
Capital Spares for Unit-1 and Unit-2 (Attributable to contracted capacity of 122.85 MW)	1.36	1.36
Security Expenses combined for both the Ubit-1 & Unit-2 (Attributed to contracted capacity of 122.85 MW)	0.28	0.28

Ash Disposal Expenses

Petitioner's Submission

5.82 The Petitioner submits that the ash disposal and transportation is a critical operational activity in the power plant. The Ministry of Environment, Forest & Climate Change (MOEFCC) has time and again been notifying the modalities for safe and efficient disposal of ash. Key observations from the notification dated 25.01.2016 issued by MoEFCC are depicted below:

> *"2 (b) (10) The cost of Transportation of ash for road construction projects or for manufacturing of ash based products or use of soil conditioner in agriculture activity within a radius of hundred kilometers from a coal or lignite based thermal power plant shall be borne by such coal or lignite based thermal power plant and the cost of transportation beyond the radius of hundred kilometers and up to three hundred kilometers shall be shared equally between the user and the coal or lignite based thermal power plant."*

5.83 Further, the Petitioner has submitted that while complying with the above-mentioned notification, it has taken measures to ensure 100% ash utilization and has been transporting ash from its power station to various cement and brick manufacturing units and other vendors and incurred the expenditure towards the same.

5.84 Furthermore, the Petitioner has submitted that in order to fulfil 100% ash utilization it had faced several difficulties, some of which are depicted below:

- Low quantum of local industries to absorb the ash produced in the station
- The Petitioner is in frequent touch with ancillary units to ensure their participation in the offtake of ash generated in the station.

5.85 The Petitioner has emphasized that despite being in difficult situation, it has made all the necessary efforts to offload the ash generated from the plant in an economical manner. The overall expenses towards ash disposal includes ash handling and ash transportation-related expenses. The duly certified details of the quantity of ash generated and the transportation cost are stated as under and marked as ***Annexure-10***.

Table 40: Ash Disposal expenses (Rs. Crore) as submitted by the Petitioner.

Particulars	MYT	FY 2023-24
Quantity of Ash transported/Disposal Expenses (MT) (Distance < 100 Km)		518213
Total Quantity of Ash transported (MT)		518213
Transportation Cost/Disposal Expenses (in Rs. Cr) (Distance < 100 Km)		5.29
Transportation Cost/Disposal Expenses (in Rs. Cr)		5.29
Ash Transportation cost for Unit-1 and Unit-2 (Attributable to contracted capacity of 122.85 MW)	**4.38**	**1.32**

Commission's Analysis

5.86 On scrutinizing and analyzing the data, material, information on record, the Commission approves the Ash Disposal Expenses as per ***note 31*** of audited accounts for FY 2023-24 as tabulated hereunder:

Table 41: Ash Disposal expenses (Rs. Crore) as approved by the Commission.

Particulars	Unit-1	Unit-2
	Approved	Approved
Ash Disposal Expenses for Unit-1 and Unit-2 (Attributable to contracted capacity of 122.85 MW)	**0.66**	**0.66**

Interest on Loan

Petitioner's Submission

5.87 The Petitioner has submitted that the closing debt for FY 2022-23 has been considered as the opening loan for FY 2023-24. Further, the additional capitalization and decapitalization during the year have been funded in the debt-equity ratio of 70:30.

5.88 The Petitioner has considered the repayment during the year equivalent to the normative depreciation for the year being in line with the methodology prescribed in JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020.

5.89 Further, the Petitioner submits that the Regulation 15.18 of the JSERC Tariff Regulations, 2020 provides that the weighted average interest rate be considered for the purpose of calculation of allowable interest on loan during the year. Accordingly, the Petitioner has worked out the weighted average rate of interest at 9.00% for FY 2023-24 for Unit-1 and Unit-2 based on the interest-bearing loan portfolio of the Petitioner, during the year. The weighted average rate of interest for Unit-1 and Unit-2 duly certified by the auditor is attached and marked as ***Annexure-5.*** The loan-wise details of the weighted rate of interest applicable during the year on each of the loan balances are depicted in the table below:

Table 42: Weighted average rate of interest as submitted by the Petitioner.

Particulars	As on 1st April 2023
Edelweiss Asset Reconstruction Co. Ltd.	9%
Life Insurance Corporation	9%
Weighted Average Rate of Interest	**9.00%**

5.90 In accordance with the above provisions, the interest on debt has been computed on the normative average loan of the year by applying the actual weighted average rate of interest as depicted in the table above. The following tables represent the detailed computation of Interest on Debt for Unit-1 and Unit-2 for FY 2023-24.

Table 43: Interest on Loan (Rs. Crore) as submitted by the Petitioner.

Particulars	UoM	Unit-1		Unit-2	
		MYT	Petition	MYT	Petition
Opening Loan	Rs. Cr.	381.30	450.32	411.09	478.98
Deemed Loan Addition	Rs. Cr.	3.33	1.48	3.33	0.70
Deletion During year	Rs. Cr.	0.00	0.06	0.00	0.06
Deemed Loan Repayment	Rs. Cr.	66.37	66.70	67.09	67.29
Closing Loan	Rs. Cr.	318.26	385.04	347.33	412.33
Average Loan Balance	Rs. Cr.	349.78	417.68	379.21	445.65
Interest Rate	%	12.31%	9.00%	12.31%	9.00%
Interest on Loan	**Rs. Cr.**	**43.06**	**37.59**	**46.68**	**40.11**

Commission's Analysis

5.91 The Commission has outlined ***clause 15.6*** to ***clause 15.8*** JSERC Generation Tariff Regulation 2020, for the approval Debt: Equity ratio for a generating station as reproduced below:

"15.6 Existing Projects: For existing projects declaring Commercial Operation on or before April 01, 2021, the following Capital Structure is allowed: -

1. *Debt-Equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2021 shall be considered;*
2. *In case of the generating station declared under commercial operation prior to April 01, 2021, but where debt-equity ratio has not been determined by the Commission for determination of tariff for the period ending March 31, 2021, the Commission shall approve the debt-equity ratio in accordance with Clause15.7 of these Regulations.*
3. *Any expenditure incurred or projected to be incurred on or after April 01, 2021, as may be admitted by the Commission as additional capital expenditure for determination of tariff and renovation and modernization expenditure for life extension shall be serviced in the manner as specified in Clause15.7of these Regulations.*

15.7 New Projects: For new projects, declaring Commercial Operation on or after April 01, 2021, the following Capital Structure is allowed:-

1. *Normative debt-equity ratio of 70:30 shall be considered for the purpose of determination of Tariff.*
2. *In case the actual equity employed is in excess of 30%, the amount of equity for the purpose of tariff determination shall be limited to 30%, and the balance amount shall be considered as normative loan;*
3. *In case the actual equity employed is less than 30%, the actual debt-equity ratio shall be considered;*
4. *The premium, if any raised by the Generating Company while issuing share capital and investment of internal accruals created out of free reserve, for the funding of the project, shall also be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and*

internal resources are actually utilized for meeting capital expenditure of the generating station;

5. *The Equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;*

6. *Any consumer contribution, work carried out under deposit and grant obtained for the execution of the project shall not be considered as part of the capital structure for the purpose of computation of normative debt-equity.*

Note 1: Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt-equity ratio specified in these Regulations;

Note 2: Any expenditure on replacement of old assets or on renovation and modernization or life extension shall be considered on normative debt-equity ratio specified in these Regulations after writing off the entire book value of the original assets from the capital cost of the new asset;

Note 3: Any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced in the normative debt-equity ratio specified in these Regulations.

15.8 The Generating Company shall submit the resolution of the Board of the Company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station.

5.92 The Commission has considered the opening Loan for FY 2023-24 equal to the closing loan for FY 2022-23 as per the order dated August 22, 2024.

5.93 On scrutinizing and analyzing the data, material, information (***annexure-5*** of main petition) on record, the Commission approves the weighted average interest rate as 9% as per ***clause 15.18*** of JSERC Generation Tariff Regulation 2020 for both Units.

5.94 In accordance with clause 15.15 of JSERC GTR 2020 as mentioned above, the Commission approves the deemed loan repayment equal to approved depreciation (Additional Capitalization) for FY 2023-24.

Table 44: Interest on Loan (Rs. Crore) as approved by the Commission.

Particulars	Unit-1			Unit-2		
	MYT	Petition	Approved	MYT	Petition	Approved
Opening Loan	381.30	450.32	386.11	411.09	478.98	414.17
Deemed Loan Addition	3.33	1.48	1.48	3.33	0.70	0.70
Deletion during FY	0.00	0.06	0.06	0.00	0.06	0.00
Deemed Loan Repayment	66.37	66.70	66.72	67.09	67.29	67.29
Closing Loan	318.26	385.04	320.81	347.33	412.33	347.58
Average Loan Balance	349.78	417.68	353.46	379.21	445.65	380.87
Interest Rate	12.31%	9.00%	9.00%	12.31%	9.00%	9.00%
Interest on Loan	**43.06**	**37.59**	**31.81**	**46.68**	**40.11**	**34.28**

Return on Equity

Petitioner's Submission

5.95 The Petitioner has submitted that The Commission in its order dated August 22, 2024 has worked out the closing equity for FY 2022-23 and same has been considered as the opening equity for FY 2023 24. Further, the additional capitalization and decapitalization during the year have been funded in the debt-equity ratio of 70:30.

5.96 The Return on Equity has been calculated as per Regulation 15.9 of Tariff Regulations, 2020 read with clause 6.1 of 1st Amendment to Tariff Regulations 2020 i.e., Clause 15.10.

5.97 The Petitioner has calculated the Return on Equity at 15.00%. The Return on Equity claimed for Unit-1 and Unit-2 for FY 2023-24 is summarized in the table below.

Table 45: Return on Equity (Rs. Cr.) as submitted by the Petitioner.

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
Opening Equity	507.84	509.33	512.82	513.53
Addition the year	1.43	0.63	1.43	0.30
Deletion during the Year	0.00	0.03	0.00	0.03
Closing Equity	509.27	509.94	514.25	513.80
Average Equity	508.56	509.63	513.54	513.67
Rate of Return on Equity	15.00%	15.00%	15.00%	15.00%
Return on Equity	**76.28**	**76.45**	**77.03**	**77.05**

Commission's Analysis

5.98 The Commission has outlined ***clause 15.6 to clause 15.8*** JSERC Generation Tariff Regulation 2020 and clause 6.1 of Generation Tariff (1st Amendment), Regulation 2023 for approval Return on Equity for a generating station as reproduced below:

"15.6 Existing Projects: For existing projects declaring Commercial Operation on or before April 01, 2021, the following Capital Structure is allowed: -

1. *Debt-Equity ratio allowed by the Commission for determination of tariff for the period ending March 31, 2021 shall be considered;*
2. *In case of the generating station declared under commercial operation prior to April 01, 2021, but where debt-equity ratio has not been determined by the Commission for determination of tariff for the period ending March 31, 2021, the Commission shall approve the debt-equity ratio in accordance with Clause15.7 of these Regulations.*
3. *Any expenditure incurred or projected to be incurred on or after April 01, 2021, as may be admitted by the Commission as additional capital expenditure for determination of tariff and renovation and modernisation expenditure for life extension shall be serviced in the manner as specified in Clause15.7of these Regulations.*

15.7 New Projects: For new projects, declaring Commercial Operation on *or after April 01, 2021, the following Capital Structure is allowed: -*

1. *Normative debt-equity ratio of 70:30 shall be considered for the purpose of determination of Tariff.*
2. *In case the actual equity employed is in excess of 30%, the amount of equity for the purpose of tariff determination shall be limited to 30%, and the balance amount shall be considered as normative loan;*
3. *In case the actual equity employed is less than 30%, the actual debt-equity ratio shall be considered;*
4. *The premium, if any raised by the Generating Company while issuing share capital and investment of internal accruals created out of free reserve, for the funding of the project, shall also be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilized for meeting capital expenditure of the generating station;*
5. *The Equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;*
6. *Any consumer contribution, work carried out under deposit and grant obtained for the execution of the project shall not be considered as part of the capital structure for the purpose of computation of normative debt-equity.*

Note 1: Any expenditure admitted on account of committed liabilities within the original scope of work and the expenditure deferred on techno-economic grounds but falling within the original scope of work shall be serviced in the normative debt-equity ratio specified in these Regulations;

Note 2: Any expenditure on replacement of old assets or on renovation and modernization or life extension shall be considered on normative debt-equity ratio specified in these Regulations after writing off the entire book value of the original assets from the capital cost of the new asset;

Note 3: Any expenditure admitted by the Commission for determination of tariff on account of new works not in the original scope of work shall be serviced in the normative debt-equity ratio specified in these

Regulations.

15.8 The Generating Company shall submit the resolution of the Board of the Company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station.

JSERC Generation Tariff Regulation (1st Amendment) 2023

Clause 6.1 states that:

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

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

5.99 The Commission has considered the opening equity for FY 2023-24 equal to the closing equity for FY 2022-23 as per the order dated August 22, 2024.

5.100 In accordance with the clause 6.1 (provisio) of JSERC Generation Tariff (1st Amendment) Regulation 2023, the Commission approves the Rate of Return on Equity as 15.00%.

5.101 Based on above excerpt, the Commission has computed the return on equity for FY 2023-24 as tabulated hereunder:

Table 46: Return on Equity (Rs. Crore) for Unit-1 as approved by the Commission.

Particulars	MYT	Petition	Approved
Opening Equity	507.84	509.33	510.35

Particulars	MYT	Petition	Approved
Addition During the Year	1.43	0.63	0.63
Deletion during the Year	0.00	0.03	0.03
Closing Equity	509.27	509.94	510.96
Average Equity	508.56	509.63	510.65
Rate of Return on Equity	15.00%	15.00%	15.00%
Return on Equity	**76.28**	**76.45**	**76.60**

Table 47: Return on Equity (Rs. Crore) for Unit-2 as approved by the Commission

Particulars	MYT	Petition	Approved
Opening Equity	512.82	513.53	514.54
Addition During the Year	1.43	0.30	0.30
Deletion during the Year	0.00	0.03	0.03
Closing Equity	514.25	513.80	514.82
Average Equity	513.54	513.67	514.68
Rate of Return on Equity	15.00%	15.00%	15.00%
Return on Equity	**77.03**	**77.05**	**77.20**

Interest on Working Capital (IOWC)

Petitioner's Submission

5.102 The Petitioner has outlined ***'clause 15.23'*** of JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 which provides the Working Capital requirement and will be computed on the normative basis for the coal based generating station.

5.103 The Petitioner has worked out the total normative working capital requirement for Unit 1 and Unit-2 for FY 2023-24 and has considered the rate of interest on working capital 12.00% equivalent to the MCLR Rate specified by the State Bank of India as on April 1st of every financial year plus 350 basis points (A copy of SBI base rates are attached as ***Annexure-6*** in the main petition).

5.104 Accordingly, the Petitioner has computed the Interest on Working Capital (IoWC) for FY 2023-24 as tabulated hereunder:

Table 48: IOWC (Rs. Crore) as submitted by the Petitioner.

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
Cost of Coal for 20 Days for non-pit head plant	25.02	29.01	25.37	29.01
Cost of Coal for 30 Days for non-pit head plant	37.54	43.51	38.05	43.51
Cost of Secondary Fuel Oil for 2 months	0.73	1.37	0.75	1.42
O&M expenses for 1 month	6.85	6.78	6.85	6.80
Receivables equivalent to 45 days	92.93	100.46	94.34	100.98
Maintenance Spares @20% of O&M	15.59	16.28	15.59	16.32
Total Working Capital	**178.67**	**197.42**	**180.95**	**198.03**
Rate of Interest	10.50%	12.00%	10.50%	12.00%
Interest on Working Capital	**18.76**	**23.69**	**19.00**	**23.76**

Commission's Analysis

5.105 The Commission has outlined ***clause 15.23 to clause 15.26*** JSERC Generation Tariff Regulation 2020 for approval interest on working capital for a generating station as reproduced below:

"15.23 The Commission shall determine the Working Capital requirement on normative basis for coal-based generating stations, which shall comprise the following components:

1. Cost of coal or lignite and limestone towards stock, if applicable, for 10 days for pit-head generating stations and 20 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/ lignite stock storage capacity, whichever is lower;

2. Cost of coal or lignite and limestone for 30 days for generation corresponding to normative annual plant availability factor;

3. 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;

4. Operation and Maintenance expenses, including water charge *and security expenses for one month;*

5. *Maintenance spares @ 20% of Operation and Maintenance Expenses;*

6. *Receivables equivalent to 45days of capacity charges and energy charges for sale of electricity calculated on the Normative Annual Plant Availability Factor:*

Provided that the cost of primary fuel shall be based on the landed cost incurred (taking into account normative transit and handling losses) by the generating station and gross calorific value of the fuel on 'as received basis' as per actual weighted average for three months preceding the first month for which tariff is to be determined:

Provided further that in case of new generating station, the cost of fuel for the first financial year shall be considered based on landed fuel cost (taking into account normative transit and handling losses) and gross calorific value of the fuel as per actual weighted average for three months, as used for infirm power, preceding date of commercial operation for which tariff is to be determined

15.26 The rate of Interest on Working Capital shall be on normative basis and shall be equal to Bank Rate plus 350 basis points as on September 30 of the financial year in which the MYT Petition is file dor as on April 01, of the year during the Control Period from FY 2021-22 to FY 2025-26 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 Bank Rate plus 350 basis points as applicable on April 01, of the respective financial year at the time of true up".

5.106 Taking into account the above provision of regulation, the Interest on Working capital has been calculated at an interest rate of 12.00% (***Bank Rate plus 350 basis points***) as specified in the ***clause 15.26*** JSERC Generation Tariff Regulation, 2020 as tabulated hereunder.

Table 49: IOWC (Rs. Crore) as approved by the Commission.

Particulars	Unit-1			Unit-2		
	MYT	Petition	Approved	MYT	Petition	Approved
Coal Cost for 50 days	62.56	72.52	69.97	62.42	72.52	70.16
Cost of Secondary Fuel Oil for 2 Months	0.73	1.37	1.37	0.75	1.42	1.42
O&M Expenses for 1 month	6.85	6.78	6.79	6.85	6.80	6.79
Maintenance Spares (20% of O&M)	92.93	16.28	16.30	94.34	16.32	16.30
Receivables for 45 days	15.59	100.46	97.40	15.59	100.98	97.89
Total Working Capital	**178.67**	**197.42**	**191.83**	**180.95**	**198.03**	**192.56**
Rate of Interest	10.50%	12.00%	12.00%	10.50%	12.00%	12.00%
Interest on Working Capital	**18.76**	**23.69**	**23.02**	**19.00**	**23.76**	**23.11**

Sharing Gain/Loss

Sharing of net saving on account of variation in operational parameter

Petitioner's Submission

5.107 The Petitioner has submitted that it has followed the clause 6.14 of Generation Tariff Regulation 2020 for computation of gain based on actual performance of controllable parameters.

5.108 Accordingly, in terms of above regulation and considering actual performance of FY 2023-24, the Gain due to Operational Performance of SHR, Auxiliary Power Consumption and SFC works out as follows for Unit-1 and Unit-2.

Table 50: Sharing of gain/loss (Rs. Cr.) on account of operational parameter as submitted by Petitioner.

Particulars	UoM	Unit-II		Unit-III	
		Normative	Petition	Normative	Petition
Auxiliary Power	%	9.00	8.56	9.00	8.56
Heat Rate	kCal/kWh	2387.00	2531.80	2387.00	2532.31
Sp. LDO Consumption	ml/Kwh	0.50	0.11	0.50	0.16

Particulars	UoM	Unit-II		Unit-III	
		Normative	Petition	Normative	Petition
Equivalent GCV of Coal (CVPF)	Kcal/Kg	3405.82	3405.82	3405.82	3405.82
Equivalent Landed Price of Coal	Rs/kg	3.63	3.63	3.63	3.63
Equivalent GCV of LDO (CVPF)	kCal/mL	9.47	9.47	9.50	9.50
Equivalent Landed Price of LDO	Rs/ml	0.08	0.08	0.08	0.08
Energy Charge Rate (ECR)	Rs/kWh	2.84	2.96	2.84	2.97
ECR_N - ECR_A			**0.000**		**0.000**
Ex-Bus Generation	MU		461.27		461.27
Gain/(Loss) on Operational Parameters	Rs. Cr.		0.00		0.00
Savings/Gain with Beneficiaries (25%)	**Rs. Cr.**		**0.00**		**0.00**

Commission's Analysis

5.109 The Commission has outlined **clause 6.14** of JSERC Generation Tariff Regulation 2020 and ***clause 5.1*** of JSERC Generation Tariff (1st Amendment) Regulation 2023 for approval sharing of gain due to variation in operation norms for a generating station as reproduced below:

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

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

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

Net Gain = (ECRN -ECRA) x Scheduled Generation;

Where,

***ECRN:** Normative Energy Charge Rate computed on the basis of norms specified for Station Heat Rate, Auxiliary Energy Consumption and Secondary Fuel Oil consumption.*

***ECRA:** Actual Energy Charge Rate computed on the basis of actual Station Heat Rate, Auxiliary Energy Consumption and Secondary Fuel Oil Consumption for the month.*

JSERC Generation Tariff Regulation (1st Amendment) 2023

Clause 5.1 (provisos) states that:

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

5.110 On scrutinizing and analyzing the material, information, and actual figure and on prudent check, the Commission in accordance with aforesaid provision, approves the gain due to operational parameter variation as computed hereunder.

Table 51: Sharing of gain/loss (Rs. Cr.) on account of operational parameter as approved by the Commission.

Particulars	UoM	Unit-II		Unit-III	
		Normative	Petition	Normative	Petition
Auxiliary Power	%	9.00	8.56	9.00	8.56
Heat Rate	kCal/kWh	2387.00	2531.80	2387.00	2532.31
Sp. LDO Consumption	ml/Kwh	0.50	0.11	0.50	0.16
Equivalent GCV of Coal (CVPF)	Kcal/Kg	3405.82	3405.82	3405.82	3405.82
Equivalent Landed Price of Coal	Rs/kg	3.63	3.63	3.63	3.63
Equivalent GCV of LDO (CVPF)	kCal/mL	9.47	9.47	9.50	9.50
Equivalent Landed Price of LDO	Rs/ml	0.08	0.08	0.08	0.08

Particulars	UoM	Unit-II		Unit-III	
		Normative	Petition	Normative	Petition
Energy Charge Rate (ECR)	Rs/kWh	2.84	2.96	2.84	2.97
ECR_N - ECR_A			**0.000**		**0.000**
Ex-Bus Generation	MU		461.27		461.27
Gain/(Loss) on Operational Parameters	Rs. Cr.		0.00		0.00
Savings/Gain with Beneficiaries (25%)	**Rs. Cr.**		**0.00**		**0.00**

Gain in Operation & Maintenance

Petitioner Submission

5.111 The Petitioner has submitted that it has followed the clause 6.15 of Generation Tariff Regulation 2020 for computation of gain on account of O&M expenses

5.112 The Petitioner submits the actual O&M expenses (excluding legal & consultancy expenses) as per the audited accounts for FY 2023-24 as follow:

Table 52: Actual O & M expenses (Rs. Crore) as per audited accounts for FY 2023-24 as submitted by Petitioner.

Particulars	UoM	Unit-1	Unit-2
Actual O&M Expenses (Excluding legal & Consulting charges)	**Rs. Cr.**	**86.56**	**86.56**

5.113 The Petitioner further mentions that, in comparison to the revised normative O&M expense (excluding legal & consultancy expenses) as worked out earlier, a higher O&M expenses has incurred for smooth running of the plant in the FY 2023-24. Hence, as per the working of the True-Up, the Petitioner is facing financial loss on accounts of O&M expenses. It is further submitted that as per the JSERC Regulation 2020, the financial loss on account of O&M expenses will be entirely borne by the Petitioner. The working of the same is shown below:

Table 53: Working of Financial gain on account of O & M expenses for FY 2023-

24 as submitted by Petitioner.

Particulars	UoM	Unit-1	Unit-2
Actual O&M Expenses (Excluding legal & Consulting charges)	Rs. Cr.	86.56	86.56
Normative O&M Expenses (Excluding legal & Consulting charges)	Rs. Cr.	74.64	74.80
Gain on Account of O&M expenses (50% share to beneficiary)	**Rs. Cr.**	**0.00**	**0.00**

5.114 Hence, in the instant Petition the Petitioner is not sharing the loss on account of O&M expenses with the beneficiary.

Commission Analysis

5.115 The Commission has outlined ***clause 6.14 and clause 6.15*** of Generation Tariff Regulation 2020 for the approval of Gain in operation and Maintenance for a generating station as reproduced below:

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

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

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

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

5.116 Accordingly, the Commission approves Nil gain in Operation & Maintenance for FY 2023-24 as tabulated below.

Table 54: Gain on account of O & M expenses for FY 2023-24 as approved by Commission.

Particulars	UoM	Petition		Approved	
		Unit-1	Unit-2	Unit-1	Unit-2
Actual O&M Expenses (Excluding legal & Consulting charges)	Rs. Cr.	86.56	86.56	86.56	86.56
Normative O&M Expenses (Excluding legal & Consulting charges)	Rs. Cr.	74.64	74.80	74.71	74.71
Gain on Account of O&M expenses (50% share to beneficiary)	**Rs. Cr.**	**0.00**	**0.00**	**0.00**	**0.00**

Shakti Scheme Discount

Petitioner's Submission

5.117 The Petitioner submits that lifting of coal under the Shakti scheme started in July 2019 and the Petitioner has been raising credit notes for 3 paisa discount in tariff for units supplied to JBVNL through coal allocated under said scheme. The Energy Charges have been computed on the basis of actual Coal details for the respective year which excludes a discount of 3 Paisa per unit. Hence, the revenue billed amount excludes the discount of 3 paisa per unit as the Petitioner has been raising separate credit notes for discount in tariff to JBVNL. Thus, the Petitioner has subtracted the amount of Rs1.59 crore w.r.t Shakti coal discount for each unit-1 & 2 for FY 2023 24 respectively in the gap/surplus adjustment. The detailed calculations of discount for FY 2023-24 is attached in ***Annexure-11*** which is summarized hereunder.

Table 55: Shakti Scheme Discount (Rs. Crore) as submitted by Petitioner.

Particulars	UoM	Unit-1		Unit-2	
		MYT	Petition	MYT	Petition
SHAKTI Discount given (3 Paise/kWh)	**Rs. Cr.**	-	0.99	-	0.99
SHAKTI Discount given (8 Paise/kWh)	**Rs. Cr.**	-	0.27	-	0.27
SHAKTI Discount given (10 Paise/kWh)	**Rs. Cr.**	-	0.32	-	0.32
Total SHAKTI Discount	**Rs. Cr.**	**-**	**1.59**	**-**	**1.59**

Commission's Analysis

5.118 On scrutinizing and analyzing the material, information, and actual figure, FSA, PPA approvals and details submitted by the Petitioner as annexes in ***annexure-11*** and on prudent check the Commission approves the Shakti Scheme Discount for FY 2023-24 is given below.

Table 56: Shakti Scheme Discount (Rs. Crore) as approved by the Commission.

Particulars	UoM	Unit-1			Unit-2		
		MYT	Petition	Approved	MYT	Petition	Approved
Shakti scheme Discount Amount attributed to JBVNL (25%)	**Rs. Cr.**	**-**	**1.59**	**0.73**	**-**	**1.59**	**0.73**

Non-Tariff Income

Petitioner Submission

5.119 The Petitioner has submitted the non-tariff income as per audited books account for FY 2023-24 as given below:

Table 57: Non-Tariff income (Rs. Crore) as submitted by Petitioner.

Particulars	UoM	Unit-1		Unit-2	
		MYT	Petition	MYT	Petition
Bank Deposit & Others	Rs. Cr.	-	4.85	-	4.85
Old Liabilities written back & Settled	Rs. Cr.		1.98		1.98
Miscellaneous Income	Rs. Cr.		1.02		1.02
Total Income	**Rs. Cr.**	**0.80**	**7.84**	**0.80**	**7.84**

Commission's Analysis

5.120 On scrutinizing and analyzing the material, information, and audited account, the Commission approves the Non-Tariff Income for FY 2023-24 as given below.

Table 58: Non-Tariff income (Rs. Crore) as approved by Petitioner.

Particulars	UoM	Unit-1			Unit-2		
		MYT	Petition	Approved	MYT	Petition	Approved
Total Non-Tariff Income	**Rs. Cr.**	**0.80**	**7.84**	**7.84**	**0.80**	**7.84**	**7.84**

Incentive

Petitioner Submission

5.121 The Petitioner has followed the clause 17.5 of JSERC Generation Tariff Regulation 2020 to claim an incentive of 50 paise per kWh for scheduled energy generation that exceeds the Normative Annual Plant Load Factor (NAPLF).

5.122 The Petitioner submits that the Plant Load Factor for the FY 2023-24 was 85.49% against the NAPLF of 85%. Hence, considering the excess generation and aforesaid regulation the Petitioner has computed the incentive for the FY 2023-24 of Rs. 0.27 Crore i.e., Rs.0.135 Crore each unit.

Commission's Analysis

5.123 The Commission has observed that the Petitioner has claimed higher PLF than the normative PLF. Accordingly, the Commission compute the incentive in accordance with the provision specified in JSERC (Terms & Condition for determination of Tariff) Regulation, 2020 and amendments thereof as computed hereunder.

Table 59: Incentive based on PLF (Rs. Crore) as approved by the Commission for FY 2023-24.

Particulars	UoM	Unit-1	Unit-2
Net Generation	**MU**	539.56	539.56
Net Energy Supplied	**MU**	461.27	461.27
Actual PLF	**%**	85.49%	85.49%
NAPLF	**%**	85%	85%
Excess PLF	**%**	0.49%	0.49%
Flat rate of Incentive	**Rs/Unit**	0.5	0.5
Incentive entitled	**Rs. Cr.**	**0.13**	**0.13**

Summary of Annual Revenue Requirement

Annual Fixed Cost

Commission's Analysis

5.124 On consideration of the submission and details furnished by the Petitioner, the Commission in accordance with ***clause 15.3*** of JSERC Generation Tariff Regulation, 2020 approves the Annual Fixed Cost (AFC) for FY 2023-24 which as summarized below.

Table 60: Annual Fixed Cost (Rs. Crore) as approved by the Commission.

Particulars	Unit-1			Unit-2		
	MYT	Petition	Approved	MYT	Petition	Approved
O&M excl. water, capital spare, ash	77.96	81.42	81.50	77.96	81.58	81.50
Depreciation	66.37	66.70	66.72	67.09	67.29	67.29
Interest on Loan	43.06	37.59	31.81	46.68	40.11	34.28
Return on Equity	76.28	76.45	76.60	77.03	77.05	77.20
Interest on Working Capital	18.76	23.69	23.02	19.00	23.76	23.11
Less: Non-Tariff Income	0.80	7.84	7.84	0.80	7.84	7.84
Annual Fixed Cost	**281.63**	**278.01**	**271.81**	**286.96**	**281.96**	**275.54**

Tariff for Unit-1 and Unit-2

Petitioner Submission

5.125 The Petitioner has submitted that in accordance with the provisions of PPA executed with DISCOM, out of the total Contracted Capacity of 122.85 MW, APNRL will supply 63.882 MW capacity (i.e. 13% of the total net Capacity at Total Tariff (both fixed and Variable Charge) and the balance 58.968 MW capacity, i.e.12% of the Total Net capacity at variable cost i.e. Energy Charge as approved by the Commission.]

5.126 Accordingly, the tariff for supply of Contracted Capacity to DISCOM for FY 2023-24 at Normative Availability is summarized in the Table below.

Table 61: Tariff for 12% of total net capacity as submitted by the Petitioner. (Variable Charge)

Particulars	Units	Unit-1		Unit-2	
		MYT	Petition	MYT	Petition
Variable Cost/ Base Energy Charge Rate	**Rs/kWh**	**2.58**	**2.96**	**2.62**	**2.97**

Table 62: Tariff for 13% of total net capacity as submitted by the Petitioner. (Fixed Charge)

Particulars	Units	Unit-1		Unit-2	
		MYT	Petition	MYT	Petition
Gross Capacity	MW	270	270.00	270	270.00
Auxiliary Consumption	%	9%	9.00%	9%	9.00%
Net Capacity	MW	245.70	245.70	245.70	245.70
12% of Net Capacity for Supply to JUVNL/JBVNL at Energy Charge	MW	29.48	29.48	29.48	29.48
Remaining Capacity from which Fixed Charges are to be recovered	MW	216.22	216.22	216.22	216.22
Annual Fixed Charge	Rs Cr.	281.63	278.01	286.96	281.96
Annual Fixed charges/MW	Rs Cr./MW	1.30	1.29	1.33	1.30
13% of Net Capacity for supply to JUVNL at full tariff	MW	31.94	31.94	31.94	31.94
AFC for 13% of Net Capacity	**Rs. Cr.**	**41.60**	**41.07**	**42.39**	**41.65**

Commission's Analysis

5.127 The tariff for 12% of the total net capacity shall be the variable cost (subject to fuel price adjustment in accordance with Generation Tariff Regulations 2020) as approved by the Commission. Whereas the tariff for next 13% of total net capacity shall be at total tariff i.e., variable cost (subject to fuel price adjustment in accordance with Generation Tariff Regulations 2020) and fixed charges as approved by the Commission as tabulated below.

Table 63: Tariff for 12% of total net capacity as approved by the Commission.

(Variable Charge)

Particulars	Units	Unit-1		Unit-2	
		Petition	Approved	Petition	Approved
Variable Cost/ Base Energy Charge Rate	**Rs/kWh**	**2.837**	**2.837**	**2.838**	**2.838**

Table 64: Tariff for 13% of total net capacity for Unit-1 as approved by the Commission. (Fixed Charge).

Particulars	Derivation	Units	Unit-1		
			MYT	Petition	Approved
Gross Capacity	A	MW	270	270.00	270.00
Auxiliary Consumption	B	%	9%	0.09	0.09
Net Capacity	C=A x (1-B)	MW	245.70	245.70	245.7
12% of Net Capacity for Supply to JUVNL/JBVNL at Energy Charge	D=C x 12%	MW	29.48	29.48	29.48
Remaining Capacity from which Fixed Charges are to be recovered	E=C-D	MW	216.22	216.22	216.22
Annual Fixed Charge	F	Rs. Cr.	281.63	278.01	271.80
Annual Fixed Charges/MW	G=F/E	Rs. Cr./MW	1.30	1.29	1.26
13% of Net Capacity for supply to JUVNL at full tariff	H=C x 13%	MW	31.94	31.94	31.94
AFC for 13% of Net Capacity	**I=G x H**	**Rs. Cr.**	**41.60**	**41.07**	**40.15**

Table 65: Tariff for 13% of total net capacity for Unit-2 as approved by the Commission. (Fixed Charge)

Particulars	Derivation	Units	Unit-2		
			MYT	Petition	Approved
Gross Capacity	A	MW	270	270.00	270.00
Auxiliary Consumption	B	%	9%	0.09	0.09
Net Capacity	C=A x (1-B)	MW	245.70	245.70	245.70
12% of Net Capacity for Supply to JUVNL/JBVNL at Energy Charge	D=C x 12%	MW	29.48	29.48	29.48

Particulars	Derivation	Units	Unit-2		
			MYT	Petition	Approved
Remaining Capacity from which Fixed Charges are to be recovered	E=C-D	MW	216.22	216.22	216.22
Annual Fixed Charge	F	Rs Cr.	286.96	281.96	275.53
Annual Fixed Charges/MW	G=F/E	Rs Cr./MW	1.33	1.30	1.27
13% of Net Capacity for supply to JUVNL at full tariff	H=C x 13%	MW	31.94	31.94	31.94
AFC for 13% of Net Capacity	**I=G x H**	**Rs. Cr.**	**42.39**	**41.65**	**40.70**

Revenue from Sale of Power

Petitioner's Submission

5.128 The Petitioner has submitted the revenue from sale of power comprise of capacity charge, energy charge and fuel cost adjustment bill for FY 2023-24. Accordingly, the Petitioner has claimed revenue from sale of power as Rs. 165.87 Crore and Rs. 166.59 Crore for Unit-1 and Unit-2 respectively.

Table 66: Revenue (Rs. Crore) as submitted by the Petitioner.

Particulars	Unit-1	Unit-2
	Petition	Petition
Annual Fixed Cost	41.35	42.16
Energy Charge	119.01	120.67
FPA	5.51	3.76
Total Revenue billed to JUVNL/JBVNL	**165.87**	**166.59**

Commission's Analysis

5.129 The Commission has examined monthly bill detail submitted in tariff petition. Accordingly, the Commission approves the revenue from sale of power for FY 2023-24 is given below.

Table 67: Revenue (Rs. Crore) as approved by the Commission.

Particulars	Unit-1		Unit-2	
	Petition	Approved	Petition	Approved
Annual Fixed Cost	41.35	41.35	42.16	42.16
Energy Charge	119.01	119.01	120.67	120.67
FPA	5.51	5.51	3.76	3.76
Total Revenue billed to JUVNL/JBVNL	**165.87**	**165.87**	**166.59**	**166.59**

Gap/Surplus for FY 2023-24

Petitioner Submission

5.130 The Petitioner has worked out the impact of true up considering the Trued-up annual fixed charges, trued-up per unit variable charges for the year and the actual availability against the contracted capacity to JBVNL for the year, based on the availability

Table 68: Impact of True-up as submitted by the Petitioner for FY 2023-24.

Particulars	Units	FY 2023-24	
		Unit-1	Unit-2
Net Energy Supplied to JUVNL/JBVNL	MU	461.27	461.27
Rate of Energy Charge	Rs/kWh	2.84	2.84
AFC Entitlement on True Up	Rs Cr	**41.07**	**41.65**
Incentives	Rs Cr	0.13	0.13
Energy Charge Entitlement upon True up	Rs Cr	**130.85**	**130.92**
Water Charges	Rs Cr	2.87	2.87
Capital Spares	Rs Cr	1.36	1.36
Additional Ash disposal charges	Rs Cr	0.66	0.66
Security Expense	Rs Cr	0.28	0.28
Petition filing charges	Rs Cr	0.04	0.04
Less: Sharing of Gain due to operational parameter	Rs Cr	0.00	0.00
Total ARR for Jharkhand	Rs Cr	**177.24**	**177.90**
Revenue Billed			
AFC	Rs Cr	41.35	42.16

Particulars	Units	FY 2023-24	
		Unit-1	Unit-2
EC	Rs Cr	119.01	120.67
FPA	Rs Cr	5.51	3.76
Incentive	Rs Cr	0.00	0.00
Imported Coal Bill	Rs. Cr	0.00	0.00
Total Revenue Billed to JUVNL/JBVNL	Rs Cr	**165.87**	**166.59**
Gap/(Surplus)	Rs Cr	**11.38**	**11.31**
Less: Shakti Coal discount	Rs Cr	1.59	1.59
Gap/(Surplus) including discount	**Rs Cr**	9.79	9.72
Carrying Cost	**Rs Cr**	2.36	2.35
Total Gap/(Surplus)	**Rs Cr**	**12.16**	**12.07**

Commission's Analysis

5.131 The Commission has outlined ***clause 7.2 to 7.4*** of Generation Tariff Regulation 2020 for the approval Gap/Surplus for a generating station as reproduced below:

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

7.3 Where after the truing up, the revenue recovered is less than the trued up value approved by the Commission under these Regulations, the Generating Company shall recover from the Beneficiaries, the gap amount in accordance with Clause7.4 of these Regulations.

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

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

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

5.132 The Commission has observed that the Petitioner has claimed amount 0.04 Cr. as petition filing charges for each unit. However, the Commission in his own prudence reject the claim of Petitioner in this regard as some amount has already been claimed under the same category, under 'legal charges' as submitted by the Petitioner in data-gap response.

5.133 The Commission has examined the detail submitted by the Petitioner along with audited certificate. Accordingly, this Commission approves the Gap/(Surplus) for FY 2023-24 for Unit-1 and Unit-2 as tabulated hereunder.

Table 69: Revenue Gap/(Surplus) Rs Crore as approved by the Commission.

Particulars	MoU	Unit-1		Unit-2	
		Petition	Approved	Petition	Approved
Net Energy Supplied to JUVNL/JBVNL	MU	461.27	461.27	461.27	461.27
Rate of Energy Charge	Rs/kWh	2.84	2.84	2.84	2.84
AFC Entitlement on True Up	**Rs. Cr.**	**41.07**	**40.15**	**41.65**	**40.70**
Incentive	Rs. Cr.	0.13	0.13	0.13	0.13
Energy Charge Entitlement upon True up	**Rs. Cr.**	**130.85**	**130.85**	**130.92**	**130.92**
Water Charges	Rs. Cr.	2.87	2.87	2.87	2.87
Capital Spares	Rs. Cr.	1.36	1.36	1.36	1.36
Ash Disposal Expenses	Rs. Cr.	0.66	0.66	0.66	0.66
Security Expenses	Rs. Cr.	0.28	0.28	0.28	0.28
Petition filing charges		0.04	0.00	0.04	0.00
Less: sharing of gain on operational parameter	Rs. Cr.	0.00	0.00	0.00	0.00
Total ARR for Jharkhand	**Rs. Cr.**	**177.24**	**176.29**	**177.90**	**176.91**
Revenue Billed					

Particulars	MoU	Unit-1		Unit-2	
		Petition	Approved	Petition	Approved
Annual Fixed Cost	Rs. Cr.	41.35	41.35	42.16	42.16
Energy Charge	Rs. Cr.	119.01	119.01	120.67	120.67
FPA	Rs. Cr.	5.51	5.51	3.76	3.76
Total Revenue Billed to JUVNL/JBVNL	**Rs. Cr.**	**165.87**	**165.87**	**166.59**	**166.59**
Less: Shakti Discount	**Rs. Cr.**	1.59	1.59	1.59	1.59
Net Revenue Gap/(Surplus) without Carrying Cost	**Rs. Cr.**	**9.79**	**8.84**	**9.72**	**8.74**

Table 70: Carrying Cost for Unit-1 for FY 2023-24.

Particulars	FY 2023-24	FY 2024-25
Opening Balance	0	8.84
Addition during year	8.84	0
closing balance	0	0
Average balance	8.84	8.84
carrying cost rate	12.00%	12.15%
Carrying cost of respective years	**1.06**	**1.07**

Table 71: Carrying Cost for Unit-2 for FY 2023-24.

Particulars	FY 2023-24	FY 2024-25
Opening Balance	0	8.74
Addition during year	8.74	0
closing balance	0	0
Average balance	8.74	8.74
carrying cost rate	12.00%	12.15%
Carrying cost of respective years	**1.05**	**1.06**

Table 72: Cumulative revenue Gap/(Surplus) including Carrying Cost for FY

2023-24.

Particulars	Unit-1		Unit-2	
	Petition	Approved	Petition	Approved
Opening Gap/Surplus for FY 2023-24		-		-
Gap/(Surplus) addition during the FY 2023-24		8.84		8.74
Closing Gap/ (Surplus) for FY 2023-24		8.84		8.74
Carrying Cost of FY 2023-24		1.06		1.05
Carrying Cost of FY 2024-25		1.07		1.06
Net Gap/(Surplus) incl. Carrying Cost	**12.16**	**10.98**	**12.07**	**10.85**

5.134 The Commission would like to clarify the above Gap/(Surplus) is computed based on the information submitted before the Commission. In case there is any other adjustment between the Petitioner and its Beneficiaries, the same need to be taken into account while final adjustment which shall be carried out mutually.

5.135 The Commission has directed the Petitioner to adjust the surplus in the subsequent bills as per ***clause 7.2 & clause 7.4*** of JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020.

Chapter 6: Annual Performance Review for FY 2024-25

6.1 In the instant Petition, the Petitioner has now sought for the Annual Performance Review (APR) for FY 2024-25 based on the actual expenses incurred during FY 2023-24, applying an appropriate escalation to account for inflationary factors. The escalation is calculated using the weighted average of the Wholesale Price Index (WPI) and Consumer Price Index (CPI) for FY 2024-25 (from April'2024 to August 2024) or other applicable escalation rates as specified by the statutory bodies.

6.2 The Petitioner further submits that after studying the present trends, past performance and requirement of plant, the Petitioner has revised the estimates pertaining to the Additional Capitalisation vis-à-vis the estimates approved in the MYT order dated December 14, 2023 for the FY 2024-25. The sole purpose of such revised estimate is to project a more realistic picture of the future Capitalizations of the plant for FY 2024-25.

6.3 The Commission has carried out the Annual Performance Review for FY 2024-25 taking into consideration the following:

a) JSERC Generation Tariff Regulations, 2020;
b) JSERC Generation Tariff (1st Amendment), Regulation, 2023;
c) Methodology adopted by the Commission in its earlier Tariff Orders.

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

Operational Performance

Plant Availability Factor (PAF)

Petitioner's Submission

6.5 The Petitioner has projected the actual Plant Availability Factor for FY 2024-25 as 86.83% & 86.83% respectively for Unit-1 and Unit-2 respectively.

Commission's Analysis

6.6 In accordance with ***clause 16.1*** of JSERC Generation Tariff (1st Amendment), Regulation 2023, the Commission approves the Normative Plant Availability factor as 85.00%.

6.7 On scrutinizing and analyzing the actual data from April-24 to September-24 and on prudent check, the Commission approves the estimated plant availability for FY 2024-25 as 86.83% both the units as given below:

Table 73: Plant Availability Factor as approved by the Commission for FY 2024-25.

Particulars	UoM	MYT	Petition	Approved
Unit-1				
NAPAF	%	85.00	85.00	85.00
Actual Plant Availability	%	-	86.83	86.83
Unit-2				
NAPAF	%	85.00	85.00	85.00
Actual Plant Availability	%	-	86.83	86.83

Auxiliary Consumption

Petitioner's Submission

6.8 The Petitioner has been considered the Normative auxiliary consumption as 9.00% for both Unit-1 and Unit-2 for computing the ECR. However, actual auxiliary consumption hasn't been submitted by the Petitioner in the instant petition for the APR of FY 2024-25.

Commission's Analysis

6.9 In accordance with ***clause 16.1*** of JSERC Generation Tariff (1st Amendment), Regulation 2023, the Commission approves the normative auxiliary consumption of 9.00%.

6.10 In the lack of projected data submitted by the Petitioner for "actual auxiliary consumption", the Commission will pass the same while truing-up.

Table 74: Auxiliary Consumptions as approved by the Commission for FY 2024-25.

Particulars	UoM	MYT	Petition	Approved
UNIT-1				
Normative Auxiliary Consumption	%	9.00	9.00	9.00
Actual Auxiliary Consumption	%	-	-	-
UNIT-2				
Normative Auxiliary Consumption	%	9.00	9.00	9.00
Actual Auxiliary Consumption	%	-	-	-

Plant Load Factor and Generation

Petitioner's Submission

6.11 The Petitioner has estimated actual Plant Load Factor (PLF) as 86.66% for both the Units.

6.12 The Petitioner has further submitted that the estimated gross generation for FY 2024-25 is 2010.42 MU for both the Units

6.13 The Petitioner is projecting the gross generation and ex-bus generation based on the normative plant load factor and normative auxiliary consumptions i.e., 85% and 9% respectively

Commission's Analysis

6.14 In accordance with ***clause 16.1*** of JSERC Generation Tariff (1st Amendment), Regulation 2023, the Commission approves the Normative Plant Load factor as 85.00%.

6.15 On scrutinizing and analyzing the additional submission as annexed as ***annexure-A,*** the Commission approves the Gross Generation, Net Generation, and Plant Load Factor for FY 2024-25 as given below:

Table 75: Generation as approved by the Commission for FY 2024-25.

Particulars	UoM	MYT	Petition	Approved
UNIT-I				
Gross Generation	MU	2010.42	2010.42	2010.42
Net Generation	MU	1829.48	1829.48	1829.48
UNIT-II				
Gross Generation	MU	2010.42	2010.42	2010.42
Net Generation	MU	1829.48	1829.48	1829.48

Table 76: Plant Load Factor as approved by the Commission for FY 2024-25.

Particulars	UoM	MYT	Petition	Approved
Unit-1				
NAPLF	%	85.00	85.00	85.00
Actual Plant Load factor	%	-	86.66	86.66
Unit-2				
NAPAF	%	85.00	85.00	85.00
Actual Plant Load factor	%	-	86.66	86.66

Gross Station Heat Rate (GHR)

Petitioner's Submission

6.16 The Petitioner has submitted the Normative Gross Station Heat Rate (GHR) as 2387 kCal/kWh for both units as specified in JSERC Generation Tariff Regulation (1st Amendment) Regulation 2023. However, actual station heat rate hasn't been submitted by the Petitioner in the instant petition for the APR of FY 2024-25.

Commission's Analysis

6.17 In accordance with ***clause 16.1*** of JSERC Generation Tariff (1st Amendment), Regulation 2023, the Commission approves the Normative GHR as 2387.00 kCal/kWh for both units.

6.18 In the lack of projected data submitted by the Petitioner for "actual station heat rate", the Commission will pass the same while truing-up.

Table 77: Gross Station Heat Rate (GHR) as approved by the Commission for FY 2024-25.

Particulars	UoM	MYT	Petition	Approved
UNIT-1				
Normative Station Heat Rate	kCal/kWh	2387.00	2387.00	2387.00
Actual Station Heat Rate	kCal/kWh		-	-
UNIT-2				
Normative Station Heat Rate	kCal/kWh	2387.00	2387.00	2387.00
Actual Station Heat Rate	kCal/kWh		-	-

Specific Fuel Oil Consumption

Petitioner's Submission

6.19 The Petitioner has submitted the specific fuel oil consumption as 0.50 mL/kWh in line with JSERC Generation Tariff Regulations, 2020 and amendments thereof for both the Units for FY 2024-25.

Commission's Analysis

6.20 In accordance with ***clause 16.1*** of JSERC Generation Tariff Regulation (1st amendment) 2023, the Commission approves the normative specific fuel oil consumption as 0.50 ml/kWh for both the Units for FY 2024-25.

Table 78: Specific Fuel Oil Consumption as approved by the Commission for FY 2024-25.

Particulars	UoM	MYT	Petition	Approved
UNIT-1				
Specific Fuel Oil Consumption	ml/kWh	0.50	0.50	0.50
UNIT-2				
Specific Fuel Oil Consumption	ml/kWh	0.50	0.50	0.50

Fuel Cost Parameter

Coal Mix and Gross Calorific Value (GCV) of Primary Fuel

Petitioner's Submission

6.21 The Petitioner has submitted that variation in the actual prices and GCV of the primary fuel, which accounts for the energy charge rate, is not attributable to the Petitioner.

6.22 The Petitioner has submitted the source wise quantity of coal, weighted average cost and weighed average GCV of Coal during FY 2024-25 taking into consideration the actual amount of coal received from April 2024 to August 2024.

Table 79: Coal Mix and GCV for FY 2024-25 as submitted by the Petitioner.

Particulars	Fuel Mix (%)			GCV (kCal/kg)			
	MYT	Unit-1	Unit-2	Unit-1		Unit-2	
				MYT	Petition	MYT	Petition
Shakti B-II	-	78.06%	78.06%		3629.02		3629.02
Other Coal	-	21.94%	21.94%		3219.69		3219.69
Wtg. Avg. GCV.				**3394.51**	**3539.21**	**3373.15**	**3539.21**

Commission's Analysis

6.23 Considering the facts submitted by the Petitioner and after due diligence, the Commission approves the coal mix and weighted average GCV of coal for Unit-1 and Unit-2 of APNRL Generation station for FY 2024-25 as tabulated hereunder.

Table 80: Coal Mix and GCV for FY 2024-25 as approved by the Commission.

Particulars	Fuel Mix (%)				GCV (kCal/kg)			
	Unit-1		Unit-2		Unit-1		Unit-2	
	Petition	Approved	Petition	Approved	Petition	Approved	Petition	Approved
Shakti B-II	78.06%	78.06%	78.06%	78.06%	3629.02	3629.02	3629.02	3629.02
Other Coal	21.94%	21.94%	21.94%	21.94%	3219.69	3219.69	3219.69	3219.69
Wtg. Avg. GCV.					**3539.21**	**3539.21**	**3539.21**	**3539.21**

Transit Loss

Petitioner's Submission

6.24 The Petitioner has projected the transit loss on normative basis for each source of coal for FY 2024-25

Commission's Analysis

6.25 In accordance with ***Clause 17.11*** of the Generation Tariff Regulations 2020, the Commission approves the transit loss on normative basis as 0.80% for non-pithead plant.

Landed Cost of Coal

Petitioner's Submission

6.26 The Petitioner has submitted the source-wise actual price of coal received from April 2024 to August 2024. However, normative transit loss has been considered for all categories of coal as per JSERC Generation Tariff Regulations, 2020.

Table 81: Wtg. Avg. Price of coal as submitted by the Petitioner.

Particulars	Price of Coal (Rs./MT)			
	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
Shakti B-II		3656.35		3656.35
Other Coal		4887.26		4887.26
Wtg. Avg. Price of Coal	**3230.62**	**3926.42**	**3253.68**	**3926.42**

Commission's Analysis

6.27 The Commission has considered following particulars for the approval of the weighted average landed cost of coal: -

- Actual figure of consumption of coal from April to August 2024 considering base price of coal including sizing charges, applicable tax, transportation charges, handling charges and provisional adjustment/stock adjustment (if any);

- Normative Transit loss as approved by the Commission;

6.28 Based on above excerpt, on scrutinizing and analyzing the material, information, and actual figure for first five months of the FY as submitted by the Petitioner and on prudent check the Commission approves the landed price of primary fuel for FY 2024-25 as tabulated hereunder.

Table 82: Price of Primary Fuel as approved by the Commission for FY 2024-25.

Particulars	Rs./MT			
	Unit-1		Unit-2	
	Petition	Approved	Petition	Approved
Shakti B-II	3656.35	3656.35	3656.35	3656.35
Other Coal	4887.26	4887.26	4887.26	4887.26
Wtg. Avg. Price of Coal	**3926.42**	**3926.42**	**3926.42**	**3926.42**

Calorific value and Cost of Secondary Fuel

Petitioner's Submission

6.29 The Petitioner has submitted the weighted average calorific value and landed price of secondary fuel i.e., LDO as 9397.64 kCal/L and Rs. 75988.59 /kL for Unit-I and 9423.85 kCal/L and Rs. 77641.45/kL for Unit-II respectively.

Commission's Analysis

6.30 On scrutinizing and analyzing the data, information and submission made by the Petitioner and on prudent check, the Commission has observed that the landed price of secondary fuel had increased drastically as compared to MYT order. Accordingly, the Commission directs the Petitioner to ensure price discipline while purchasing the secondary fuel and also provide the auditor's certificate at the time of true up.

6.31 Considering the fact that the landed price of secondary fuel is volatile and depend on the market supply and demand, the Commission in the instant order, approves the calorific value and landed price of Secondary Fuel as given below.

Table 83: Calorific value & Landed Price of Secondary fuel as approved by the

Commission for FY 2024-25.

Particulars	Calorific Value (kcal/L)			Landed Price (Rs./kL)		
	MYT	Petition	Approved	MYT	Petition	Approved
UNIT-1	9350.00	9397.64	9397.64	44672.00	75988.59	75988.59
UNIT-2	9350.00	9423.85	9423.85	45943.72	77641.45	77641.45

Energy Charge Rate (ECR)

Petitioner's Submission

6.32 The Petitioner has submitted the Energy Charge Rate (ECR) as Rs. 23.042/kWh for both the Units for FY 2024-25 before taking into account the discount of Shakti Coal.

6.33 Further, the Petitioner has submitted the discount on Shakti Coal of Rs. 1.39 Cr. for each unit.

6.34 The Petitioner has computed the energy charges based on the normative generation, normative auxiliary consumption, normative heat rate, actual weighted average price of Coal and actual weighted average GCV of Coal (coal received from April 2024 to August 2024)

Commission's Analysis

6.35 The Commission has outlined ***clause 17.7, clause 17.8*** of JSERC Generation Tariff Regulation, 2020 and ***clause 7.1*** of JSERC Generation Tariff (1st Amendment) Regulation, 2023 for the approval of Energy Charge Rate (ECR) as already stated in the True-up chapter of this order.

6.36 Accordingly, the Commission compute the ECR based on actual coal mix (in accordance with coal data received from April 2024 to August 2024), normative transit loss, normative Secondary Fuel Oil consumption, normative SHR, normative Auxiliary consumption, landed price of primary & secondary fuel, weightage average GCV of primary & secondary fuel as approved earlier in this order.

Table 84: Energy Charge Rate (ECR) for Unit-1 as approved by the Commission

for FY 2024-25.

Particulars	UoM	MYT	Petition	Approved
Normative Auxiliary Consumption (AUX)	%	9.00%	9.00	9.00
Normative Gross Station Heat Rate (SHR)	kCal/kWh	2387.00	2387.00	2387.00
Normative Specific fuel Oil Consumption (SFC)	mL/kWh	0.50	0.50	0.50
Calorific Value of Oil (CVSF)	kCal/ml	9.35	9.40	9.40
GCV of Primary Fuel (CVPF)	kCal/kg	3309.51	3454.21	3454.21
Landed Price of Primary Fuel (LPPF)	Rs./kg	3.23	3.96	3.96
Landed Price of Secondary Fuel (LPSFi)	Rs./ml	0.04	0.076	0.0760
Energy Charge Rate (ECR)	**Rs/kWh**	**2.577**	**3.042**	**3.042**

Table 85: Energy Charge Rate (ECR) for Unit-2 as approved by the Commission for FY 2024-25.

Particulars	UoM	MYT	Petition	Approved
Normative Auxiliary Consumption (AUX)	%	9.00	9.00	9.00
Normative Gross Station Heat Rate (SHR)	kCal/kWh	2387.00	2387.00	2387.00
Specific fuel Oil Consumption (SFC)	mL/kWh	0.50	0.50	0.50
Calorific Value of Oil (CVSF)	kCal/ml	9.35	9.42	9.42
GCV of Primary Fuel (CVPF)	kCal/kg	3288.15	3454.21	3454.21
Landed Price of Primary Fuel (LPPF)	Rs./kg	3.25	3.96	3.96
Landed Price of Secondary Fuel (LPSFi)	Rs./ml	0.05	0.08	0.08
Energy Charge Rate (ECR)	**Rs/kWh**	**2.616**	**3.042**	**3.042**

Determination of Fixed Cost

Additional Capitalization

Petitioner's Submission

6.37 It is submitted that an additional capitalization and de-capitalization of Rs. 14.26 Crore and Rs. 0.06 Crore respectively for Unit-1 and an additional capitalization and de-capitalization of Rs. 11.24 Crore and Rs. 0.06 Crore respectively for Unit-2 of the generating station for FY 2024-25, has been incurred by the Petitioner.

6.38 Therefore, the net additions during FY 2024-25 is Rs 25.40 Crore and the Petitioner is claiming the same under Regulation 14.3 and 14.4 of the JSERC Tariff Regulations, 2020. The detailed justification of the additional Capitalization is attached as Annexure 4 with the main petition.

6.39 The details of additional capitalization and de-capitalization as claimed by the Petitioner for FY 2024-25 as annexure-4 of main petition is tabulated hereunder:

Table 86: GFA, Additional Capitalization and De-capitalization for Unit-1 (Rs. Cr) as submitted by the Petitioner

Particulars	As on 31st March 2024	Addition during the FY 2024-25	Deduction during the FY 2024-25	As on 31st March 2025
Land under Full title	39.48			39.48
Land held under lease	11.20			11.20
Plant and Machinery	1,430.86	12.33		1,443.19
Building & Civil Engineering works	213.02	1.63		214.65
Office furniture & fitting	0.10			0.10
Office Equipment	0.39			0.39
Transformers and others	0.03			0.03
Others Assets	8.14	0.31	0.06	8.39
Any Other assets not covered above	0.29			0.29
Total	**1,703.51**	**14.26**	**0.06**	**1,717.42**

Table 87: GFA, Additional Capitalization and De-capitalization for Unit-2 (Rs. Cr) as submitted by the Petitioner.

Particulars	As on 31st March 2024	Addition during the FY 2024-25	Deduction during the FY 2024-25	As on 31st March 2025
Land under Full title	39.48			39.48
Land held under lease	11.20			11.20
Plant and Machinery	1,445.11	9.31		1,454.41
Building & Civil Engineering works	211.64	1.63		213.26
Office furniture & fitting	0.10			0.10

Particulars	As on 31st March 2024	Addition during the FY 2024-25	Deduction during the FY 2024-25	As on 31st March 2025
Office Equipment	0.39			0.39
Transformers and others	0.03			0.03
Others	8.14	0.31	0.06	8.39
Any Other assets not covered above	0.29			0.29
Total	**1,716.37**	**11.24**	**0.06**	**1,727.56**

Table 88: Additional Capitalization for FY 2024-25 (Already Incurred) for Unit-1 & Unit-2 (Rs. Cr) as submitted by the Petitioner.

Sl. No	Particulars	Additional Capitalization
1	LP Turbine Rotor with Blade Assembly	10.38
2	DCS Hardware & Software upgradation in Coal Handling Plant for Unit-1	0.72
3	BFP Scoop Electromechanical Actuator for Unit-2 and multipoint thermocouple & thermometer	0.30
4	ABT Server	0.05
5	Vehicle	0.56
6	Other Assets	0.06
	Total	**12.07**

Table 89: Additional Capitalization for FY 2024-25 (Planned to be Incurred) for Unit-1 & Unit-2 (Rs. Cr) as submitted by the Petitioner.

Sl. No	Particulars	Additional Capitalization
1.	PA Fan & FD Fan	0.17
2.	Coal Pipe and Bends (Cast Basalt lined)	0.75
3.	Pressure Part	1.12
4.	Main Vacuum Pump	0.25
5.	HPCV Valve, IPCV Valve & Chilled Water Pumps	0.8
6.	Sal Oil Pump- DC	0.17
7.	Valves in H2 Gas Room and Seal Oil System	0.43
8.	Electric System	0.53
9.	Equipment for AHP	0.58

Sl. No	Particulars	Additional Capitalization
10.	Operating System Upgradation of unit-1 DCS HMI	2.6
11.	Other C&I equipment	0.75
12.	Additional BC 3D Conveyor	1.5
13.	CHP Equipment	0.42
14.	Water Treatment Plant Equipment	0.12
15.	Civil Works	3.25
Total		**12.07**
Total (Incurred + Planned)		**25.51**

Commission's Analysis

6.40 The Commission has outlined ***clause 14.1 to clause 14.6*** of JSERC Generation Tariff Regulation, 2020 in Truing Chapter of this Order for approval of any additional capitalization for a generating station.

6.41 The Commission observes that in regards of capitalization; the Petitioner is deviating from the MYT order dated 14 December 2023. However, considering the necessity of proposed capitalization schemes and after due prudence check the Commission approves the additional capitalization for FY 2024-25

6.42 The Commission also directs the Petitioner to bring the actual capitalization for each year of the control period. Further, in case there is a need to review/revise any scheme or change in the Scope of Work, the same need to be submitted before the Commission with proper justification.

6.43 The Commission has scrutinized the submission supplied by the Petitioner regarding the Capitalization of assets, and its justification for FY 2024-25 as summarized below:

Table 90: Additional Capitalization for Unit-1 & Unit-2 (Rs. Cr) as approved by

the Commission for FY 2024-25 (Expenditure already incurred and capitalised)

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
1	LP Turbine Rotor with Blade Assembly	10.38	The Petitioner has submitted that capital expenditure for the procurement of an LP (Low Pressure) Turbine Rotor with Blade Assembly as a standby unit was incurred to ensure the continued availability of critical spare parts for the smooth operation of the power plant. The LP Turbine Rotor is a crucial component of the power generation system, responsible for converting steam energy into mechanical energy, which in turn drives the generator to produce electricity. Given the importance of this equipment, any failure or significant damage to the LP Turbine Rotor can lead to extended downtime, severely affecting the plant's overall availability and power generation capacity. Having an additional LP Turbine Rotor with Blade Assembly as a standby ensures: A. Operational Reliability B. Minimized outage Time C. Preventive Maintenance The procurement of the additional LP Turbine Rotor with Blade Assembly was not feasible prior to the COD due to the high capital investment and the need to prioritize initial commissioning and core plant operations. However, as operational data became available and the potential risks of extended outages due to rotor failure were evaluated, it was deemed essential to maintain a critical spare of this component to safeguard the plant's availability and reliability. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
2	DCS Hardware & Software upgradation in Coal Handling Plant for unit-1	0.72	The Petitioner has submitted that The capital expenditure for the upgradation of the Distributed Control System (DCS) Operating System, application software, and hardware for the Coal Handling Plant (CHP) was necessary to enhance the operational efficiency, reliability, and security of the plant's control systems. The existing DCS

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			hardware and software, originally supplied by the OEM during the project phase in 2011-12, are now obsolete. Specifically, the current system operates on Windows XP, which has not only become outdated but is also no longer supported by Microsoft. The upgraded software now includes enhanced features for real-time monitoring, control, and data analysis, which improves the responsiveness and effectiveness of the CHP operations. This ensures more reliable control of coal handling processes and better integration with other plant systems. The existing DCS hardware was replaced with modern, high performance equipment to address the limitations of outdated technology. The previous hardware had become prone to failures and was no longer compatible with the latest software enhancements. The new hardware includes upgraded controllers, input/output modules, and communication interfaces, which provide increased processing power, reliability, and scalability. This hardware upgrade ensures that the CHP can handle current and future operational demands without interruptions. This upgradation was a necessary and time-sensitive expenditure that could not have been foreseen or incurred prior to the COD. The technology available at the time of commissioning in 2011-12 was sufficient for initial operations; however, the rapid pace of technological advancements and the OEM's cessation of support for older systems necessitated this upgrade. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
3	BFP Scoop Electromechanical Actuator for Unit-2 and multipoint	0.30	The Petitioner has submitted that The capital expenditure incurred for the procurement of the BFP (Boiler Feed Pump) Scoop Electromechanical Actuator for unit-2 and multipoint thermocouple & infrared

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
	thermocouple & thermometer		thermometer was essential for ensuring more efficient and reliable plant operations. The existing mechanism had limitations in terms of control accuracy and reliability, leading to potential performance inefficiencies. The new electromechanical actuator ensures smoother and more accurate control, which is critical for maintaining optimal boiler feed water levels and, consequently, the overall operational stability of the power plant. The installation of the Electromechanical Actuator could not have been anticipated or planned prior to the COD. The need for the item arose based on operational experience and the recognition of the benefits they offer in terms of operational efficiency, reliability, and maintenance. Hence, the above expenditure was made for reducing the risk of unplanned downtime, improving operational control, and enhancing the overall efficiency of plant operations. These measures contribute to the plant's long-term sustainability and performance optimization, aligning with modern industry standards for operational excellence. Further, the Multipoint Thermocouple was procured to measure the temperature at multiple points along the duct in critical sections of the plant. This device provides real-time, accurate temperature data across various points, allowing operators to detect temperature variations that may indicate potential inefficiencies or issues in the system. This is particularly important for monitoring flue gases, duct operations, and other heat-related processes. Accurate temperature measurement is critical for ensuring that the system operates within the optimal range, preventing thermal stress or potential damage to plant equipment. The multipoint feature enables the plant to collect a comprehensive temperature profile, which helps in better control of thermal processes and improves operational efficiency and safety.

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			Apart from the above, the Infrared Thermometer was purchased to measure extremely high temperatures of 500°C and above without requiring direct contact with the surface. This device is crucial for monitoring temperatures in areas where conventional thermocouples or sensors cannot be easily installed or are not suitable due to extreme heat. The non-contact infrared technology ensures safe and accurate temperature measurement in high-temperature zones such as boiler sections, furnace outlets, and other heat generating equipment. This tool enhances the plant's ability to quickly assess temperature conditions in critical areas, The need for these advanced temperature measurement tools could not have been fully anticipated prior to the COD. As plant operations progressed, the demand for more precise and reliable temperature monitoring arose, driven by operational data and the need to ensure the long-term efficiency and safety of high-temperature processes. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
4	ABT Server	0.05	The Petitioner has submitted that the capital expenditure for the installation of an ABT (Availability Based Tariff) Server with higher capacity was essential to support the efficient operation of the generator and the management of online generation reports for commercial purposes. The ABT server, with higher processing and storage capacity, was installed to ensure seamless and reliable real time data processing related to power generation and tariff management. The new ABT server plays a key role in the real-time monitoring and control of generator operations. It allows for the accurate recording and transmission of generation data to relevant authorities and stakeholders for commercial purposes. The need for a higher-capacity ABT server could not have been fully foreseen prior to the COD. The installation

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			became necessary as the plant's operational demands grew, requiring more robust infrastructure to manage complex real-time data processing and generation reporting under the ABT framework. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
5	Vehicle	0.56	The capital expenditure for the procurement of vehicles was incurred to support essential operations within the plant. Vehicles are a critical asset for ensuring efficient mobility of personnel, tools, and equipment across the large operational area of the thermal power plant, facilitating quicker response times for maintenance, inspections, and other operational needs. The vehicles purchased were primarily used for: 4. Transporting personnel such as engineers, operators, and maintenance teams to various sections of the plant for timely response to operational and maintenance requirements. 5. Carrying tools and equipment required for regular and emergency maintenance activities. 6. Supporting logistics related to plant operations, ensuring smoother coordination between different operational departments. Additionally, a vehicle having cost of ₹0.11 Crore, were decapitalised as it was no longer in use due to either age, inefficiency, or irreparable mechanical issues. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
6	Other Assets	0.06	The Petitioner has submitted that the capital expenditure incurred for the procurement of various other assets, including cameras, laptops, air conditioning units, fans, and UPS systems, was essential to support the smooth and efficient functioning of plant operations. Cameras were purchased to enhance monitoring and security across critical areas of the plant. They are crucial for ensuring real-time surveillance of sensitive zones, such as

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			control rooms, fuel storage areas, and restricted sections, to prevent unauthorized access and ensure safety compliance. Laptops were procured to facilitate the work of plant engineers, operators, and administrative personnel. These devices are vital for real-time data analysis, control system interface, and report generation. Laptops allow mobility and flexibility for personnel, ensuring that operational data can be accessed and analyzed on the go. The UPS systems were procured to provide reliable backup power for essential equipment and systems within the plant. This ensures uninterrupted operation of critical systems, particularly during power outages or fluctuations, thereby safeguarding the stability and safety of plant operations. The need for these items arose from operational requirements and could not have been fully anticipated prior to the Commercial Operation Date (COD) Given the evolving nature of plant operations, these assets were essential to procure The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
Total (Rs. Crore)		**3.11**	

Table 91: Additional Capitalization for Unit-1 & Unit-2 (Rs. Cr) as approved by the Commission for FY 2024-25 (Expenditure Planned).

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
1	PA Fan & FD Fan	0.17	The Petitioner has submitted that the capital expenditure for the procurement of blade assemblies for both the Primary Air (PA) Fans and Forced Draft (FD) Fans is planned to be incurred in FY 2024-25. The intention behind this expenditure is to maintain critical spare parts for these fans, which have been operating continuously for over 12 years. Procuring and maintaining spare blade assemblies is essential to avoid major breakdowns, ensure operational reliability,

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			and extend the lifespan of the equipment. The PA Fans are integral to the boiler's air supply system, which supports proper combustion. After more than a decade of operation under high temperatures and pressure, the PA Fan blades are at risk of experiencing unbalance and high vibration due to wear and tear. To prevent unplanned failures or operational disruptions, it is crucial to plan the procurement of spare PA Fan Blade Assemblies. This will enable quick and efficient replacement in case of an emergency, minimizing downtime and ensuring the continuous and safe operation of the fans. The FD Fans are responsible for supplying forced air to the boiler to sustain efficient combustion. After 12 years of continuous operation, the blade assemblies have deteriorated due to prolonged exposure to stress, leading to potential vibration and unbalance issues. The planned procurement of spare FD Fan Blade Assemblies is a preventive measure to ensure that the fans can be swiftly repaired or replaced in case of failure, avoiding costly breakdowns and ensuring that the plant maintains the required airflow for proper boiler operation. At the time of the COD, the PA and FD Fans were new, and maintaining spares was not immediately necessary. However, after over 12 years of operation, wear and tear the blade assemblies has prompted the need for planned procurement of spare components to ensure ongoing operational reliability and prevent future emergencies. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
2	Coal Pipe and Bends (Cast Basalt Lined)	0.75	The Petitioner has submitted that the capital expenditure for the planned procurement of Coal Pipes and Bends (Cast Basalt Lined) is essential for maintaining critical spares to ensure operational reliability in case of an emergency. These components are subject to high local velocity due to the flow of fine coal,

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			leading to significant erosion over time. Maintaining spares is necessary to avoid unexpected breakdowns and minimize operational disruptions. The coal pipes and bends are located in zones where fine coal particles are transported at high local velocities, increasing the risk of erosion. This continuous wear and tear can compromise the structural integrity of the pipes, leading to potential failures and unplanned outages. To mitigate this risk, it is recommended to keep spare coal pipes and bends, specifically those lined with cast basalt, which provides enhanced protection against erosion. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
3.	Pressure Part	1.12	The Petitioner has submitted that the capital expenditure for the planned procurement of following pressure parts is essential to maintain operational reliability for both units, which have been running for over 12 years as of FY 2024-25. Due to the continuous operation and exposure to high-temperature conditions, the burner panel tubes are subject to increased erosion. Procuring spares will ensure that any worn or damaged components can be replaced promptly, avoiding major disruptions. 1. Burner Panel Upper and Lower: The Burner Panel Upper and lower has been in service for 12 years, and the erosion of the burner panel tubes has progressively increased due to prolonged exposure to high-temperature gases and particulate matter. The procurement of one set of upper burner panel bend tubes is planned to provide a spare that can be quickly used in case of wear or damage, ensuring continued efficient operation and preventing potential disruptions in the burner system. 2. Reheater Coil Front and Rear:

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			The Reheater Coil Front and Rear sections have been subjected to significant erosion due to high flue gas velocities. Over 12 years of operation, this has led to increased wear and potential for fusion. To manage this, two sets of Reheater Coils (Type-1, Type-2 & Type-3) are planned for procurement. These spares will be critical for replacing damaged coils promptly, maintaining efficient heat exchange and preventing operational issues. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
4.	Main Vacuum Pump	0.25	The Petitioner has submitted that the capital expenditure for the planned procurement of spare parts for the Main Vacuum Pump is essential for ensuring the reliable operation of the turbine generator (TG) system. The life expectancy of the Main Vacuum Pump is approximately 10-12 years, and maintaining spare parts is necessary to avoid failures and ensure continuous availability of this critical equipment. At the time of the COD, the Main Vacuum Pump was new and functioning within its expected lifespan. However, as the pump nears the end of its typical service life of 10-12 years, the need to procure spare parts has become necessary to ensure continued reliability and avoid potential failures. Hence, the planned procurement of spare parts for the Main Vacuum Pump is a strategic investment to ensure the reliability, efficiency, and continuity of plant operations. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
5	HPCV Valve, IPCV Valve & Chilled Water Pumps	0.8	The Petitioner has submitted that the capital expenditure for the planned procurement of spare HPCV (High Pressure Control Valve) and IPCV (Intermediate Pressure Control Valve) valves, as well as Chilled Water Pumps, is crucial for ensuring the continued reliable

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			operation of the plant, which has been running for over 12 years as of FY 2024-25. Over time, these components experience deterioration, making it necessary to maintain spares to avoid failures and operational disruptions. HPCV and IPCV Valves are critical for regulating pressure and maintaining safe and efficient operation of various plant systems. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
6	Seal Oil Pump-DC	0.17	The Petitioner has submitted that the capital expenditure for the planned procurement of spare Seal Oil Pump (SO Pump) is crucial for maintaining the reliability and performance of the turbine generator (TG) system. Given that the typical lifespan of the Seal Oil Pump is approximately 6-8 years, procuring spares is necessary to avoid potential failures and ensure the continuous availability of this vital component. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
7	Valves in H2 Gas Room and Seal Oil System	0.43	The Petitioner has submitted that the capital expenditure for the planned procurement of spare valves in the H_2 Gas Room and Seal Oil System is essential to ensure the reliable operation of both units, which have been running for over 12 years as of FY 2024-25. Over time, these valves experience deterioration due to continuous operation, necessitating the availability of spares to prevent potential failures and maintain system reliability. The H_2 Gas Room valves are crucial for the safe and efficient management of hydrogen, which is used as a cooling medium in the turbine generator system. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
8	Electric Equipment	0.53	The Petitioner has submitted that the planned capital expenditure for the retrofitting of LT breakers, partial battery replacement, and

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			procurement of new relays is necessary to ensure the continued reliable and trouble-free operation of critical plant systems. Many of these components have been in operation since the project commissioning and are nearing the end of their operational life, making it essential to upgrade and replace them to avoid system failures. The batteries supporting the Main Plant DC System and Balance of Plant (BOP) DC System have a typical lifespan of 10 years, after which their efficiency and performance degrade significantly. Both the Main Plant and BOP Area batteries are approaching the end of their life, which makes it critical to undertake partial battery replacement to ensure the reliability of the DC distribution boards (DCDBs). The existing relays have been in use for over 12 years and are subject to the ageing effect, which can result in unreliable performance and increased risk of failure. The procurement of new relays is required to replace ageing relays, which may cause problems due to wear and tear. New relays will help in maintaining system reliability, especially during emergencies when the operational safety and quick response of relays are critical. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
9	Equipment for AHP like Fluidizing blower assembly, Horizontal Pump for ash dyke complete skid etc.	0.58	The Petitioner has submitted that the planned capital expenditure for the procurement of Fluidizing Blower Assembly, Horizontal Pump for Ash Dyke (complete skid) and other equipment for AHP is necessary to maintain equipment reliability and ensure the continued smooth operation of the AHP. These components, which have been in use for nearly 8-9 years, have reached the end of their service life and need to be replaced to avoid breakdowns and operational failures

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
10	Operating System upgradation of unit-1 DCS HMI	2.6	The Petitioner has submitted that the planned capital expenditure for the operating system (OS) upgradation of Unit-1 Distributed Control System (DCS) Human-Machine Interface (HMI) is essential to ensure the reliability, security, and efficiency of the plant's automated control systems. The current system operates on Windows XP, which is obsolete and unsupported, posing significant operational and cybersecurity risks. The planned upgradation will significantly reduce these risks and ensure uninterrupted operation of the control system. The current hardware and operating system (Windows XP) have been in use since the project phase and are now outdated. Windows XP is no longer supported by its manufacturer, meaning there are no security patches or updates, leaving the system vulnerable to cybersecurity threats such as virus attacks and malware. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
11	Other C&I equipment	0.75	The Petitioner has submitted that planned capital expenditure for the procurement of Electronic Test Bench, O_2 Analyzers, Batteries, and a Sodium Analyzer is critical for maintaining the reliability and efficiency of various control and instrumentation systems essential for plant operations. These upgrades and replacements are required due to obsolescence, fixed life spans, and the need for reliable testing and calibration. Currently, the plant does not have an electronic test bench for the testing and calibration of instruments. This bench is essential for ensuring the accurate and reliable performance of various control and instrumentation equipment. O_2 analyzers are necessary for monitoring oxygen levels in critical boiler operations, which directly impacts combustion efficiency, fuel usage, and emission control. These

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			analyzers have a fixed life span of 4-5 years, after which their performance begins to degrade, compromising the reliability of the boiler's operation. The existing set of batteries installed during the project phase has a life span of 5-8 years, which has now been exceeded. The batteries are critical for providing backup power to control and instrumentation systems during power failures. The ageing batteries are no longer reliable and pose a risk to system stability in case of a power outage. Replacing these batteries is necessary to ensure the continuous and reliable operation of critical instrumentation systems. The Sodium Analyzer is crucial for monitoring sodium levels in the water-steam cycle, which is important for maintaining water chemistry and preventing corrosion in boilers and turbines. The existing sodium analyzer has become obsolete, and its materials and parts are no longer available for repairs. This has led to unreliable performance, putting the plant's equipment at risk of corrosion and inefficiency in water treatment. Procuring a new sodium analyzer will restore reliable monitoring of sodium levels, helping to maintain optimal water chemistry and protect key equipment from damage. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
12	Additional BC 3D Conveyor	1.50	The Petitioner has submitted that the planned capital expenditure for the procurement of an Additional BC-3D Conveyor is necessary to enhance the reliability of the Coal Handling Plant (CHP) and to ensure the continuous supply of coal to the power plant, thereby avoiding any potential generation loss. By adding an Additional BC-3D Conveyor, the plant will have greater operational flexibility and reliability in coal handling operations, reducing the risk of bottlenecks or complete system failure.

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
13	CHP Equipment	0.42	The Petitioner has submitted that the capital expenditure for the procurement of Belt, Snub Pulley, VGF (Vibrating Grizzly Feeder) Exciter and other equipment is essential to ensure the reliability and continuous operation of the Coal Handling Plant (CHP). These components have a fixed service life of approximately 8-10 years, and their timely replacement is critical to prevent operational failures and minimize downtime. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
14	Water Treatment Plant equipment	0.12	The Petitioner has submitted that the planned capital expenditure for the procurement of Bench Top Conductivity Meter, Multiple Diaphragm Valves, and HCL Measuring Equipment is essential to maintain the accuracy, reliability, and efficiency of the Water Treatment Plant (WTP). These components are critical for monitoring and controlling water quality, which is vital for efficient plant operations. At the time of the COD, the conductivity meter, diaphragm valves, and HCL measuring equipment were newly installed and functioning within their expected life spans. However, after nearly a decade of continuous use, these components have now either reached the end of their service life or are anticipated to face damage, necessitating their replacement to maintain the reliability and accuracy of the water treatment plant operations. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
15	Civil Works	3.25	The Petitioner has submitted that the planned capital expenditure for various civil construction works, including the construction of drains around critical areas

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
			and the completion of the boundary wall, is essential for maintaining the infrastructure integrity, safety, and operational efficiency of the plant. Construction of drain is essential to avoid water accumulation at chimney area & weigh bridge No. 3, 4, 5 & 6. Construction of drain from gate-2 to village road (Approx. 120m) is essential to avoid water pooling around Gate-2, which serves as a key access point for plant operations and personnel movement. Construction of boundary walls in left out area (phase iii) is essential for ensuring site security and preventing unauthorized access to plant premises, which could pose risks to both safety and operations. The Commission may allow the expenditure under Regulation 14.4 (d) of JSERC Tariff Regulations 2020.
	Total Planned Expenditure	**13.44**	
	Total (Incurred + Planned)	**25.51**	

6.44 The Commission has observed that some of the assets capitalized and planned to be capitalized during the FY 2024-25 were not part of the original project, while some of the assets were the part of original project cost, however they have attained obsolescence. These assets may be necessary for efficient and successful operation of generating station and related switchyard. Accordingly, the Commission on his own prudent, approves the aforesaid capitalization in accordance with clause 14.4 (d) of JSERC Tariff Regulations 2020.

Table 92: Capitalization (Rs. Crore) as approved by the Commission for FY 2024-

25

Particulars	Unit-1			Unit-2		
	MYT	Petition	Approved	MYT	Petition	Approved
Capitalization	5.39	14.26	14.26	5.49	11.24	11.24
Decapitalization	0.00	0.06	0.06	0.00	0.06	0.06

Depreciation

Petitioner's Submission

6.45 The Petitioner has submitted that depreciation is calculated based on 'Single Line Method' and at the depreciation rates provided in Appendix-I of the ***clause 15.30*** of JSERC Generation Tariff Regulations 2020.

6.46 Accordingly, the Petitioner has worked out the depreciation for FY 2024-25 on the basis of the total capital cost at the beginning of FY 2024-25 and considering the provisional capital expenditure incurred during the said financial year. The depreciation claimed for Unit-1 and Unit-2 is shown in below table.

Table 93: Depreciation (Rs. Crore) as submitted by the Petitioner.

Particulars	Depreciation Rate	Unit-1		Unit-2	
		MYT	Petition	MYT	Petition
Land under Full title	0		-		-
Land held under lease	2.67%		0.30		0.30
Plant and Machinery	4.22%		60.64		61.18
Building & Civil Engineering works	2.67%		5.71		5.67
Office Furniture and fittings	6.33%		0.01		0.01
Office Equipment	6.33%		0.02		0.02
Other Assets	5.28%		0.34		0.34
Transformers and others	4.22%		0.00		0.00
Any Other assets not covered above	4.22%		0.01		0.01
Net Depreciation		**66.57**	**67.03**	**67.29**	**67.53**

Commission's Analysis

6.47 In Truing up chapter of this petition, the Commission has outlined ***clause 15.28 to clause 15.34*** of JSERC Generation Tariff Regulation, 2020 for approval of Depreciation for a generating station.

6.48 In accordance with rate specified in Appendix-I of JSERC Generation Tariff Regulation 2020, the Commission has considered the asset class depreciation rate for FY 2024-25.

6.49 Further, the Commission has computed the depreciation for both the Unit in accordance with the above mentioned regulations. The table below shows the depreciation approves by the Commission for FY 2024-25

Table 94: Depreciation (Rs. Cr.) as approved by the Commission.

Particulars	Asset class Depreciation Rate	Unit-1		Unit-2	
		Petition	Approved	Petition	Approved
Land held under lease	0.00%	-	-	-	-
Plant and machinery	2.67%	0.30	0.30	0.30	0.30
Plant & Machinery	4.22%	60.64	60.64	61.18	61.18
Building & civil works	2.67%	5.71	5.71	5.67	5.67
Office furniture & fitting	6.33%	0.01	0.01	0.01	0.01
Office Equipment	6.33%	0.02	0.02	0.02	0.02
Transformer	4.22%	0.34	0.00	0.34	0.00
Other Assets	4.22%	0.00	0.35	0.00	0.35
Any other assets not covered	4.22%	0.01	0.01	0.01	0.01
Net Depreciation (Rs.cr.)		**67.03**	**67.04**	**67.53**	**67.53**

Operation & Maintenance Expenses

Petitioner's Submission

6.50 The Petitioner has claimed the Operation and Maintenance (O&M) expenses under the following broad categories: -

- Projected O&M Expenses for the Control Period FY 2021-22 to 2025-26;
  - Employee Expenses without Terminal Liabilities;
  - Repairs & Maintenance (R&M) Expenses;

- Administrative and General (A&G) Expenses;
    - Petition application Fee;
    - Ash Disposal Expenses;
    - Raw water Expenses;
    - Legal & Consulting Expenses
    - Security Expenses
    - Capital Spares

6.51 **Employee Expenses:** the Petitioner has submitted that it has arrived at employee expenses for FY 2024-25 using inflation factor of 2.24% (Considering WPI and CPI data from April 2024 to August 2024) and growth factor of 0.00%, the same is shown below.

Table 95: Normative Employee Expenses (Rs. Crore) as submitted by the Petitioner.

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
Employee Expenses	15.95	15.47	15.95	15.47

6.52 **A&G Expenses:** the Petitioner has submitted that in order to arrive the revised normative A&G expenses for the period FY 2024-25, the Petitioner has used the inflation factor of 2.24% over the expenses computed for the FY 2023-24 in the earlier section of the instant petition, the same has been depicted below:

Table 96: Normative A&G Expenses (Rs. Crore) as submitted by the Petitioner.

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
A&G Expenses	42.10	40.27	42.10	40.27

6.53 **R&M expenses:** The Petitioner has submitted that to arrive the revised normative R&M expenses for the period FY 2024-25 the Petitioner has used the inflation factor of 2.24% for FY 2024-25 (Considering WPI and CPI data from April 2024 to August 2024), 'K factor of 1.14% as approved by this Hon'ble Commission in the MYT Order dated December 14, 2023, and opening GFA of FY 2024-25 as stated in the earlier section of the instant petition. The revised normative R&M expense has been depicted below:

Table 97: Normative R&M Expenses (Rs. Crore) as submitted by the Petitioner

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
R&M Expenses	24.42	19.85	24.42	20.00

6.54 **Legal & Consultancy expenses:** The Petitioner has submitted that it has carried out legal & consultancy expenses as per clause 15.43 of JSERC Tariff Regulation 2020. Further, the Petitioner has projected the expenses considering inflation rate of 2.24% over and above on expenses claimed for FY 2023-24 in earlier section of the instant petition for various litigation, regulatory, financial and technical matters along with internal audits, through legal and consulting firms. Hence, the Petitioner is projecting the legal & consultancy expenditure towards the same for the period FY 2024-25, the same has been depicted below:

Table 98: Legal & Consultancy Expenses (Rs. Crore) as submitted by the Petitioner

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
Legal & Consultancy Expenses	0.22	6.93	0.22	6.93

6.55 Based on the above submission the Petitioner has submitted the net O&M expenses for FY 2024-25 as show below:

Table 99: O&M Expenses (Rs. Crore) as submitted by the Petitioner

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
Employee Expenses	15.95	15.47	15.95	15.47
A&G Expenses	42.10	40.27	42.10	40.27
R&M Expenses	24.42	19.85	24.42	20.00
Legal Expenses	0.22*	6.93	0.22*	6.93
Total O&M Expenses	**82.69**	**82.53**	**82.69**	**82.68**

**attributed to 122.85 MW only*

Commission's Analysis

6.56 The Commission has outlined ***clause 15.35 and clause 15.40*** of JSERC Generation Tariff Regulation, 2020 for approval Operation & Maintenance Charges for a generating station as mentioned in the True-up of this petition.

6.57 Based on facts and circumstance of the petition, the Commission approves the normative Employee Expenses for FY 2024-25 by taking the inflation factor 5.84% (average value of last 3 Year inflation) and growth factor (0.00%).

Table 100: Revised Growth Factor as approved by the Commission.

Particulars	FY 2020-21	FY 2021-22	FY 2022-23	FY 2023-24	FY 2024-25
Number of Employees	432	438	438	438	438
G (Growth Factor)		1.39%	0.00%	0.00%	0.00%

Table 101: Normative Employee Expenses (Rs. Crore) as approved by the Commission.

Particulars	UoM	Approved
Employee Cost of Previous Year	Rs. Cr.	30.26
Inflation Factor	%	5.84%
Growth Factor	%	0.00%
Normative Employee Expenses	**Rs. Cr.**	**32.03**

5.136 Accordingly, the Commission approves the unit wise normative employee expenses for FY 2024-25 as tabulated hereunder.

Table 102: Normative Employee Expenses (Rs. Crore) as approved by the Commission for each unit.

Particulars	UoM	Approved	
		Unit-1	Unit-2
Normative Employee Expenses	**Rs. Cr.**	**16.02**	**16.02**

5.137 Likewise, the Commission approves the normative A&G Expenses for FY

2024-25 based on the approved normative A&G Expenses for previous year (excluding petition filing fee) by multiplying the estimated inflation factor of 5.84% of the financial year.

Table 103: Normative A&G Expenses (Rs. Crore) as approved by the Commission.

Particulars	UoM	Approved
A&G (n-1) Year	Rs. Cr.	78.79
Inflation Factor	%	5.84%
Normative A&G Expenses	**Rs. Cr.**	**83.40**

5.138 Accordingly, the Commission approves the unit wise normative A&G expenses for FY 2024-25 as tabulated hereunder.

Table 104: Normative A&G Expenses (Rs. Crore) as approved by the Commission for each unit.

Particulars	UoM	Approved	
		Unit-1	Unit-2
Normative A&G Expenses	**Rs. Cr.**	**41.70**	**41.70**

5.139 For the purpose of evaluating the normative R&M Expenses, the Commission has taken the approved opening value of GFA for FY 2023-24 and multiplied it with the "K" factor as approved by the Commission in the MYT Order and estimated inflation factor for FY 2024-25 as tabulated hereunder:

Table 105: Normative R&M Expenses (Rs. Crore) as approved by the Commission.

Particulars	UoM	Approved
Opening GFA	Rs. Cr.	3419.88
K-factor	**%**	1.14%
Inflation Factor	%	5.84%
Normative R&M Expenses	**Rs. Cr.**	**41.26**

5.140 Accordingly, the Commission approves the unit wise normative A&G expenses for FY 2024-25 as tabulated hereunder.

Table 106: Normative R&M Expenses (Rs. Crore) as approved by the Commission

for each unit.

Particulars	UoM	Approved	
		Unit-1	Unit-2
Normative R&M Expenses	**Rs. Cr.**	**20.63**	**20.63**

5.141 In regards to legal expenses, the Commission is of the view that it is not evident the Petitioner will be required to defend the same number of cases during the said financial year. Accordingly, the claimed legal charges are not being approved at this stage and shall be considered during the true-up process, subject to submission of valid supporting documents and bills.

6.58 However, the Commission approves the consulting expenses for FY 2024-25 as Rs. 5.79 Cr. for both the Units as per the break-up provided by the Petitioner under "Legal, Consulting and Professional charges for FY 2023-24" under ***'Annexure A'*** of the data-gap response. The consulting expenses shall also be subject to truing up on the basis of actuals.

5.142 The O&M expense projected by the Petitioner vis-à-vis as approved by the Commission for FY 2024-25 is given below.

Table 24: Normative O&M Expenses (Rs. Crore) as approved by the Commission for FY 2023-24.

Particulars	UoM	UNIT-1			UNIT-2		
		MYT	Petition	Approved	MYT	Petition	Approved
Employee Expenses	Rs. Cr.	15.95	15.47	16.02	15.95	15.47	16.02
A&G Expenses	Rs. Cr.	42.10	40.27	41.70	42.10	40.27	41.70
R&M Expenses	Rs. Cr.	24.42	19.85	20.63	24.42	20.00	20.63
Legal & Consulting Expenses	Rs. Cr.	0.22*	6.93	2.90	0.22*	6.93	2.90
Net Normative O&M Expenses	**Rs. Cr.**	**82.69**	**82.53**	**81.24**	**82.69**	**82.68**	**81.24**

**attributed to 122.85 MW only*

Water Charges, Security Expenses, Capital Spare

Petitioner Submission

6.59 The Petitioner submits that water requirement of the generating station of the Petitioner is met from Subarnarekha River and the Petitioner has to make payment from FY 2023-24 based on the rate i.e.,13.00 Rs./KL specified for the industries for using the water from water source as downstream, as specified in the notification dated January 17, 2023 of Water Resource department ("WRD") of Jharkhand, attached as Annexure-8 in the main petition and has to escalate the charges using y-o-y rate of 7.5% as specified in aforesaid WRD notification.

6.60 Considering the above rate for FY 2023-24 and escalation rate of 7.5%, the Petitioner has projected Rs. 24.65Cr towards the water charges for FY 2024-25. The water charges attributable to JBVNL is shown below:

Table 107: Projection of Water charges (Rs. Crore) for FY 2024-25 as submitted by Petitioner.

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
Water Charges for Unit 1 and 2 (Attributable to contracted capacity of 122.85 MW) as claimed in the instant petition	2.82	3.08	2.82	3.08

6.61 Moreover, the Petitioner mentions that that prior to FY 2023-24 there was a dispute regarding the source of water and for that the Petitioner had escalated this matter before the Hon'ble High Court at Ranchi, which is still sub-judice before the Hon'ble High Court. In line with Clause 18 of the Water agreement and as per the request of the Petitioner to reduce the water quantity to 17.60 MCM per annum as compared to original allotment of 35.60 MCM per annum on the basis of installation of reduced capacity i.e. only 540 MW power plant as against the original plan of 1000 MW power plant, the Government of Jharkhand has principally agreed to consider approximately 17.60 MCM as water quantity with effect from 1st April, 2023 with a provision for further reduction to 11.46 MCM per annum based on measurement of actual consumption with effect for signing of the renewed agreement.. In regard to quantity and source of water prior to 1st April, 2023, both parties have agreed to abide by the final decision from the competent court for the existing disputes lying at the Hon'ble High Court of Ranchi, Jharkhand both for quantity and source of water, which will automatically determine the applicable rate of the water.

6.62 In this regard, the Commission in its previous True-Up orders of past years till FY 2022-23 had granted the Petitioner the liberty to adjust the expenditure to the extent approved by the Hon'ble High Court, in the event that the judgment in the aforesaid matter is contrary to the Petitioner's position. However, the matter remains sub-judice before the Hon'ble High Court of Ranchi. The Petitioner undertakes to apprise this to the Commission once the Hon'ble High Court delivers its judgment.

6.63 Regarding the expenditure of Capital Spares, the Petitioner has submitted that "Based on the total expenditure of Rs. 10.85 Crores incurred by the Petitioner in FY 2023-24 respectively on account of Capital Spares, the Petitioner has projected the consumption of capital spares for FY 2024-25 same as FY 2023-24 i.e., Rs. 2.71 Crore, and the Petitioner will submit the actual consumption of capital spares at the time of True Up for FY 2024-25."

6.64 Accordingly, the proportionate expenditure towards the contracted capacity supplied to JBVNL, works out at Rs. 2.71 Crores and the same will not be funded through special allowance as per clause 14.11 and 14.12 of the Regulation or claimed as a part of additional capitalization or consumption of store and spares and renovation and modernization.

Table 108: Capital expenses (Rs. Crore) as submitted by Petitioner.

Particulars	Capital Spare
Capital Spares for Unit-1 and Unit-2 (Attributable to contracted capacity of 122.85 MW)	2.71

6.65 The Petitioner has projected the Security expenses based on the cost incurred in FY 2023-24 and used the escalation rate of 2.24% as stated earlier in the instant petition, the same has been depicted below:

Table 109: Security Expenses (Rs. Crore) as submitted by Petitioner.

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
Security expenses for Unit 1 and 2 (Attributable to contracted capacity of 122.85 MW) as claimed in the instant petition	0.74	0.28	0.74	0.28

Commission Analysis

6.66 The Commission has outlined ***clause 9.1*** of JSERC Generation Tariff (1st Amendment), Regulation 2023, for approval Water Charges, capital spare for a generating station as reproduced below:

> *"The Water Charges, Security Deposit, and Capital Spare for thermal generating stations shall be allowed separately after prudent check".*

5.143 The Commission has gone through the Annexure 8 of the main petition, and observed that an escalation of 7.5% has been fixed on water charges by WRD department. Thus the Commission, based on the submission and justification made by the Petitioner and after a prudent check, allows the water charges of 3.08 Cr. for each Unit.

5.144 The Commission has observed that the matter related to Water Tax is sub-judice before the Hon'ble Jharkhand High Court. In this regards, the Commission has reserved the liberty to the Petitioner that if any liability arises due to the judgement of the Hon'ble Jharkhand High Court Order the Same shall be Claimed.

6.67 In regard to Capital spares, the Commission approves the capital spares expenditure at the same level as sanctioned in the previous year, i.e., ₹2.71 crore for both units for the APR of FY 2024-25, subject to true-up based on actuals.

6.68 For APR, since the Petitioner has not submitted any bills for security expenses for the first six months of FY 2024-25, the Commission is of the view that escalation in security expenses should not be considered at this stage. The matter shall be revisited during the true-up process, subject to the submission of valid supporting documents and bills. Accordingly, the Commission allows the same amount as approved for FY 2023-24 as security expenses for FY 2024-25.

6.69 Considering above facts, the Commission approves the water charges, capital spares and security expenses as summarized below.

Table 110: Water charges, capital expenses & security expenses (Rs. Crore) as approved by the Commission.

Particulars	Unit-1	Unit-2
	Approved	Approved
Water Charge for Unit-1 and Unit-2 (Attributable to contracted capacity of 122.85 MW)	3.08	3.08
Capital Spares for Unit-1 and Unit-2 (Attributable to contracted capacity of 122.85 MW)	1.36	1.36
Security Expenses combined for both the Ubit-1 & Unit-2 (Attributed to contracted capacity of 122.85 MW)	0.28	0.28

Ash Disposal Expenses

Petitioner's Submission

6.70 For the purpose of APR for FY 2024-25, the Petitioner has projected the Ash Transportation expenses based on the cost incurred in FY 2023-24 and used the escalation rate of 2.24% as stated earlier in the instant petition, the same has been depicted below:

Table 111: Ash Disposal expenses (Rs. Crore) as submitted by the Petitioner.

Particulars	MYT	FY 2023-24
Transportation Cost/Disposal Expenses (in Rs. Cr)		5.41
Ash Transportation cost for Unit-1 and Unit-2 (Attributable to contracted capacity of 122.85 MW)	**4.38**	**1.35**

Commission's Analysis

6.71 In the lack of proper supporting documents/bills for the Ash Disposal expenses, the commission is not allowing the escalation rate on Ash transportation cost as claimed by the Petitioner at this stage. However, the same may be passed on subject to true-up, based on the production of actual bills.

Table 112: Ash Disposal expenses (Rs. Crore) as approved by the Commission.

Particulars	Unit-1		Unit-2	
	Petition	Approved	Petition	Approved
Ash Disposal Expenses for Unit-1 and Unit-2 (Attributable to contracted capacity of 122.85 MW)	**0.68**	**0.66**	**0.68**	**0.66**

Interest on Loan

Petitioner's Submission

6.72 The Petitioner has computed the Interest on Debt as per JSERC Tariff Regulations, 2020. The Petitioner has considered the weighted average rate of interest at 9.00% for FY 2024-25 for Unit-1 and Unit-2 on the basis of the previous year Truing up Petition as depicted in previous section. The following tables represents the detailed computation of Interest on Debt for Unit-1 and Unit-2 for FY 2024-25.

Table 113: Interest on Loan (Rs. Crore) as submitted by the Petitioner for FY 2024-25.

Particulars	UoM	Unit-1		Unit-2	
		MYT	Petition	MYT	Petition
Opening Loan	Rs. Cr.	318.26	385.04	347.33	412.33
Deemed Loan Addition	Rs. Cr.	3.77	9.98	3.84	7.87
Deletion During year	Rs. Cr.	0.00	0.04	0.00	0.04
Deemed Loan Repayment	Rs. Cr.	66.57	67.03	67.29	67.53
Closing Loan	Rs. Cr.	255.46	327.95	283.88	352.63
Average Loan Balance	Rs. Cr.	286.86	356.50	315.61	382.48
Interest Rate	%	12.31%	9.00%	12.31%	9.00%
Interest on Loan	**Rs. Cr.**	**35.31**	**32.08**	**38.85**	**34.42**

6.73 Further, the Petitioner mentions that due to the current industry situation and the approaching deadline for the repayment of the entire loan amount, the Petitioner is actively exploring the possibility of refinancing the existing loan, which is currently in an advanced stage. In light of the above, the Petitioner submits that the expected interest rate for FY 2024-25 may increase / decrease than the current rate claimed in the instant petition for the respective years, as the refinancing will be sought through alternative lenders and once the refinancing and lender will be finalized the actual interest rate will be claimed accordingly in the True-Up of FY 2024-25.

Commission's Analysis

6.74 In True-up chapter, the Commission has outlined ***clause 15.6 to clause 15.8*** of JSERC Generation Tariff Regulation 2020, for the approval of Debt: Equity ratio for a generating station.

6.75 The Commission has considered the opening loan for FY 2024-25 as closing loan of FY 2023-24 as approved in this order.

6.76 For the instant petition, the Commission approves the weighted average interest rate as 9.00% same as the previous year's (FY 2023-24) interest rate, as per ***clause 15.18*** of JSERC Generation Tariff Regulation 2020 for both Units.

6.77 In accordance with ***clause 15.15*** of JSERC GTR 2020 as mentioned above, the Commission approves the deemed loan repayment equal to approved depreciation (Additional Capitalization) for FY 2024-25.

6.78 Based on above excerpt the Commission approves the interest on loan for FY 2024-25 as computed hereunder.

Table 114: Interest on Loan (Rs. Crore) as approved by the Commission for FY 2024-25.

Particulars	Unit-1			Unit-2		
	MYT	Petition	Approved	MYT	Petition	Approved
Opening Loan	318.26	385.04	320.81	347.33	412.33	347.58
Deemed Loan Addition	3.77	9.98	9.98	3.84	7.87	7.87
Deletion During year	0.00	0.04	0.04	0.00	0.04	0.04

Particulars	Unit-1			Unit-2		
	MYT	Petition	Approved	MYT	Petition	Approved
Deemed Loan Repayment	66.57	67.03	67.04	67.29	67.53	67.53
Closing Loan	255.46	327.95	263.72	283.88	352.63	287.88
Average Loan Balance	286.86	356.50	292.26	315.61	382.48	317.73
Interest Rate	12.31%	9.00%	9.00%	12.31%	9.00%	9.00%
Interest on Loan	**35.31**	**32.08**	**26.30**	**38.85**	**34.42**	**28.60**

Return on Equity

Petitioner's Submission

6.79 The Petitioner has claimed Return on Equity based on the regulation 15.10 of JSERC Tariff Regulation, 2020.

6.80 Accordingly, the Petitioner has calculated the Return on Equity at 15.00%. The Return on Equity claimed for Unit-1 and Unit-2 for FY 2024-25 as summarized in the table below.

Table 115: Return on Equity (Rs. Crore) as submitted by the Petitioner for FY 2024-25.

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
Opening Equity	509.27	509.94	514.24	513.80
Addition the year	1.62	4.28	1.65	3.37
Deletion during the Year	0.00	0.02	0.00	0.02
Closing Equity	510.89	514.20	515.89	517.16
Average Equity	510.08	512.07	515.07	515.48
Rate of Return on Equity	15.00%	15.00%	15.00%	15.00%
Return on Equity	**76.51**	**76.81**	**77.26**	**77.32**

Commission's Analysis

6.81 In True-up chapter, the Commission has outlined ***clause 15.6 to clause***

15.8 of JSERC Generation Tariff Regulation 2020 and ***clause 6.1*** of JSERC Generation Tariff (1st Amendment), Regulation 2023 for approval of Return on Equity for a generating station.

6.82 The Commission has considered the opening equity for FY 2024-25 equal to the closing equity for FY 2023-24 as approved earlier in this order.

6.83 In accordance with the ***clause 6.1 (provisio)*** of JSERC Generation Tariff (1st Amendment) Regulation 2023, the Commission approves the Rate of Return on Equity as 15.00%.

6.84 Based on above excerpt, the Commission has computed the return on equity for FY 2024-25 as tabulated hereunder:

Table 116: Return on Equity (Rs. Crore) as approved by the Commission for FY 2024-25.

Particulars	Unit-1			Unit-2		
	MYT	Petition	Approved	MYT	Petition	Approved
Opening Equity	509.27	509.94	510.96	514.24	513.80	514.82
Addition During the Year	1.62	4.28	4.28	1.65	3.37	3.37
Deletion during the Year	0.00	0.02	0.02	0.00	0.02	0.02
Closing Equity	510.89	514.20	515.22	515.89	517.16	518.17
Average Equity	510.08	512.07	513.09	515.07	515.48	516.49
Rate of Return on Equity	15.00%	15.00%	15.00%	15.00%	15.00%	15.00%
Return on Equity	**76.51**	**76.81**	**76.96**	**77.26**	**77.32**	**77.47**

Interest on Working Capital (IOWC)

Petitioner's Submission

6.85 In accordance with ***clause 15.23 & clause 15.26*** of JSERC Generation Tariff Regulations, 2020, the Petitioner has computed the Interest on Working Capital (IOWC) requirement for FY 2024-25.

6.86 The Petitioner has worked out the total normative working capital requirement for Unit 1 and Unit-2 for FY 2024-25 as tabulated hereunder and has considered the rate of interest on working capital 12.15% equivalent to the MCLR Rate specified by the State Bank of India as on April 1st of every financial year plus 350 basis points.

Table 117: IOWC (Rs. Crore) as submitted by the Petitioner for FY 2024-25.

Particulars	Unit-1		Unit-2	
	MYT	Petition	MYT	Petition
Coal Cost for 50 days	62.60	75.18	63.42	75.18
Cost of Secondary Fuel Oil for 2 Months	0.73	1.27	0.75	1.30
O&M Expenses for 1 month	6.89	6.88	6.89	6.89
Maintenance Spares (20% of O&M)	92.96	102.53	94.40	102.99
Receivables for 45 days	16.54	16.51	16.54	16.54
Total Working Capital	**179.71**	**202.37**	**182.00**	**202.90**
Rate of Interest	10.50%	12.15%	10.50%	12.15%
Interest on Working Capital	**18.87**	**24.59**	**19.11**	**24.65**

Commission's Analysis

6.87 In True-up chapter, the Commission has outlined ***clause 15.23 to clause 15.26*** of JSERC Generation Tariff Regulation 2020 and ***clause 6.1*** of JSERC Generation Tariff (1st Amendment), Regulation 2023 for approval of interest on working capital for a generating station.

6.88 Taking into account the above regulation, the Interest on Working capital has been calculated at an interest rate of 12.15% (Bank Rate plus 350 basis points) as specified in the ***clause 15.26*** JSERC Generation Tariff Regulation, 2020 is given below.

Table 118: IOWC (Rs. Crore) as approved by the Commission for FY 2024-25.

Particulars	Unit-1			Unit-2		
	MYT	Petition	Approved	MYT	Petition	Approved
Coal Cost for 2 Months	62.60	75.18	74.97	63.42	75.18	75.18
Cost of Secondary Fuel Oil for 2 Months	0.73	1.27	1.27	0.75	1.30	1.30

Particulars	Unit-1			Unit-2		
	MYT	Petition	Approved	MYT	Petition	Approved
O&M Expenses for 1 month	6.89	6.88	6.77	6.89	6.89	6.77
Maintenance Spares (20% of O&M)	16.54	16.51	16.25	16.54	16.54	16.25
Receivables for 2 months	92.96	102.53	101.66	94.40	102.99	102.09
Total Working Capital	**179.71**	**202.37**	**200.64**	**182.00**	**202.90**	**201.67**
Rate of Interest	10.50%	12.15%	12.15%	10.50%	12.15%	12.00%
Interest on Working Capital	**18.87**	**24.59**	**24.41**	**19.11**	**24.65**	**24.20**

Sharing of Gain/Loss

Shakti Scheme Discount

Petitioner's Submission

6.89 The Petitioner has passed a Shakti discount of Rs. 0.70 Cr. for each unit from April to September 2024 and an estimated discount on Shakti Coal of Rs. 0.69 Cr. from October 2024 to March 2025 as tabulated hereunder.

Table 119: Shakti Scheme Discount (Rs. Crore) as submitted by the Petitioner for FY 2024-25.

Particulars	UoM	Unit-1		Unit-2	
		MYT	Petition	MYT	Petition
Shakti discount (Till 30.09.2024)	**Rs. Cr.**	-	0.70	-	0.70
Shakti discount (from October to March)	**Rs. Cr.**	-	0.69	-	0.69
Shakti scheme Discount Amount attributed JBVNL (25%)	**Rs. Cr.**	**-**	**1.39**	**-**	**1.39**

Commission's Analysis

6.90 On scrutinizing and analyzing the material, information, and actual figure, FSA, PPA approvals and details submitted by the Petitioner, the Commission approves the Shakti Scheme Discount for FY 2024-25 as given below.

Table 120: Shakti Scheme Discount (Rs. Crore) as approved by the Commission for FY 2024-25

Particulars	UoM	Unit-1			Unit-2		
		MYT	Petition	Approved	MYT	Petition	Approved
Shakti scheme Discount Amount attributed JBVNL (25%)	Rs. Cr.	-	1.39	1.39	-	1.39	1.39

Non-Tariff Income

Petitioner Submission

6.91 The Petitioner has submitted the same amount of non-tariff income for FY 2024-25 as submitted for FY 2023-24 for the instant petition as given below:

Table 121: Non-Tariff Income (Rs. Cr) as submitted by the Petitioner.

Particulars	FY 2024-25	
	Unit-1	Unit-2
Non-Tariff Income	7.84	7.84

Commission Analysis

6.92 On scrutinizing and analyzing the material, information, and audited account, the Commission approves the Non-Tariff Income for FY 2024-25 as given below subject to true up on production of actual details.

Table 122: Non-Tariff income (Rs. Cr.) as approved by the Commission.

Particulars	FY 2024-25					
	Unit-1			Unit-2		
	MYT	Petition	Approved	MYT	Petition	Approved
Non-Tariff Income	0.75	7.84	7.84	0.75	7.84	7.84

Summary of Annual Revenue Requirement

Commission's Analysis

6.93 On consideration of the submission and details furnished by the Petitioner, the Commission in accordance with clause 15.3 of JSERC Generation Tariff Regulation 2020 approves the Annul Fixed Cost (AFC) for FY 2024-25 as summaries below.

Table 123: Annual Fixed Cost (Rs. Crore) as approved by the Commission for FY 2024-25.

Particulars	Unit-1			Unit-2		
	MYT	Petition	Approved	MYT	Petition	Approved
O&M excl. water, capital spare, ash	82.69	82.53	81.24	67.29	82.68	81.24
Depreciation	66.57	67.03	67.04	67.29	67.53	67.53
Interest on Loan	35.31	32.08	26.30	38.85	34.42	28.60
Return on Equity	76.51	76.81	76.96	77.26	77.32	77.47
Interest on Working Capital	18.87	24.59	24.38	19.11	24.65	24.20
Add: Saving on account of lower interest rate	0.00	0.00		0.00	0.00	
Less: Non-Tariff Income	0.75	7.84	7.84	0.75	7.84	7.84
Annual Fixed Cost	**279.20**	**275.20**	**268.09**	**284.45**	**278.77**	**271.20**

Tariff for Unit-1 and Unit-2

Petitioner Submission

6.94 The Petitioner has submitted that in accordance with provisions of Power Purchase Agreement (PPA) executed with Discom, out of the total Contracted Capacity of 122.85 MW, APNRL will supply 63.882 MW capacity at total tariff (i.e., 13% of the total net Capacity at total Tariff (both fixed and Variable Charge) and the balance 58.96 MW capacity, i.e., 12% of the Net capacity at variable cost i.e., Energy Charge as approved by the Commission. Accordingly, the tariff for supply of regulated capacity for JUVNL/JBVNL is summarized below:

Table 124: Tariff for 12% of total net capacity as submitted by the Petitioner for FY 2024-25. (Variable Charge)

Particulars	Units	Unit-1		Unit-2	
		MYT	Petition	MYT	Petition
Variable Cost/ Base Energy Charge Rate	**Rs/kWh**	**2.577**	**3.04**	**2.62**	**3.04**

Table 125: Tariff for 13% of total net capacity as submitted by the Petitioner for FY 2024-25. (Fixed Charge)

Particulars	Units	Unit-1		Unit-2	
		MYT	Petition	MYT	Petition
Gross Capacity	MW	270	270.00	270	270.00
Auxiliary Consumption	%	9%	9.00%	9%	9.00%
Net Capacity	MW	245.70	245.70	245.70	245.70
12% of Net Capacity for Supply to JUVNL/JBVNL at Energy Charge	MW	29.48	29.48	29.48	29.48
Remaining Capacity from which Fixed Charges are to be recovered	MW	216.22	216.22	216.22	216.22
Annual Fixed Charge	Rs Cr.	279.20	275.20	284.45	278.77
Annual Fixed Charges/MW	Rs Cr./MW	1.29	1.27	1.32	1.29
13% of Net Capacity for supply to JUVNL at full tariff	MW	31.94	31.94	31.94	31.94
AFC for 13% of Net Capacity	**MW**	**41.25**	**40.65**	**42.02**	**41.18**

Commission's Analysis

6.95 The tariff for 12% of the total net capacity shall be the variable cost (subject to fuel price adjustment in accordance with Generation Tariff Regulations 2020) approves by the Commission, whereas the tariff for next 13% of total net capacity shall be total tariff i.e., variable cost (subject to fuel price adjustment in accordance with Generation Tariff Regulations 2020) and fixed charges as approves by the Commission as tabulated below.

Table 126: Tariff for 12% of total net capacity as approved by the Commission for FY 2024-25. (Variable Charge)

Particulars	Units	Unit-1		Unit-2	
		Petition	Approved	Petition	Approved
Variable Cost/ Base Energy Charge Rate	**Rs/kWh**	**3.04**	**3.04**	**3.04**	**3.04**

Table 127: Tariff for 13% of total net capacity for Unit-1 as approved by the Commission for FY 2024-25. (Fixed Charge)

Particulars	Derivation	Units	Unit-1		
			MYT	Petition	Approved
Gross Capacity	A	MW	270	270.00	270.00
Auxiliary Consumption	B	%	9%	0.09	0.09
Net Capacity	C=A x (1-B)	MW	245.70	245.70	245.7
12% of Net Capacity for Supply to JUVNL/JBVNL at Energy Charge	D=C x 12%	MW	29.48	29.48	29.48
Remaining Capacity from which Fixed Charges are to be recovered	E=C-D	MW	216.22	216.22	216.22
Annual Fixed Charge	F	Rs Cr.	279.20	275.20	268.09
Annual Fixed Charges/MW	G=F/E	Rs Cr./MW	1.29	1.27	1.24
13% of Net Capacity for supply to JUVNL at full tariff	H=C x 13%	MW	31.94	31.94	31.94
AFC for 13% of Net Capacity	**I=G x H**	**Rs. Cr.**	**41.25**	**40.65**	**39.60**

Table 128: Tariff for 13% of total net capacity for Unit-2 as approved by the Commission for FY 2024-25. (Fixed Charge)

Particulars	Derivation	Units	Unit-2		
			MYT	Petition	Approved
Gross Capacity	A	MW	270	270.00	270.00
Auxiliary Consumption	B	%	9%	0.09	0.09
Net Capacity	C=A x (1-B)	MW	245.70	245.70	245.70
12% of Net Capacity for Supply to JUVNL/JBVNL at Energy Charge	D=C x 12%	MW	29.48	29.48	29.48

Particulars	Derivation	Units	Unit-2		
			MYT	Petition	Approved
Remaining Capacity from which Fixed Charges are to be recovered	E=C-D	MW	216.22	216.22	216.22
Annual Fixed Charge	F	Rs Cr.	284.45	278.77	271.20
Annual Fixed Charges/MW	G=F/E	Rs Cr./MW	1.32	1.29	1.25
13% of Net Capacity for supply to JUVNL at full tariff	H=C x 13%	MW	31.94	31.94	31.94
AFC for 13% of Net Capacity	**I=G x H**	**Rs. Cr.**	**42.02**	**41.18**	**40.06**

Total ARR for Jharkhand

Petitioner Submission

6.96 The Petitioner has worked out the impact of true up considering the estimated annual fixed charges, estimated per unit variable charges for the year and the estimated availability against the contracted capacity to JBVNL for the year as shown below

Table 129: Impact of APR as submitted by the Petitioner for FY 2024-25.

Particulars	Units	FY 2021-22	
		Unit-1	Unit-2
Net Energy Supplied to JUVNL/JBVNL	MU	466.30	466.30
Rate of Energy Charge	Rs/kWh	3.04	3.04
AFC Entitlement on True Up	**Rs Cr**	**40.65**	**41.18**
Incentives	Rs Cr	0.00	0.00
Energy Charge Entitlement upon True up	**Rs Cr**	**141.83**	**141.87**
Water Charges	Rs Cr	3.08	3.08
Capital Spares	Rs Cr	1.36	1.36
Additional Ash disposal charges	Rs Cr	0.68	0.68
Security Expense	Rs Cr	0.28	0.28

Particulars	Units	FY 2021-22	
		Unit-1	Unit-2
Petition filing charges	Rs Cr	0.04	0.04
Total Entitlement	**Rs Cr**	**187.91**	**188.48**
Revenue Billed			
AFC	Rs Cr	41.13	41.91
EC	Rs Cr	120.30	121.98
FPA	Rs Cr	19.70	17.93
Incentive	Rs Cr	0.00	0.00
Imported Coal Bill	Rs. Cr	0.00	0.00
Total Revenue Billed to JUVNL/JBVNL	Rs Cr	**181.13**	**181.82**
Gap/(Surplus)	Rs Cr	6.78	6.66
Less: Shakti Coal discount	Rs Cr	1.39	1.39
Gap/(Surplus) including discount	**Rs Cr**	5.39	5.27
Carrying Cost	**Rs Cr**	0.00	0.00
Total Gap/(Surplus)	**Rs Cr**	**5.39**	**5.27**

Commission's Analysis

6.97 On consideration of the submission and details furnished by the Petitioner, the Commission approves the Annul Fixed Cost (AFC), variable cost and net ARR for FY 2024-25 as summarized below.

Table 130: Impact of APR as approved by the Commission for FY 2024-25.

Particulars	MoU	Unit-1		Unit-2	
		Petition	Approved	Petition	Approved
Net Energy Supplied to JUVNL/JBVNL	MU	466.30	466.30	466.30	466.30
Rate of Energy Charge	Rs/kWh	3.04	3.04	3.04	3.04
AFC Entitlement on True Up	Rs. Cr.	40.65	39.60	41.18	40.06
Incentive	Rs. Cr.	0.00	0.00	0.00	0.00
Energy Charge Entitlement upon True up	Rs. Cr.	141.83	141.83	141.87	141.87
Water Charges	Rs. Cr.	3.08	3.08	3.08	3.08
Capital Spares	Rs. Cr.	1.36	1.36	1.36	1.36
Ash Disposal Expenses	Rs. Cr.	0.68	0.68	0.68	0.66

Particulars	MoU	Unit-1		Unit-2	
		Petition	Approved	Petition	Approved
Security Expenses	Rs. Cr.	0.28	0.28	0.28	0.28
Petition filing charges	Rs. Cr.	0.04	0.04	0.04	0.04
Less: sharing of gain on operational parameter	Rs. Cr.	0.00	0.00	0.00	0.00
Total Entitlement	Rs. Cr.	**187.91**	**186.85**	**188.48**	**187.31**
Less: Shakti Discount	**Rs. Cr.**	1.39	1.39	1.39	1.39
Net ARR	**Rs. Cr.**	**186.52**	**185.47**	**187.09**	**185.92**

Chapter 7: ADDITIONAL SUBMISSION

A. Submission against supply of 12% of power only on Variable Charge basis without any valid approval in terms of the PPA

Petitioner Submission

7.1 The Petitioner submits that it entered into a PPA with JBVNL on September 28, 2012. This agreement stipulated the supply of 12% power to JBVNL at variable charges. The basis for this consideration was contingent upon a policy decision from the Government of India, as emphasized in the PPA and the underlying Memorandum of Understanding (MoU).

7.2 The Petitioner has further submitted that Since the commencement of the power supply under the terms of the PPA, the Petitioner has adhered to the understanding that the Government of India would enact the necessary policy to support the 12% power supply at variable charges to the State of Jharkhand. However, till date no information has been received for framing of such policy by the Government of India. The Petitioner has discussed this issue with the JBVNL in several occasions but since no clarity has been received from the JBVNL, a RTI was filed before the Central Electricity Authority for the clarification through one of our representative, the reply of which has been received, which is self-explanatory. Copy enclosed for your ready reference as Annexure-12. The Petitioner had already apprised the Hon'ble Commission in the earlier submission (Petition for True-Up of FY 2022-23) that they have foregone billing Rs. 709.37 crore in capacity charges from FY 2012-13 to FY 2022-23, contributing to severe financial strain. The Petitioner submits that these figures are corroborated by detailed internal financial analyses.

7.3 The Commission in its order dated August 22, 2024, after reviewing the submissions, has acknowledged the concerns raised by the Petitioner regarding the provision of 12% power supply at variable charges. The Hon'ble Commission advised the Petitioner to engage with JBVNL and the State Energy Department to seek a resolution. In the event that these discussions do not yield a satisfactory outcome, the Hon'ble Commission has indicated that the Petitioner may file a separate petition for further review. The related excerpt from the order dated August 22, 2024 is reproduced herein below:

> *"The Commission recognizes the Petitioner's concerns regarding the provision of a 12% power supply at variable cost to JBVNL. However, as this obligation stems from a contractual agreement, it falls outside the Commission's authority to modify the terms established in the existing Power Purchase Agreement (PPA). The Commission, in this order, has instructed the Petitioner to address this matter with JBVNL and the Energy Department. In case, these discussions not yield a resolution, the Petitioner may to submit a separate petition for additional review before this Commission"*

7.4 Pursuant to the directives of the Commission, the Petitioner has formally communicated with JBVNL through letter dated 21/10/24 and 12/11/24 to discuss this matter, letter is attached as Annexure-12 herein. As of this submission, the Petitioner has not received any response from JBVNL. A separate application has also been made through RTI to the Energy Department of Government of Jharkhand, the reply of which is yet to be received.

7.5 The Petitioner assures the Commission that any developments in this regard will be promptly communicated. However, since the matter is not getting resolved, the Petitioner is on the process of preparing a separate petition, as directed in the Hon'ble Commission's order dated August 22, 2024, which will be submitted before this Hon'ble commission shortly.

7.6 The Petitioner submits that due to giving 12% power supply only at variable cost, RoE of the Petitioner is decorating, which is shown in the table below:

Particular	FY 2023-24	
	Unit-1	Unit-2
RoE Computed against whole capacity	76.45	77.05
Rate of Return as per the Regulation	15.00%	15.00%

Particular	FY 2023-24	
	Unit-1	Unit-2
RoE attributable for 122.85 MW capacity (A)	19.11	19.26
RoE entitiled to APNRL after consider 12% power only on variable cost to DISCOM (B)	11.29	11.38
Actual Rate of Return entitled to APNRL	**8.86%**	**8.86%**

B. Assured Return on Equity as per Regulation

7.7 The Commission has framed the Tariff Regulations keeping the aforesaid principles in mind. For instance, the Tariff Regulations framed by the Hon'ble Commission entrusts that the Utility shall get a guaranteed post tax return of 15% on the equity invested into the projects besides the recovery of other elements of cost. The relevant excerpt from the Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) (First Amendment) Regulations, 2023 is cited below for the ready reference of this Hon'ble Commission:

"Return on Equity

15.9 The return on equity shall be computed in rupee terms, on the equity base determined in accordance with Clause15.6 and Clause 15.7 of these Regulations. 15.10 The return on equity shall be computed on post-tax basis at the base rate of 15.00% for thermal generating stations, and run of the river hydro generating station, and at the base rate of 15.00% for the storage type hydro generation stations including pumped storage hydro generating stations and run of river generating station and pondage"

7.8 The very essence of the aforesaid Regulations states that the Utility after meeting all its expenses including taxes shall be left with an amount that shall not be lower than 15% of the equity invested into the project. This return is essential to promote investments and provide adequate risk reward framework for investors. While the said principles have been adopted by the Hon'ble Commission to determine the ARR which includes such reasonable return, however, the discount offered under Shakti scheme skews the overall returns from the investments.

7.9 The Ministry of Coal (MoC), under the SHAKTI (Scheme to Harness and Allocate Koyla Transparently in India), has effectively established a mechanism for the allocation of coal linkages to power plants lacking fuel supply agreements (FSAs) through coal auctions. This policy implementation can be construed as the promulgation of an Indian law, thereby as per the CERC Tariff Regulation 2019, SHAKTI Scheme can be considered as a "Change in Law."

> *"10) 'Change in Law' means occurrence of any of the following events:*
>
> *(a) enactment, bringing into effect or promulgation of any new Indian law; or*
>
> *(b) adoption, amendment, modification, repeal or re-enactment of any existing Indian law; or*
>
> *(c) change in interpretation or application of any Indian law by a competent court, Tribunal or Indian Governmental Instrumentality which is the final authority under law for such interpretation or application; or*
>
> *(d) change by any competent statutory authority in any condition or covenant of any consent or clearances or approval or licence available or obtained for the project; or*
>
> *(e) coming into force or change in any bilateral or multilateral agreement or treaty between the Government of India and any other Sovereign Government having implication for the generating station or the transmission system regulated under these regulations."* ***(Emphasis Supplied)***

7.10 In the matter of Maharashtra State Electricity Distribution Company Limited Vs Adani Power Maharashtra Limited and another, the Hon'ble Supreme Court of India has also deemed the SHAKTI scheme as a "Change in Law". The relevant excerpt from the judgement of the Hon'ble Supreme Court of India is reproduced herein below.

> *"22. It can thus be seen that this Court has held that if there is a Change in any consent, approval or licence available or obtained for the project, otherwise than for the default of the seller, which results*

in any change in any cost of the business of selling electricity, then the said seller will be governed under Clause 13.1.1 of the PPA. As already discussed hereinabove, this Court has consistently held that modification to NCDP 2007 by the communication dated 31st July 2013 would amount to Change in Law and the generating companies would be entitled to compensation on account of such Change in Law. ***Undisputedly, SHAKTI Policy also reduces the ACQ as was assured under the 2007 NCDP. Consequently, SHAKTI Policy will also have to be held to be Change in Law." (Emphasis Supplied)***

7.11 Furthermore, in order to obtain coal under the SHAKTI Scheme, the generators are required to provide a discount under the competitive bid process.

Hence, it is requested to this Hon'ble Commission that a discount offered based on the architecture of SHAKTI Scheme shall be considered as "Change in Law".

7.12 The Petitioner has calculated the percentage reduction in the rate of return compared to the normative value of 15.00% allowed in the JSERC Tariff Regulation. This reduction in RoE is directly attributable to the discount provided for the utilization of SHAKTI Coal, the same is depicted below:

Particular	FY 2023-24	
	Unit-1	Unit-2
RoE entitiled to APNRL after consider 12% power only on variable cost to DISCOM (B)	11.29	11.38
Less: Shakti Discount ('C)	1.59	1.59
RoE After Shakti Discount	9.71	9.80
Rate of Return after Shakti discount (considering RoE for 122.85 MW)	**7.62%**	**7.63%**

7.13 Further, as per the PPA dated 28.12.2012 signed between the Petitioner and JBVNL, APNRL has to provide 12% of total net capacity of the plant free from the capacity charge. The relevant clause of the PPA is reproduced herein below:

3.1(ii)"The tariff for sale of power by seller to procurer for the contracted capacity of 63.882 MW shall be payable by the procurer as determined by JSERC in accordance with the "Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2010 as amended from time to time or any other competent authority authorized from time to time. ***The annual fixed charges determined in accordance with the "Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2010 shall be recoverable from the net saleable capacity of 432.432 MW (i.e. Gross capacity minus auxiliary consumption minus 12% power to be supplied to procurer at energy charge)". (Emphasis Supplied)***

7.14 The Petitioner has diligently calculated the fixed charges that are to be recovered from the JBVNL for the remaining capacity of 63.882 MW. The Return on Equity (RoE), being a component of the fixed charges, has been computed for this specific capacity and is presented in the aforementioned table.

7.15 Upon analyzing of the calculations, it becomes apparent that the Return on Equity (RoE) comes to 7.62% and 7.63% respectively for unit-1 and unit-2 in FY 2023-24 (reduced from 15.00%).

7.16 Upon analyzing of the calculations, it becomes apparent that the Return on Equity (RoE) comes to 7.62% and 7.63% respectively for unit-1 and unit-2 in FY 2023-24 (reduced from 15.00%).

7.17 However, in this regard the Hon'ble Commission in its order dated August 22, 2024 has stated that the required discount under the SHAKTI Scheme BII was a pre-condition for participation in the coal auction, which APNRL was aware of and accepted, indicating that the financial impact was considered in their decision-making. The deterioration in RoE was attributed to the Petitioner's contractual agreements, made with full awareness of their financial consequences. The related excerpt from the aforesaid order is reproduced herein below:

"The Commission understand that the discount required under the

SHAKTI Scheme BII was a pre-condition for participation in the coal auction. APNRL's awareness and acceptance of this discount prior to participation indicate that the financial impact was anticipated and factored into their decision-making process. Further, the Commission in accordance with the provision of JSERC (Terms & Condition of Generation Tariff Determination) Regulation, 2020, and amendments thereof granted the RoE to the Petitioner. The observed deterioration in RoE results from the Petitioner's contractual agreements, which were entered into with full awareness of their financial implications."

7.18 In response to above the Petitioner submits that the thermal generating stations bears no inherent obligation to acquire coal under the SHAKTI Scheme, as the actual cost of coal is passed through under the regulatory regime under section 62. However, with the objective of safeguarding the interests of beneficiaries and ensuring a reliable long term coal supply from Coal company for generation and supply of uninterrupted supply of power to the Discoms, the generating stations are voluntarily procuring coal under the SHAKTI Scheme.

7.19 Currently, the entirety of the benefit derived from the SHAKTI Scheme is being passed through, notwithstanding the financial losses incurred by the company that is already grappling with sustainability issues.

7.20 It is important to recognize that a decrease in RoE can significantly discourage investors and it is worth mentioning that a considerable number of companies have recently gone bankrupt in power sector as a result of forcing financial crises

7.21 Adding to the above, non-recovery of fixed charges of power supplied only at variable charges depletes the return which is not in alignment to Section 61 of the Electricity Act 2003 which provides 'safeguarding of consumers' interest and the recovery of electricity costs in a reasonable manner. The relevant excerpt from the Electricity Act is reproduced herein below:

"Section 61 (Tariff Regulations): The Appropriate Commission shall, subject to the provisions of this Act, specify the terms and conditions for the determination of tariff, and in doing so, shall be guided by the following, namely: -

> ***(d) safeguarding of consumers' interest and at the same time, recovery of the cost of electricity in a reasonable manner……" (Emphasis Supplied)***

7.22 Similarly, the National tariff policy, 2016 states the rate of return should be attractive enough to encourage investments comparable to or even preferable to other sectors. This will ensure that the electricity sector can create sufficient capacity. Additionally, the rate of return should be set at a level that allows for the generation of a reasonable surplus to foster the growth of the sector. The relevant excerpt from the policy is reproduced herein below:

> *"5.11……. a) Return on Investment Balance needs to be maintained between the interests of consumers and the need for investments while laying down rate of return. Return should attract investments at par with, if not in preference to, other sectors so that the electricity sector is able to create adequate capacity. The rate of return should be such that it allows generation of reasonable surplus for growth of the sector."*

7.23 In light of the above argument, it is therefore proposed as follows: -

a. Either eliminate the Shakti discount deduction from the tariff;

b. Or pass-through of SHAKTI discount as the Hon'ble Supreme Court had considered the SHAKTI scheme as change in law.

7.24 This way, any financial impact arising due to these conditions/situations can be passed through under the regulatory regime, while ensuring a minimum RoE of 15.00% as specified under the JSERC Tariff Regulations.

C. Flue Gas Desulfurization (FGD)

7.25 The Petitioner refers to the notification issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC) on 07.12.2015, along with its subsequent amendments, which established revised emission norms for all thermal power plants. In light of these revisions, APNRL has become obligated to comply with the updated emission standards.

7.26 In this regard through letter dated 05.05.2022 the Petitioner had already intimated the respondents i.e., JBVNL about the policy changes and current situation, the letter is attached as Annexure-13.

7.27 To adhere to the Ministry's directives, APNRL initiated an international competitive bidding process in 2022 for the installation of a FGD system and its associated equipment. The Petitioner is currently in the process of finalizing the selection of the FGD supplier and related systems through tender process.

7.28 Furthermore, it is pertinent to mention that the Petitioner also supplies power to the states of Tamil Nadu and Haryana under the section 63 of the Electricity Act 2003. Hence considering that, the Petitioner has filed a petition before the Hon'ble Central Commission on 13.08.2024 seeking approval for the capital costs associated with the installation of the FGD system. The Petitioner respectfully requests that this Hon'ble Commission grant the liberty to approach the State Commission for the approval of the capital cost of the FGD once the bidder has been finalized.

7.29 In addition to the above, the Petitioner submits that the installation of the emission control system will affect various operating parameters of the plant, including auxiliary consumption, water consumption, and SHR.

7.30 Therefore, in light of these considerations, the Petitioner respectfully requests that this Commission provide the modalities for determining the compensation related to fixed costs and energy charges associated with the emission control system.

D. Biomass Pallet

7.31 The Petitioner refers to the Ministry of Power (MoP) notification no. CEA/TETD TT/2017/M-35/1137-1251 dated November 24, 2017, which issued an advisory on "Biomass Utilization for Power Generation through Co-firing in Pulverized Coal-Fired Boilers." This policy was revised by the MoP on October 8, 2021, with the following key provisions related to tariff determination and scheduling:

(viii) Provisions related to tariff determination and scheduling include:

a. For projects established under Section 62 of the Electricity Act, 2003, the increase in costs due to co-firing of biomass pellets shall be passed through in the Energy Charge Rate (ECR).

b. For projects set up under Section 63 of the Electricity Act, 2003, the increase in ECR due to biomass co-firing may be claimed under Change in Law provisions.

c. The additional impact on ECR shall not be considered in determining the Merit Order Dispatch (MOD) of the power plant.

d. Obligated Entities, such as Discoms, may fulfill their Renewable Purchase Obligations (RPO) by purchasing generation from co-firing.

7.32 In accordance with these policy changes, the Petitioner has informed JBVNL regarding the use of biomass pellets under the Change in Law provisions of the PPA, the letter dated 05.05.2022 is attached as Annexure-14 in the main petition.

7.33 On 01.06.2023 the Petitioner issued a tender for the "Supply of Biomass Pellets" for the plant, setting a lower initial supply criterion of 500 MT for trial purposes. Unfortunately, only one bidder participated in the tender, which necessitated the scrapping of the process.

7.34 To comply with MoP directives, the Petitioner is actively working to arrange for biomass supplies through a competitive bidding process.

7.35 Therefore, once the supplier is finalized, the Petitioner will present the relevant information to this Hon'ble Commission.

E. Sewage Treatment Plants (STP):

7.36 The Petitioner respectfully submits that, as per the Tariff Policy 2016, Clause 6.2 (5), thermal power plants within a 50 km radius of sewage treatment plants operated by municipalities or similar organizations are mandated to prioritize the use of treated sewage water. The costs incurred for utilizing such treated sewage water can be passed through in the tariff. The relevant excerpt from the policy is reproduced below:

"*The thermal power plant(s) including the existing plants located*

> *within a 50 km radius of the sewage treatment plant of Municipality/local bodies/similar organization shall, in the order of their proximity to the sewage treatment plant, mandatorily use treated sewage water produced by these bodies. The associated cost on this account shall be allowed as a pass-through in the tariff. Such thermal plants may also ensure a back-up source of water to meet their requirements in the event of a shortage of supply by the sewage treatment plant. The associated cost on this account shall be factored into the fixed cost so as not to disturb the merit order of such thermal plants. The shutdown of the sewage treatment plant will be taken in consultation with the developer of the power plant."*

7.37 In line with the above, the Ministry of Power ("MoP"), vide letter dated 17.10.2017, issued a draft model agreement to be executed between Power Utilities and Municipal Corporations. Under this draft agreement, the term for the supply of treated sewage water with Municipality/local bodies/similar organizations would be in force for a period of 25 years from the date of the agreement or the economic life of the power utility, whichever is later.

7.38 Subsequently, on 04.03.2020, MoP issued a letter mandating the use of treated sewage water by Thermal Power Plants ("TPPs"). In the letter, it was stated that the cost of constructing and operating the Sewage Treatment Plant (STP) would be borne by the urban local body, while the Tertiary Treatment Plant (TTP) could be constructed by the power plants, with the cost of the TTP to be borne by the end-use power plant.

7.39 In order to clarify the construction and cost implications of the tertiary treatment plant, a meeting of the steering committee was held on 16.10.2023, chaired by the Member (Thermal), CEA, with participants from NMCG, TPP&D, and various developers. It was observed that regarding the cost pass-through, the STP owner would be responsible for discharging water at its outlet in compliance with MoEF&CC/NGT norms. The power plants would be required to lay a pipeline from the STP to the TTP and construct the TTP as per their requirements at a suitable location. The costs incurred for these purposes shall be passed through in the tariff.

7.40 Further, through a letter dated 05.05.2022, the Petitioner informed the Respondents, i.e., JBVNL, about the compliance with the STP mandate under the Change in Law provisions mentioned in the PPA. The said letter is attached as Annexure-15.

7.41 Moreover, the Petitioner submits that, in compliance with the mandate to facilitate the use of treated sewage water by Adhunik Power & Natural Resources Ltd, the following initiatives have been undertaken:

a. A joint visit by APNRL and JUIDCO to survey the proposed pipeline route from Adityapur STP (with a capacity of 20 MLD) to the APNRL plant premises has been completed.

b. A Pre-Feasibility Report (PFR) has been prepared and vetted by both APNRL and JUIDCO.

c. APNRL has submitted a Draft Memorandum of Understanding (MoU) based on the cost of water delivery at the doorstep, and the final signing process with JUIDCO is awaited.

7.42 Considering that the tertiary treatment plant will be operated by the thermal plants and the cost of the STP will be borne by the Petitioner, it is respectfully requested that this Commission provide the modalities to determine the compensation for the installation of the STP plant. The Petitioner also seeks permission to approach this Hon'ble Commission with all relevant details once the final agreements and arrangements are in place.

Commission Analysis

7.43 The Commission understand that the discount required under the SHAKTI Scheme BII was a pre-condition for participation in the coal auction. APNRL's awareness and acceptance of this discount prior to participation indicate that the financial impact was anticipated and factored into their decision-making process.

7.44 Further, the Commission in accordance with the provision of JSERC (Terms & Condition of Generation Tariff Determination) Regulation, 2020, and amendments thereof granted the RoE to the Petitioner. The observed deterioration in RoE results from the Petitioner's contractual agreements, which were entered into with full awareness of their financial implications.

7.45 In light of the above, the Commission finds no grounds to alter the current RoE calculations as per the Petitioner's prayer. The Petitioner is encouraged to pursue the recommended avenues for addressing specific contractual disputes.

7.46 In the light of the Commission's direction in the order dated 22nd Aug 2024, the Petitioner tried to resolve the issue regarding provisioning of 12% power supply at variable cost with JBVNL & Energy Dept. Government of Jharkhand.

Since the matter has not been resolved. Hence the Petitioner is at liberty to file a separate petition before the Commission.

Chapter 8: DIRECTIVES

Energy Charge Optimization

8.1 The Commission has observed that due to various reasons like primary fuel mix, GCV and Landed price the energy charge rate is too high. The Petitioner is required to prepare its strategy for coal procurement plan to optimize its energy charge.

Start-up

8.2 The Commission had directed to submit monthly details of a number of unit-wise start-ups taken after shutdown. Also, details should include the monthly quantity of secondary fuel consumed during plant start up and flame support if required. The same should be submitted with subsequent APR and True-up Petitions.

DPR of Scheme

8.3 The Commission had directed to submit DPR of schemes that have been proposed along with the petition.

Notice to the Commission

8.4 The Petitioner is hereby directed that during the execution of work pertaining to any pre-approved schemes, any increase in the scope of work, procurement, services, price/cost etc. should be brought to the notice of commission immediately.

Notice to the Commission

8.5 The Commission had directed the Petitioner to ensure that proper planning should be carried out before finalization and submission of Capex plan before the Commission for approval. Further, in case there is need to review/revise any scheme or change in the Scope of Work, the same is required to be submitted before the Commission with proper justification for approval.

Compliance of directives issued in earlier Orders

8.6 In addition to above, the Petitioner is also directed to submit the compliance to the directives issued by the Commission in its earlier Orders.

This Order is signed and issued by the Jharkhand State Electricity Regulatory Commission on April 30, 2025.

Date: 30.04.2025

Place: Ranchi

Sd/-	**Sd/-**
Shri Atul Kumar	**Shri Mahendra Prasad**
Member (Technical)	**Member (Law)**

Chapter 9: List of Participant

Table 131: List of participant who attend Public Hearing

Sl.No.	Name S/Shri	Address / Organization if any
1	Anita Prasad	JBVNL
2	Ujjwala Kalyani Guria	JBVNL
3	Anurag Bodra	JBVNL
4	Bijoy Kumar	JBVNL
5	Ravishankar Kumar	JBVNL
6	Eshan Singh	APNRL
7	Rajesh Sharma	APNRL
8	Himanshu Kumar	APNRL
9	Amit Griwan	APNRL