

# Jharkhand State Electricity Regulatory Commission



Order on  
True-up for FY 2016-17 and  
Annual Performance Review for FY 2017-18  
for  
Adhunik Power and Natural Resources Limited  
(APNRL)

Ranchi  
22<sup>nd</sup> May, 2023



## CONTENTS

<b>A 1: INTRODUCTION.....</b>	<b>8</b>
Jharkhand State Electricity Regulatory Commission.....	8
Adhunik Power and Natural Resources Limited (APNRL).....	10
Overview of the Thermal Station.....	12
The Petitioner’s Prayers.....	12
Scope of the Present Order.....	12
<b>A 2: PROCEDURAL HISTORY.....</b>	<b>14</b>
Background.....	14
Information Gaps in the Petitions.....	14
Inviting Public Comments/Suggestions.....	15
Submission of Comments/Suggestions and Conduct of Public Hearing.....	15
<b>A 3: BRIEF FACTS OF THE PETITION.....</b>	<b>17</b>
Truing up for FY 2016-17 and APR for FY 2017-18.....	17
<i>Operational Parameters of Plant</i> .....	17
<i>Aggregate Revenue Requirement (ARR)</i> .....	17
<b>A 4: PUBLIC CONSULTATION PROCESS.....</b>	<b>19</b>
<b>A 5: TRUE-UP FOR FY 2016-17.....</b>	<b>20</b>
Operational Performance.....	20
<i>Plant Availability Factor (PAF)</i> .....	20
<i>Auxiliary Consumption</i> .....	21
<i>Plant Load Factor and Gross Generation</i> .....	21
<i>Gross Station Heat Rate (GHR)</i> .....	22
<i>Specific Fuel Oil Consumption</i> .....	22
Fuel Cost Parameters.....	23
<i>Coal Mix and Gross Calorific Value (GCV) of Primary Fuel</i> .....	23
<i>Transit Loss</i> .....	24
<i>Landed Cost of Coal</i> .....	25
<i>Calorific value and Landed price of Secondary Fuel</i> .....	26
Energy Charge Rate (ECR).....	27
Determination of Fixed Cost.....	29
<i>Capital Cost</i> .....	29



---

<i>Additional Capitalization &amp; De-capitalization</i> .....	30
<i>Depreciation</i> .....	35
<i>Operation &amp; Maintenance Expenses</i> .....	36
<i>Interest on Loan</i> .....	40
<i>Interest on Working Capital (IoWC)</i> .....	45
<i>Return on Equity</i> .....	47
<i>Incentive</i> .....	49
<i>Annual Fixed Charge</i> .....	50
Tariff for Unit-1 and Unit-2 .....	51
Revenue .....	53
Impact of True up .....	54
<b>A 6: STATUS OF EARLIER DIRECTIVES AND NEW DIRECTIVES</b> .....	<b>57</b>
Timely filing of APR Petition and Data adequacy .....	57
Development of a Fuel Procurement Plan .....	57
<b>ANNEXURE</b> .....	<b>58</b>
Annexure-1: List of participating members of the public in the public hearing .....	58



## List of Abbreviations

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



## List of Tables

Table 1: List of newspapers and dates of publication of public notice by the Petitioner .....	15
Table 2: List of newspapers and dates of publication of public notice by the Commission.....	15
Table 3: Operational Parameters for FY 2016-17 as submitted by the Petitioner .....	17
Table 4: Operational Parameters for FY 2017-18 as submitted by the Petitioner .....	17
Table 5: Annual Revenue Requirement for FY 2016-17 as submitted by the Petitioner (Rs. Crore) .....	18
Table 6: Annual Revenue Requirement for FY 2017-18 as submitted by the Petitioner (Rs. Crore) .....	18
Table 7: Plant availability as approved by the Commission.....	21
Table 8: Auxiliary Consumption as approved by the Commission .....	21
Table 9: Plant Load Factor and Generation as approved by the Commission.....	22
Table 10: Gross Station Heat Rate (GHR) as approved by the Commission .....	22
Table 11: Specific Fuel Oil Consumption as approved by the Commission .....	23
Table 12: Coal Mix and GCV as approved by the Commission.....	24
Table 13: Transit Loss as approved by the Commission .....	25
Table 14: Weighted Average Landed Price of Coal as approved by the Commission (Rs. /Ton) ..	26
Table 15: Calorific value and Landed price of Secondary fuel as approved by the Commission ..	26
Table 16: Energy Charge Rate (ECR) as approved by the Commission .....	29
Table 17: Details of additional capitalization as submitted by the Petitioner (Rs. Crore).....	30
Table 18: Details of de-capitalization as submitted by the Petitioner (Rs. Crore) .....	30
Table 19: Discrepancy between Petitioner Claim and audited accounts in Capitalization (Rs. Crore) .....	33
Table 20: Discrepancy between Petitioner Claim and audited accounts in De-Capitalization (Rs. Crore) .....	33
Table 21: Details of the Additional Capitalization as approved by the Commission (Rs. Crore) ..	35
Table 22: Depreciation as submitted by the Petitioner (Rs. Crore) .....	35
Table 23: Depreciation as approved by the Commission (Rs. Crore) .....	36
Table 24: O&M Expenses as submitted by the Petitioner (Rs. Crore) .....	38
Table 25: O&M Expenses as approved by the Commission (Rs. Crore) .....	40
Table 26: Interest on Loan as submitted by the Petitioner (Rs. Crore).....	41
Table 27: Interest on Loan as approved by the Commission (Rs. Crore).....	44
Table 28: Interest on Working Capital as submitted by the Petitioner (Rs. Crore) .....	45
Table 29: Interest on Working Capital as approved by the Commission (Rs. Crore) .....	46
Table 30: RoE as submitted by the Petitioner (Rs. Crore).....	47
Table 31: RoE as approved by the Commission (Rs. Crore).....	49
Table 32: Incentive as submitted by the Petitioner (Rs. Crore).....	50
Table 33: Incentive as approved by the Commission (Rs. Crore) .....	50
Table 34: Annual Fixed Charge as submitted by the Petitioner (Rs. Crore) .....	50
Table 35: Annual Fixed Charge as approved by the Commission (Rs. Crore).....	51
Table 36: Tariff for 12% of Total Net Capacity as submitted by the Petitioner (Variable Charge) .....	51
Table 37: Tariff for 13% of Total Net Capacity as submitted by the Petitioner (Fixed Charge) ..	52
Table 38: Tariff for 12% of Total Net Capacity as approved by the Commission (Variable Charge).....	52



---

---

Table 39: Tariff for 13% of Total Net Capacity for Unit-1 as approved by the Commission (Fixed Charge) .....	53
Table 40: Tariff for 13% of Total Net Capacity for Unit-2 as approved by the Commission (Fixed Charge) .....	53
Table 41: Revenue as submitted by the Petitioner (Rs. Crore).....	54
Table 42: Revenue as approved by the Commission (Rs. Crore).....	54
Table 43: Impact of True up as submitted by the Petitioner.....	54
Table 44: Gap/(Surplus) as approved by the Commission (Rs. Crore) .....	56
Table 45: Surplus including Carrying Cost for Unit-1 as approved by the Commission (Rs. Crore) .....	56
Table 46: Surplus including Carrying Cost for Unit-2 as approved by the Commission (Rs. Crore) .....	56



**BEFORE**

**Jharkhand State Electricity Regulatory Commission, Ranchi**

**Case (Tariff) No.: 02 of 2018**

**In the matter of:**

**Petition for  
True-up for FY 2016-17  
and  
Annual Performance Review for FY 2017-18**

**In the matter:**

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

.... **Petitioner**

**PRESENT**

Shri. Justice Amitav K. Gupta

Chairperson

Shri. Atul Kumar

Member (Technical)

Shri. Mahendra Prasad

Member (Legal)

**Order dated May 22<sup>nd</sup>, 2023**

In this Petition, Adhunik Power and Natural Resources Limited (hereinafter referred to as APNRL or the Petitioner) has filed a petition for Truing up for FY 2016-17 and Annual Performance Review for FY 2017-18.



## **A 1: INTRODUCTION**

### **Jharkhand State Electricity Regulatory Commission**

- 1.1 The Jharkhand State Electricity Regulatory Commission (hereinafter referred to as the JSERC or the Commission) was established by the Government of Jharkhand under Section 17 of the Electricity Regulatory Commission Act, 1998 on August 22, 2002. The Commission became operational with effect from April 24, 2003.
- 1.2 The Government of Jharkhand vide its notification dated August 22, 2002, had defined the functions of JSERC as per Section 22 of the Electricity Regulatory Commission Act, 1998 to be the following, namely:
  - (a) to determine the tariff for electricity, wholesale, bulk, grid or retail, as the case may be, in the manner provided in section 29;
  - (b) to determine the tariff payable for the use of the transmission facilities in the manner provided in section 29;
  - (c) to regulate power purchase and procurement process of the transmission utilities and distribution utilities including the price at which the power shall be procured from the generating companies, generating stations or from other sources for transmission, sale, distribution and supply in the State;
  - (d) to promote competition, efficiency and economy in the activities of the electricity industry to achieve the objects and purposes of this Act.
- 1.3 After the Electricity Act, 2003 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 licences 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) reorganisation and restructuring of electricity industry in the State;
  - (d) matters concerning generation, transmission, distribution and trading of electricity or any other matter referred to the State Commission by that Government.
- 1.6 The State Commission 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 as brought out by GoI 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.

**Adhunik Power and Natural Resources Limited (APNRL)**

- 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 this Petition has prayed before the Commission:

- Approve the True-up of ARR for 540 MW (2x270 MW) coal based thermal power plant in Jharkhand, for supplying the regulated Contracted Capacity of 122.85 MW to Discom for FY 2016-17;
- Approve the APR for 540 MW (2x270 MW) coal based thermal power plant in Jharkhand, for supplying the regulated Contracted Capacity of 122.85 MW to Discom for FY 2017-18;
- Approve the recovery of upward and downward variation in fuel prices and calorific values including fuel mix through Fuel Price Adjustment as part of monthly Energy Charges;
- The petitioner respectfully seeks an opportunity to present their case prior to the finalization of the tariff order. The petitioner believes that such an approach would provide a fair treatment to all the stakeholders and may eliminate the need of a review or clarification;
- 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 the Commission; and
- Pass such further and other Order, as the Commission may deem fit and proper, keeping in view the facts and circumstances of the case.

## Scope of the Present Order

1.19 The Commission in this Order has approved the True-up for FY 2016-17.

1.20 It is observed that considerable time elapsed since the date of filing of the Petition. Further, the audited accounts of FY 2017-18 are finalised. Thus, the Commission is of the view,



that there is no rationale to carry out APR for FY 2017-18. The Commission has therefore, in this order has carried out only the Truing up for FY 2016-17.

1.21 While approving this Order, the Commission has taken into consideration:

- a) Material placed on record by the Petitioner
- b) Provisions of the Electricity Act, 2003
- c) Principles laid down in the National Electricity Policy
- d) Principles laid down in the National Tariff Policy
- e) Provisions of the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 (hereinafter referred to as JSERC Generation Tariff Regulations, 2015 or the Regulations).

1.22 Accordingly, the Commission has scrutinized the Petition in detail and hereby issues the Order on Truing-up for FY 2016-17 of APNRL.



## **A 2: PROCEDURAL HISTORY**

### **Background**

- 2.1 The Commission had notified Provisional Order on 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) on May 26, 2014.
- 2.2 The Commission had notified 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 and FY 2013-14, APR of FY 2014-15 and ARR and Tariff Determination for FY 2015-16 on September 01, 2016. Further, the Petitioner filed a petition on September 29, 2016 seeking review of Order dated September 01, 2016. The Order, against the Review Petition, was issued by Commission on January 09, 2018.
- 2.3 The Commission vide Order dated February 19, 2018 approved 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 Petitioner has now sought approval from the Commission on True-up petition for FY 2016-17 and APR for FY 2017-18.

### **Information Gaps in the Petitions**

- 2.5 As part of tariff determination exercise, several deficiencies/ information gaps were observed in the Petition submitted by the Petitioner. The information gaps were pointed out and communicated to the Petitioner vide letter nos. JSERC/Case (Tariff) No. 02 of 2018/166 dated September 21, 2022 and JSERC/Case (Tariff) No. 02 of 2018/189 dated October 07, 2022.
- 2.6 The Petitioner submitted its response to the aforesaid letters and furnished additional data/information vide letter nos. APNRL/PT-JBVNL/FY22-23/1408 dated November 11, 2022 and APNRL/PT-JBVNL/FY22-23/1424 dated December 09, 2022.
- 2.7 The Commission scrutinized the additional data/ information submitted and considered the same while passing this Order on the Petition filed by the Petitioner. The Commission has also examined the replies and supporting documents as supplied by the Petitioner on the discrepancies pointed out to it only on material already on record in the Petition filed by the Petitioner.



## Inviting Public Comments/Suggestions

- 2.8 The Commission directed the Petitioner to make available copies of the Petition to the members of the general public on request and also issue a public notice inviting comments/suggestions on the Petition for approval of True-up for FY 2016-17 and APR for FY 2017-18.
- 2.9 The aforesaid public notice was issued by the Petitioner in various newspapers and a period of twenty-one (21) days was given to the members of the general public for submitting their comments/suggestions.

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

Newspaper	Date of Publication
Sanmarg Ranchi	January 28, 2023
The Pioneer	January 28, 2023
The Hindustan Times	January 28, 2023
Hindustan	January 28, 2023
Sanmarg Jharkhand	January 29, 2023
Sunday Pioneer	January 29, 2023
Sunday Hindustan Times	January 28, 2023
Hindustan Ranchi	January 29, 2023

- 2.10 Subsequently, the Commission also issued a notice on its website [www.jserc.org](http://www.jserc.org) and various newspapers for conducting the public hearing on the Petition. The details of the newspapers publishing the notice by the Commission are as under:

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

Newspaper	Date of Publication
Prabhat Khabar (Hindi)	05.03.2023
Danik Bhaskar (Hindi)	05.03.2023
The Times of India (English)	05.03.2023
The Hindustan Times (English)	05.03.2023
Prabhat Khabar (Hindi)	19.03.2023
Hindustan Dainik (Hindi)	19.03.2023
The Times of India (English)	19.03.2023
Morning India (English)	19.03.2023

## Submission of Comments/Suggestions and Conduct of Public Hearing

- 2.11 In order to provide adequate opportunities to all stakeholders and general public, as mandated under Section 64 (3) of the Electricity Act, 2003 and in relevant provisions of Regulation(s) framed by the Commission and in order to ensure transparency in the process of tariff determination, the Commission held public hearing on March 20, 2023 in Ranchi.



---

2.12 The objections/ comments/ suggestions, if any of the Public, Petitioner's responses and Commission's views thereon are detailed in **Section A4** of this Order.





### A 3: BRIEF FACTS OF THE PETITION

3.1 The following sub-section presents a summary of True-up for FY 2016-17 and APR for FY 2017-18 as filed by the Petitioner.

#### Truing up for FY 2016-17 and APR for FY 2017-18

##### *Operational Parameters of Plant*

3.2 The summary of operational parameters approved by the Commission in the MYT Order dated February 19, 2018 vis-à-vis as submitted by the Petitioner for FY 2016-17 and FY 2017-18 of Unit-1 and Unit-2 is provided in the table below:

**Table 3: Operational Parameters for FY 2016-17 as submitted by the Petitioner**

Particulars	UoM	Unit-1		Unit-2	
		MYT Order	Petition	MYT Order	Petition
Annual Plant Availability Factor	%	85.00	89.44	85.00	89.44
Auxiliary Energy Consumption	%	9.00	9.00	9.00	9.00
Gross Station Heat Rate	kcal/kWh	2387	2387	2387	2387
Secondary fuel oil Consumption	mL/kWh	1.00	1.00	1.00	1.00

3.3 The summary of operational parameters approved by the Commission in the MYT Order dated February 19, 2018 vis-à-vis as submitted by the Petitioner for FY 2017-18 of Unit-1 and Unit-2 is provided in the table below:

**Table 4: Operational Parameters for FY 2017-18 as submitted by the Petitioner**

Particulars	UoM	Unit-1		Unit-2	
		MYT Order	Petition	MYT Order	Petition
Annual Plant Availability Factor	%	85.00	-	85.00	-
Auxiliary Energy Consumption	%	9.00	9.00	9.00	9.00
Gross Station Heat Rate	kcal/kWh	2387	2387	2387	2387
Secondary fuel oil Consumption	mL/kWh	1.00	1.00	1.00	1.00

##### *Aggregate Revenue Requirement (ARR)*

3.4 The summary of Annual Revenue Requirement (ARR) as submitted by the Petitioner including subsequent replies for FY 2016-17 vis-à-vis as approved by the Commission in MYT Order dated February 19, 2018 and corrigendum dated March 08, 2019 is tabulated below.



**Table 5: Annual Revenue Requirement for FY 2016-17 as submitted by the Petitioner (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	MYT Order	Petition	MYT Order	Petition
Depreciation	82.37	82.75	83.15	83.49
Interest on Loan	121.65	108.43	127.42	115.62
Return on Equity	70.62	78.30	69.79	78.95
O&M Expenses	72.01	72.96	72.01	72.96
Interest on Working Capital	30.74	25.55	30.88	26.59
<b>Aggregate Revenue Requirement</b>	<b>377.39</b>	<b>367.99</b>	<b>383.25</b>	<b>377.61</b>

3.5 The summary of Annual Revenue Requirement (ARR) as submitted by the Petitioner including subsequent replies for FY 2017-18 vis-à-vis as approved by the Commission in MYT Order dated February 19, 2018 and corrigendum dated March 08, 2019 is tabulated below:

**Table 6: Annual Revenue Requirement for FY 2017-18 as submitted by the Petitioner (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	MYT Order	Petition	MYT Order	Petition
Depreciation	82.37	82.77	83.15	83.51
Interest on Loan	110.84	98.27	116.38	105.08
Return on Equity	70.62	78.31	69.79	78.95
O&M Expenses	75.56	77.54	75.56	77.54
Water Charges	1.74	1.74	1.74	1.74
Interest on Working Capital	30.71	29.86	30.85	18.73
<b>Aggregate Revenue Requirement</b>	<b>371.84</b>	<b>368.49</b>	<b>377.47</b>	<b>365.56</b>



---

## **A 4: PUBLIC CONSULTATION PROCESS**

- 4.1 The Public Hearing was held on March 20, 2023 at Ranchi to ensure the maximum public participation and transparency wherein stakeholders put forth their comments and suggestions before the Commission in the presence of the Petitioner. The list of the attendees is attached as **Annexure-1** to this Order.
- 4.2 In course of public hearing, the Commission also allowed persons/representatives of entities who had not submitted prior written representations but attended the public hearing to express their views, in person, regarding the Petition filed by the Petitioner and also about ways and means to improve the services rendered by the Petitioner.
- 4.3 No comments or suggestions were received for the True up period of FY 2016-17. The comments and suggestions received during the public hearing were related to True-up for FY 2017-18, FY 2018-19 and FY 2019-20, APR for FY 2020-21, Business Plan and ARR for Control period from FY 2021-22 to FY 2025-26 which was also held on March 20, 2023. The comments and suggestions of the members of the public along with the response thereon of the Petitioner and the views of the Commission related to above said period will be dealt while disposing the True-up for FY 2017-18, FY 2018-19 and FY 2019-20, APR for FY 2020-21, Business Plan and ARR for Control period from FY 2021-22 to FY 2025-26.



## **A 5: TRUE-UP FOR FY 2016-17**

- 5.1 The Petitioner has submitted the True-up petition for FY 2016-17 based on the Audited Accounts taking into consideration the provisions of the Tariff Regulations, 2015 and the methodology adopted by the Commission in the earlier Orders.
- 5.2 The Commission has now carried out the True-up for FY 2016-17 taking into consideration:
  - a) Audited (Statutory) accounts for the FY 2016-17;
  - b) JSERC Generation Tariff Regulations, 2015;
  - c) Methodology adopted by the Commission in its earlier Orders.

### **Operational Performance**

#### ***Plant Availability Factor (PAF)***

##### ***Petitioner's Submission***

- 5.3 In regard to actual plant availability, the Petitioner submitted that the actual availability factor during the FY 2016-17 is 89.44%, which is above the normative value of 85% and therefore, requested the Commission to consider the same for FY 2016-17.

##### ***Commission's Analysis***

- 5.4 The Commission in the MYT Order dated February 19, 2018 had approved the Normative Annual Plant Availability Factor (NAPAF) as 85.00% based on the MYT Petition submitted by the Petitioner.
- 5.5 Based on the information and SLDC certificate provided by the Petitioner, the Commission observes that actual availability factor supplied during the FY 2016-17 is more than the normative value of 85%. Thus, the Commission is of the view that the actual availability factor for FY 2016-17 is more than normative value of 85%.
- 5.6 The Plant Availability as approved by the Commission in the MYT Order dated February 19, 2018, as submitted by the Petitioner and approved now by the Commission for FY 2016-17 is summarised below:



**Table 7: Plant availability as approved by the Commission**

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Normative Plant Availability Factor	85.00%	85.00%	85.00%	85.00%	85.00%	85.00%
Actual Plant Availability Factor	-	89.44%	89.44%	-	89.44%	89.44%

**Auxiliary Consumption**

**Petitioner's Submission**

5.7 The Petitioner has submitted the auxiliary consumption for FY 2016-17 on normative basis as 9.00% for both the Units inline to approved value in MYT Order dated February 19, 2018.

**Commission's Analysis**

5.8 The Commission while dealing with the matter of approving the auxiliary consumption in the MYT Order dated February 19, 2018 for the Control period i.e. from FY 2016-17 to FY 2020-21 had verified the Purchase Order (PO) submitted by Petitioner and approved the auxiliary consumption at normative level of 8.50% and an additional 0.50% for the induced cooling tower.

5.9 The Commission has therefore adopted the same methodology and approved the normative auxiliary consumption as 9.00% for both the Units as shown below.

**Table 8: Auxiliary Consumption as approved by the Commission**

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Auxiliary Consumption	9.00%	9.00%	9.00%	9.00%	9.00%	9.00%

**Plant Load Factor and Gross Generation**

**Petitioner's Submission**

5.10 The Petitioner has submitted the actual Plant Load Factor (PLF) as 89.44% for FY 2016-17 against the normative value of 85.00% approved by the Commission in the MYT Order dated February 19, 2018.

5.11 The Petitioner has further submitted Gross Generation as 1579.29 MU for Unit-1 and 1679.32 MU for Unit-2 for FY 2016-17.



### Commission's Analysis

- 5.12 The Commission has scrutinized the detail submitted along with Petition and approves the actual Plant Load Factor and net Generation as submitted by the Petitioner for FY 2016-17.
- 5.13 The Plant Load Factor, Gross Generation as approved by the Commission in the MYT Order, as submitted by the Petitioner and as approved now by the Commission has been summarized in the table below.

**Table 9: Plant Load Factor and Generation as approved by the Commission**

Particulars	UoM	Unit-1			Unit-2		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
Plant Load Factor	%	85.00	89.44	89.44	85.00	89.44	89.44
Gross Generation	MU	-	1579.29	1579.29	-	1679.32	1679.32

### Gross Station Heat Rate (GHR)

#### Petitioner's Submission

- 5.14 The Petitioner has claimed the Gross Station Heat Rate (GHR) for both the Units as 2387.00 kcal/kWh in line with the approved value in the MYT Order dated February 19, 2018.

#### Commission's Analysis

- 5.15 The Commission has examined and found that the submission made by the Petitioner is in line with MYT Order dated February 19, 2018 and JSERC Generation Tariff Regulations, 2015. Hence, the Commission approves the Gross Station Heat Rate as submitted by the Petitioner for FY 2016-17 as shown below:

**Table 10: Gross Station Heat Rate (GHR) as approved by the Commission**

Particulars	UoM	Unit-1			Unit-2		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
Gross Station Heat Rate	kcal/kWh	2387.00	2387.00	2387.00	2387.00	2387.00	2387.00

### Specific Fuel Oil Consumption

#### Petitioner's Submission

- 5.16 The Petitioner has submitted the specific fuel oil consumption as 1.00 mL/kWh in line with JSERC Generation Tariff Regulations, 2015 for both the Units for FY 2016-17.



### Commission's Analysis

5.17 The Commission has examined and found that the submission made by the Petitioner is in line with MYT Order dated February 19, 2018 and Generation Tariff Regulations, 2015. Hence, the Commission approves the secondary fuel oil consumption as submitted by the Petitioner for FY 2016-17 as shown below:

**Table 11: Specific Fuel Oil Consumption as approved by the Commission**

Particulars	UoM	Unit-1			Unit-2		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
Secondary Fuel Oil Consumption	mL/kWh	1.00	1.00	1.00	1.00	1.00	1.00

### Fuel Cost Parameters

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

##### Petitioner's Submission

- 5.18 The Petitioner submitted that there is variation in coal mix, GCV and landed price of primary fuel against the approved value in MYT Order dated February 19, 2018. The Petitioner further added that the reason for variation are not attributable to Petitioner.
- 5.19 The Petitioner submitted the source wise break up of coal consumed, GCV of coal for each unit during FY 2016-17 duly certified by auditor in support of his claim.

##### Commission's Analysis

- 5.20 The Commission 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. It is also observed that there is decrease in GCV of coal, leading to increase in consumption of primary fuel.
- 5.21 The Commission vide letter dated September 21, 2022 directed the Petitioner to provide the detail computation of GCV of the primary fuel. In compliance, the Petitioner submitted that the weighted average GCV for Unit-1 as 3464.05 kcal/kg and GCV for Unit-2 as 3430.52 kcal/kg respectively and also submitted the detailed excel computation of GCV.
- 5.22 The Commission has reviewed the submission made by the Petitioner along with statutory audited detailing month wise quantity consumed and GCV for FY 2016-17 of each Unit.
- 5.23 For the purpose of truing-up, the Commission has considered the submission made by the Petitioner including supporting documents certified by the statutory auditor. The



Commission computed the GCV from each source of primary fuel by considering the actual GCV for FY 2016-17 after scrutinizing the actual monthly GCV submitted by the Petitioner duly certified by an auditor.

5.24 The following table summarize the fuel mix and weighted average GCV as submitted by the Petitioner and approved by the Commission for FY 2016-17.

**Table 12: Coal Mix and GCV as approved by the Commission**

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Linkage Coal	12.00%	11.79%	11.79%	12.00%	13.67%	13.67%
Spot Market Coal	73.00%	80.80%	80.80%	73.00%	80.08%	80.08%
Middling Coal		6.21%	6.21%		4.50%	4.50%
Imported Coal	15.00%	1.20%	1.20%	15.00%	1.74%	1.74%
GCV of Linkage Coal	4050.00	3593.26	3593.26	4050.00	3593.14	3593.14
GCV of Spot Market Coal	3233.00	3419.91	3419.91	3233.00	3376.16	3376.16
GCV of Middling Coal		3695.18	3695.18		3695.10	3695.10
GCV of Imported Coal	3827.00	3969.90	3969.90	3827.00	3969.01	3969.01
<b>GCV of Primary Fuel</b>	<b>3419.00</b>	<b>3464.05</b>	<b>3464.05</b>	<b>3419.00</b>	<b>3430.52</b>	<b>3430.52</b>

### *Transit Loss*

#### *Petitioner's Submission*

5.25 The Petitioner has claimed the normative transit loss as 0.8% for domestic coal and 0.2% for imported coal inline to MYT Order dated February 19, 2018.

#### *Commission's Analysis*

5.26 The Commission observes that the actual transit loss of coal depends on various factors like category of coal, foreign particles content, moisture content, distance from mines etc. Considering all the factors, the Commission stipulated the weighted average normative transit loss of 0.80% for non-pit head plant and 0.20% for pit head plant in the JSERC Generation Tariff Regulations, 2015. In addition to the above, the Commission also allows the transit loss of 0.20% on imported coal.

5.27 The Commission observes that the generating station is non-pit head and in addition to domestic coal, the Petitioner also sourced power from imported coal.

5.28 Thus, in accordance with Regulation 8.21 of JSERC Generation Tariff Regulation, 2015, the Commission approves the normative transit loss as 0.80% for domestic coal and 0.20% for imported coal.





**Table 13: Transit Loss as approved by the Commission**

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Domestic Coal	0.80%	0.80%	0.80%	0.80%	0.80%	0.80%
Imported Coal	0.20%	0.20%	0.20%	0.20%	0.20%	0.20%

**Landed Cost of Coal**

**Petitioner’s Submission**

5.29 The Petitioner submitted that the landed price of primary fuel includes base price, royalty taxes and duties, transportation cost, Clean Energy Cess, transit loss and provided the auditor certificate in support of his claim.

**Commission’s Analysis**

5.30 As per Regulation 8.21 of the JSERC Generation Tariff Regulations, 2015:

*“8.21 The landed fuel cost of primary fuel and secondary fuel for tariff determination shall be based on actual weighted average cost of primary fuel and secondary fuel of the three preceding months, and in the absence of landed costs for the three preceding months, latest procurement price of primary fuel and secondary fuel for the generating station, before the start of the tariff period for existing stations and immediately preceding three months in case of new generating stations shall be taken into account.*

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

*Pithead generating stations: 0.2%*

*Non-pithead generating stations: 0.8%*

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



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

5.31 The Commission vide letter dated September 21, 2022 directed the Petitioner to provide the detail computation of landed price of the primary fuel. In compliance the Petitioner submitted that the weighted average landed price of coal for Unit-1 as Rs. 3179.62 per MT and for Unit-2 as Rs. 3130.83 per MT respectively and also submitted the detailed excel computation of landed price of primary fuel.

5.32 Considering, the Petitioner's submission and after due prudent check, the Commission approves the landed cost of coal as given in the table below:

**Table 14: Weighted Average Landed Price of Coal as approved by the Commission (Rs. /Ton)**

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Price of Linkage Coal	2534.00	3000.74	3000.74	2534.00	3015.47	3015.47
Price of Spot Market Coal	3308.00	3120.96	3120.96	3308.00	3077.03	3077.03
Price of Middling Coal		4146.39	4146.39		4145.34	4145.34
Price of Imported Coal	3860.00	3883.55	3883.55	3860.00	3887.52	3887.52
<b>Price of Primary Fuel</b>	<b>3298.00</b>	<b>3179.62</b>	<b>3179.62</b>	<b>3298.00</b>	<b>3130.83</b>	<b>3130.83</b>

***Calorific value and Landed price of Secondary Fuel***

***Petitioner's Submission***

5.33 The Petitioner has submitted the true copy duly certified by statutory auditor for secondary fuel consumed, GCV and landed price of secondary fuel for each Unit.

***Commission's Analysis***

5.34 The Commission has scrutinized the quantity of secondary fuel consumed, GCV and price of secondary fuel submitted by the Petitioner duly certified by an auditor.

5.35 The Commission has worked out the weighted average landed price of secondary fuel based on month-wise data duly certified by the auditor and specific fuel consumption as 1.00 mL/kWh as per Regulation 8.6 of JSERC Generation Tariff Regulation, 2015 and approved in this Order. The detail of approved calorific value and Landed price of Secondary Fuel for each Unit is shown below:

**Table 15: Calorific value and Landed price of Secondary fuel as approved by the Commission**

Particulars	UoM	Unit-1			Unit-2		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
Calorific Value	kcal/L	9337.00	9348.25	9348.25	9334.00	9348.70	9348.70



Particulars	UoM	Unit-1			Unit-2		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
Landed Price	Rs./kL	42637.00	39033.48	39033.48	45134.00	40712.06	40712.06

### Energy Charge Rate (ECR)

#### *Petitioner's Submission*

- 5.36 The Petitioner has submitted the energy charge rate as Rs. 2.441/kWh and Rs. 2.429/kWh for Unit-1 and Unit-2 respectively against the approved value of Rs. 2.567/kWh and Rs. 2.570/kWh for FY 2016-17.
- 5.37 The Petitioner further added that the energy charges is computed considering the normative performance parameters and actual fuel prices and calorific value.

#### *Commission's Analysis*

- 5.38 As per JSERC Generation Tariff Regulation, 2015 the energy (variable) charge shall cover primary fuel and secondary fuel costs and limestone consumption cost (where applicable), shall be payable by every beneficiary for the total energy scheduled to be supplied to such beneficiary during the calendar month on an ex-power plant basis, at the specified energy charge rate of the month (with fuel price adjustment and limestone adjustment).
- 5.39 The formula for calculation of energy charge payable to a Generating Company is specified in JSERC Generation Tariff Regulation, 2015 as quoted below:

*“8.17 The energy (variable) charge shall cover primary fuel and secondary fuel costs and limestone consumption cost (where applicable), shall be payable by every Beneficiary for the total energy scheduled to be supplied to such Beneficiary during the calendar month on ex-power plant basis, at the specified energy charge rate of the month (with fuel price adjustment and limestone adjustment).”*

*“8.18 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.}*

*8.19 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 formula:*

*(a) For coal based stations*

$$ECR = \{(GHR - SFC \times CVSF) \times LPPF/CVPF + SFC \times LPSFi + LC \times LPL\} \times 100 / (100 - AUX)$$



.....

Where,

AUX - Normative auxiliary energy consumption in percentage

CVPF – Weighted Average Gross calorific value of coal as received, in KCal per kg, for coal based stations. 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 sent out.

GHR - 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”.

8.21 The landed fuel cost of primary fuel and secondary fuel for tariff determination shall be based on actual weighted average cost of primary fuel and secondary fuel of the three preceding months, and in the absence of landed costs for the three preceding months, latest procurement price of primary fuel and secondary fuel for the generating station, before the start of the tariff period for existing stations and immediately preceding three months in case of new generating stations shall be taken into account.

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

Pithead generating stations: 0.2%

Non-pithead generating stations: 0.8%



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

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

5.40 Accordingly, the Commission has calculated the Energy Charge Rate (ECR) to be charged by the Petitioner as per the formula specified in JSERC Generation Tariff Regulations, 2015. The detail of ECR and Fuel Cost for trueing up of FY 2016-17 for both the Units as submitted by the Petitioner and approved by the Commission is given below:

**Table 16: Energy Charge Rate (ECR) as approved by the Commission**

Particulars	UoM	Unit-1			Unit-2		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
Gross Generation	MU	2010.42	1579.29	1579.29	2010.42	1679.32	1679.32
Auxiliary Consumption	%	9.00	9.00	9.00	9.00%	9.00%	9.00%
Gross Station Heat Rate	kcal/kWh	2387.00	2387.00	2387.00	2387.00	2387.00	2387.00
Specific Oil Consumption	mL/kWh	1.00	1.00	1.00	1.00	1.00	1.00
Calorific Value of Oil	kcal/mL	9.34	9.35	9.35	9.33	9.35	9.35
GCV of Primary Fuel	kcal/kg	3419.00	3464.05	3464.05	3419.00	3430.52	3430.52
Landed Price of Primary Fuel	Rs./Ton	3298.00	3179.62	3179.62	3298.00	3130.83	3130.83
Landed Price of Secondary Fuel	Rs./kL	42637.00	39033.48	39033.48	45134.00	40712.06	40712.06
<b>Energy Charge Rate (ECR)</b>	<b>Rs./kWh</b>	<b>2.567</b>	<b>2.441</b>	<b>2.441</b>	<b>2.570</b>	<b>2.429</b>	<b>2.429</b>

### Determination of Fixed Cost

#### Capital Cost

5.41 The Commission in its Order dated May 26, 2014 provisionally approved the capital cost for Unit-1 and Unit-2 of generating plant as Rs. 1662.26 Crore and Rs. 1624.37 Crore respectively.

5.42 The Petitioner in its Petition dated April 20, 2015 submitted the actual project cost before the Commission for approval. The Commission vide Order dated September 01, 2016 approved the capital cost as Rs. 1625.98 Crore and Rs. 1645.72 Crore for Unit-1 and Unit-2 respectively.



5.43 The Petitioner being aggrieved by the above said Order, filed a review petition (Case (T) No. 13 of 2016) on various grounds out of which review of capital cost was also one of them. The Commission vide its Order dated January 09, 2018 disposed the above said review with the observation that the error in approval of capital cost primarily arose because of divergent figures provided by Petitioner in the original application vis-à-vis the audited accounts. During the course of finalization of Order dated September 01, 2016, the Petitioner was accorded several occasions to reconcile the variations/ differences which the Petitioner fails. As a result, the Commission had no option but to take the figures which it considered appropriate without the supporting clarifications from the Petitioner. Consequently, the inadvertent difference of Rs. 42.54 Crore from the audited accounts crept in. The clarification providing the break up based on the audited accounts duly signed by a Chartered Accountant which was submitted during the proceeding of review petition should have been submitted during the process of finalization of the True-up Order. Thus, after clarification and justification submitted by the Petitioner duly certified by auditor, the Commission revised the capital cost as Rs. 1650.64 Crore and Rs. 1663.60 Crore for Unit-1 and Unit-2 respectively.

### ***Additional Capitalization & De-capitalization***

#### ***Petitioner's Submission***

5.44 The Petitioner submitted that it has incurred an additional capitalization and de-capitalisation of Rs. 0.75 Crore and Rs. 0.09 Crore respectively for each Unit of the generation station for FY 2016-17.

5.45 The details of additional capitalisation and de-capitalisation as claimed by the Petitioner for FY 2016-17 is shown below:

**Table 17: Details of additional capitalization as submitted by the Petitioner (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	MYT Order	Petition	MYT Order	Petition
Plant & Machinery	-	0.41	-	0.41
Building & Civil Works	-	0.25	-	0.25
Other	-	0.09	-	0.09
<b>Total</b>	-	<b>0.75</b>	-	<b>0.75</b>

**Table 18: Details of de-capitalization as submitted by the Petitioner (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	MYT Order	Petition	MYT Order	Petition
Other	-	0.09	-	0.09
<b>Total</b>	-	<b>0.09</b>	-	<b>0.09</b>



5.46 In support of capitalization, the Petitioner has submitted the Statutory Auditor certificate duly attesting the capital cost of Rs. 3382.30 Crore as on March 31, 2017.

***Commission's Analysis***

5.47 The Commission has outlined the provisions for the approval of any additional capitalization, for a generating station in Regulation 7.5 and Regulation 7.6 of the JSERC Generation Tariff Regulation, 2015. The relevant clauses are outlined below:

*“Additional Capitalization*

*7.5 The capital expenditure 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:*

- (i) Undischarged liabilities recognized to be payable at a future date;*
- (ii) Works deferred for execution;*
- (iii) Procurement of initial capital spares within the original scope of work, subject to the provisions under clause 7.3 and 7.4 of these Regulations;*
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court; and*
- (v) Change in law*

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

*7.6 The capital expenditure incurred on the following counts after the cut-off date may, in its discretion, be admitted by the Commission, subject to prudence check:*

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court;*
- (ii) Change in law;*



- (iii) *Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (iv) *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;*
- (v) *Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.*
- (vi) *Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialisation of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:*
- (vii) *In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) including due to ecological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plan operation; and*

*Provided that in respect sub-clause (vii) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture air conditioners, voltage stabilizers, refrigerators, coolers, fans, washing machine, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 01.04.2016 for the Control period.*

*Provided further that any capital expenditure other than that of the nature specified above in (i) to (vi) in case of coal/lignite based station shall be met out of compensation allowance as specified in Clause 7.46;*

*Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M), repairs and maintenance under (O&M) expenses and*





“Compensation Allowance, same expenditure cannot be claimed under this regulation.”

5.48 The Commission observed that there is discrepancy in the representation of additional capitalisation and de-capitalisation when compared with Petitioner claimed and audited accounts as shown below.

**Table 19: Discrepancy between Petitioner Claim and audited accounts in Capitalization (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	Petitioner Claim	As per Audited Accounts	Petitioner Claim	As per Audited Accounts
Plant & Machinery	0.41	0.41	0.41	0.41
Building & Civil Works	0.25	0.25	0.25	0.25
Furniture and Fixtures	-	0.003	-	0.003
Vehicles	-	0.03	-	0.03
Office Equipment	-	0.01	-	0.01
Computer	-	0.04	-	0.04
Other	0.09	-	0.09	-
<b>Total</b>	<b>0.75</b>	<b>0.75</b>	<b>0.75</b>	<b>0.75</b>

**Table 20: Discrepancy between Petitioner Claim and audited accounts in De-Capitalization (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	Petitioner Claim	As per Audited Accounts	Petitioner Claim	As per Audited Accounts
<b>Vehicles</b>	<b>-</b>	<b>0.09</b>		<b>0.09</b>
<b>Other</b>	<b>0.09</b>	<b>-</b>	<b>0.09</b>	<b>-</b>
<b>Total</b>	<b>0.09</b>	<b>0.09</b>	<b>0.09</b>	<b>0.09</b>

5.49 The Commission observed the Petitioner had claimed Rs. 1.50 Crore (cumulative for both the Units) as additional capitalisation after the cut-off date. The Commission vide its letter dated September 21, 2022 directed the Petitioner to submit the reason for addition of assets after cut-off date and the provision(s) of Regulation 7.6 of JSERC Generation Tariff Regulations, 2015 under which the above said addition is claimed.

5.50 The Petitioner vide letter dated November 11, 2022 submitted the detail of assets capitalized during the FY 2016-17 along with justification as tabulated below.

Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
1	Oil Handling System, Air Compressor	0.83	For ensuring smooth handling of oil & protect wear and tear of Air Compressor System, which are nodal for consistent operation of the generating station. The Commission may



Sr. No.	Detail of Assets	Value (Rs. Cr.)	Justification
	System and Other Plant & Machineries		allow the expenditure under Regulation 7.6 (iv) of JSERC Tariff Regulations 2015.
2	Civil Work and Infrastructure	0.53	For increasing/strengthening the capacity of Ash Dyke, which is essential for smooth running of plant. The Commission may allow the expenditure under Regulation 7.6 (iv) of JSERC Tariff Regulations 2015.
3	IT Equipment	0.09	For replacement of laptop, printers, UPS etc. for routine office work. The expenditure was necessary for managing efficient and successful administration of the generating station. The Commission may allow the expenditure under Regulation 7.6 (iv) of JSERC Tariff Regulations 2015.
4	Self-propelled vehicles	0.07	For purchase of vehicles for commuting at plant, which is necessary for efficient and successful management of the station. The Commission may allow the expenditure under Regulation 7.6 (iv) of JSERC Tariff Regulations 2015.
<b>Total (Rs. Crore)</b>		<b>1.50</b>	

5.51 The Commission observes that all the assets capitalized during the FY 2016-17 were not part of the original project. Further, the Petitioner requested the Commission to allow the above said assets under Regulation 7.6 (iv) of JSERC Tariff Regulations 2015 i.e. 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.

5.52 The Commission examined the audited accounts of FY 2016-17 and as per Note-13 (Fixed Assets) of audited accounts, substantiated the fact that Rs. 1.50 Crore (cumulative for both the Units) of assets is capitalized during the FY 2016-17. Based on the submission and justification made by the Petitioner and after a prudent check, the Commission approves the additional capitalization of Rs. 1.50 Crore (cumulative for both the Units) for FY 2016-17 under Regulation 7.6 (iv) of JSERC Tariff Regulations 2015.

5.53 In regard to de-capitalisation, the Commission directed the Petitioner to provide the detail of de-capitalised assets along with the date of commissioning of each assets.

5.54 The Petitioner vide its letter dated December 09, 2022 submitted that vehicle (SUV Tata Aria Pride 2.2 L Dicor 140 PS) amounting Rs. 0.17 Crore was decapitalized during the year. The Petitioner further submitted that the same was capitalized on September 15, 2012 (FY 2012-13).

5.55 The Commission examined the audited accounts of FY 2016-17 and as per Note-13 (Fixed Assets) of audited accounts substantiated that Rs. 0.17 Crore (cumulative for both the



Units) was deducted from assets during the FY 2016-17. Based on the submission and justification made by the Petitioner and after a prudent check, the Commission approved the deduction of Rs. 0.17 Crore (cumulative for both the Units) for FY 2016-17.

5.56 The additional capitalization and de-capitalization as approved by the Commission in the previous MYT Order, as submitted by Petitioner and as approved now by the Commission has been summarized in the table below.

**Table 21: Details of the Additional Capitalization as approved by the Commission (Rs. Crore)**

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Capitalization	-	0.75	0.75	-	0.75	0.75
De-Capitalisation	-	0.09	0.09	-	0.09	0.09

### **Depreciation**

#### **Petitioner's Submission**

5.57 The Petitioner submitted that depreciation is calculated as per depreciation rates provided in Appendix-I of the JSERC Generation Tariff Regulations 2015.

5.58 The Petitioner further submitted that the net additional capitalization of Rs. 0.67 Crore (Rs. 75 Crore minus Rs. 0.09 Crore) for each Unit is also taken into account in calculation of depreciation. The depreciation as submitted by Petitioner is shown below.

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

Particulars	Unit-1		Unit-2	
	MYT Order	Petition	MYT Order	Petition
Depreciation	82.37	82.75	83.15	83.49

#### **Commission's Analysis**

5.59 The provisions laid out in the JSERC Generation Tariff Regulations, 2015 for approval of depreciation is reproduced below.

*“7.28 Depreciation shall be calculated for each year of the tariff period, on the amount of Capital Cost of the assets admitted by the Commission;*

*Provided that depreciation shall not be allowed on assets funded by any capital subsidy / grant*

*7.29 The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset.*

.....



7.31 Depreciation shall be calculated annually based on ‘Straight Line Method’ and at rates specified in Appendix-I to these Regulations for the assets of the generating station:

Provided that, the remaining depreciable value as on 31<sup>st</sup> March of the Year closing after a period of 12 Years from the Date of Commercial operation shall be spread over the balance Useful life of the assets.

7.32 In case of existing projects, the balance depreciable value as on 1<sup>st</sup> April 2016 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31<sup>st</sup> March 2016 from the gross depreciable value of the assets.

The rate of depreciation shall be continued to be charged at the rate specified in Appendix-I till cumulative depreciation reaches 70%. Thereafter the remaining depreciable value shall be spread over the remaining life of the asset such that the maximum depreciation does not exceed 90%.

7.33 Depreciation shall be chargeable from the first Year of commercial operation. In case of commercial operation of the asset for part of the Year, depreciation shall be charged on pro rata basis.”

- 5.60 The Commission has computed depreciation for both the Units in accordance with the above regulations considering the capital cost approved by the Commission vide Order dated January 09, 2018 in Case (T) No. 13 of 2016 and subsequent additional capitalisation and decapitalisation approved by the Commission. The following table shows the depreciation approved by the Commission against that submitted by Petitioner.

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

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Depreciation	82.37	82.75	82.39	83.15	83.49	83.15

### **Operation & Maintenance Expenses**

#### **Petitioner’s Submission**

- 5.61 The Petitioner has submitted that the Commission in its MYT Order dated February 19, 2018 had approved the O&M Expenses considering FY 2015-16 as Base Year and applying an escalation factor of 4.93% over the approved norm of FY 2015-16.



- 5.62 The Petitioner had filed a Review Petition (Case No. 05 of 2018) before the Commission to review the escalation factor of 4.93% approved by the Commission for the Control period from FY 2016-17 to FY 2020-21 and claimed the escalation factor as 6.30% over the approved norm of FY 2015-16. Therefore, the Petitioner has claimed the escalation factor of 6.30% in this instant Petition over the approved norm of FY 2015-16 to derive the O&M Expenses for FY 2016-17.
- 5.63 The Petitioner has entered into an MoU with Govt. of Jharkhand for drawl of water to an extent of 4064 m<sup>3</sup> per hour in a phased manner from Subarnarekha river, flowing at a distance of eight km downstream of water intake point from APNRL Project site, vide agreement dated August 29, 2008. The said agreement stipulates that a pump house has to be installed for drawal of required water from the river Subarnarekha withdrawn directly from river and not from any reservoir. Subsequently, Water Department of Govt. of Jharkhand vide its Notification dated April 01, 2011 has devised various categories for water off-take and APNRL was asked to pay @ Rs. 26.40 per thousand gallon. The Petitioner aggrieved by the rate, filed a Writ Petition before High Court of Jharkhand on February 07, 2012 with regard to demand raised by Subarnarekha Dam Division towards withdrawal of water at higher than the agreed rates.
- 5.64 The Hon'ble High Court of Jharkhand passed a stay Order in the above said Writ Petition, restricting the payment of water charges at pre-revised rate of Rs. 4.50 per thousand gallons. Therefore, the Petitioner is paying at Rs. 4.50 per thousand gallon of water withdrawn from river, amounting to Rs. 1.74 Crore for FY 2016-17, as reflected in audited accounts. The same is apportioned in proportion to JBVNL share (25%) i.e., 0.44 Crore (Rs. 0.22 Crore for each Unit).
- 5.65 The Petitioner further added that final Order against Writ Petition filed before Hon'ble High Court of Jharkhand is still awaited and requested the Commission, to allow to recover any additional water charges which may have been imposed, based on the outcome of the said Writ Petition, as the same would be accounted for increase in rate of water charges by GoJ and not on account of increase in water consumption.
- 5.66 The Petitioner has incurred an expenditure of Rs. 3.61 Crore on account of Capital Spares for FY 2016-17 and claimed an amount of Rs. 0.90 Crore to be billed to JBVNL in apportion to its share (25%).
- 5.67 In view of the reasons stated above, the Petitioner has prayed to the Commission to allow the O&M expenses as mentioned below.



**Table 24: O&M Expenses as submitted by the Petitioner (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	MYT Order	Petition	MYT Order	Petition
O&M Expenses	72.01	72.96	72.01	72.96
Water Charges	3.48	0.22	3.48	0.22
Capital Spares	0.00	0.45	0.00	0.45
<b>Net- O&amp;M Expenses</b>	<b>75.49</b>	<b>73.63</b>	<b>75.49</b>	<b>73.63</b>

**Commission’s Analysis**

5.68 The provisions laid out in the JSERC Generation Tariff Regulations, 2015 for approval of O&M expenses are as under:

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

*Salaries, wages, pension contribution and other employee costs;*

*Administrative and General costs;*

*Repairs and maintenance expenses; and*

*Other miscellaneous expenses statutory levies and taxes (except corporate income tax).*

.....

*7.41 Existing Thermal Generating Stations:*

*(a) The Applicant shall submit details of O&M expenses as required by the Commission. The O&M expenses excluding terminal liabilities for the Base Year shall be determined based on accounting statements for the base year, estimates of the Generating Company for relevant years and other factors considered relevant.*

*(b) The O&M expenses excluding terminal liabilities permissible towards determination of tariff for each year of the Control Period shall be determined after a prudence check by the Commission based on submissions of the Generating Company, previous years’ actual expenses and any other factor considered relevant.*

*(c) Terminal Liabilities will be approved as per actual submitted by the Generating Company or be established through actuarial studies.*

*(d) Increase in O&M charges on account of war, insurgency or changes in laws, or like eventualities where the Commission is of the opinion that an*



*increase in O&M charges is justified, may be considered by the Commission for a specified period.”*

- 5.69 Based upon the above mentioned Regulation and considering the actual expenses incurred in last four years towards the Operation and Maintenance of plant, the Commission vide Order dated February 19, 2018 approved the O&M Expenses for the Control Period from FY 2016-17 to FY 2020-21 by applying an escalation factor of 4.93% over the approved norm of FY 2015-16. The escalation factor has been arrived at by considering a composite index of WPI and CPI in the ratio of 80:20 over the last five years.
- 5.70 In line to above, the Commission in this instant Order has also considered the escalation factor of 4.93% over the approved norm of FY 2015-16 to derive the O&M Expenses for FY 2016-17.
- 5.71 Further, as per Regulation 6.14(b) laid out in the JSERC Generation Tariff Regulations, 2015, any surplus and deficit on account of O&M expenses shall be on the account of Generator and shall not be trued up in ARR.
- 5.72 The treatment of water charges and capital spares for thermal generation stations is governed by the Clause 7.46 as stated below. The relevant extract of the Regulations is reproduced below:

*“7.46 The Water Charges and capital spares for thermal generating stations shall be allowed separately:*

*Provided that water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details regarding the same shall be furnished along with the petition:*

*Provided that the generating station shall submit the details of year wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance as per Clause 7.47 of the Regulation or special allowance as per Clause 7.10 and 7.11 of the Regulation or claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization.”*



- 5.73 The Commission has scrutinized the detail submitted by the Petitioner and approved the water charges as per audited accounts for FY 2016-17 in proportion of power allocated to JBVNL.
- 5.74 In regard to Capital spares, the Commission is of the view that in compliance to 2<sup>nd</sup> proviso of Regulation 7.46 of the JSERC Generation Tariff Regulations, 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 compensatory allowance as per Regulation 7.47 of the JSERC Generation Tariff Regulations or special allowance as per Regulations 7.10 and 7.11 of the JSERC Generation Tariff Regulations or claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization. In compliance, the Petitioner submitted the details of critical spares consumed in FY 2016-17 duly certified by auditor along with purpose of consumption.
- 5.75 The Commission examines the details of critical spares consumed in FY 2016-17 duly certified by auditor along with purpose of consumption. The Commission approves that out of Rs. 3.62 Crore, the Petitioner had claimed Rs. 1.80 Crore (cumulative for both units) based on the ratio of the power allocation to JBVNL. Thus, based on the submission and justification made by the Petitioner and after a prudent check, the Commission approves the critical spares of Rs. 0.90 Crore for each unit for FY 2016-17.
- 5.76 Considering the above facts and norms specified in the JSERC Generation Tariff Regulations, 2015, the Commission approves the O&M expenses as shown below:

**Table 25: O&M Expenses as approved by the Commission (Rs. Crore)**

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
O&M Expenses	72.01	72.96	72.01	72.01	72.96	72.01
Water Charges	3.48	0.22	0.22	3.48	0.22	0.22
Capital Spares	0.00	0.45	0.45	0.00	0.45	0.45
<b>Net- O&amp;M Expenses</b>	<b>75.49</b>	<b>73.63</b>	<b>72.68</b>	<b>75.49</b>	<b>73.63</b>	<b>72.68</b>

### ***Interest on Loan***

#### ***Petitioner's Submission***

- 5.77 The Petitioner submitted that the Commission in its MYT Order dated February 19, 2018 had approved debt equity ratio of 73.24% and 26.76% as on March 31, 2016, which translates into equity as Rs. 904.81 Crore and debt as Rs. 2476.16 Crore.





- 5.78 The Petitioner has emphasised that lenders of the Company initiated Strategic Debt Restructuring (SDR) process on December 22, 2015. Pursuant to the scheme, the Joint Lenders Forum (JLF) approved conversion of debt into equity shares of the company aggregating an amount of Rs. 605.43 Crore. The conversion of debt into equity, as required under SDR guidelines was approved by company on June 22, 2016. Thus, on account of the above conversion of debt into equity, the proportion of equity in the capital balance for FY 2016-17 increased to 55.35%.
- 5.79 The Petitioner has considered the debt equity ratio as 70:30 in accordance to Regulation 7.3 of the JSERC Generation Tariff Regulations and further addition during the FY 2016-17 on normative basis of debt-equity as 70:30.
- 5.80 The Petitioner has considered the weighted average rate of interest based on actual loan portfolio and repayment equal to depreciation proposed by Petitioner for calculation of interest on loan for FY 2016-17.

**Table 26: Interest on Loan as submitted by the Petitioner (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	MYT Order	Petition	MYT Order	Petition
Opening Debt Balance	967.70	918.28	1001.07	951.80
Net Additions	0.00	0.47	0.00	0.47
Repayment	82.37	82.48	83.15	83.24
Closing Debt Balance	885.33	836.27	917.92	869.03
Average	926.51	877.27	959.49	910.41
Rate of Interest (%)	13.13%	12.36%	13.28%	12.70%
<b>Interest on Debt</b>	<b>121.65</b>	<b>108.43</b>	<b>127.42</b>	<b>115.62</b>

### **Commission's Analysis**

- 5.81 The relevant Clause as per JSERC Generation Tariff Regulation, 2015 is as follows: -

*“7.13 In case of the generating station declared under commercial operation prior to 1.4.2016, debt-equity ratio allowed by the Commission for determination of Tariff for the period ending 31.3.2016 shall be considered for determination of tariff.*

*During the control period, debt-equity ratio allowed by the Commission for determination of Tariff for the period ending 31st March 2017 shall be considered for determination of tariff.*



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

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

*Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*

*Explanation: -*

*i. The premium, if any, raised by the Generating Company, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the generating station.*

*ii. Provided, further that any consumer contribution, deposit work 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.*

*iii. Any expenditure incurred or projected to be incurred on or after 1<sup>st</sup> April 2016 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 specified in clause 7.14 of this Regulation.”*

.....

*“7.19 The loans arrived at in the manner indicated in clause 7.13 and 7.14 of these Regulations shall be considered as gross normative loan for calculation of interest on loan.*

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

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



*7.22 Notwithstanding any moratorium period availed by the Generating Company, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the annual depreciation allowed.*

*7.23 The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio at the beginning of each year applicable to the Project:*

*Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:*

*Provided further that if the generating station does not have actual loan, then the weighted average rate of interest of the Generating Company as a whole shall be considered*

*7.24 The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*

- 5.82 The Commission vide letter dated September 21, 2022 directed the Petitioner to submit the computed weighted average interest rate on the basis of opening loan balance from each source and corresponding interest rate applicable for FY 2016-17 as per Regulations 7.23 of JSERC Generation Tariff Regulations, 2015.
- 5.83 The Petitioner in its reply dated November 11, 2022 submitted the loan rate from each bank along with weighted average interest rate. The Petitioner has claimed the weighted average rate as 12.36% for Unit-1 and 12.70% for Unit-2.
- 5.84 The Commission vide letter dated September 21, 2022 directed the Petitioner to provide the copy of letter/correspondence/approval related to Strategic Debt Restructuring (SDR) process letter dated 22.07.2016. The Commission further enquired whether the SDR detail was submitted in MYT petition or during its proceeding and if not, why when the same was finalized on 22.07.2016, well before the finalization of MYT Order for Control Period for FY 2016-17 to FY 2020-21. The Petitioner in its reply submitted that pursuant to SDR, there has been no change in the rate of interest. As per JSERC Generation Tariff Regulations 2015, the Petitioner has to consider the impact of lower rate of interest pursuant to loan restructuring to be passed on consumers. However, this is not the case in the instant matter. The implication of SDR is only to the extent of increase in equity base. Regarding disclosure of the details, the Petitioner as part of its submission has transparently



shared the audited accounts which clearly provide the details of such SDR. The said audited accounts are an integral part of the Petition which may kindly be considered by the Commission. The approval of interest expenses is based on normative loan amount which are agnostic to the overall loan amount as per the book of accounts. Accordingly, the said SDR had no impact on the interest rate which is a prime factor for tariff purposes. So far as the impact on equity is concerned, the same has been elaborated in detail in the petition as also in the books of accounts and the Petitioner has requested the Commission to consider the change in the position of the equity with detailed rationale.

- 5.85 The Commission has reviewed the submissions made by the Petitioner. The Strategic Debt Restructuring (SDR) process was approved by company on June 22, 2016. The Petition for approval of Business Plan, ARR & Tariff for MYT Control Period FY 2016-17 to FY 2020-21 was filed on January 31, 2017. The Commission is of the view that when SDR process was completed and approved by the company before the filing of MYT Petition, the same need to be submitted before the Commission for consideration. Thus, the Commission is not inclined to review the SDR at this juncture.
- 5.86 The Commission has calculated the normative opening balance of debt for FY 2016-17 as trued up closing balance for FY 2015-16 vide Order dated February 19, 2018 for each Unit.
- 5.87 In regard to de-capitalisation of vehicle, the de-capitalised value apportioned to loan is deducted from loan for FY 2016-17.
- 5.88 The Commission has approved the repayment as approved depreciation in line with the methodology specified in JSERC Generation Tariff Regulations, 2015 to arrive at the closing balance of normative debt component.
- 5.89 The Commission has considered the weighted average rate of interest calculated based on the actual loan portfolio as per the submission made by the Petitioner.

**Table 27: Interest on Loan as approved by the Commission (Rs. Crore)**

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Opening Debt Balance	967.70	918.28	967.70	1001.07	951.80	1001.07
Addition during the FY	0.00	0.47	0.46	0.00	0.47	0.47
Deletion during the FY	0.00	0.00	0.07	0.00	0.00	0.06
Repayment	82.37	82.48	82.39	83.15	83.24	83.15
Closing Debt Balance	885.33	836.27	885.71	917.92	869.03	918.32
Average	926.51	877.27	926.70	959.49	910.41	959.70
Rate of Interest (%)	13.13%	12.36%	12.36%	13.28%	12.70%	12.70%
<b>Interest on Debt</b>	<b>121.65</b>	<b>108.43</b>	<b>114.54</b>	<b>127.42</b>	<b>115.62</b>	<b>121.88</b>



## Interest on Working Capital (IoWC)

### Petitioner's Submission

5.90 The Petitioner has worked out the normative working capital requirement for Unit-1 and Unit-2 for FY 2016-17 and has considered the rate of interest on working capital equal to the Bank Rate specified by State Bank as on April 01, 2016 plus 350 basis points. Accordingly, the Petitioner has considered 12.80% for Unit-1 and Unit-2 as rate of interest on working capital. The detailed computation of interest on working capital for Unit-1 and Unit-2 for FY 2016-17 based on the above rationale as shown below.

**Table 28: Interest on Working Capital as submitted by the Petitioner (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	MYT Order	Petition	MYT Order	Petition
Coal Cost for 2 Months	76.84	57.66	76.84	60.94
Cost of Secondary Fuel for 2 Months	1.43	1.03	1.51	1.14
O&M Expenses for 1 month	6.00	6.08	6.00	6.08
Maintenance Spares (20% of O&M)	14.40	14.59	14.40	14.59
Receivables for 2 months	141.47	120.11	142.52	124.98
Total Working Capital	240.15	199.60	241.28	207.73
Rate of Interest	12.80%	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>30.74</b>	<b>25.55</b>	<b>30.88</b>	<b>26.59</b>

### Commission's Analysis

5.91 The Commission has computed the interest on working capital as per JSERC Generation Tariff Regulations, 2015 as reproduced below.

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

*(a) Cost of coal or lignite and limestone towards stock, if applicable, for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;*

*(b) Cost of coal or lignite and limestone for 30 days for generation corresponding to normative annual plant availability factor;*

*(c) Cost of secondary fuel oil for two months for generation corresponding to the Normative Annual Plant Availability Factor;*

*(c) Maintenance spares @ 20% of operation and maintenance expenses;*



(d) Operation and Maintenance expenses for 1 month; and

(e) Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the Normative Annual Plant Availability Factor.

7.37 The cost of fuel in cases covered under clause 7.34 and 7.35 of these Regulations shall be based on the landed cost incurred (taking into account normative transit and handling losses) by the Generating Company and gross calorific value of the fuel as per actual for the three months preceding the first month for which tariff is to be determined and no fuel price escalation shall be provided during the tariff period.”

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

Provided that the rate of interest on working capital shall be trued up on the basis of actual bank rate as on 1st April of the respective year at the time of true up for that year.

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

5.92 The Commission has computed the working capital requirement as per the above said Regulations. The interest on working capital is considered as per JSERC Generation Tariff Regulations, 2015 i.e., Bank rate as April 01, 2016. The detailed calculation made by the Commission is shown in the tables below.

**Table 29: Interest on Working Capital as approved by the Commission (Rs. Crore)**

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Coal Cost for 2 Months	76.84	57.66	57.44	76.84	60.94	60.73
Cost of Secondary Fuel for 2 Months	1.43	1.03	1.03	1.51	1.14	1.14
O&M Expenses for 1 month	6.00	6.08	6.00	6.00	6.08	6.00
Maintenance Spares (20% of O&M)	14.40	14.59	14.40	14.40	14.59	14.40
Receivables for 2 months	141.47	120.11	119.30	142.52	124.98	124.16
Total Working Capital	240.15	199.60	198.17	241.28	207.73	206.43
Rate of Interest	12.80%	12.80%	12.80%	12.80%	12.80%	12.80%
<b>Interest on Working Capital</b>	<b>30.74</b>	<b>25.55</b>	<b>25.37</b>	<b>30.88</b>	<b>26.59</b>	<b>26.45</b>



## Return on Equity

### Petitioner's Submission

- 5.93 The Petitioner had initiated Strategic Debt Restructuring (SDR) process on December 22, 2015. Pursuant to the scheme, the Joint Lenders Forum (JLF) approved conversion of debt into equity shares of the company aggregating to an amount of Rs. 605.43 Crore. The conversion of debt into equity, as required under SDR guidelines was approved by the company on June 22, 2016. Thus, on account of above conversion of debt into equity, the proportion of equity in the capital balance for FY 2016-17 has increased to 55.35%.
- 5.94 The Petitioner has considered the debt equity ratio as 70:30 in accordance to Regulation 7.3 of the JSERC Generation Tariff Regulations, resulting in opening balance of equity as Rs. 505.04 Crore and Rs. 509.44 Crore for Unit-1 and Unit-2 respectively. The Petitioner has considered the actual equity addition during the FY 2016-17, based on the audited accounts.
- 5.95 Further, the Petitioner while calculating return on equity has considered post-tax return as 15.50% in line with Regulations and approach adopted by the Commission in earlier Orders.
- 5.96 Accordingly, the Return on Equity (Pre-Tax) claimed by the Petitioner for Unit-1 and Unit-2 for FY 2016-17 is summarized in the table below:

**Table 30: RoE as submitted by the Petitioner (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	MYT Order	Petition	MYT Order	Petition
Opening Equity	455.63	505.04	450.25	509.24
Addition during the Year	0.00	0.20	0.00	0.20
Closing Equity	455.63	505.24	450.25	509.44
Average Equity	455.63	505.14	450.25	509.34
Rate of Return on Equity	15.50%	15.50%	15.50%	15.50%
<b>Return on Equity (ROE)</b>	<b>70.62</b>	<b>78.30</b>	<b>69.79</b>	<b>78.95</b>

### Commission's Analysis

- 5.97 The Commission has calculated the gross normative equity for FY 2016-17 as per Clause 7.13 and 7.14 of the JSERC Generation Tariff Regulations, 2015.

*“7.13 In case of the generating station declared under commercial operation prior to 1.4.2016, debt-equity ratio allowed by the Commission for determination of*



*Tariff for the period ending 31.3.2016 shall be considered for determination of tariff.*

*During the control period, debt-equity ratio allowed by the Commission for determination of Tariff for the period ending 31st March 2017 shall be considered for determination of tariff.*

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

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

*Provided further that the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*

*Explanation: -*

*i. The premium, if any, raised by the Generating Company, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, provided such premium amount and internal resources are actually utilized for meeting the capital expenditure of the generating station.*

*ii. Provided, further that any consumer contribution, deposit work 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.*

*iii. Any expenditure incurred or projected to be incurred on or after 1<sup>st</sup> April 2016 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 specified in clause 7.14 of this Regulation.”*





- 5.98 The Commission has observed that the Petitioner has revised the debt:equity ratio based on Strategic Debt Restructuring (SDR) process which was approved by the company on June 22, 2016. However, the Commission is of the view that when SDR process was completed and approved by company during the proceeding of MYT Petition for FY 2016-17 to FY 2020-21, the same need to be submitted by the Petitioner before the Commission for consideration. Thus, the Commission is not inclined to review the SDR at this juncture.
- 5.99 The Commission has calculated the normative opening balance of equity for FY 2016-17 as trued up closing balance for FY 2015-16 vide Order dated February 19, 2018 for each Unit.
- 5.100 The Commission has scrutinized the details submitted by the Petitioner and observed that the assets (vehicles) that are de-capitalised were part of the capital cost and were capitalised at the time of COD of their respective Unit. Thus, assuming the debt:equity ratio approved by the Commission of each Unit for the capital cost at the time COD, the apportionment of de-capitalisation is deducted while arriving the net addition of equity during FY 2016-17.
- 5.101 In accordance with Regulation 7.16, Regulation 7.17 and Regulation 7.18 of the JSERC Generation Tariff Regulations, 2015, the Commission has approved the rate of return on equity at the rate of 15.50% as shown below:

**Table 31: RoE as approved by the Commission (Rs. Crore)**

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Opening Equity	455.63	505.04	455.63	450.25	509.24	459.98
Addition during the FY	0.00	0.20	0.20	0.00	0.20	0.20
Deletion during the FY	-	-	0.02	-	-	0.02
Closing Equity	455.63	505.24	455.81	450.25	509.44	460.16
Average Equity	455.63	505.14	455.72	450.25	509.34	460.07
Rate of Return on Equity	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
<b>Return on Equity (ROE)</b>	<b>70.62</b>	<b>78.30</b>	<b>70.64</b>	<b>69.79</b>	<b>78.95</b>	<b>71.31</b>

***Incentive***

***Petitioner's Submission***

- 5.102 The Petitioner claimed an incentive of Rs. 1.19 Crore for each Unit for FY 2016-17 as shown below:



**Table 32: Incentive as submitted by the Petitioner (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	MYT Order	Petition	MYT Order	Petition
Incentive	-	1.19	-	1.19

**Commission's Analysis**

5.103 The Commission vide its letter dated September 19, 2022 has directed the Petitioner to submit detailed calculation and the basis for claiming incentive. The Petitioner in its reply dated November 11, 2022 submitted that as per Regulation 8.15 of the JSERC Generation Tariff Regulations, incentive to a generating station or unit thereof shall be payable at a flat rate of 50 paise/kWh for ex-bus scheduled energy corresponding to scheduled generation in excess of ex-bus energy corresponding to Normative Annual Plant Load Factor (NAPLF).

**Table 33: Incentive as approved by the Commission (Rs. Crore)**

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
Incentive	-	1.19	1.19	-	1.19	1.19

**Annual Fixed Charge**

**Petitioner's Submission**

5.104 The summary of Annual Fixed Charge (AFC) as submitted by the Petitioner is shown below:

**Table 34: Annual Fixed Charge as submitted by the Petitioner (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	MYT Order	Petition	MYT Order	Petition
O&M Expenses excluding Water Charges & Capital Spares	72.01	72.96	72.01	72.96
Depreciation	82.37	82.75	83.15	83.49
Interest on Loan	121.65	108.43	127.42	115.62
Return on Equity	70.62	78.30	69.79	78.95
Interest on Working Capital	30.74	25.55	30.88	26.59
<b>Annual Fixed Cost</b>	<b>377.39</b>	<b>367.99</b>	<b>383.25</b>	<b>377.61</b>

**Commission's Analysis**

5.105 Regulation 8.2 of the JSERC Generation Tariff Regulations, 2015 states that Annual Fixed Cost (AFC) of a thermal generating station shall consist of the following components:



- (a) Return on Equity;
- (b) Interest and Financing Charges on Loan Capital;
- (c) Depreciation;
- (d) Operation and Maintenance Expenses;
- (e) Interest Charges on Working Capital; and
- (f) Special allowance in lieu of R&M or separate compensation allowance, wherever applicable;

5.106 The Annual Fixed Cost (AFC) as submitted by Petitioner and approved by the Commission has been tabulated below.

**Table 35: Annual Fixed Charge as approved by the Commission (Rs. Crore)**

Particulars	Unit-1			Unit-2		
	MYT Order	Petition	Approved	MYT Order	Petition	Approved
O&M Expenses excluding Water Charges & Capital Spares	72.01	72.96	72.01	72.01	72.96	72.01
Depreciation	82.37	82.75	82.39	83.15	83.49	83.15
Interest on Loan	121.65	108.43	114.54	127.42	115.62	121.88
Return on Equity	70.62	78.30	70.64	69.79	78.95	71.31
Interest on Working Capital	30.74	25.55	25.37	30.88	26.59	26.45
<b>Annual Fixed Cost</b>	<b>377.39</b>	<b>367.99</b>	<b>364.94</b>	<b>383.25</b>	<b>377.61</b>	<b>374.80</b>

### Tariff for Unit-1 and Unit-2

#### *Petitioner's Submission*

5.107 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 (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 36: Tariff for 12% of Total Net Capacity as submitted by the Petitioner (Variable Charge)**

Particulars	Units	Unit-1		Unit-2	
		MYT Order	Petition	MYT Order	Petition
Variable Cost/ Base Energy Charge Rate	Rs/kWh	2.567	2.441	2.570	2.429



**Table 37: Tariff for 13% of Total Net Capacity as submitted by the Petitioner (Fixed Charge)**

Particulars	Derivation	Units	Unit-1		Unit-2	
			MYT Order	Petition	MYT Order	Petition
Gross Capacity	A	MW	270.00	270.00	270.00	270.00
Auxiliary Consumption	B	%	9.00%	9.00%	9.00%	9.00%
Net Capacity	$C=A \times (1-B)$	MW	245.70	245.70	245.70	245.70
12% of Net Capacity for Supply to JUVNL/JBVNL at Energy Charge	$D=C \times 12\%$	MW	29.48	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	216.22
Annual Fixed Charge	F	Rs Cr.	377.39	367.99	383.25	377.61
Annual Fixed Charges/MW	$G=F/E$	Rs Cr./MW	1.75	1.70	1.77	1.75
13% of Net Capacity for supply to JUVNL at full tariff	$H=C \times 13\%$	MW	31.94	31.94	31.94	31.94
<b>AFC for 13% of Net Capacity</b>	$I=G \times H$	MW	<b>55.75</b>	<b>54.36</b>	<b>56.62</b>	<b>55.78</b>

**Commission's Analysis**

5.108 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 2015) approved 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 2015) and fixed charges as approved by the Commission as tabulated below.

**Table 38: Tariff for 12% of Total Net Capacity as approved by the Commission (Variable Charge)**

Particulars	Units	Unit-1			Unit-2		
		MYT Order	Petition	Approved	MYT Order	Petition	Approved
Variable Cost/ Base Energy Charge Rate	Rs/kWh	2.567	2.441	2.441	2.570	2.429	2.429



**Table 39: Tariff for 13% of Total Net Capacity for Unit-1 as approved by the Commission (Fixed Charge)**

Particulars	Derivation	Units	Unit-1		
			MYT Order	Petition	Approved
Gross Capacity	A	MW	270.00	270.00	270.00
Auxiliary Consumption	B	%	9.00%	9.00%	9.00%
Net Capacity	$C=A \times (1-B)$	MW	245.70	245.70	245.70
12% of Net Capacity for Supply to JUVNL/JBVNL at Energy Charge	$D=C \times 12\%$	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.	377.39	367.99	364.94
Annual Fixed Charges/MW	$G=F/E$	Rs Cr./MW	1.75	1.70	1.69
13% of Net Capacity for supply to JUVNL at full tariff	$H=C \times 13\%$	MW	31.94	31.94	31.94
<b>AFC for 13% of Net Capacity</b>	$I=G \times H$	MW	<b>55.75</b>	<b>54.36</b>	<b>53.91</b>

**Table 40: Tariff for 13% of Total Net Capacity for Unit-2 as approved by the Commission (Fixed Charge)**

Particulars	Derivation	Units	Unit-2		
			MYT Order	Petition	Approved
Gross Capacity	A	MW	270.00	270.00	270.00
Auxiliary Consumption	B	%	9.00%	9.00%	9.00%
Net Capacity	$C=A \times (1-B)$	MW	245.70	245.70	245.70
12% of Net Capacity for Supply to JUVNL/JBVNL at Energy Charge	$D=C \times 12\%$	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.	383.25	377.61	374.80
Annual Fixed Charges/MW	$G=F/E$	Rs Cr./MW	1.77	1.75	1.73
13% of Net Capacity for supply to JUVNL at full tariff	$H=C \times 13\%$	MW	31.94	31.94	31.94
<b>AFC for 13% of Net Capacity</b>	$I=G \times H$	MW	<b>56.62</b>	<b>55.78</b>	<b>55.37</b>

## Revenue

### *Petitioner's Submission*

5.109 The Petitioner submitted that the billed amount to JUVNL/JBVNL comprises of capacity charge, energy charges and fuel cost adjustment bill. The Petitioner further added that the revenue billed to JUVNL/JBVNL amounts to Rs. 179.02 Crore and Rs. 176.58 Crore for Unit-1 and Unit-2 respectively as shown below:



**Table 41: Revenue as submitted by the Petitioner (Rs. Crore)**

Particulars	Unit-1	Unit-2
	Petition	Petition
Fixed Charge	66.10	63.66
Energy Charge	99.66	99.66
Fuel Cost Adjustment	13.26	13.26
<b>Revenue from Sale of Power</b>	<b>179.02</b>	<b>176.58</b>

### Commission's Analysis

5.110 The Commission has scrutinized the details submitted by the Petitioner and approves the revenue as tabulated below:

**Table 42: Revenue as approved by the Commission (Rs. Crore)**

Particulars	Unit-1		Unit-2	
	Petition	Approved	Petition	Approved
Fixed Charge	66.10	66.10	63.66	63.66
Energy Charge	99.66	99.66	99.66	99.66
Fuel Cost Adjustment	13.26	13.26	13.26	13.26
<b>Revenue from Sale of Power</b>	<b>179.02</b>	<b>179.02</b>	<b>176.58</b>	<b>176.58</b>

### Impact of True up

#### Petitioner's Submission

5.111 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 certificates issued by Jharkhand SLDC as shown below.

**Table 43: Impact of True up as submitted by the Petitioner**

Particulars	Units	Unit-1	Unit-2
		Petition	Petition
Net Energy Supplied to JUVNL/JBVNL	MU	481.21	481.21
Rate of Energy Charge	Rs/kWh	2.44	2.43
AFC Entitlement on True Up	Rs Cr	54.32	55.75
Incentive	Rs Cr	1.19	1.19
Energy Charge Entitlement upon True up	Rs Cr	117.47	116.90
Water Charges	Rs Cr	0.22	0.22
Capital Spares	Rs Cr	0.45	0.45
<b>Total Entitlement</b>	Rs Cr	<b>173.65</b>	<b>174.51</b>
<b>Revenue Billed</b>			
AFC	Rs Cr	66.10	63.66
EC	Rs Cr	99.66	99.66



Particulars	Units	Unit-1	Unit-2
		Petition	Petition
FPA	Rs Cr	13.26	13.26
Total Revenue Billed to JUVNL/JBVNL	Rs Cr	<b>179.02</b>	<b>176.58</b>
<b>Gap/(Surplus)</b>	Rs Cr	<b>(5.37)</b>	<b>(2.07)</b>
Rate of Interest	%	12.80	12.80
From 1st April 2015 to 31st October, 2016	Days	383.00	383.00
Allowable Interest for the year	Rs Cr	(0.36)	(0.14)
<b>Total Amount to be additionally recovered / (paid back to JUVNL)</b>	<b>Rs Cr</b>	<b>(5.73)</b>	<b>(2.21)</b>

### Commission's Analysis

5.112 The JSERC Generation Tariff Regulations, 2015, states that:

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

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

*6.18 The amount under-recovered or over-recovered, along with simple interest at the rate equal to the bank rate as on 1st April of the respective year, shall be recovered or refunded by the generating company in six equal monthly instalments starting within three months from the date of the tariff order issued by the Commission”.*

5.113 Based on the above approved values and revenue, the Commission has approved the impact of True up for FY 2016-17 as shown below:



**Table 44: Gap/(Surplus) as approved by the Commission (Rs. Crore)**

Particulars	Units	Unit-1		Unit-2	
		Petition	Approved	Petition	Approved
Net Energy Supplied to JUVNL/JBVNL	MU	481.21	481.21	481.21	481.21
Rate of Energy Charge	Rs/kWh	2.44	2.441	2.43	2.429
AFC Entitlement on True Up	Rs. Cr.	54.32	53.91	55.75	55.21
Incentive	Rs. Cr.	1.19	1.19	1.19	1.19
Energy Charge Entitlement upon True up	Rs. Cr.	117.47	117.47	116.90	116.90
Water Charges	Rs. Cr.	0.22	0.22	0.22	0.22
Capital Spares	Rs. Cr.	0.45	0.45	0.45	0.45
<b>Total Entitlement</b>	Rs. Cr.	<b>173.65</b>	<b>173.24</b>	<b>174.51</b>	<b>173.97</b>
<b>Revenue Billed</b>					
Annual Fixed Charge	Rs. Cr.	66.10	66.10	63.66	63.66
Energy Charge	Rs. Cr.	99.66	99.66	99.66	99.66
Fuel Price Adjustment	Rs. Cr.	13.26	13.26	13.26	13.26
Total Revenue Billed to JUVNL/JBVNL	Rs. Cr.	<b>179.02</b>	<b>179.02</b>	<b>176.58</b>	<b>176.58</b>
<b>Gap/(Surplus)</b>	Rs. Cr.	<b>(5.37)</b>	<b>(5.78)</b>	<b>(2.07)</b>	<b>(2.46)</b>

5.114 The Commission has approved the cumulative surplus for FY 2016-17 along with carrying as shown below:

**Table 45: Surplus including Carrying Cost for Unit-1 as approved by the Commission (Rs. Crore)**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
	Approved	Approved	Approved	Approved	Approved	Approved	Approved
Opening Balance	0.00	(5.78)	(5.78)	(5.78)	(5.78)	(5.78)	(5.78)
Addition during the Year	(5.78)	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance	(5.78)	(5.78)	(5.78)	(5.78)	(5.78)	(5.78)	(5.78)
Carrying Cost Rate	12.80%	12.60%	12.20%	12.55%	11.65%	10.50%	10.50%
Carrying Cost for respective Financial Year	<b>(0.37)</b>	<b>(0.73)</b>	<b>(0.71)</b>	<b>(0.73)</b>	<b>(0.67)</b>	<b>(0.61)</b>	<b>(0.61)</b>

**Table 46: Surplus including Carrying Cost for Unit-2 as approved by the Commission (Rs. Crore)**

Particulars	FY 2016-17	FY 2017-18	FY 2018-19	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23
	Approved	Approved	Approved	Approved	Approved	Approved	Approved
Opening Balance	0.00	(2.46)	(2.46)	(2.46)	(2.46)	(2.46)	(2.46)
Addition during the Year	(2.46)	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance	(2.46)	(2.46)	(2.46)	(2.46)	(2.46)	(2.46)	(2.46)
Carrying Cost Rate	12.80%	12.60%	12.20%	12.55%	11.65%	10.50%	10.50%
Carrying Cost for respective Financial Year	<b>(0.16)</b>	<b>(0.31)</b>	<b>(0.30)</b>	<b>(0.31)</b>	<b>(0.29)</b>	<b>(0.26)</b>	<b>(0.26)</b>

5.115 The Commission has carried out the True-up for FY 2016-17 and directs the Petitioner to refund the above surplus to its Beneficiary.





## **A 6: STATUS OF EARLIER DIRECTIVES AND NEW DIRECTIVES**

6.1 The Commission has time and again issued various directives in order to improve the functioning of the Petitioner. However, the Commission observes that the Petitioner has not complied to the earlier directives. The Commission directs the Petitioner to comply with the earlier directives along with new directives as mentioned below with utmost sincerity failing which penal action may be taken.

### **Timely filing of APR Petition and Data adequacy**

6.2 The Commission directs the Petitioner to submit the APR petition as per timelines of JSERC Generation Regulations before the Commission for timely disposal. The Petitioner should adhere to the timelines as provided in the JSERC Generation tariff Regulations 2015 and JSERC Generation tariff Regulations 2020.

### **Development of a Fuel Procurement Plan**

6.3 The Petitioner is directed to develop a Fuel Procurement Plan and explore options with its suppliers in order to reduce the cost of coal. The Petitioner should prioritize the procurement of primary fuel from the least cost source.

This Order is signed and issued by the Jharkhand State Electricity Regulatory Commission on 22<sup>nd</sup> May, 2023.

**Date: 22.05.2023**

**Place: Ranchi**

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

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

**Sd/-**  
**(Justice Amitav K. Gupta)**  
**Chairperson**



## ANNEXURE

### Annexure-1: List of participating members of the public in the public hearing

Sr. No.	Name	Address/Organization
<b>Venue: Hotel B N R Chanakya, Ranchi</b>		<b>Date &amp; Time: 20.03.2023 &amp; 12:30 PM</b>
1	Amit Griwan	468, 1st floor, Udyog Bihar, DLF Ph-III, Gurgram
2	Ravi Shankar Singh	2IC Road Shanti Hari tower, Bistupur, Jamshedpur
3	Sarangdev Sarkar	1st floor, Udyog Bihar, DLF Ph-III, Gurgram
4	Rajesh Kumar Sharma	Petrol Pump Road, No. 6, Sonari west, Jamshedpur
5	Ravi Verma	Flat NEI/2 ,Manav Shree Appt., Rd. IA, Basant Vihar, Harmu, Ranchi
6	Himanshu Kumar	A/3 Nishaant Vihar, adityapur
7	Rishi Nandan	GM, Commercial, JBVNL
8	Ravishankar Kumar	EEE, Revenue, JBVNL
9	Bhavesh Saw	APNRL
10	Arvind Kumar	ED (C&R), JBVNL
11	Radha Krishna Tripathy	JBVNL Representative
12	Jiwan Kumar Jalan	101, Harmu Road, Ranchi
13	Anita Prasad	JBVNL
14	Birendra Kisku	JBVNL
15	R. K. Pandey	Ranchi
16	Eshan Singh	Ranchi
17	Sharat Kumar	JBVNL
18	Vijay Kumar	Ranchi