

# **Jharkhand State Electricity Regulatory Commission**



Order on  
Annual Performance Review for FY 2018-19  
for  
Inland Power Limited (IPL)

Ranchi  
December 26, 2019



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### List of Abbreviations

Abbreviation	Description
<b>A&amp;G</b>	Administrative and General
<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>IPL</b>	Inland Power Limited
<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



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**BEFORE**

**Jharkhand State Electricity Regulatory Commission, Ranchi**

**Case (Tariff) No.: 04 of 2019**

**In the matter of:**

**Petition for  
Annual Performance Review for FY 2018-19**

**In the matter:**

Inland Power Limited (IPL)

3A Aukland Place, Suite No. 5A, 5<sup>th</sup> Floor, Kolkata- 700017..... **Petitioner**

**PRESENT**

Hon'ble Dr.Arbind Prasad

Chairperson

Hon'ble Mr. R.N. Singh

Member (Engg.)

Hon'ble Mr. P.K. Singh

Member (Legal)

**Order dated December 26, 2019**

In this Petition, Inland Power Limited (hereinafter referred to as IPL or the Petitioner) has prayed for Annual Performance Review for FY 2018-19.



## **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.

### **Inland Power Limited (IPL)**

1.8 Inland Power Limited (hereinafter referred to as IPL or the Petitioner) is a company incorporated under the provisions of the Indian Companies Act, 1956. IPL was originally incorporated on June 22, 1993 as a Private Limited Company and was subsequently converted to a Public Limited Company on April 3, 2008.

1.9 The Petitioner signed a Memorandum of Understanding (hereinafter referred to as the MoU) with Government of Jharkhand to develop a 126 MW (+20%) (2x63 MW) thermal power plant based on CFBC technology in two stages in Gola, District Ramgarh, Jharkhand in October 2011. The Petitioner commissioned its 1<sup>st</sup> Unit (1x63MW) on May 21, 2014.

1.10 As per the provisions of the MOU, the Government of Jharkhand (GoJ) or Distribution Licensees authorized by it will have the first right of claim on a purchase up to 25% of the power delivered to the system by the proposed power plant. Further, the MoU stipulates that out of the 25% under the first right of refusal to the State, the rate of 12% share will be on variable cost. Pursuant to the MoU signed between GoJ and IPL, IPL 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 February 23, 2012 for supplying 35 MW of 63 MW from 1<sup>st</sup> Unit of the project on long term basis. Subsequently, IPL signed a supplementary PPA with JSEB (now JUVNL) on April 22, 2013 for purchase and sale of the entire quantity of 63 MW power from the 1<sup>st</sup> Unit of 63 MW inclusive of quantity mentioned in earlier Principal PPA.

### **The Petitioner's Prayers**

1.11 The Petitioner in this Petition has prayed before the Commission:

- Condone the delay in filing the Annual Performance Review Petition for FY 2018-19;
- Accept the petition for Annual Performance Review of FY 2018-19;
- Approve the numbers for the Annual Performance Review Petition for FY 2018-19 as discussed in this Petition;



## *Annual Performance Review for FY 2018-19 for Inland Power Limited*

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- Condone any inadvertent omissions/ errors/ rounding off differences/ shortcomings and permit IPL to add/ change/ modify this filing and make a further submission as may be at a future date; and
- Pass such further and other Orders, as the Commission may deem fit and proper, keeping in view the facts and circumstances of the case.

### **Scope of the Present Order**

- 1.12 The Commission in this Order has approved the Annual Performance Review for FY 2018-19.
- 1.13 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).
- 1.14 Accordingly, the Commission has scrutinized the Petition in detail and hereby issues the Order on Annual Performance Review for FY 2018-19.



## **A 2: PROCEDURAL HISTORY**

### **Background**

- 2.1 The Commission had approved the provisional tariff for FY 2014-15 to FY 2015-16 in its MYT Order dated May 27, 2014 based on submission of the anticipated date of Commercial Operation Date (COD) of the plant as May 2014.
- 2.2 Subsequently, the Commission on May 16, 2017 issued a Tariff Order on approval of Capital cost of Unit-1 (1x63MW), True-up of the ARR for the year FY 2014-15, Annual Performance Review for the year FY 2015-16 and Tariff for the 2<sup>nd</sup> Control period from FY 2016-17 to FY 2020-21.
- 2.3 The Commission had issued the true-up Order for FY 2015-16 for Unit-1 (1x63MW) on March 19, 2018 based on audited accounts submitted by the Petitioner.
- 2.4 The Petitioner had filed the review petition on true-up Order for FY 2015-16 which was disposed of by the Commission on May 13, 2019.
- 2.5 Later, on October 01, 2019, the Commission has issued the True-up Order for FY 2016-17 and FY 2017-18 based on the audited accounts of the respective financial year and methodology adopted in earlier Orders.
- 2.6 The Petitioner has now seeking approval from the Commission on Annual Performance Review petition for FY 2018-19.

### **Condonation of Delay in Filing of the Petition by the Petitioner**

- 2.7 The Commission via letter dated December 14, 2018 had directed the Petitioner to adhere the timelines as stipulated in the JSERC Generation Tariff Regulations and file the petition in time. Further, on January 10, 2019, the Commission had sent the reminder letter to the Petitioner to submit the status on petition for Annual Performance Review for FY 2015-16, FY 2016-17 and FY 2017-18 with the requisite fee.
- 2.8 The Petitioner vide its letter dated January 25, 2019, requested the Commission to provide relaxation from submitting the Annual Performance Review petition for FY 2016-17 and FY 2017-18 as True-up for the respective years is already submitted before the Commission for approval.
- 2.9 Considering the fact that Inland Power Limited (IPL) has already submitted the true-up petition for FY 2016-17 and FY 2017-18, the Commission vide its letter dated February



15, 2019, communicated to the Petitioner that the Commission may consider your request for waiver of submission of Annual Performance Review for FY 2016-17 and FY 2017-18 subject to submission of requisite fee for Annual Performance Review for FY 2016-17 and FY 2017-18 and also directed the Petitioner to ensure timely submission of Annual Performance Review in future.

- 2.10 Considering the Petitioner request, the Commission directs the Petitioner to submit the Annual Performance Review petition for FY 2018-19 by February 25, 2019 along with the requisite fee.

### **Information Gaps in the Petition**

- 2.11 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 no. JSERC/Case (Tariff) no. 04 of 2019/641 dated March 12, 2019.
- 2.12 The Petitioner submitted its response to the aforesaid letter and furnished additional data/information vide letter dated March 23, 2019.
- 2.13 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 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**

- 2.14 The Commission directed the Petitioner to make available copies of the Petition to the members of the general public on request, and also to issue a public notice inviting comments/suggestions on the Petition for approval of Annual Performance Review for FY 2018-19.
- 2.15 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**

<b>Newspaper</b>	<b>Date of Publication</b>
Hindustan	31.05.2019 & 01.06.2019
The Pioneer	31.05.2019 & 01.06.2019



Newspaper	Date of Publication
Sanmarg	31.05.2019 & 01.06.2019
Morning India	31.05.2019 & 01.06.2019

2.16 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
Hindustan	04.10.2019
Dainik Jagran	04.10.2019
Morning India	04.10.2019
The Pioneer	04.10.2019
Dainik Bhaskar	15.10.2019
Prabhat Khabar	15.10.2019
The Times of India	15.10.2019
The Hindustan Times	15.10.2019

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

- 2.17 In order to provide adequate opportunities to all stakeholders and general public, as mandated under Section 64 (3) of the Electricity Act 2003 and in relevant provisions of Regulation(s) framed by the Commission and in order to ensure transparency in the process of tariff determination, the Commission held public hearing on October 16, 2019 at Ranchi.
- 2.18 Objections/comments/suggestions on the Petition were received. The objections/comments/suggestions of the Public, Petitioner's responses and Commission's views thereon are detailed in **Section A4** of this Order.



### A 3: BRIEF FACTS OF THE PETITION

3.1 The following sub-section presents a summary of Annual Performance Review petition for FY 2018-19 as filed by the Petitioner.

#### Annual Performance Review for FY 2018-19

##### Operational Parameters of Plant

3.2 The summary of operational parameters approved by the Commission in the MYT Order dated May 16, 2017 vis-à-vis as submitted by the Petitioner is provided in the table below.

**Table 3: Operational Parameters as submitted by the Petitioner**

Particulars	UoM	FY 2018-19	
		MYT Order	Petition
Annual Plant Availability Factor	%	82.50	75.48
Auxiliary Energy Consumption	%	10.50	11.18
Gross Station Heat Rate	kCal/kWh	2902	2998
Secondary fuel oil Consumption	ml/kWh	1.00	1.00

##### Aggregate Revenue Requirement (ARR)

3.3 The summary of Annual Revenue Requirement (ARR) as submitted by the Petitioner for FY 2018-19 vis-à-vis as approved by the Commission in its MYT Order dated May 16, 2017 is tabulated below.

**Table 4: Annual Revenue Requirement as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2018-19	
	MYT Order	Petition
Depreciation	15.60	15.35*
Interest on Loan	21.18	20.66
Return on Equity <sup>#</sup>	19.84	15.79
Interest on Working Capital	6.05	5.87
O&M Expenses <sup>#</sup>	19.22	22.04
<b>Annual Fixed Cost</b>	<b>81.88</b>	<b>79.71*</b>
<b>Annual Variable Charge</b>	<b>85.16</b>	<b>85.67</b>
<b>Aggregate Revenue Requirement</b>	<b>167.04</b>	<b>165.38*</b>

<sup>#</sup> Petitioner has proposed to claim income tax, water charges, publication & filling expenses on actual during True-up

\*In reply to 1<sup>st</sup> Discrepancy Note raised by the Commission



## A 4: PUBLIC CONSULTATION PROCESS

- 4.1 The Public Hearing was held on October 16, 2019 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 The comments and suggestion of the members of the public/stakeholder along with the response thereon of the Petitioner and the views of the Commission are detailed hereunder.

### **Controllable Parameters: Gross Station Heat Rate & Auxiliary Consumption**

#### *Public Comments/Suggestions*

- 4.4 The Stakeholder pointed out that the Gross Station Heat Rate is a controllable parameter and should be considered on normative basis. Any financial implication due to change in the controllable factor should be on the account of the Petitioner. The Stakeholder further suggested that the GHR should be considered as 2765 kCal/kWh as approved in the true up Order for FY 2016-17 and FY 2017-18 based on DPR. Similarly, for auxiliary consumption, the Stakeholder requested to consider 10% against the actual 11.18% as submitted by the Petitioner.

#### *Petitioner's response*

- 4.5 The Petitioner submitted that the GHR was approved by the Commission as 2902kCal/kWh in its MYT Order dated May 27, 2014 with due consideration of a margin of 6.5% on the Design Heat Rate in accordance with Regulation 8.6 of JSERC Generation Tariff Regulations, 2010. This GHR was arrived at by the Commission after validation of the boiler efficiency conducted by an independent technical expert. The Petitioner further submitted that the GHR and auxiliary consumption is submitted based on the actual for the period from April, 2018 to September, 2018 and projected from the next six months. The deviation of GHR from normative is because of use of CFBC technology instead of tangential fired PC boiler, coal mix change due to non-controllable



aspects in the supply chain. Similarly, for auxiliary consumption the deviation is mainly because of fuel mix and transmission loss.

***Views of the Commission***

4.6 The Commission has taken note of comment and response and dealt with the issue in Chapter A.5 of the order.

**O&M Expenses**

***Public Comments/Suggestions***

4.7 The Stakeholder submitted that the Petitioner has estimated the O&M expenses as Rs. 22.04 Crore against the approved value of Rs. 19.22 Crore for FY 2018-19. However, as per the Regulation 6.11(e) of the JSERC Tariff Regulations, 2015, the O&M expense is a controllable parameter and no impact in the form of financial loss is to be passed on in the tariff. Further, it is also pointed out that beside the additional expenditure than the normative, the Petitioner has not been able to control the performance on the controllable parameter.

***Petitioner's response***

4.8 The Petitioner submitted the O&M expenses based on the actual for the period from April, 2018 to September, 2018 and projected for the next six months. Further, the Petitioner would like to draw the attention that divergence from normative is because of change in fuel mix, increase in ash handling and disposal charges due to high ash generated due to change in fuel mix etc.

***Views of the Commission***

4.9 The Commission has taken note of comment and response and dealt with the issue in Chapter A.5 of the order.

**Return on Equity**

***Public Comments/Suggestions***

4.10 The Stakeholder submitted that the estimated Return on Equity by the Petitioner is not inline to latest true-up Order for FY 2016-17 and FY 2017-18 issued by the Commission on October 01, 2019. The Stakeholder suggested to consider the methodology and





approved value in the earlier Commission Orders while approving the Return on Equity for FY 2018-19.

***Petitioner's response***

4.11 The Petitioner submitted that the RoE as per opening equity base of Rs. 101.90 Crore which has been approved in MYT Order dated May 16, 2017 for 2<sup>nd</sup> Control period and the applicable RoE rate with taxes to be reimbursed at actuals.

***Views of the Commission***

4.12 The Commission has taken note of comment and response and dealt with the issue in Chapter A.5 of the order.

**Cost of Fuel**

***Public Comments/Suggestions***

4.13 The Stakeholder submitted that the cost of primary and secondary fuel must be calculated based on the approved parameters against the estimated value as suggested by the Petitioner and any financial impact of any deviation must be borne by the Petitioner. The Stakeholder further added that the Petitioner has considered the costlier fuel with lower Gross Calorific Value which does not reflect effective management by the Petitioner. The Stakeholder suggested that the cost of fuel must be calculated as per Regulation 8.19 of the JSERC Generation Tariff Regulations, 2015.

***Petitioner's response***

4.14 The Petitioner submitted that the computation of primary and secondary fuel is based on the trajectory and principles set out by the Commission in the MYT Order dated May 16, 2017. The Petitioner would also like to submit that the specific oil consumption has always been managed by the Petitioner within the limits set by the Commission. The input costs of the fuel (primary & secondary) are as administered by Coal India Limited and Oil Management Companies, which are GoI owned entities with prices set by them being beyond the reasonable control of the Petitioner.

***Views of the Commission***

4.15 The Commission has taken note of comment and response and dealt with the issue in Chapter A.5 of the order.



## A 5: ANNUAL PERFORMANCE REVIEW FOR FY 2018-19

5.1 As per Clause 14.2 of the JSERC Generation Tariff Regulations, 2015

*“14.2 The Generating Company shall submit information as part of Annual Performance Review on annual performance to assess the performance vis-à-vis the targets approved by the Commission at the beginning of the Control Period. This shall include annual statements of its performance and accounts including authentic/audited accounting statements, norms achieved and the tariff worked out in accordance with these Regulations;”*

5.2 The Petitioner has submitted the Annual Performance Review for FY 2018-19 based on the actual for first six months (April, 2018 to September, 2018) and projected for the second half (October, 2018 to March, 2019) as per provisions of the JSERC Generation Tariff Regulations, 2015.

5.3 The Commission based on the provision of the Tariff Regulations, 2015 has now carried out the Annual Performance Review for FY 2018-19 taking into consideration:

- a) JSERC Generation Tariff Regulations, 2015;
- b) Methodology adopted by the Commission in its previous Orders.

### **Operational Performance**

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

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

5.4 The Petitioner has submitted the actual plant availability of Unit-1 for the first six months (April, 2018 to September, 2018) as 68.45% due to rotor earth fault lower than the approved value in MYT Order dated May 16, 2017. The fault resultant in shut down of plant for ~22 days and low production for another 7 days in May, 2018.

5.5 The Petitioner has further projected the plant availability on normative basis as 82.5% for the second half of FY 2018-19.

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

5.6 The Commission in the MYT Order dated May 16, 2017 had approved the Normative Annual Plant Availability Factor (NAPAF) as 82.50% based on the MYT Petition submitted by the Petitioner.



- 5.7 Further, in the True-up Order for FY 2015-16 dated March 16, 2018, the Commission after scrutinising the data submitted by the Petitioner revised the existing norms from 75% to 85%. The Commission has further approved the normative plant availability as 85% during True-up for FY 2016-17 and FY 2017-18 vide True-up Order dated October 01, 2019.
- 5.8 Based on the above methodology adopted by the Commission in its previous Orders and inline to MYT Regulations, 2015, the Commission has revised the normative plant availability of Unit-1 as 85% for Annual Performance Review for FY 2018-19.
- 5.9 The Commission vide letter dated March 12, 2019 directed the Petitioner to submit the reason for lower plant availability factor and its impact on annual fixed cost recoverable from the beneficiary for FY 2018-19. The Petitioner vide letter dated March 23, 2019 replied that reason for low plant availability is due to rotor earth fault.
- 5.10 The Plant availability as approved by the Commission in the MYT Order dated May 16, 2017, as submitted by the Petitioner and as approved now by the Commission for FY 2018-19 is summarised below.

**Table 5: Actual Plant availability as approved by the Commission**

Particulars	FY 2018-19		
	MYT Order	Petition	Approved
Actual Plant Availability	82.50%	75.48%	75.48%

- 5.11 The Commission in accordance with the above approved availability has reduced fixed charges of the Petitioner for FY 2018-19 as the availability projected is lower than the normative availability.

### ***Auxiliary Consumption***

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

- 5.12 The Petitioner had submitted the actual auxiliary consumption for first six months as 11.85% and proposed 10.50% for the next six months of FY 2018-19 against the approved value of 10.50% in the MYT Order dated May 16, 2017.
- 5.13 The reasons cited by the Petitioner for the increase in auxiliary consumption than the normative approved by the Commission pertains to change in the fuel mix, transmission losses etc.



### Commission's Analysis

- 5.14 The Commission while dealing with the matter of approving the auxiliary consumption in the provisional MYT Order dated May 27, 2014 for the first control period i.e. from FY 2010-11 to FY 2015-16 had relied on the technology specific norms in CERC Generation Tariff Regulations 2014 and the recommendations of CEA and accordingly approved Normative Auxiliary Consumption at 10.50%. Further, the Commission in the second control period i.e. from FY 2016-17 to FY 2020-21 had retained the auxiliary consumption as 10.50%.
- 5.15 Later, during true-up exercise for FY 2015-16, the Commission had scrutinized the Detailed Project Report (DPR) of the plant submitted by the Petitioner and accordingly approved the auxiliary consumption as 10.00% in Tariff Order dated March 19, 2018. In the similar line, the Commission has approved the auxiliary consumption as 10.00% while carrying out the true-up for FY 2016-17 and FY 2017-18.
- 5.16 The Commission has therefore adopted the same methodology as specified by it in the earlier true-up Orders and has approved the auxiliary consumption as 10.00% for FY 2018-19.

**Table 6: Auxiliary Consumption as approved by the Commission**

Particulars	FY 2018-19		
	MYT Order	Petition	Approved
Auxiliary Consumption	10.50%	11.18%	10.00%

### Plant Load Factor and Generation

#### Petitioner's Submission

- 5.17 The Petitioner has submitted the Plant Load Factor (PLF) as 74.81% for FY 2018-19 against the normative 82.50% as approved by the Commission in the MYT Order dated May 16, 2017.
- 5.18 The Petitioner has further submitted the proposed gross generation of Unit-1 as 412.83 MU for FY 2018-19 which is lower than that approved value in the MYT Order dated May 16, 2017.



### Commission's Analysis

- 5.19 The Commission has scrutinized the detail submitted along with Petition and approves the actual plant load factor and gross generation as submitted by the Petitioner for FY 2018-19.
- 5.20 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 7: Plant Load Factor and Generation as approved by the Commission**

Particulars	UoM	FY 2018-19		
		MYT Order	Petition	Approved
Plant Load Factor	%	82.50	74.81	74.81
Gross Generation	MU	455.30	412.83	412.83

### Gross Station Heat Rate (GHR)

#### Petitioner's Submission

- 5.21 The Petitioner has claimed the Gross Station Heat Rate (GHR) as 2998 kCal/kWh against the approved value of 2902 kCal/kWh in the MYT Order dated May 16, 2017. The reason cited by the Petitioner for higher Gross Station Heat Rate (GHR) is the deviation in the fuel mix, use of primary fuel with high ash etc. against the approved value in MYT Order dated May 16, 2017.

#### Commission's Analysis

- 5.22 The Commission in its true-up Order dated March 19, 2018 for FY 2015-16 has approved the Gross Station Heat Rate (GHR) as 2765 kCal/kWh based on the Detailed Project Report (DPR) of the plant as submitted by the Petitioner. Based on the similar line, the Commission has approved the Gross Station Heat as 2765 kCal/kWh for FY 2016-17 and FY 2017-18.
- 5.23 The Commission has therefore adopted the same approach and approves the GHR as 2765 kCal/kWh for FY 2018-19 as approved in the earlier True-up Orders issued by the Commission.
- 5.24 Considering the above, the Gross Station Heat Rate as approved by the Commission in the MYT Order dated March 19, 2018, as submitted by the Petitioner and as approved now by the Commission is summarized in the table below.



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

Particulars	UoM	FY 2018-19		
		MYT Order	Petition	Approved
Gross Station Heat Rate	kcal/kWh	2902	2998	2765

### *Specific Fuel Oil Consumption*

#### *Petitioner's Submission*

5.25 The Petitioner has submitted the specific fuel oil consumption as 1.00 ml/kWh in line to JSERC Generation Tariff Regulations, 2015.

#### *Commission's Analysis*

5.26 The Commission found that the submission made by the Petitioner in line to the Commission's MYT Order dated May 16, 2017 and JSERC Generation Tariff Regulations 2015. Hence, the Commission approves the secondary fuel oil consumption as submitted by the Petitioner.

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

Particulars	UoM	FY 2018-19		
		MYT Order	Petition	Approved
Secondary Fuel	ml/kWh	1.00	1.00	1.00

### **Fuel Cost Parameters**

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

#### *Petitioner's Submission*

5.27 The Petitioner has submitted that due to no fuel linkage, coal is procured from various sources as mentioned below.

- E-Auction of CIL coal
- Coal from Forward Auctions
- Washery rejects of CCL
- Rejects from Tata Steel.

5.28 The Petitioner has further submitted that based on the availability of coal input, the blending ratio of coal and coal rejects deviates significantly from the norms approved by the Commission.



5.29 The Petitioner emphasis the points that the change in the fuel mix is due to the delay in payment of dues by Jharkhand Bijli Vitran Nigam Limited (JBVNL). Due to delay in payment, the Petitioner could not procure the desired quantity of coal from Coal India Limited (CIL), as the payment to CIL is to be made in advance and coal is supplied after 1-2 months. In order to continue the operation of the plant, the Petitioner is forced to procure an extra quantity of coal rejects having the option of post-payment.

### **Commission's Analysis**

5.30 The Commission has observed that there has been a significant deviation in the blending ratio, Gross Calorific Value (GCV) of primary fuel-mix and its price as compared to the approved values by the Commission. The decrease in GCV leads to an increase in consumption of primary fuel and production of higher ash content.

5.31 The Commission in the MYT Order dated May 16, 2017 and also in Tariff Order dated March 19, 2018 had directed the Petitioner to prioritize the procurement of primary fuel from the least cost source. The Commission reiterates that the Petitioner should develop a fuel procurement plan and explore options with its suppliers in order to reduce the cost of primary fuel.

5.32 In a subsequent submission in reply to a discrepancy note raised by the Commission, the Petitioner had submitted that the Petitioner has signed the Fuel Supply Agreement (FSA) with CIL under the SHAKTI Scheme and the allocation of coal under the SHAKTI Scheme is under process.

5.33 The Commission is of the view that the with the operational of FSA, the reliability for the availability of primary fuel will increase and also the benefit of SHAKTI Scheme would be pass on to the beneficiary.

5.34 The Commission has considered the submission made by the Petitioner including supporting documents certified by statutory auditor for first six months of FY 2018-19.

5.35 The following table summarize the fuel mix and weighted average GCV as submitted by the Petitioner and approved by the Commission for FY 2018-19.

**Table 10: Coal Mix and GCV as approved by the Commission**

Particulars	UoM	FY 2018-19		
		MYT Order	Petition	Approved
Coal	%	54%	35.24%	35.24%
Coal Rejects	%	43%	64.76%	64.76%
Dolochar	%	3%	-	-



Particulars	UoM	FY 2018-19		
		MYT Order	Petition	Approved
GCV of Coal	kCal/kg	4078.68	4409	4409
GCV of Coal Reject	kCal/kg	1937.31	2418	2418
GCV of Dolochar	kCal/kg	855.39	-	-
GCV of Primary Fuel	kCal/kg	3061.19	3119.51	3119.63

### **Transit Loss**

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

5.36 The Petitioner submitted the actual transit loss for first six months from each source of coal duly certified by the statutory auditor. However, for the Annual Performance Review for FY 2018-19, the Petitioner has submitted the normative transit loss as 0.8% as approved in the MYT Order dated May 16, 2018 and as per JSERC Generation Tariff Regulations, 2015.

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

5.37 In compliance to directive of the Commission in the MYT Order dated May 16, 2017 to record and maintain data of fuel source wise transit loss on an actual basis, the Petitioner has implemented a process for maintaining the transit loss data and submitted the actual transit loss for first six months duly certified by statutory auditor along with the petition.

5.38 The Commission approves the transit loss at a normative value of 0.8% as per Clause 8.21 of the JSERC Generation Tariff Regulations, 2015.

**Table 11: Transit Loss as approved by the Commission**

Particulars	FY 2018-19		
	MYT Order	Petition	Approved
Transit Loss	0.8%	0.8%	0.8%

### **Landed Cost of Coal**

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

5.39 The Petitioner has submitted the landed cost of primary fuel consumed from different source for Unit-1 supported by an auditor certified true copy for first six months. The landed price of primary fuel includes base price of coal, royalty, taxes and duties, transport cost, Clean Energy Cess and transit loss.





### Commission's Analysis

5.40 As per clause 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%.*

5.41 The Petitioner in the petition has provided month wise fuel procurement and rate of primary fuel procured duly certified by the auditor for the first six months and projected for the next six months of FY 2018-19.

5.42 Considering, the Petitioner submission and after due prudence check, the Commission approves the landed cost of coal as given in the table below.

**Table 12: Weighted Average Landed Price of Coal as approved by the Commission (Rs./Ton)**

Particulars	FY 2018-19		
	MYT Order	Petition	Approved
Price of Coal	2830.32	3317	3317



Particulars	FY 2018-19		
	MYT Order	Petition	Approved
Price of Coal Reject	851.02	1400	1400
Price of Dolochar	543.40	-	-
Transit Loss	0.8%	0.8%	0.8%
Landed Price of Primary Fuel	1926.02	2092.29	2092.29

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

#### *Petitioner's Submission*

5.43 The Petitioner has submitted the actual bills for secondary fuel purchased for the first six months of FY 2018-19 and based on the above projected the landed price of secondary fuel. The Petitioner has considered the calorific value as 10000 kCal/L as approved in the MYT Order dated May 16, 2017.

#### *Commission's Analysis*

5.44 The Commission observed that the price of secondary fuel increased drastically as compared to the approved value and directed the Petitioner vide letter dated March 12, 2019 to furnish the reason for such price surge. The Petitioner vide letter dated March 23, 2019 submit that the price of secondary fuel oil is controlled by the Oil Marketing Companies (OMC) and the Petitioner has to pay as per market rate. In support of the reply, the Petitioner has submitted the fuel bills for the first six months of FY 2018-19.

5.45 The Commission in this Order approves the landed price of secondary fuel as submitted by the Petitioner. However, the Commission will carry out prudence check at the time of true-up while approving the landed price of secondary fuel.

5.46 The Commission has scrutinized the documents submitted by the Petitioner and worked out the weighted average landed price of secondary fuel. **The Commission directed the Petitioner to ensure that the price of secondary fuel does not increase drastically and maintain within the approved value in MYT Order dated May 16, 2017.**

5.47 The Commission approves the calorific value and landed price of secondary fuel as shown below.

**Table 13: Calorific value & Landed price of Secondary fuel as approved by the Commission**

Particulars	UoM	FY 2018-19		
		MYT Order	Petition	Approved
Calorific Value	kCal/L	10000	10000	10000
Landed Price	Rs./kL	47472	71166	71166



## Energy Charge Rate (ECR)

### *Petitioner's Submission*

5.48 The Petitioner has submitted the Energy Charge Rate (ECR) as Rs. 2.34/kWh against the approved value of Rs. 2.09/kWh for FY 2018-19.

### *Commission's Analysis*

5.49 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 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).

5.50 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 GCV 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%.*

5.51 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 table below detail the ECR and Fuel Cost for Annual Performance Review for FY 2018-19 as submitted by the Petitioner and as approved by the Commission.

**Table 14: Energy Charge Rate (ECR) as approved by the Commission**

Particulars	UoM	FY 2018-19		
		MYT Order	Petition	Approved
Net Generation	MU	407.49	366.70	366.70
Auxiliary Consumption	%	10.50	11.18	10.00
Gross Station Heat Rate	kcal/kWh	2902	2998	2765
Specific Oil Consumption	ml/kWh	1.00	1.00	1.00
Calorific Value of Oil	kcal/mL	10.00	10.00	10.00
GCV of Primary Fuel	kcal/kg	3061.19	3119.51	3119.63
Landed Price of Primary Fuel	Rs./Ton	1926.02	2092.29	2092.29
Landed Price of Secondary Fuel	Rs./kL	47472	71166	71166
<b>Energy Charge Rate (ECR)</b>	<b>Rs./kWh</b>	<b>2.09</b>	<b>2.34</b>	<b>2.132</b>
<b>Primary Fuel Cost</b>	<b>Rs. Cr.</b>	<b>82.85</b>	<b>82.73</b>	<b>75.29</b>
<b>Secondary Fuel Cost</b>	<b>Rs. Cr.</b>	<b>2.16</b>	<b>2.94</b>	<b>2.90</b>

### **Determination of Fixed Cost**

#### *Additional Capitalization*

#### *Petitioner's Submission*

5.52 The Petitioner has submitted that they had incurred an additional capitalization of Rs. 0.08 Crore for purchase of a vehicle to convey technical & managerial staff for commuting between workplace to home as shown below.

**Table 15: Details of the Additional Capitalization as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2018-19	
	MYT Order	Petition
Capitalization	-	0.08

#### *Commission's Analysis*

5.53 The Commission has outlined the provisions for the approval of any additional capitalization, for a generating station in Clause 7.5 and Clause 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.”*

- 5.54 The Commission vide its discrepancy note dated March 12, 2019 directed the Petitioner to substantiate the additional capitalization incurred by the Petitioner as per JSERC Generation Tariff Regulations 2015. The Petitioner submits the reply vide letter dated March 23, 2019 stating that the Petitioner has bought a car to convey technical and managerial employee from home to plant location.
- 5.55 The Commission has noticed that the Petitioner had also bought vehicle of Rs. 0.11 Crore in FY 2016-17 and Rs. 0.30 Crore in FY 2017-18. The above-mentioned deviation from MYT Order dated May 16, 2017 is approved by the Commission considered its importance and necessity as one-time additional capitalization. However, the Petitioner once again carried out capitalization without any prior approval and also didn't inform





the Commission earlier. Therefore, the Commission does not find the additional capitalization during the FY 2018-19 satisfactory.

- 5.56 In view of the above, the Commission does not find the submission for additional capitalization appropriate for approval. Hence the Commission after due scrutiny of the submissions has decided to disallow the claim of the Petitioner.

### **Depreciation**

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

- 5.57 The Petitioner has submitted that depreciation has been calculated as per the depreciation rates provided in the Appendix-I of the JSERC Generation Tariff Regulations 2015.
- 5.58 The Petitioner has further submitted that the additional capitalization of Rs. 0.08 Crore is also taken into account for the calculation of depreciation. The depreciation submitted by the Petitioner is given in the table below.

**Table 16: Depreciation as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2018-19	
	MYT Order	Petition
Depreciation	15.60	15.35*

\*In reply to 1<sup>st</sup> Discrepancy Note raised by the Commission

#### **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 31st 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 1st April 2016 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31st 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 In a subsequent submission in reply to a discrepancy note raised by the Commission, the Petitioner has submitted the revised calculation of depreciation after deducting Rs. 8.56 Crore associated to Unit-2 from Gross Fixed Asset (GFA). Even, after resubmission, the Petitioner has wrongly calculated the depreciation.
- 5.61 Accordingly, the Commission has calculated the depreciation for Unit-1 by considering the approved capital cost, capitalization and the depreciation rates as specified in Appendix-I of the JSERC Generation Tariff Regulations, 2015.
- 5.62 The following table shows the depreciation approved by the Commission against that submitted by the Petitioner.

**Table 17: Depreciation as approved by the Commission (Rs. Crore)**

Particulars	FY 2018-19		
	MYT Order	Petition	Approved
Depreciation	15.60	15.35*	17.15

\*In reply to 1<sup>st</sup> Discrepancy Note raised by the Commission

### **Operation & Maintenance Expenses**

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

- 5.63 The Petitioner has submitted the actual O&M expenses for first six months and estimated for the second six months of FY 2018-19.



- 5.64 The Petitioner mentioned that the variation in the O&M expense is due to change in the fuel mix, high ash generation which leads to an increase in ash handling and disposal charges etc.
- 5.65 In view of the reasons stated above, the Petitioner has prayed to the Commission to allow the increase in the O&M expenses. The details as submitted are given in the following table.

**Table 18: O&M Expenses as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2018-19	
	MYT Order	Petition
O&M Expenses	19.22	22.04

**Commission’s Analysis**

- 5.66 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).*

.....

*7.46 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.*



- 5.67 Since, the JSERC Generation Tariff Regulations, 2015 do not specify norms specifically for 63 MW sets based on CFBC technology, the Commission had considered the O&M norms for 200/210/250 MW capacity CFBC Technology based thermal plants in the MYT Order dated May 16, 2017. Accordingly, the Commission had approved the O&M expenses based on the norms specified for 200/210/250 MW sets for MYT period FY 2016-17 to FY 2020-21.
- 5.68 The Commission has noted the submission of the Petitioner regarding the increase in the O&M costs and is of the opinion that the primary reason for the increase is the change in the fuel mix of the primary fuel which has resulted in lowering of overall GCV, increase in ash output and subsequently led to increased ash handling and disposal expenses.
- 5.69 The Commission observed that the Petitioner has not claimed the water charges and propose to claim as per actual at the time of true-up.
- 5.70 The Commission is of the view that ensuring reliable coal source at an economical price is the prime responsibility of Generator and even after repetitive directions to the Petitioner, no substantial progress is seen in this regard. The Commission is of the view that the procurement of fuel is the responsibility of the Petitioner and therefore no commercial impact on account of any inefficiency in procurement of fuel can be passed on to consumers and hence approves the O&M expenses as in MYT Order dated May 16, 2017.
- 5.71 The O&M expenses as approved by the Commission for FY 2018-19 is shown below.

**Table 19: O&M Expenses as approved by the Commission (Rs. Crore)**

Particulars	FY 2018-19		
	MYT Order	Petition	Approved
O&M Expenses	19.22	22.04	19.22

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

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

- 5.72 The Petitioner has considered the actual loan portfolio and repayment equal to the actual repayment by the Petitioner for estimating the interest and financing charges on loan for FY 2018-19.
- 5.73 The Petitioner submits that a vehicle loan of Rs. 0.08 Crore was taken in FY 2018-19 to purchase a vehicle to convey technical and managerial staff from home to plant.

**Table 20: Interest on Loan as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2018-19	
	MYT Order	Petition
Opening Debt Balance	181.87	177.33
Net Additions	0.00	0.08
Repayment	15.60	24.06
Closing Debt Balance	166.27	153.35
Average Debt	174.07	165.34
Rate of Interest (%)	12.17%	12.50%
Interest on Debt	21.18	20.66
Finance Charges	-	-
<b>Interest &amp; Finance Charges</b>	<b>21.18</b>	<b>20.66</b>

### Commission's Analysis

5.74 The Commission has calculated the gross normative loan for FY 2018-19 as per JSERC Generation Tariff Regulation, 2015 as quoted below.

*“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 31<sup>st</sup> 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”.

- 5.75 The Commission observed that the Petitioner has claimed the interest and finance charges on loan for FY 2018-19 including penal charges of 2% for the month of August 2018 and September 2018 for Bank of Baroda as submitted in the petition. The Commission directed the Petitioner to submit the computation of actual interest estimated excluding penal interest charges. The Petitioner in its reply dated March 23, 2019 said that there was a typographical error and penal charge is excluded while calculation of interest on loan and finance charges for FY 2018-19.
- 5.76 The approved depreciation has been considered as repayment in line with the methodology specified in the JSERC Generation Tariff Regulations, 2015 to arrive at the closing balance of normative debt component.
- 5.77 The Commission is of the view that the capital expenditure accrued by the Petitioner after COD is not found satisfactory under any provision of the JSERC Generation Tariff Regulations, 2015 and is disallowed by the Commission.
- 5.78 The Commission has considered the weighted average rate of interest calculated based on the actual loan portfolio as per submission made by the Petitioner.

**Table 21: Interest on Loan as approved by the Commission (Rs. Crore)**

Particulars	FY 2018-19		
	MYT Order	Petition	Approved
Opening Debt Balance	181.87	177.33	180.02
Net Additions	0.00	0.08	0.00
Repayment	15.60	24.06	17.15
Closing Debt Balance	166.27	153.35	162.87
Average	174.07	165.34	171.45
Rate of Interest (%)	12.17%	12.50%	11.68%
Interest on Debt	21.18	20.66	20.03
Finance Charges	-	-	0.00
<b>Interest &amp; Finance Charges</b>	<b>21.18</b>	<b>20.66</b>	<b>20.03</b>

### *Interest on Working Capital (IoWC)*

#### *Petitioner's Submission*

- 5.79 The Petitioner submits that the Jharkhand Bijli Vitran Nigam Limited (JBVNL) has failed to pay their dues in time to the Petitioner inspite of Orders from the Commission (Case No. 26 of 2014), the APTEL (I.A. Nos. 710, 708 & 709 of 2016 dated July 4, 2014) and



the Supreme Court of India (M.A. No. 1528 of 2017 in C.A. No. 11105 of 2017 dated March 12, 2018).

- 5.80 The interest on working capital (IoWC) as claimed by the Petitioner for FY 2018-19 is shown below.

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

Particulars	FY 2018-19	
	MYT Order	Petition
Coal Cost for 2 Months	13.62	13.79
Cost of Secondary Fuel Oil for 2 Months	0.36	0.49
O&M Expenses for 1 month	1.60	1.84
Maintenance Spares (20% of O&M)	3.84	4.41
Receivables for 2 months	27.81	27.56
Total Working Capital	47.24	48.09
Rate of Interest	12.80%	12.20%
<b>Interest on Working Capital</b>	<b>6.05</b>	<b>5.87</b>

### Commission's Analysis

- 5.81 The Commission has computed the Interest on Working Capital (IoWC) 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 1<sup>st</sup>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.”

5.82 Accordingly, the Commission has calculated the interest on working capital on the rates as per the JSERC Generation Tariff Regulations, 2015. The detailed calculation made by the Commission is shown in the tables below.

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

Particulars	FY 2018-19		
	MYT Order	Petition	Approved
Coal Cost for 2 Months	13.62	13.79	14.45
Cost of Secondary Fuel Oil for 2 Months	0.36	0.49	0.56
O&M Expenses for 1 month	1.60	1.84	1.60
Maintenance Spares (20% of O&M)	3.84	4.41	3.84
Receivables for 2 months	27.81	27.56	25.70
Total Working Capital	47.24	48.09	46.15
Rate of Interest	12.80%	12.20%	12.20%
<b>Interest on Working Capital</b>	<b>6.05</b>	<b>5.87</b>	<b>5.63</b>





## Return on Equity

### Petitioner's Submission

5.83 The Petitioner has claimed the Return on Equity (ROE) at 15.5% in accordance with the JSERC Generation Tariff Regulations, 2015 with no infusion of equity during the year. The Petitioner has further submitted that income tax will be claimed on actuals separately at the time of true-up and requested the Commission to approve the same. Hence, the Return on Equity (RoE) as submitted by the Petitioner is shown below.

**Table 24: RoE as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2018-19	
	MYT Order	Petition
Opening Equity	101.90	101.90
Addition during the Year	-	-
Closing Equity	101.90	101.90
Average Equity	101.90	101.90
Rate of ROE	15.50%	15.50%
Applicable MAT/Tax Rate	20.39%	-
Gross Rate of Equity	19.47%	-
<b>Return on Equity (ROE)*</b>	<b>19.84</b>	<b>15.79</b>

\*Petitioner has not claimed the income tax and will submit at the time of True-up based on the actuals

### Commission's Analysis

5.84 The Commission has calculated the gross normative equity for FY 2018-19 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”.*

5.85 The Commission has approved the proposal of the Petitioner of claiming the income tax at the time of true-up based on the actuals.

5.86 In accordance with Clause 7.16, Clause 7.17 and Clause 7.18 of the JSERC Generation Tariff Regulations, 2015, the Commission has approved the rate of return on equity as 15.50% as shown below.

**Table 25: RoE as approved by the Commission (Rs. Crore)**

Particulars	FY 2018-19		
	MYT Order	Petition	Approved
Opening Equity	101.90	101.90	90.31
Addition during the Year	-	-	0.00
Closing Equity	101.90	101.90	90.31
Average Equity	101.90	101.90	90.31
Rate of ROE	15.50%	15.50%	15.50%
Applicable MAT/Tax Rate	20.39%	-	-
Gross Rate of Equity	19.47%	-	-
<b>Return on Equity (ROE)</b>	<b>19.84</b>	<b>15.79*</b>	<b>14.00</b>

*\*Petitioner has not claimed the tax and will submit at the time of True-up based on the actuals*



## Annual Fixed Charge

### Petitioner's Submission

5.87 The summary of Annual Fixed Charge (AFC) as submitted by the Petitioner for FY 2018-19 is shown below.

**Table 26: Annual Fixed Charge as submitted by the Petitioner (Rs. Crore)**

Particulars	FY 2018-19	
	MYT Order	Petition
O&M Expenses	19.22	22.04
Depreciation	15.60	15.35*
Interest on Loan	21.18	20.66
Return on Equity	19.84	15.79
Interest on Working Capital	6.05	5.87
<b>Annual Fixed Cost</b>	<b>81.88</b>	<b>79.71*</b>

\*In reply to 1<sup>st</sup> Discrepancy Note raised by the Commission

### Commission's Analysis

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

- Return on Equity;
- Interest and Financing Charges on Loan Capital;
- Depreciation;
- Operation and Maintenance Expenses;
- Interest Charges on Working Capital; and
- Special allowance in lieu of R&M or separate compensation allowance, wherever applicable;

5.89 The Commission observes that the Petitioner has submitted the technical commercial review report with the true-up petition for FY 2016-17 and FY 2017-18 stating that the asset worth of Rs. 8.57 Crore associated with Unit-2 is accounted for in the hard cost of Unit-1. Hence, the Commission vide discrepancy letter dated March 12, 2019 directed the Petitioner to revise the AFC claimed based on the reduced Capital Cost of Unit-1. The Petitioner in its reply vide letter dated March 23, 2019 revised the AFC after deducting the common cost of Unit-2.

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



Table 27: Annual Fixed Charge as approved by the Commission (Rs. Crore)

Particulars	FY 2018-19		
	MYT Order	Petition	Approved
O&M Expenses	19.22	22.04	19.22
Depreciation	15.60	15.35*	17.15
Interest on Loan	21.18	20.66	20.03
Return on Equity	19.84	15.79	14.00
Interest on Working Capital	6.05	5.87	5.63
<b>Annual Fixed Cost</b>	<b>81.88</b>	<b>79.71*</b>	<b>76.02</b>

\*In reply to 1<sup>st</sup> Discrepancy Note raised by the Commission

## Recoverable Capacity Charges

### Petitioner's Submission

- 5.91 The Petitioner has submitted that the recovery of fixed charges is calculated as per Clause 8.10, Clause 8.11 and Clause 8.12 of the JSERC Generation Tariff Regulations, 2015.
- 5.92 The Petitioner has proposed lower plant availability factor for FY 2018-19 than the normative value as approved by the Commission. However, the Petitioner has claimed recovery of capacity charge on normative plant availability factor and request the Commission to approve as discussed in the table below.

Table 28: Capacity Charges recoverable as submitted by the Petitioner (Rs. Crore)

Particulars	FY 2018-19	
	MYT Order	Petition
Fixed Cost	81.88	79.71*
Plant Availability Factor	82.50%	74.58%
<b>Fixed Cost after PAF adjustment</b>	<b>81.88</b>	<b>79.71*</b>

\*In reply to 1<sup>st</sup> Discrepancy Note raised by the Commission

### Commission's Analysis

- 5.93 The provisions laid out in the JSERC Generation Tariff Regulations, 2015 for approval of recovery of fixed charges are as under:

*“8.10 The fixed cost of a thermal generating station shall be computed on annual basis, based on norms specified under these Regulations, and recovered on monthly basis under capacity charge. The total capacity charge payable for a generating station shall be shared by its Beneficiaries as per their respective percentage share/ allocation in the capacity of the generating station.*

*8.11 Full Capacity Charges shall be recoverable at Normative Annual Plant Availability Factor (NAPAF) specified in clause 8.4 and 8.6 of these Regulations.*



*Recovery of Capacity Charges below the level of Normative Annual Plant Availability Factor (NAPAF) will be on a pro-rata basis. At zero availability, no Capacity Charges shall be payable.*

8.12 *The capacity charge payable to a thermal generating station for a calendar month shall be calculated in accordance with the following formulae:*

$$CC1 = (AFC/12) ( PAF1 / NAPAF ) \text{ subject to ceiling of } (AFC/12)$$

$$CC2 = ((AFC/6) ( PAF2 / NAPAF ) \text{ subject to ceiling of } (AFC/6)) - CC1$$

$$CC3 = ((AFC/4) ( PAF3 / NAPAF ) \text{ subject to ceiling of } (AFC/4)) - (CC1+CC2)$$

$$CC4 = ((AFC/3) ( PAF4 / NAPAF ) \text{ subject to ceiling of } (AFC/3)) - (CC1+CC2+CC3)$$

$$CC5 = ((AFC \times 5/12) ( PAF5 / NAPAF ) \text{ subject to ceiling of } (AFC \times 5/12)) - (CC1+CC2 +CC3 +CC4)$$

$$CC6 = ((AFC/2) ( PAF6 / NAPAF ) \text{ subject to ceiling of } (AFC/2)) - (CC1+CC2+CC3+CC4 + CC5)$$

$$CC7 = ((AFC \times 7/12) ( PAF7 / NAPAF ) \text{ subject to ceiling of } (AFC \times 7/12)) - (CC1+CC2 +CC3 +CC4 + CC5 + CC6)$$

$$CC8 = ((AFC \times 2/3) ( PAF8 / NAPAF ) \text{ subject to ceiling of } (AFC \times 2/3)) - (CC1+CC2 +CC3 +CC4 + CC5 + CC6 + CC7)$$

.....

8.15 *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)."*

5.94 The Commission vide letter dated March 12, 2019 directed the Petitioner to submit the impact of lower plant availability on Annual Fixed Cost (AFC) recoverable for FY 2018-19. However, the Petitioner has not shown any impact on AFC due to lower plant availability as compared to the approved value.

5.95 The Commission scrutinises the petition and reply submitted by the Petitioner and approves the recoverable fixed cost for FY 2018-19 as shown below.



**Table 29: Capacity Charges after PAF adjustment as approved by the Commission (Rs. Crore)**

Particulars	FY 2018-19		
	MYT Order	Petition	Approved
Fixed Cost	81.88	79.71*	76.02
Plant Availability Factor	82.5%	75.48%	75.48%
<b>Fixed Cost after PAF adjustment</b>	<b>81.88</b>	<b>79.71*</b>	<b>67.51</b>

\*In reply to 1<sup>st</sup> Discrepancy Note raised by the Commission

## Recovery Mechanism

### Commission's Analysis

5.96 The Government of Jharkhand and Inland Power Limited had executed the MoU to set up 126MW (+/- 20MW) power project in the State of Jharkhand. The relevant clause relate to sale of power is reproduced below:

#### *“10.0 Sale of Power*

*10.1 The Government of Jharkhand or distribution licensees authorized by it will have the first right of claim on purchase up to 25% of power delivered to the system by the proposed power plant under terms of a Power Purchase Agreement to be mutually agreed on the basis of existing laws and regulations in force and the tariff for such power purchase will be determined by the appropriate Regulatory Commission.*

*10.2 Out of 25% under the first right of refusal of the State, the rate of 13% share will be as approved by JSERC and 12% share will be on variable cost by M/s. Inland Power Limited.”*

5.97 In terms of the above, IPL will supply 12% of power at variable cost and rest 13% at the tariff approved by JSERC.

5.98 Subsequently to above, IPL had signed a PPA for 35MW with Jharkhand State Electricity Board (JSEB) on February 23, 2012 with tariff as mentioned below:

*“The generation Tariff of Seller which is payable by the Buyer shall be as determined by Jharkhand State Electricity Regulatory Commission (JSERC). Out of 25% of 63MW i.e. 15.75MW, Board will purchase 12% of 63MW i.e. 7.56MW at variable cost only and balance at the tariff determined by Hon'ble JSERC.*

#### *“8.8 Tariff at Delivery Point*

*8.8.1 Subject to the provisions of this Agreement, Seller shall supply the Contracted Capacity and the Energy Output at the delivery Point on scheduled basis and Buyer shall*



pay to Seller for the Scheduled Energy as per joint reading done by both Parties. Tariff for such sale of Energy Output by Seller to Buyer at the Delivery Point shall be determined by JSERC”

#### 11.14 Approval of the Agreement

This power purchase agreement is subject to approval of JSERC, with or without modification”

- 5.99 Later, on April 22, 2013, Supplementary Agreement was executed between IPL and JSEB for the remaining Capacity of 28WM from Unit-1. The supplementary PPA specified as follows:

“ ..... WHEREAS the Buyer” Jharkhand State Electricity Board” and the Seller “Inland Power Ltd” are mutually agreed for purchase and sale of entire quantity of power to be generated from the 1<sup>st</sup> Unit of 63MW inclusive of quantity mentioned in earlier Principle PPA.

WHEREAS parties are mutually agreed that all the terms and condition will remain the same as on the Principle PPA.”

- 5.100 The Commission in its Order dated May 28, 2019 had approved the PPA as follows:

“25. Hence, it derives from the above observations that the tariff applicable for the supplementary PPA, which is for entire quantity of power to be generated from the 1<sup>st</sup> unit of 63 MW will be same as of the levelised tariff of the Principal PPA i.e. weighted average of 12% power procured at variable cost only and 13% power procured at the tariff approved by the JSERC.”

- 5.101 Inland Power Limited has filed an Appeal before the Hon’ble APTEL (Appeal no. 209 of 2019), in which the Hon’ble APTEL on July 17, 2019 passed as Order as:

“We stay the operations of paragraph of the impugned order and make it clear that the power generated from Unti-1 of the 63MW will be in terms of principle PPA, i.e. weighted average of 12% power procured at variable cost and 88% of power procured at the tariff approved by the Commission”

- 5.102 The Commission, in view of the Stay by the Hon’ble APTEL, allows recovery of 88% of fixed charges approved by the Commission and entire variable charges corresponding to power supplied to JBVNL, subject to the final Order by the Hon’ble APTEL as shown in the following table:



**Table 30: Annual Revenue Requirement (ARR) as approved by the Commission (Rs. Crore)**

Particulars	UoM	FY 2018-19		
		MYT Order	Petition	Approved
Fixed Cost after PAF adjustment	Cr	81.88	79.71*	67.51
<b>88% of Fixed Cost (Entitlement of IPL)</b>	<b>Cr</b>	<b>-</b>	<b>-</b>	<b>59.41</b>
Energy Cost	Cr	-	85.67	78.18
<b>Energy Charge Rate (ECR)</b>	<b>Rs./kWh</b>	<b>2.09</b>	<b>2.34</b>	<b>2.132</b>

\*In reply to 1<sup>st</sup> Discrepancy Note raised by the Commission





## A 6: DIRECTIVES

### Timely filing of APR Petition and Data adequacy

- 6.1 The Commission directs the Petitioner to submit the petition as per timelines of JSERC Generation tariff Regulations 2015 before the Commission for timely disposal.

### Development of a fuel procurement plan

- 6.2 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.

### Fuel mix

- 6.3 The Commission has observed that due to various reasons, the Petitioner has procured coal from sources other than what had been approved. Such variations lead to a change in the fuel mix and the landed cost. The Petitioner is directed to bring to the notice of the Commission on quarterly basis any such changes and consolidated report during petition filed by the Petitioner.

### Specific Fuel Consumption

- 6.4 The Petitioner is directed to submit monthly details of number of start-ups taken after shutdown. The details should also include monthly quantity of secondary fuel consumed during plant start-up and flame support, if required. The same should be submitted with subsequent APR and True-up Petitions. Further, drastic increase in the price of secondary fuel is observed, the Petitioner is directed to ensure that the price discipline is maintained while procuring secondary fuel. The Petitioner is also required to find other alternative of HSD oil, if feasible for cost optimization.

This Order is signed and issued by the Jharkhand State Electricity Regulatory Commission on December 26, 2019.

**Date: 26.12.2019**

**Place: Ranchi**

Sd/-  
(P. K. Singh)  
MEMBER (Legal)

Sd/-  
(R. N. Singh)  
MEMBER (Engg.)

Sd/-  
(Arbind Prasad)  
CHAIRPERSON



## ANNEXURE

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

Sr. No.	Name	Address/Organization
Venue: Conference Room, JSERC Office, Ranchi		Date & Time: 16.10.2019 & 2:30 PM
1	M.L. Khetan	Inland Power Ltd., Director-Finance & Corporate Affairs
2	S. Banerjee	Inland Power Ltd., Director-Finance & Corporate Affairs
3	Anita Prasad	Jharkhand Bijli Vitran Nigam Limited
4	Ravi Shankar Kumar	Jharkhand Bijli Vitran Nigam Limited
5	T. Biswas	T.B.I.