

**BEFORE THE JHARKHAND ELECTRICITY REGULATORY COMMISSION**

CASE NO. \_\_\_\_\_ of 2020

**IN THE MATTER OF:**

Petition for approval for True up of FY 2019-20 for 1 X 63MW Coal Fired CFBC Thermal Power Project under Section 61 & 62 of the Electricity Act 2003.

AND

**IN THE MATTER OF:**

Inland Power Ltd.

...Petitioner

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&

Jharkhand Urja Vikas Nigam Ltd. (JBVNL), Ranchi is the “Respondent” to the Petition.

**Details of enclosures:**

1. Annexure No. 1 – Annual accounts for FY 2019-20
2. Annexure No. 2 – Data formats as per JSERC Tariff Regulations 2015
3. Annexure No. 3 – Letters from banks highlighting the month wise interest rates and interest certificates for loan payment to various banks for FY2019-20
4. Annexure No. 4 – Details of bank charges paid - for FY 2019-20
5. Annexure No. 5 – Details for assets bought in FY 2019-20
6. Annexure No. 6 – Water charges details for FY 2019-20
7. Annexure No. 7 – SLDC availability certificate for FY 2019-20
8. Annexure No. 8 – Operational parameters for FY 2019-20
9. Annexure No. 9 – Summary of order of other Commission on auxiliary consumption for CFBC plants
10. Annexure No. 10 – Auditor certificates for Primary Fuel purchase and consumed with monthly details along with sample bills for purchase and transportation for FY 2019-20
11. Annexure No. 11 – Auditor certificate for purchase & consumption of secondary fuel and sample bills for secondary fuel oil - for FY 2019-20
12. Annexure No. 12 – Copy of receipts of filling fees paid and Income Tax paid.
13. Annexure No. 13 – Details of invoices raised to JBVNL during FY 2019-20
14. Annexure No. 14 – Source wise monthly primary fuel purchased and actual receipt with Transit loss for FY 2019-20
15. Annexure no. 15 – Ash generation and disposal during FY 2019-20
16. Annexure no. 16 – Quarterly report of Fuel mix FY 2019-20
17. Annexure no. 17 - Acceptance of Notice of Satisfaction of Purchaser's Condition as per FSA
18. Annexure no. 18 - Monthly details of start-ups taken after shutdown

**Facts of the case:**

1. Inland Power Limited (IPL) has set up a 63 MW thermal power plant based on CFBC technology in Gola, District Ramgarh, Jharkhand. The commercial operation date of first unit of 63 MW is 21<sup>st</sup> May 2014.
2. IPL signed a Power Purchase Agreement (hereinafter also referred to as “the PPA”) with Jharkhand State Electricity Board (now Jharkhand Urja Vikash Nigam Limited or “JBVNL”) on February 23, 2012 for supplying 35 MW of 63 MW from Stage 1 of the Project on long term basis. Subsequently, IPL signed a supplementary PPA with JSEB (now JBVNL) on April 22<sup>nd</sup>, 2013 for purchase and sale of entire quantity of power to be generated from Unit 1 of 63MW inclusive of quantity mentioned in earlier Principal PPA. The agreements were signed in line with the MOU with Jharkhand Urja Vikas Nigam Ltd.
3. Since the CoD of IPL’s unit 1 on May 21, 2014, IPL has been filing MYT petitions, petitions for True Up and Annual Performance Review over the subsequent years.
4. In view of the above, IPL in accordance with the provisions of Section 62 of the Electricity Act, 2003 and under the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 is submitting this Petition for FY 2019-20.

**PRAYER TO THE HON'BLE COMMISSION**

The Petitioner respectfully prays that the Hon'ble Commission may:

- Accept the petition for True-up of FY 2019-20
- The Hon`ble Aptel vide its judgment dated 17-07-2019 has put a stay order on the 88% basis used by the JSERC. The petitioner requests the Hon`ble JSERC to consider full 100% basis for the fixed cost recovery in the computations of True Up
- Approve the numbers for the True-up of FY 2019-20 as discussed in this Petition
- Condone any inadvertent omissions/ errors/ rounding off differences/ shortcomings and permit IPL to add/ change/ modify this filing and make further submission as may be at a future date; and
- Pass such further and other orders, as the Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case.

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

Place: Ranchi

Date: 07 January 2021

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On behalf of **Inland Power Limited**

# Table of Contents

<b>PRAYER TO THE HON'BLE COMMISSION .....</b>	<b>IV</b>
<b>TABLE OF CONTENTS .....</b>	<b>V</b>
<b>LIST OF TABLES.....</b>	<b>VII</b>
<b>LIST OF ABBREVIATIONS .....</b>	<b>VIII</b>
<b>1 BACKGROUND.....</b>	<b>1</b>
1.1 Profile of Inland Power limited .....	1
1.2 About the Petition.....	2
1.3 Annual accounts.....	2
<b>2 TRUE-UP OF 2019-20 .....</b>	<b>3</b>
2.1 Regulatory provisions .....	3
<b>3 FIXED COST OF THE PLANT .....</b>	<b>3</b>
3.1 Annual fixed cost for FY 2019-20 .....	3
3.2 Return on Equity (ROE) .....	3
3.3 Interest and Financing charges on Loan Capital .....	4
3.4 Interest on Working Capital .....	6
3.5 Operation and Maintenance Expenses (O&M Expenses) .....	6
3.6 Water charges.....	7
3.7 Total Fixed Cost.....	7
<b>4 PERFORMANCE TARGETS.....</b>	<b>8</b>
4.1 Regulatory provisions .....	8
4.2 Gross Station Heat Rate (SHR) .....	8
4.3 Normative Annual Plant Availability Factor (NAPAF).....	8
4.4 Auxiliary Energy Consumption .....	8
4.5 Secondary fuel oil Consumption .....	9
<b>5 ENERGY CHARGES .....</b>	<b>9</b>
5.1 Fuel Price and Calorific Value.....	9
5.2 Primary fuel cost .....	10
5.3 Secondary fuel oil cost .....	11
5.4 Computation of Energy Charge.....	11
<b>6 OTHER EXPENSES .....</b>	<b>12</b>
6.1 Application Fee and Publication Expenses.....	12
6.2 Actual Tax paid.....	12
6.3 Total Other expenses .....	13
<b>7 SUMMARY OF SUBMISSIONS FOR TRUE-UP OF FY 2019-20.....</b>	<b>14</b>

7.2	Annual Fixed Cost.....	14
7.3	Energy Charges.....	14
7.4	Other Expenses .....	15
7.5	Net Revenue from Sale of Fly Ash Bricks .....	15
7.6	Net Annual Revenue Requirement .....	15
7.7	Adjustment of Deficit Amount .....	16
<b>8</b>	<b>COMPLIANCE OF DIRECTIVES .....</b>	<b>17</b>
8.1	Directives as per Hon'ble Commission Order in Case 4 of 2018.....	17
<b>9</b>	<b>PRAYERS .....</b>	<b>19</b>
9.1	IPL has the following prayers before JSERC .....	19
	<b>Annexures.....</b>	<b>20</b>

## List of Tables

Table 1 : Project details.....	1
Table 2 : Computation of Return on Equity.....	4
Table 3: Computation of Interest on long term Loan in Rs. Cr .....	4
Table 4: Computation of Depreciation .....	5
Table 4: Computation of Depreciation due to Additional Capitalization.....	5
Table 5: Actual working capital.....	6
Table 6: O&M expenses .....	6
Table 7 : Computation of Fixed cost .....	7
Table 8: Gross Station heat rate .....	8
Table 9: Normative Annual Plant Availability Factor .....	8
Table 10: Auxiliary energy consumption .....	9
Table 11 : Secondary fuel oil Consumption .....	9
Table 12: Approved and actual fuel details.....	10
Table 13: Computation of total Variable Charge .....	11
Table 14: Computation of Secondary fuel oil cost .....	11
Table 15: Computation of Energy Charge.....	12
Table 16: Actual tax paid for FY 2019-20.....	12
Table 17 : Other expenses.....	13
Table 18 : Computation of Fixed cost .....	14
Table 19: Computation of Variable Charge .....	14
Table 20 : Other expenses.....	15
Table 21 : Net Revenue from Sale of Fly Ash Bricks.....	15
Table 22 : Net Annual Revenue Requirement.....	15
Table 23 : Adjustment of Deficit amount .....	16

## List of Abbreviations

Abbreviation	Definition
<b>A&amp;G</b>	Administrative and General
<b>ARR</b>	Aggregate Revenue Requirement
<b>COD</b>	Commercial Operation Date
<b>CFBC</b>	Circulating Fluidized Bed Combustion
<b>FY</b>	Financial Year
<b>GCV</b>	Gross Calorific Value
<b>GFA</b>	Gross Fixed Assets
<b>GoI</b>	Government of India
<b>JSERC</b>	Jharkhand State Electricity Regulatory Commission
<b>kCal</b>	Kilocalorie
<b>Kg</b>	Kilogram
<b>kWh</b>	Kilowatt-hour
<b>MAT</b>	Minimum Alternative Tax
<b>ml</b>	Milliliter
<b>MT</b>	Million Tonnes
<b>MUs</b>	Million Units
<b>MW</b>	Megawatt
<b>NAPAF</b>	Normative Annual Plant Availability Factor
<b>O&amp;M</b>	Operations and Maintenance
<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>SLM</b>	Straight Line Method



# 1 Background

## 1.1 Profile of Inland Power limited

1.1.1 Inland Power Limited (“IPL”) is promoted by the Inland Group which was founded in 1970s. IPL had been originally incorporated on 22<sup>nd</sup> June, 1993 as a Private Limited Company and was subsequently converted to a Public Limited Company on 3<sup>rd</sup> April, 2008 as Inland Power Ltd.

1.1.2 IPL has set up one unit of the project of 2x63 MW thermal power plant based on CFBC technology at Inland Nagar near Gola, District Ramgarh, Jharkhand as an Independent Power Plant (IPP). Stage one has been commissioned and its operational from 21<sup>st</sup> May 2014.

1.1.3 The key details of the power plant are provided in table below:

**Table 1 : Project details**

SN	Parameter	Details
1	Name of power station	Inland Coal fired CFBC Thermal Power Plant
2	Project Capacity	1 x 63 MW
3	Location	Inland Nagar near Gola, District Ramgarh, Jharkhand
4	Nearest Railway site	Gola, 5 km from the project site
5	Nearby highway	Ramgarh Bypass, NH – 23 at a distance of 1 km.
6	Financial closure of the Project	12 <sup>th</sup> Aug 2011
7	Fuel	Coal, Coal rejects & Dolochar
8	Technology	Circulating Fluidized Bed Combustion (CFBC) Technology
9	Fuel supplier	CCL, Tata Steel & Various sources
10	Substation Connectivity	132 kV level, JBVNL sub-station at Sikidiri
11	Water	Damodar Valley Corporation for drawing water of total quantity of 2.71 MGD
12	Commissioning Date	21 <sup>st</sup> May 2014
13	JSERC Tariff order for provisional approval of tariff	27 <sup>th</sup> May 2014
14	Capital cost approval, True-up FY 2014-15 & MYT order for FY 2016-21	16 <sup>th</sup> May 2017
15	Order for True-up of FY 2015-16	19 <sup>th</sup> March 2018
16	Order for True-up of FY 2016-17 and FY 2017-18	01 <sup>st</sup> October 2019
17	Order for True up pf FY 2018-19	22 <sup>nd</sup> September 2020

1.1.1A Power Purchase Agreement (PPA) has been signed between IPL and JSEB (now JBVNL) on 23-Feb-2012 and further a supplementary to the PPA was signed on

22<sup>nd</sup> April 2013 whereby IPL will sell the entire capacity of 63 MW from 1<sup>st</sup> unit to JBVNL. Out of 63 MW JBVNL will purchase 12% of total power generation at variable cost only and the balance 88% at the tariff determined by JSERC.

## **1.2 About the Petition**

- 1.2.1 The Hon'ble Commission has provided vide notification dated 10<sup>th</sup> November 2015, JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 or "JSERC Regulations, 2015". The Regulations are applicable to the projects which are commissioned during the control period starting FY 2016-17.
- 1.2.2 The Petitioner is seeking various approvals for its 1 x 63MW CFBC thermal power plant. The approvals sought by the Petitioner are True-up for the FY 2019-20.
- 1.2.3 Pursuant to the enactment of the Electricity Act, 2003 (EA 2003), as per Section 64 (1) of Act, a generating company intending to sell power to a Distribution Licensee is required to file an application for determination of tariff to the Appropriate Commission. As IPL is selling 100% power to the JBVNL, the Appropriate Commission in this case is the Hon'ble Jharkhand State Electricity Regulatory Commission ("JSERC" or "Commission").

## **1.3 Annual accounts**

- 1.3.1 The audited Annual accounts of IPL for FY 2019-20 are attached as Annexure 1 as required under regulation 12.8 of the JSERC Tariff Regulations, 2015

## 2 True-up of 2019-20

### 2.1 Regulatory provisions

- 2.1.1 The Hon'ble Commission in its regulation has stated the following on true-up of various costs under the regulations in Section, 6.14 & 6.15 which have been the basis and principles adopted by IPL for the submission of this True up petition.
- 2.1.2 The Hon'ble Commission in its Regulations, 2015 has stated the following on review of various costs under the regulations in sections 14.4 and 14.5 & 15.1, which have been duly considered by IPL for this submission.

## 3 Fixed Cost of the Plant

### 3.1 Annual fixed cost for FY 2019-20

- 3.1.1 The fixed cost of the power plant has been approved by JSERC via Case No. 06 of 2016 dated 16<sup>th</sup> May 2017.
- 3.1.2 For the computation of the fixed components, the Petitioner has considered regulation 8.2 of the JSERC Tariff regulations. The following components of fixed cost have been considered for True-up of the tariff for the power plant and have been set out in the following sections of this petition:
  - (a) Return on Equity
  - (b) Interest on Long Term Loan
  - (c) Depreciation
  - (d) Interest on Working Capital
  - (e) Operation and Maintenance Expenses

### 3.2 Return on Equity (ROE)

- 3.2.1 The Hon'ble Commission in its regulations 2015 has considered the pre-tax return on equity at 15.5% of equity capital.
- 3.2.2 The Petitioner has determined the Return on Equity (RoE) at a rate of 15.5% in accordance with the JSERC Regulations, 2015 on the equity base of Rs. 99.58 Cr after reduction of equity component of Rs. 2.32 Cr corresponding to common cost of Unit -2 which had been priorly approved by Hon'ble JSERC vide True Up Order for FY17-18 dated 1<sup>st</sup> October 2019. It is submitted that the actual tax paid is being claimed separately.

**Table 2 : Computation of Return on Equity**

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
Opening Equity	Rs Cr.	101.90	99.58
Addition	Rs Cr.	0	0.00
Closing Equity	Rs Cr.	101.90	99.58
Rate of Return on Equity	%	15.50%	15.50%
Applicable MAT Rate	%	20.39%	-
Net ROE rate	%	19.47%	15.50%
Return on Equity	Rs Cr.	<b>19.84</b>	<b>15.43</b>

### 3.3 Interest and Financing charges on Loan Capital

3.3.1 As per Regulation 6.14 of JSERC Tariff Regulations, 2015, the Commission will undertake true-up of various parameters including working capital.

3.3.2 In view of the above, the Petitioner has computed the Interest on long term Loan in line with the actual interest amount paid during FY 2019-20. The Petitioner has considered actual loan portfolio and the repayment shown is considered equal to the actual repayment by the Petitioner in FY 2019-20. The source wise loan details are given in Form F8 as part of the data formats attached as Annexure 2. The table below summarizes the interest on loan for FY 2019-20.

**Table 3: Computation of Interest on long term Loan in Rs. Cr**

Particulars	FY 2019-20 Approved	FY 2019-20 Actual
Opening Balance for long term Loans	166.27	148.74
Additions during the Year	0	0.00
Repayments during the Year	15.6	29.06
Closing Balance for long term Loans	150.67	119.68
Rate of interest	12.16%	12.10%
Interest on Loan	19.28	15.87
Finance / Bank Charges	-	0.37
<b>Total interest on loan and finance charges</b>	<b>19.28</b>	<b>16.24</b>

3.3.3 The following details for bank charges and bank interest rates are attached

- Annexure 3 – Letters from banks highlighting the month wise interest rates and interest certificates for loan payments for FY2019-20
- Annexure 4 – Details of bank charges paid for FY2019-20

## Depreciation

- 3.3.4 The Hon'ble Commission in its Regulations, 2015 has considered following principals for determination of depreciation in sections 7.28, 7.31& 7.32
- 3.3.5 The depreciation has been computed as per the depreciation rates provided in the Appendix-I of the JSERC Tariff Regulations, 2015. The formats attached with the petition provide the details of calculation of depreciation based on the applicable rates and is attached as Annexure 2 – Data formats as per JSERC Tariff Regulations 2015.
- 3.3.6 The Opening & Closing Gross Block of Assets and the depreciation for FY2019-20 has been considered based on the Closing Block of Assets and depreciation for FY2018-19 as approved by the Hon'ble Commission vide its order dated 22<sup>nd</sup> September 2020. The depreciation amount computed is provided in the table below:

**Table 4: Computation of Depreciation**

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
Opening Gross block	Rs. Cr	341.24	333.61
Additional Capitalization	Rs. Cr	-	0.70
Closing Gross block	Rs. Cr	341.24	334.31
Deprecation due to Additional Capitalization	Rs. Cr	-	0.03
<b>Total Depreciation</b>	<b>Rs. Cr</b>	<b>15.60</b>	<b>17.20</b>

**Table 5: Computation of Depreciation due to Additional Capitalization**

Addition in Gross Block	Rs. Crores	Depreciation Rate as per MYT Regulations	Depreciation on Addl. Capex (Rs. Crores)
Plant & Machinery	0.40	5.28%	0.02
Furniture & Fixtures	0.04	6.33%	0.00
Building	0.14	3.34%	0.00
Office Equipment	0.04	6.33%	0.00
Computer & Peripheral Device	0.00	15.00%	0.00
Electrical Equipment	0.07	5.28%	0.00
<b>Total</b>	<b>0.70</b>		<b>0.03</b>

- 3.3.1 The Petitioner submits that it has also purchased various assets for Rs. 70 lakhs in FY 2019-20 which were necessary for efficient and successful operation of the generating station. The purchases of assets were done from internal funds.

- 3.3.2 The Petitioner submits out of the Rs. 70 Lakh of various assets purchased over the period. These assets were purchased for the efficient operation of the plant.
- 3.3.3 The details of the assets purchased are attached as Annexure 5.
- 3.3.4 The additional capitalization was done as per Regulation 7.6 (iv) of the JSERC regulations 2015, the same is reproduced below for ready reference:

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

.....

*(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;”*

- 3.3.5 The Petitioner prays to the Hon’ble Commission to allow the depreciation and the additional capitalization.

### 3.4 Interest on Working Capital

- 3.4.1 As per Regulation 6.14 of Tariff Regulations, 2015, the Commission will undertake true-up of various parameters including working capital.
- 3.4.2 In view of the above, the Petitioner has claimed actual interest on working capital as shown in the table below. The Interest rate has been considered as per SBI PLR rate as on 1<sup>st</sup> April 2019. The details of the interest on working capital are also shown in Form F8 as part of the formats attached as Annexure 2.

Table 6: Actual working capital

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
Interest on Working Capital	Rs. Cr.	6.07	2.82

### 3.5 Operation and Maintenance Expenses (O&M Expenses)

- 3.5.1 The Petitioner submits that the actual O&M expenses have varied from the number approved by the Hon’ble Commission. This has been because of fuel quality variances due to GCV and ash content, compliances with statutory norms.
- 3.5.2 The approved and actual O&M expenses is provided in the table below:

Table 7: O&M expenses

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
Normative O&M expenses	Rs. Cr.	20.43	29.39
<b>Total Expenses</b>	<b>Rs. Cr.</b>	<b>20.43</b>	<b>29.39</b>

### 3.6 Water charges

- 3.6.1 IPL submits that as per Regulation 7.46 of the Tariff Regulations, 2015, Water charges are to be allowed separately for thermal power plants.
- 3.6.2 The Water charges paid by IPL to the concerned state authorities for use of water in the power plant are Rs 1.46 crore for FY 2019-20. Water related charges were not considered by JSERC while approving the normative O&M expenses for FY 2018-19. The details for the water charges are attached as Annexure 6 for FY 2019-20.
- 3.6.3 The Petitioner prays to the Hon'ble Commission to approve Water charges of Rs. 1.46 Crore for FY 2019-20 in line with the JSERC tariff regulations 2015

### 3.7 Total Fixed Cost

- 3.7.1 The recovery of capacity charges is to be done as per regulation 8.10 to 8.11 of the JSERC regulations, 2015.
- 3.7.2 The Petitioner has considered availability for 12 months for FY 2019-20. The PAF achieved in 12 months for FY 2019-20 was 80.54%. The SLDC plant availability certificate for FY 2019-20 is attached as Annexure 7.
- 3.7.3 The Petitioner has claimed the fixed cost considering the actual Plant Availability achieved during FY2019-20.
- 3.7.4 Based on the above discussion, the Hon'ble Commission is requested to approve the total fixed charges FY 2019-20 as set out in the table below:

**Table 8 : Computation of Fixed cost**

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
Depreciation	Rs Crore	15.60	17.20
Interest on Loan	Rs Crore	19.28	16.24
Return on Equity	Rs Crore	19.84	15.43
Interest on Working Capital	Rs Crore	6.07	2.82
O&M Expenses	Rs Crore	20.43	29.39
Water charges	Rs Crore	0.00	1.46
<b>Fixed Cost</b>	<b>Rs Crore</b>	<b>81.22</b>	<b>82.55</b>
Fixed Cost considering PAF achieved	Rs Crore	<b>81.22</b>	<b>80.59</b>

## 4 Performance targets

### 4.1 Regulatory provisions

4.1.1 The Hon'ble Commission had set performance targets for controllable parameters under Tariff Regulations 2015 considering sections 6.11, 6.12 & 6.13.

4.1.1 The Month wise data of all operational parameters for FY 2019-20 is attached as Annexure 8. The actual performance on these controllable parameters is discussed below:

### 4.2 Gross Station Heat Rate (SHR)

4.2.1 The Hon'ble Commission had set a SHR target of 2902 kCal/kWh for 2019-20 as per its order in Case No. 06 and 11 of 2016 dated 16<sup>th</sup> May 2017. However, though SHR is a controllable parameter as per regulation 6.11 of the JSERC Tariff Regulations 2015, actual values of SHR as achieved by the Petitioner have been considered for FY 2019-20. The Petitioner prays to the Hon'ble commission to approve the actual SHR for FY 2019-20

4.2.2 The same is shown in the table below

Table 9: Gross Station heat rate

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
Gross Station heat rate	kCal/kWh	2902	3113

### 4.3 Normative Annual Plant Availability Factor (NAPAF)

4.3.1 The Hon'ble Commission had set a NAPAF target of 82.5% for FY 2019-20 as per its order in Case No. 06 and 11 of 2016 dated 16<sup>th</sup> May 2017. The Petitioner has considered availability for 12 months for FY 2019-20. The approved and actual numbers are shown in the table below.

Table 10: Normative Annual Plant Availability Factor

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
Normative Annual Plant Availability Factor	%	82.50%	80.54%

### 4.4 Auxiliary Energy Consumption

4.4.1 The Hon'ble Commission had set an Auxiliary consumption target of 10.5% for FY 2019-20 as per its order in Case No. 06 and 11 of 2016 dated 16<sup>th</sup> May 2017. The Auxiliary consumption is 10.86 % for FY 2019-20 is better than previous years on account of better dispatch profile of the power plant and rigorous



monitoring of Balance of Plant equipment's. The approved and actual numbers are shown in the table below.

**Table 11: Auxiliary energy consumption**

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
Auxiliary energy consumption	%	10.50%	10.86%

4.4.2 CEA has in principle recommended higher auxiliary consumption in '**Recommendations on Operation Norms for Thermal Power Stations for Tariff Period beginning 1st April, 2009**'. It is also to be noted that following Auxiliary Consumption has been allowed by various Commissions on CFBC technology,

- i. In case of Raj West Power Limited, RERC has allowed an Auxiliary Consumption of 11.5%
- ii. In case of Gujarat Industries Power Company Ltd, GERC has allowed an Auxiliary Consumption of 12.5% for 3 years and 11.5% from the 4<sup>th</sup> year
- iii. In case of Bajaj Energy Pvt Ltd, UPERC has allowed an Auxiliary Consumption of 11.5% during stabilization and 11% - post stabilization period.

4.4.3 In view of the above, the Petitioner's prays to the Hon'ble commission to approve the actual auxiliary consumption for FY 2019-20.

## 4.5 Secondary fuel oil Consumption

4.5.1 The Hon'ble Commission had set secondary fuel oil consumption target of 1 ml/kWh for FY 2019-20 as per its order in Case No. 06 and 11 of 2016 dated 16<sup>th</sup> May 2017. The normative value has been considered for FY 2019-20. The same is shown in the table below.

**Table 12 : Secondary fuel oil Consumption**

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Normative
Secondary fuel oil consumption	ml/ kWh	1.00	1.00

## 5 Energy Charges

### 5.1 Fuel Price and Calorific Value

5.1.1 As IPL has no fuel linkage, it is procuring fuel from various sources available like:

- E – Auction CIL/ CCL coal
- Coal from the forward auctions
- FSA with CCL under SHAKTI Scheme
- Rejects from Tata Steel

5.1.2 Based on the availability of coal input the blending ratio of Coal and Coal rejects has changed significantly from the approved figures. The transit loss has been considered at a normative value of 0.8% as per Regulation 8.21 of the Tariff Regulations 2015.

**Table 13: Approved and actual fuel details**

Particulars	Unit	FY 2019-20	FY 2019-20
		Approved	Actual
GCV of Coal	Kcal/Kg	4,078.68	3,602.07
GCV of Rejects	Kcal/Kg	1,937.31	2,285.07
GCV of Dolochar	Kcal/Kg	855.39	0
<b>Weighted average GCV of fuel</b>	<b>Kcal/Kg</b>	<b>3,061.19</b>	<b>2,785.61</b>
Coal	%	54.00%	38.01%
Rejects	%	43.00%	61.99%
Dolochar	%	3.00%	0.00%
<b>Fuel mix</b>	<b>%</b>	<b>54:43:03</b>	<b>38:62:00</b>
Price of Coal	Rs./MT	2,830.32	3,030.26
Price of Rejects	Rs./MT	851.02	2,069.16
Price of Dolochar	Rs./MT	543.4	0
<b>Weighted average Price of Primary Fuel</b>	<b>Rs./MT</b>	<b>1,910.61</b>	<b>2,434.43</b>
Transit Loss considered	%	0.80%	0.80%
<b>Weighted average Price of Primary Fuel after Transit Loss</b>	<b>Rs/ MT</b>	<b>1,926.02</b>	<b>2,454.07</b>

5.1.3 The Petitioner submits that as can be seen from the table above, the primary fuel-mix, GCV of the primary fuel-mix and its price have significantly varied in actual than approved by the Commission.

5.1.4 The auditor certificate with following details for primary fuel bought are attached as Annexure 10 – Fuel wise monthly details of -

- Quantity as received,
- Quantity as fired in the boiler
- Gross Calorific Value (GCV)
- Price - separately showing Base cost of coal, Royalty, Taxes and duties, Transport cost, Clean energy cess and transit loss

## 5.2 Primary fuel cost

5.2.1 As per the actual fuel cost discussed in the above paragraphs, the primary fuel costs has been computed for the generating stations as provided in the table below.

**Table 14: Computation of total Variable Charge**

Particulars	Unit	FY 2019-20	FY 2019-20
		Approved	Actual
Capacity	MW	63	63
Plant Load Factor	%	82.5	78.57
Gross units generated	MU	455.30	433.61
Auxiliary consumption	MU	47.81	47.08
Auxiliary consumption	%	10.50	10.86
Net units Sold	MU	407.49	386.53
Weighted average GCV of primary fuel	kCal/Kg.	3,061.19	2,785.61
Weighted average cost of primary fuel after Transit loss	Rs/ MT	1,926.02	2,454.07
<b>Primary Fuel Cost</b>	<b>Rs. Cr</b>	<b>82.85</b>	<b>118.55</b>

5.2.2 The Petitioner requests the Hon'ble Commission to approve the variable charge for FY 2019-20 as submitted above based on the actual numbers.

### 5.3 Secondary fuel oil cost

5.3.1 As per Regulation 8.3 of the JSERC Tariff Regulations 2015, the cost of secondary fuel oil is to be considered as part of Energy charges. The secondary fuel oil cost has been computed considering normative secondary fuel oil consumption of 1.00 ml/kWh. The computation is as provided in the table below:

**Table 15: Computation of Secondary fuel oil cost**

Particulars	Unit	FY 2019-20	FY 2019-20
		Approved	Actual
Gross Units Generated	MUs	455.30	433.61
Secondary fuel Oil Consumption	ml/Kwh	1.00	1.00
GCV of oil	kCal/litre	10000.00	10000.00
Oil consumption	KL	455.30	433.61
Base Price of Oil	Rs / KL	47472.00	67403.30
<b>Cost of secondary fuel oil</b>	<b>Rs Crore</b>	<b>2.16</b>	<b>2.92</b>

5.3.2 The auditor certificate and sample bills for secondary fuel oil bought and consumed are attached as Annexure 11.

### 5.4 Computation of Energy Charge

5.4.1 The Petitioner requests the Hon'ble Commission to approve the total Energy charges for FY 2019-20 as submitted below based on the actual numbers.

**Table 16: Computation of Energy Charge**

Particulars	Unit	FY 2019-20	FY 2019-20
		Approved	Actual
Primary Fuel Cost	Rs. Cr	82.85	118.55
Secondary Fuel Cost	Rs. Cr	2.16	2.92
<b>Total Energy charge</b>	<b>Rs. Cr</b>	<b>85.01</b>	<b>121.47</b>
Net units Sold	MU	407.49	386.53
<b>Total Energy charge per unit</b>	<b>Rs./ kWh</b>	<b>2.09</b>	<b>3.14</b>

## 6 Other Expenses

### 6.1 Application Fee and Publication Expenses

6.1.1 As per Regulation 11.7 of the Tariff Regulations, 2015 the expenses incurred as application fees and publication expenses for approval of tariff, may be allowed to be recovered by IPL directly from JBVNL. The regulation is reproduced below for ready reference.

***“Application fee and the publication expenses***

***11.7 The application filing fee and the expenses incurred on publication of notices in the application for approval of tariff, may in the discretion of the Commission, be allowed to be recovered by the Generating Company directly from the Beneficiaries.”***

6.1.2 The Petitioner has incurred Rs. 24 lakhs as filling fees for filing of tariff determination petition for the period FY 2019-20. The copy of the receipts of Rs. 24 Lakhs is attached as Annexure 12. The Petitioner prays to the Hon’ble Commission to allow Application fee and Publication expenses of Rs. 24 lakhs as incurred by the Petitioner.

### 6.2 Actual Tax paid

6.2.1 The petitioner has not grossed up the RoE with the tax and the Petitioner requests the Hon’ble Commission to allow tax as actually paid by the Petitioner as per Regulation 7.18 of the Tariff Regulations 2015.

**Table 17: Actual tax paid for FY 2019-20**

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
Actual tax paid	Rs. Cr.	-	3.15

## 6.3 Total Other expenses

6.3.1 A snap shot of total Other expenses for True-up of FY 2019-20 is provided below:

**Table 18 : Other expenses**

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
ARR Publication and Fee Expenses	Rs Crore	-	0.24
Tax Paid	Rs Crore	-	3.15
<b>Total Other Expenses</b>	<b>Rs Crore</b>	<b>-</b>	<b>3.39</b>

## 7 Summary of submissions for True-up of FY 2019-20

7.1.1 The following section provides the summary of tariff submitted by the Petitioner for True-up of FY 2019-20.

### 7.2 Annual Fixed Cost

7.2.1 A snap shot of the Annual Fixed cost for the True-up of FY 2019-20 is provided below:

**Table 19 : Computation of Fixed cost**

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
Depreciation	Rs Crore	15.60	17.20
Interest on Loan	Rs Crore	19.28	16.24
Return on Equity	Rs Crore	19.84	15.43
Interest on Working Capital	Rs Crore	6.07	2.82
O&M Expenses	Rs Crore	20.43	29.39
Water charges	Rs Crore	0.00	1.46
<b>Fixed Cost</b>	<b>Rs Crore</b>	<b>81.22</b>	<b>82.55</b>
Fixed Cost considering PAF achieved	Rs Crore	<b>81.22</b>	<b>80.59</b>

### 7.3 Energy Charges

7.3.1 A snap shot of the Energy charges for True-up of FY 2019-20 is provided below:

**Table 20: Computation of Variable Charge**

Particulars	Unit	FY 2019-20	FY 2019-20
		Approved	Actual
Capacity	MW	63	63
Plant Load Factor	%	82.5	78.57
Gross units generated	MU	455.30	433.61
Auxiliary consumption	MU	47.81	47.08
Auxiliary consumption	%	10.50	10.86
Net units Generated	MU	407.49	386.53
Specific Fuel Oil Consumption	ml/kwh	1.00	1.00
Rate of Oil	Rs./KL	47,472	67,403
Weighted average GCV of primary fuel	kCal/Kg.	3,061	2,786
Weighted average cost of primary fuel after Transit loss	Rs/ MT	1,926.02	2,454.07
Primary Fuel Cost	Rs. Cr	82.85	118.55
Secondary Fuel Cost	Rs. Cr	2.16	2.92
<b>Total Energy charges</b>	<b>Rs. Cr</b>	<b>85.01</b>	<b>121.47</b>
<b>Per unit Energy charges</b>	<b>Rs./ kWh</b>	<b>2.09</b>	<b>3.14</b>

7.3.2 The Petitioner requests the Hon'ble Commission to approve the Energy charges for FY 2019-20 as submitted above based on the actual numbers.

## 7.4 Other Expenses

7.4.1 A snap shot of other expenses for True-up of FY 2019-20 is provided below:

**Table 21 : Other expenses**

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
ARR Publication and Fee Expenses	Rs Crore	-	0.24
Tax Paid	Rs Crore	-	3.15
<b>Total Other Expenses</b>	<b>Rs Crore</b>	<b>-</b>	<b>3.39</b>

## 7.5 Net Revenue from Sale of Fly Ash Bricks

7.5.1 The Petitioner requests the Hon'ble Commission to approve the Energy charges for FY 2019-20 as submitted above based on the actual numbers. The Petitioner submits that it has earned Rs. 2.64 Crs in FY2018-19 from Sale of Fly Ash Bricks. The cost of components for Fly Ash Brick during the year was Rs. 1.42 Crs. Thus, the Petitioner requests the Hon'ble Commission to approve the Net Revenue earned from Sale of Fly Ash bricks for FY2018-19 as follows

**Table 22 : Net Revenue from Sale of Fly Ash Bricks**

Particulars	Unit	FY 2019-20 Actual
Revenue from Sale of Fly Ash Bricks	Rs Crore	2.56
Less: Cost of Components for Fly Ash Brick	Rs Crore	1.33
Less: O&M Expenses for Fly Ash Bricks	Rs Crore	0.30
<b>Net Revenue Earned from Sale of Fly Ash Brick</b>	<b>Rs Crore</b>	<b>0.93</b>

## 7.6 Net Annual Revenue Requirement

7.6.1 The Petitioner requests the Hon'ble Commission to approve the tariff for supply of electricity to JBVNL as summarised in the Table below for the true-up of FY2019-20.

**Table 23 : Net Annual Revenue Requirement**

Particulars	Unit	FY 2019-20 Approved	FY 2019-20 Actual
Annual fixed cost	Rs Crore	81.22	80.59
Total Energy Charges	Rs Crore	85.01	121.47
Total Other Expenses	Rs Crore	0	3.39
<b>Net Annual Revenue Requirement</b>	<b>Rs Crore</b>	<b>166.23</b>	<b>205.45</b>

## 7.7 Adjustment of Deficit Amount

- 7.7.1 The Petitioner submits that the tariff already recovered from JBVNL is less than the tariff approved by the Commission vide its order in Case No. 06 and 11 of 2016 dated 16<sup>th</sup> May 2017. In view of the above, the Petitioner is entitled to recover the under-recovered amount from JBVNL as per Regulation 6.17 & 6.18 of the JSERC tariff regulations, 2015.
- 7.7.2 As discussed above, the Petitioner requests the Hon'ble Commission to approve the recovery from JBVNL as per regulation 6.18 of JSERC tariff regulations, 2015. Details of invoices raised to JBVNL during FY 2019-20 are attached as Annexure 13. The under-recovered amount and the calculation as per regulation 6.18 of JSERC tariff regulations, 2015 is shown in the table below:

**Table 24 : Adjustment of Deficit amount**

Particulars	Unit	FY 2019-20 Actual
Annual fixed cost	Rs Crore	80.59
Total Energy Charges	Rs Crore	121.47
Total Other Expenses	Rs Crore	3.39
<b>Net Annual Revenue Requirement</b>	<b>Rs Crore</b>	<b>205.45</b>
Total amount billed by IPL to JBVNL	Rs Crore	191.38
Net Revenue Earned from Sale of Fly Ash Brick	Rs Crore	0.93
Gap for the year	Rs Crore	-13.14
Bank rate for calculating carrying cost	%	12.55%
Carrying cost	Rs Crore	1.65
<b>Total amount to be recovered from JBVNL</b>	<b>Rs Crore</b>	<b>14.79</b>

- 7.7.3 The Bank rate for calculating carrying cost has been considered as per JSERC tariff regulations 2015.
- 7.7.4 The base rate for State Bank of India has been considered as prevailing on 1<sup>st</sup> April 2019 for FY 2019-20.
- 7.7.5 Overall, the Petitioner prays to the Hon'ble Commission to approve the numbers for the True-up of FY 2019-20 as discussed above.



## 8 Compliance of Directives

### 8.1 Directives as per Hon'ble Commission Order in Case 12 of 2019

Sr. No.	Directive	Response
1.	<p><b>Development of a fuel procurement plan</b></p> <p><b>6.1</b> 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. The commission has observed that due to various reasons, the Petitioner had procured coal from sources other than what had been approved. Such variations lead to a change in the fuel mix and the landed cost.</p> <p><b>6.2</b> The Commission further directs the Petitioner to bring to the notice of the Commission any changes in fuel mix on quarterly basis and submit consolidated report along with Business Plan and MYT petition.</p>	<ul style="list-style-type: none"> <li>• Towards a step for strengthening of Fuel procurement and optimisation of the fuel sourcing costs, the Petitioner submits that under the SHAKTI coal procurement scheme of the Govt. of India, IPL was won a bid for supply of coal. The Agreement between CCL and IPL has been signed on 19.01.2019. The Acceptance of Notice of Satisfaction of Purchaser's Condition as per FSA has been attached as Annexure 17.</li> <li>• IPL shall be submitting a fuel procurement plan highlighting the strategy for optimum supply chain costs considering availability and transportation elements as a part of the MYT submission.</li> <li>• The Petitioner has submitted quarterly reports for variation in fuel mix to Commission. A copy of the submissions is enclosed with the petition as Annexure -15</li> </ul>
2.	<p><b>Enhancement of Brick Plant &amp; Ash disposal details</b></p> <p><b>6.3</b> The Commission directs the Petitioner to submit the report detailing the enhanced capacity of the Brick plant and expected revenue in the future along with the next petition. The petitioner is also directed to submit the actual ash generation and its disposal FY 2019-20 along with next petition.</p>	<ul style="list-style-type: none"> <li>• The petitioner submits to the Commission that the final report for the enhancement of the capacity of Brick plant is under process and shall be submitted by the end of December 2020.</li> <li>• IPL also submits that a separate petition shall be submitted by IPL towards approval of the capex of the Brick plant in January 2020.</li> <li>• The petitioner is submitting the details of Ash generation and disposal for</li> </ul>

Sr. No.	Directive	Response
		FY 2019-20. The same has been attached as Annexure 15 of this submission.
3.	<p><b>Specific Fuel consumption</b></p> <p>6.4 The Petitioner is directed to submit monthly details 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.</p>	<ul style="list-style-type: none"> <li>The Petitioner is submitting the details of start-ups taken after shutdown and HSD consumed in FY 2019-20. The same has been attached as Annexure 18 of this submission</li> </ul>
4.	<p><b>Use of LDO as Secondary Fuel</b></p> <p>6.5 The Commission directs the Petitioner to carry out detailed study to accommodate LDO. As secondary fuel and may approach Commission with DPR along with all necessary details of works to be carried out along with cost Benefit analysis and rate reasonability in case any modification is required in the existing infrastructure. Any non-compliance in this regard will lead to curtailment of additional secondary fuel oil cost due to usage of HSD.</p>	<ul style="list-style-type: none"> <li>The petitioner wish to inform that the DPR for use of LDO in place of HSD has been developed and significant progress has been achieved. The Draft Report of the Technical Consultant was reviewed by IPL management. Presently the Technical Consultant is finalizing the DPR outlining capital cost estimates, technical aspects, implementation plan including modalities for O&amp;M and safe operation of the plant with LDO. IPL submits to the Hon'ble Commission that that the finalized and Board Approved DPR shall be submitted to the Commission by the end of December 2020.</li> </ul>

## 9 Prayers

### 9.1 IPL has the following prayers before JSERC

- a) Accept the petition for True-up of FY 2019-20
- b) The Hon`ble Aptel vide its judgment dated 17-07-2019 has put a stay order on the 88% basis used by the JSERC. The petitioner requests the Hon`ble JSERC to consider full 100% basis for the fixed cost recovery in the computations of True Up.
- c) Approve the numbers for the True-up of FY 2019-20 as discussed in this Petition
- d) Condone any inadvertent omissions/ errors/ rounding off differences/ shortcomings and permit IPL to add/ change/ modify this filing and make further submission as may be at a future date; and
- e) Pass such further and other orders, as the Hon`ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case.

# **Annexures**

## Annexure No. 1 – Annual accounts for FY 2019-20

## Annexure No. 2 – Data formats as per JSERC Tariff Regulations 2015

In pen drive

Annexure No. 3 – Letters from banks highlighting the month wise interest rates and interest certificates for loan payment to various banks for FY 2019-20

Annexure No. 4 – Details of bank charges paid - for FY 2019-20



## Annexure No. 5 – Details for assets bought in FY 2019-20

## Annexure No. 6 – Water charges details for FY 2019-20

Annexure No. 7 – SLDC availability certificate for FY 2019-20

## Annexure No. 8 – Operational parameters for FY 2019-20

## Annexure No. 9 – Summary of order of other Commission on auxiliary consumption for CFBC plants

Parameter	RERC	GERC	UPERC
<b>Type</b>	Lignite Based	Lignite Based	Coal Based
<b>Entity</b>	Raj West Power Ltd	Gujarat Industries Power Company Ltd	Bajaj Energy Pvt. Ltd
<b>Capacity per unit</b>	8 x 135 MW	2 x 250 MW	2 x 45 MW
<b>Aux. Consumption Allowed</b>	11.5%	12.5% for 3 years and 11.5% from 4 <sup>th</sup> Year	11.5% during stabilization and 11% post stabilization
<b>Reference</b>	<a href="http://www.erc.rajasthan.gov.in/TariffOrders/">http://www.erc.rajasthan.gov.in/TariffOrders/</a> Reference: Petition No. 464/14	<a href="https://www.gercin.org/wp-content/uploads/document/en_1308219753.pdf">https://www.gercin.org/wp-content/uploads/document/en_1308219753.pdf</a>	<a href="http://uperc.org/App_File/Final-BEPL_TrueupandMYTorder_24th_May_2017_Commission-pdf525201751719PM.pdf">http://uperc.org/App_File/Final-BEPL_TrueupandMYTorder_24th_May_2017_Commission-pdf525201751719PM.pdf</a>

Annexure No. 10 – Auditor certificates for Primary Fuel purchase and consumed with monthly details along with sample bills for purchase and transportation for FY 2019-20

Annexure No. 11 – Auditor certificate for purchase & consumption of secondary fuel and sample bills for secondary fuel oil - for FY 2019-

20

Annexure No. 12 – Copy of receipt of filling fees paid and Income Tax  
paid



Annexure No. 13 – Details of invoices raised to JBVNL during FY 2019-  
20

Annexure No. 14 – Source wise monthly primary fuel purchased and actual receipt with Transit loss for FY 2019-20

Annexure no. 15 – Ash generation and disposal during FY 2019-

Annexure no. 16 – Quarterly report of Fuel mix FY 2019-20

Annexure 17 – Acceptance of Notice of Satisfaction of Purchaser’s  
Condition as per FSA signed between CCL and IPL