

Jharkhand State Electricity Regulatory Commission



Order on
Business Plan and Multi Year Tariff for Control
Period
FY 2021-22 to FY 2025-26
for
Inland Power Limited (IPL)
NOVEMBER 16, 2023



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List of Abbreviations

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



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Before
Jharkhand State Electricity Regulatory Commission, Ranchi

Case (Tariff) No.: 01 of 2022

In the matter of:

Petition for
Business Plan and Multi Year Tariff for Control Period
FY 2021-22 to FY 2025-26

In the matter:

Inland Power Limited (IPL).....**Petitioner**

PRESENT

Hon'ble Justice Amitav Kumar Gupta
Shri Mahendra Prasad
Shri Atul Kumar

Chairperson
Member (Legal)
Member (Technical)

Order dated November 16, 2023

Inland Power Limited (hereinafter referred to as 'IPL' or the 'Petitioner') filed a Petition, dated March 25, 2021, which has been taken up for proceeding by the Commission on September 21, 2022 for Multi Year Tariff for Control Period FY 2021-22 to FY 2025-26 for the generation of electricity in Jharkhand.



Chapter 1: Introduction

Jharkhand State Electricity Regulatory Commission

- 1.1 The Jharkhand State Electricity Regulatory Commission (hereinafter referred to as “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 maybe, 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 JSERC is discharging its functions as prescribed in Section 86 of the Act.
- 1.4 In accordance with the provisions of the said Act, the JSERC discharges the following functions: -
 - a) determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State:
Provided that where open access has been permitted to a category of consumers under Section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers;
 - b) regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the



- generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State;
- c) facilitate intra-state transmission and wheeling of electricity;
 - d) issue licenses to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State;
 - e) promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee;
 - f) adjudicate upon the disputes between the licensees and generating companies; and to refer any dispute for arbitration;
 - g) levy fee for the purposes of this Act;
 - h) specify State Grid Code consistent with the Grid Code specified under Clause (h) of sub-section (1) of Section 79;
 - i) specify or enforce standards with respect to quality, continuity and reliability of service by licensees;
 - j) fix the trading margin in the intra-state trading of electricity, if considered, necessary;
 - k) discharge such other functions as may be assigned to it under this Act.
- 1.5 The Commission advises the State Government 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 ensures transparency while exercising its powers and discharging its functions.
- 1.7 In discharge of its functions, the State Commission is guided by the National Tariff Policy framed and published by Government of India under the provisions of Section 3 of the Act. The objectives of the present 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.

The Petitioner – Inland Power Limited (IPL)

- 1.8 Inland Power Limited 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 (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 on October, 2011. The Petitioner commissioned its 1st 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 (PPA) with Jharkhand State Electricity Board (now Jharkhand Bijli Vitran Nigam Limited or JBVNL) on February 23, 2012 for supplying 35 MW of 63 MW from 1st Unit of the project on long term basis. Subsequently, IPL signed a supplementary PPA with JSEB (now JBVNL) on April 22, 2013 for purchase and sale of the entire quantity of 63 MW power from the 1st Unit of 63 MW inclusive of quantity mentioned in earlier Principal PPA.



The Petitioner's Prayers

- 1.11 The Petitioner in these Petitions have made the following prayers: -
- a) Accept the petition for approval of tariff for the control period of 2021-22 to 2025-26 for power generated from IPL's power generating plant for sale to JBVNL in the State of Jharkhand;
 - b) Petitioner had submitted a prayer for extension of time for filing the Petition vide its letter, the petitioner prays to the Hon'ble Commission to condone the delay in filing the MYT Petition for Multi Year Tariff for FY 2021-22 to 25-26 and accept the filing of the MYT petition for FY 2021-22 to 25-26 under Power of Relaxation under JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 and other inherent powers of the Hon'ble Commission under the Electricity Act, 2003;
 - c) 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 required at a future date; and
 - d) Pass such further orders, as the Hon'ble Commission may deem fit and proper, keeping in view the facts and circumstances of the case;
 - e) To permit IPL to make further submissions, addition and alteration to the instant petition as may be necessary from time to time.

Scope of the Present Order

- 1.12 The Petitioner filed the current Petition for Multi Year Tariff for Control Period FY 2021-22 to FY 2025-26. The Commission in this Order has therefore approved the Business Plan and Multi Year Tariff of 3rd Control Period *i.e.*, FY 2021-22 to FY 2025-26.
- 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) JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020.
- 1.14 Accordingly, the Commission has scrutinized the Petition in detail and hereby issues the Order on Business Plan and Multi Year Tariff for Control Period FY 2021-22 to FY 2025-26.



Chapter 2: Procedural History

Background

- (a) The Commission had approved the provisional tariff for FY 2014-15 to FY 2015-16 in its MYT Order for FY 2014-15 to FY 2015-16 dated May 27, 2014 based on submission of the anticipated date of Commercial Operation Date (COD) of the plant as May 2014.
- (b) 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 Multi Year Tariff for the 2nd Control period from FY 2016-17 to FY 2020-21.
- (c) 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.
- (d) The Petitioner had filed the review Petition on true-up Order for FY 2015-16 which was disposed off by the Commission on May 13, 2019.
- (e) Later, on October 01, 2019, the Commission had 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.
- (f) Subsequently, the Commission also approved the Annual Performance Review for FY 2018-19 vide its Order dated December 26, 2019.
- (g) The Commission had issued the true-up Order for FY 2018-19 on September 22, 2020 based on audited accounts submitted by the Petitioner.
- (h) Later on November 04, 2022, the Commission had issued the Order on True-up for FY 2019-20 & APR for FY 2020-21 based on audited accounts submitted by the Petitioner.
- (i) Further, the Commission issued the Order on True-up for FY 2020-21 on May 22, 2023 based on audited accounts submitted by the Petitioner.
- (j) The Petitioner, in the current Petition, has sought for approval of Business Plan and Multi Year Tariff for Control Period FY 2021-22 to FY 2025-26.

Disclaimer: Relevant information provided herein regarding the Commission, the Petitioner, and the Procedural History have been extracted/ reproduced from the previous Orders of the Commission. This is for information purpose only and does not in any matter reflect opinion or analysis thereon.



Information Gaps in the Petition

- 2.1 As part of tariff determination exercise, several deficiencies/information gaps were observed in the Petitions submitted by the Petitioner. The information gaps were pointed out and communicated to the Petitioner vide letter no. JSERC/Case (Tariff) no.: 1 of 2022/205 dated October 14, 2022 and JSERC/Case (Tariff) no.: 1 of 2022/306 dated December 02, 2022
- 2.2 The Petitioner submitted its response to the aforesaid letter(s) and furnished additional data/information vide letter dated November 12, 2022 and letter dated January 24, 2023.
- 2.3 The Commission has scrutinized the additional data/information submitted by the Petitioner in response to the discrepancies pointed out and has considered the same while passing this Order.
- 2.4 In order to provide adequate opportunity 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 further in order to ensure transparency in the process of tariff determination, the Commission decided to conduct public hearings on April 15, 2023 in the Meeting Hall of Raso Hotel at Ranchi for inviting comments/suggestion/objection.

Inviting Public Comments/ Suggestions

- 2.5 The Commission directed the Petitioner to make available copies of the Petition to the members of general public on request, and also issued a public notice inviting comments/ suggestions on the above said Petition.
- 2.6 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

Sl. No.	Newspaper	Version	Date of Publication
1.	Sanmarg	Hindi	31.12.2022 & 01.01.2023
2.	Ranchi Express	Hindi	31.12.2022 & 01.01.2023
3.	Hindustan Times	English	31.12.2022 & 01.01.2023
4.	Morning India	English	31.12.2022 & 01.01.2023



2.7 Subsequently, the Commission also issued a notice on its website www.jserc.org and in various newspapers for conducting the public hearing on the Petition filed by the Petitioner. The newspapers wherein the notice for public hearing was issued by the Commission are detailed hereunder:

TABLE 2: LIST OF NEWSPAPERS AND DATES OF PUBLICATION OF PUBLIC NOTICE BY THE COMMISSION

Sl. No.	Newspaper	Version	Date of Publication
1.	Prabhat Khabar	Hindi	02.04.2023 & 14.04.2023
2.	Dainik Bhaskar	Hindi	02.04.2023 & 14.04.2023
3.	Times of India	English	02.04.2023 & 14.04.2023
4.	The Hindustan Times	English	02.04.2023 & 14.04.2023

Submission of Comments/ Suggestions and Conduct of Public Hearing

2.8 The public hearing was held on April 15, 2023 in the Meeting Hall of Raso Hotel at Ranchi for inviting comments/suggestion/objection.

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



Chapter 3: Brief Facts of the Petition

Multi Year Tariff for Control Period from FY 2021-22 to FY 2025-26

a) Operational Parameters of Plant

3.1 The summary of operational parameters as submitted by the Petitioner is provided in the table below:

TABLE 3: OPERATIONAL PARAMETERS AS SUBMITTED BY THE PETITIONER

Particulars	Unit	FY 22	FY23	FY24	FY25	FY26
Plant Load Factor	%	82.50%	82.50%	82.50%	82.50%	82.50%
Availability	%	82.50%	82.50%	82.50%	82.50%	82.50%
Gross Generation	MUs	455.30	455.30	455.30	455.30	455.30
Auxiliary Consumption	%	11.15%	11.15%	11.15%	11.15%	11.15%
Auxiliary Consumption	MUs	50.77	50.77	50.77	50.77	50.77
Net Generation	MUs	404.53	404.53	404.53	404.53	404.53
Weighted Average GCV of primary fuel	kCal/kg	2,488.50	2,488.50	2,488.50	2,488.50	2,488.50
Station Heat Rate	kcal/kWh	2,931.25	2,931.25	2,931.25	2,931.25	2,931.25
Calorific value of secondary fuel	kCal/litre	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Primary fuel consumption	Tons	5,34,478.46	5,34,478.46	5,34,478.46	5,34,478.46	5,34,478.46
Secondary oil consumption	kL	455.30	455.30	455.30	455.30	455.30
Primary Fuel Cost	Rs./Ton	1,909.13	1,985.75	2,065.63	2,148.93	2,235.79

b) Capital Expenditure

3.2 The details of Capital Expenditure as submitted by the Petitioner in its original submission have been summarized below:

TABLE 4: CAPEX FOR INSTALLATION OF LDO SYSTEM AS SUBMITTED BY THE PETITIONER (RS. CR.)

Particulars	Unit	FY 22	FY23	FY24	FY25	FY26
Gross Block Opening	Rs. Cr.	-	8.21	8.21	8.21	8.21
Addition during the year	Rs. Cr.	8.21	-	-	-	-
Gross Block Closing	Rs. Cr.	8.21	8.21	8.21	8.21	8.21

TABLE 5: CAPEX FOR ENHANCEMENT OF THE FLY ASH BRICK UNIT AS SUBMITTED BY THE PETITIONER (RS. CR.)

Items	Amount
Plant & Machinery	10.10
Building & Civil Works	3.26
TOTAL PROJECT COST	13.36



3.3 The Petitioner submitted the revised DPR along with Cost Benefit Analysis based upon current market prices on 03.02.2023 vide letter dated 24.01.2023 for approval of Capex for Installation of LDO System as shown below:

TABLE 6: REVISED CAPEX FOR INSTALLATION OF LDO SYSTEM AS SUBMITTED BY THE PETITIONER (RS. CR.)

Particulars	Amount in Rs.
LDO Storage System	1,451,800.00
LDO Transfer System	515,958.00
LDO Unloading System	342,804.00
Electrical Cable & Fitting And Instrumentation	161,000.00
Air Pre Heater Coil Grade To Be Replaced	102,317,040.00
Installation & Erection Cost	10,104,920.00
TOTAL	114,893,562.00
Generation Loss For 30 Days Shutdown For APH Tube Replacement Due To Hookup Of LDO System	75,000,000.00
GRAND TOTAL	189,893,562.00

3.4 However, the Petitioner has not submitted a revised estimation of Fixed Cost and Aggregate Revenue Requirement associated with the said Capex.

c) Aggregate Revenue Requirement (ARR)

3.5 The Annual Revenue Requirement as submitted by the Petitioner is provided in the table below:

TABLE 7: AGGREGATE REVENUE REQUIREMENT AS SUBMITTED BY THE PETITIONER (RS. CR.)

Particulars	FY 22	FY 23	FY 24	FY 25	FY 26
Depreciation	17.96	17.96	17.96	17.96	17.96
Interest on Loan	10.10	7.64	5.09	3.74	3.49
Return on Equity	17.78	17.99	17.99	17.99	17.99
Interest on Working Capital	5.25	5.42	5.60	5.82	6.07
O&M Expenses	27.34	29.09	30.86	32.77	34.83
Water charge	1.66	1.82	2.00	2.20	2.42
Annual Fixed Cost	80.09	79.92	79.51	80.49	82.77
Cost of Primary fuel	102.04	106.13	110.40	114.86	119.50
Cost of Secondary fuel	3.38	3.02	3.02	3.02	3.02
Total Variable Cost	105.42	109.16	113.43	117.88	122.52
Energy Charge Rate	2.61	2.70	2.80	2.91	3.03
Annual Revenue Requirement	185.51	189.08	192.94	198.37	205.29



Chapter 4: Public Consultation Process

- 4.1 The Petition filed by the Petitioner evoked responses from several Stakeholders. Public hearing was held on April 15, 2023 in the Meeting Hall of Raso Hotel at Ranchi to ensure 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-I** to this Order.
- 4.2 The Comments/Suggestion of the members of the Public along with the response thereon of the Petitioner and the views of the Commission are detailed hereunder:

Fuel Mix

Public Comments/Suggestions

- 4.3 Fuel mix of Coal : Rejects : Dolochar is proposed as 35:65:00. GCV of coal is proposed as 3551 Kcal/kg. Price of FY 2021-22 Rejects is proposed as 1476.18 Rs./MT.
- 4.4 The Fuel mix should be inclined to the approved Fuel mix for the FY 2020-21 i.e. 54:43:03. However, the fuel mix for projected MYT varies significantly from the petition. Also, in H1 for FY 21-22. The petitioner submitted that the actual ratio of coal and coal rejects comes out to be 45:55. Such variation would completely change the economics of the power plant and the burden would directly pass on to the consumers. Thus, we oppose to such a high variation of fuel mix in their power plant operations. Their inefficiency should not be passed on to the consumers.
- 4.5 GCV of coal is proposed as much lower than that approved for FY 2020-21. Petitioner should procure cost efficient coal with higher GCV value. For FY 21-22, the actual value as submitted by the petitioner for coal rejects, is much lower than the projected value (H1 for FY 21-22, actual is 1820 kcal/kg to 1916.24 kcal/kg as projected in MYT). Rates of coal and coal rejects are much higher than projected. Ratio of high-priced Rejects in fuel mix should be reduced.
- 4.6 Being a CFBC technology-based unit, it has an advantage of taking any kind of fuel inputs. However, this advantage should not be misused by changing the fuel mix and using most of the coal rejects as the additional cost will burden JBVNL, the purchaser of power and ultimately pass on to the



consumer of JBVNL. The judicious mix of fuel and proper planning can reduce the cost of the operation of the plant and thus reduce the burden on JBVNL.

Petitioner Response

- 4.7 IPL humbly submits that the Blending ratio of its Primary Fuel Mix changed from approved of 54:43:3 to 33.60:66.40:0 in FY 2020-21 for Coal - Rejects - Dolochar with the weighted average GCV of fuel decreased from approved 3061 to actual of 2580 Kcal/Kg in FY 2020-21.
- 4.8 IPL humbly submits that it acquired its primary ROM for Coal from CIL e-auctions and Shakti Scheme. The coal prices and the GCV of coal provided in the e-auctions and Shakti scheme are as per CIL notifications. Thus, IPL has no control over the coal offered in the e-auctions and Shakti Scheme.
- 4.9 IPL humbly submits that it has made earnest efforts to ensure optimum coal supply at the most optimal costs. Apart from its contracted capacities, IPL has also tried to source coal from Special Forward and Spot E-Auctions. During the FY2020-21 CCL conducted only 2 special forward auctions and 1 special forward auctions respectively in which IPL purchased coal in both the auctions.
- 4.10 CCL also conducted various spot e-auctions in FY2020-21 but the price of coal was very high compared to the special forward auctions. IPL further submits that the auction conditions mandate 10% EMD and 100% advance payment of the coal procured in the e-auctions of CCL against “cash and carry” model offered by other coal sources. As IPL has been facing delayed payments by JBVNL, it has to arrange fund on its own sources which makes the advance payment criteria difficult to be fulfilled. IPL humbly requests this Hon’ble Commission to allow fuel mix as incurred by IPL and claimed in this Petition.
- 4.11 Further it is submitted that IPL has always strived to assure optimum coal supply. However, the coal prices are uncontrollable for IPL. Thus, the JBVNL's contentions in this regard is misconstrued. IPL humbly prays to the Hon’ble Commission to approve the cost of primary fuel incurred by IPL as claimed.

Views of the Commission

- 4.12 The Commission has considered the submissions of the Stakeholders and replies of the Petitioner.



Water Charges

Public Comments/Suggestions

4.13 IPL projected a growth rate of 10% for water charges without any basis. IPL submits that, the price for drawing water is set by Damodar Valley Corporation (DVC) and total water consumption is based on actual plant operation. IPL also submits that as per the tariff notification issued by DVC, the water tariff is expected to increase by 10% annually for the ensuing years. In that case, JBVNL is of the opinion that if the price of water from DVC is going to cost them, then they should look for other alternatives and the escalation of such huge charges should not be passed on to the consumers.

Petitioner Response

4.14 IPL humbly submits that, the price for drawing water is set by Damodar Valley Corporation (DVC) and total water consumption is based on actual plant operation. However, IPL has no control on the prices of water set by DVC. IPL also submits that as per the tariff notification issued by DVC, the water tariff is expected to increase by 10% annually for the ensuing years and that it has no pricing power for water supplied by DVC. It is applicable to all consumers of DVC. IPL humbly submits that the point of alternative sources of water is being noted and will be explored to reduce the burden on JBVNL.

Views of the Commission

4.15 The Commission has considered the submissions of the Stakeholders and replies of the Petitioner.

Capex for Installation of LDO System and Fly Ash Brick Manufacturing Unit

Public Comments/Suggestions

4.16 JBVNL is not convinced by IPL's argument for installation of LDO system and cost approval for Fly Ash Brick Manufacturing unit. Hence, a prudent check should be conducted thoroughly before passing on such huge cost to the consumers indirectly through the capex allowance to IPL. Petitioner has already incurred CAPEX towards the development of Fly Ash manufacturing unit during FY 2020 21 itself. It is understood that the instant Petition is governed under JSERC Generation Tariff Regulation, 2020, which is applicable for the Control period FY 2021-22 to 2025-26 (CAPEX on or after 01-04-2021).



Petitioner Response

- 4.17 IPL humbly submits before this Hon'ble Commission that IPL has already submitted documents based on directions of this Hon'ble Commission. As per the directives issued by the Hon'ble Commission, JSERC vide order dated 22nd September 2020, IPL has submitted the capex plan for installation of LDO System as an alternate light up fuel to the Hon'ble Commission vide letter dated 29.12.2020. Considering that more than 22 months have passed since the report on substitution of HSD with LDO being submitted, there has been a high variation in the fuel prices globally as well as probable impact on the estimated capital expenditure for the proposed project. IPL humbly submits to the Hon'ble Commission that as per the latter's order on True Up for FY2019-20 dated 04' November 2022, IPL has been directed to submit the detail proposal for the project before the Commission for approval within two months from the date of this Order. IPL has already submitted the same to the Hon'ble Commission as reply to the queries pertaining to MYT 2022-26.
- 4.18 The Hon'ble Commission has appreciated IPL's effort on increasing fly ash utilization towards ensuring an environmental friendly operation as well directed the IPL to submit the report detailing the enhanced capacity of the Brick plant vide order dated 22.09.2020. In line with the above, IPL has projected the commissioning of its Fly Ash Brick Manufacturing Unit of 2.00 Lakh ton of Fly Ash/ Annum (80% operating capacity) by March 2021. The March 2021 timeline for the commissioning was done taking an optimistic view despite the covid-19 related delays. However, the Fly Ash Unit achieved commissioning only in July 2021. Thus, IPL humbly submits to the Hon'ble Commission to allow the proposed capex for Fly Ash Unit during this control period.

Views of the Commission

- 4.19 The Commission has considered the submissions of the Stakeholders and replies of the Petitioner.



Fly Ash Brick Manufacturing Unit

Public Comments/Suggestions

4.20 IPL submitted that the commissioning of its Fly Ash Brick Manufacturing Unit of 2.00 Lakh ton of Fly Ash/ Annum (80% operating capacity) was finished by March 2021. The March 2021 timeline for the commissioning was done taking an optimistic view despite the covid-19 related delays. The proposed cap for the fly ash unit should not be passed on to the consumer without going into the details of the requirement, the capacity undertaken, the cost efficiency issues and the investment etc. The necessary investment plan should be passed from the regulator before executing the project. Also, JBVNL was not informed of such a huge investment.

Petitioner Response

4.21 IPL humbly reiterates its submission that as per the directives issued by this Hon'ble Commission vide order dated 22.09.2020. IPL has projected the commissioning of its Fly Ash Brick Manufacturing Unit of 2.00 Lakh ton of Fly Ash/ Annum (80% operating capacity) by March 2021. The capital cost, equity infusion and other details have been duly submitted as part of the MYT Petition and Business Plan for FY2022-26 for consideration by the Hon'ble Commission. The Hon'ble Commission is humbly requested to approve the additional capex of fly ash brick manufacturing as projected.

Views of the Commission

4.22 The Commission has considered the submissions of the Stakeholders and replies of the Petitioner.

Operational Parameters

Public Comments/Suggestions

4.23 The operational parameters such as PAF, PLF, gross station heat rate and auxiliary consumption as per regulations varies significantly with the claimed parameters from IPL such as IPL claimed PAF and PLF at 82.5% as against the approved 85%. Also, GSHR (Gross Station Heat Rate) is 2931 kcal per kwh as against approved rate of 2765 kcal per kwh. The higher GSHR requires higher coal consumption that ultimately increase the per unit cost of power. Also, IPL shows the auxiliary consumption at 11.15% against the approved rate of 10%. Even the approved rate of 10% is also at a higher side.



Petitioner Response

4.24 IPL humbly reiterates the detailed justification below:

4.25 Normative Annual Plant Availability Factor:

- As per the JSERC Generation Tariff Regulations 2020, the Normative PAF approved by the Commission is 85% for 2021-22 to 2025-26 control period.

- The relaxation of PLF for CFBC boilers was also provided in CERC Tariff Regulations 2009-14. Relevant portion of the regulation is reproduced below:

“26. (i). Normative Annual Plant Availability Factor (NAPAF)...

(f) Lignite-fired Generating Stations using Circulatory Fluidized Bed Combustion (CFBC) Technology –

1. First three years from COD — 75%

2. From next year after completion of 3 years of COD - 80%”

- The reasons for this relaxation are further elaborated in the Statement of Objects and Reasons for CERC Tariff Regulations (2009-14).

"28.6With regard to lignite fired stations using CFBC technology are concerned, we found that the availability in initial years was of the order of 76% in case of surat lignite fired station and gradually picked up thereafter. In view of this we are providing for a norm of 75% during first three years of COD and thereafter, retaining a norm of 80%. In respect of the new lignite power stations with PF Boilers, availability norms have been combined with the coal power fire stations at 85%”

- It is further submitted that other State ERCs also provided relaxation in PLF for CFBC boilers. For instance, in Rajasthan, as per RERC Tariff Regulations, 2009 PLF for CFBC Plants is gradually increased to 80% during a period of five years -

"46.1. Target Availability for recovery of full Capacity (Fixed) charges for thermal power stations ... (a)

(iii) Lignite fired thermal power stations using CFBC technology:

For the first year of operation 70%

For second year of operation 72.5%

For third year of operation 75.0%

For fourth year of operation 77.5%

Fifth year and onwards 80.0%



It is pertinent to note that APTEL in its judgement on “Appeal No. 182 of 2010” has clarified that the relaxation in PLF for CFBC will be applicable to both coal based and lignite based Stations as the relaxation is for the technology being used, not the fuel.”

- The Petitioner would like to further submit that the relaxation of PLF for CFBC boilers is provided in CERC Tariff Regulations 2019-24. The extract of the same is reproduced below:

“49. Norms of operation for thermal generating station

...

Normative Annual Plant Availability Factor (NAPAF)

...

(e) For Lignite fired Generating Stations using Circulatory Fluidized Bed Combustion (CFBC) Technology and Generating stations based on coal rejects:

First Three years from the date of commercial operation - 75%

For next year after completion of three years of the date of commercial operation - 80%”

- This Hon’ble Commission also had set a NAPAF target of 82.5% for FY2016-17 to FY 2020-21 as per its order in Case No. 06 and 11 of 2016 dated 16th May 2017. Relevant portion of the order is reproduced below:
“8.53. After considering the above, the Commission finds the submission of the Petitioner appropriate and has considered the same for approving the NAPAF for the current MYT period.”
- IPL humbly submits to consider a PAF of 82.50% in line with the Commission’s approved figures as per its order in Case No. 06 and 11 of 2016 dated 16th May.

4.26 Gross Station Heat Rate:

- IPL humbly submits that based on past performance of the power plant and also considering the difficult operating conditions and uncontrollable change in fuel mix, IPL currently proposes SHR of 2931 kCal/kWh.
- The Hon’ble Commission in its Tariff Regulations, 2020 has considered a Gross Station Heat Rate of 2765 kCal/kWh for Inland Power Limited. 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 2021-22.

- The petitioner also submits that as specified in JSERC regulations 2010, the norms of operation for SHR of new generating stations for Coal-based and lignite-fired Thermal Generating Stations = 1.065 X Design Heat Rate (kCal/kWh) where, the Design Heat Rate of a unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure.
- The TG cycle heat rate for the proposed boiler was 2166 Kcal/kwh. With a boiler efficiency of 79.5% and with a margin of 6.5% as per regulation, the Petitioner had requested the Honorable Commission to approve a Gross Station heat rate of 2902 Kcal/kwh.
- The Commission vide letter no JSERC/legal/07 of 2013/222 dated August 26, 2013 directed the Petitioner to submit report/ study conducted by independent technical expert to verify the boiler efficiency of 79.5%. The Petitioner vide letter dated November 12, 2013, submitted the required information. Thus, the Commission, after scrutinizing the additional information submitted approves the gross station heat rate in accordance with the formula specified in Regulation 8.6 (b) (i) of the Generation Tariff Regulations 2010, the projected base heat rate and boiler efficiency as per the independent technical evaluation report, for the Control Period at 2,902 Kcal / kWh.
- The petitioner submits that the historical SHR of the power plant has varied due to the change in fuel mix, use of fuel with high ash etc. which are due to uncontrollable factors.

Auxiliary Energy Consumption:

- IPL humbly submits that considering the historical achievement of Auxiliary Consumption, IPL currently proposes Auxiliary Consumption of 11.15% based on past performance.
- IPL submits that during the commissioning period of the power plant, as per the prevailing CERC Regulations, for lignite fired stations using CFBC technology, the auxiliary energy consumption norms was 1.5% more than the auxiliary energy consumption norms of coal-based generating stations. Hence the CERC norm for auxiliary consumption of lignite based CFBC plants, up to 200 MW with induced draft cooling tower was 10.5%.



- IPL submits that as per the 'Recommendations on Operation Norms for Thermal Power Stations for Tariff Period beginning 1st April 2009, of CEA higher auxiliary consumption, the generating station of IPL should also be allowed in regard to the CFBC technology.
- IPL also submits that CFBC boilers involve higher auxiliary consumption due to higher pressure drops & consequently higher fan power as compared to the pulverized fuel fired units.
- Other SERCs have also proposed higher auxiliary consumption for CFBC boilers presented below:
 - In case of Raj West Power Ltd., RERC has allowed an Auxiliary Consumption of 11.5%.
 - 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 4th year.
 - In case of Bajaj Energy Pvt. Ltd., UPERC has allowed an Auxiliary Consumption of 11.5% during stabilization and 11% post stabilization period.

Views of the Commission

4.27 The Commission has considered the submissions of the Stakeholders and replies of the Petitioner.

O&M Expenses

Public Comments/Suggestions

4.28 The O&M expenses are projected at a higher rate without any proper explanation. IPL submits that the increase in O&M is due to handling and disposal of a higher quantity of ash generated due to fuel mix. JBVNL would like to highlight that the fuel mix change effect is multi-fold for IPL and subsequently to JBVNL and its consumers. Unless IPL finds a right mix of fuel for its power plant operations, there would be cost escalations at multi fronts that should not be passed on to the consumers. IPL should get coal from SHAKTI scheme that suffices to power requirement for JBVNL and it should not depend much on e-auction.



Petitioner Response

4.29 IPL humbly submits that it has claimed the O&M cost in line with its audited accounts. It has claimed O&M expenses considering the ground challenges faced by IPL considering uncontrollable change in fuel mix leading to quality variances due to GCV and ash content, compliances and statutory norms. The normative O&M expenses as per Jharkhand State Electricity Regulatory Commission (Terms and Conditions for Determination of Generation Tariff) Regulations, 2015 for FY 2020-21 is Rs. 21.72 Crore (as approved in Hon'ble Commission's MYT Order dated May 16, 2017) whereas the actual O&M expenses incurred by IPL was Rs. 24.79 Crore. The details of the same has been submitted along with the audited accounts of IPL for consideration by the Hon'ble Commission.

4.30 Further, IPL would like to reiterate that it acquired its primary ROM for Coal from CIL e-auctions and Shakti Scheme. The coal prices and the GCV of coal provided in the e-auctions and Shakti scheme are as per CIL notifications. Thus, IPL has no control over the quantity of coal offered in the e-auctions and Shakti Scheme. CCL also conducted various spot e-auctions in FY 2020-21 but the price of coal was very high compared to the special forward auctions. IPL further submits that the auction condition mandates 10% EMD and 100% advance payment of the coal procured in the e-auctions of CCL against "cash and carry" model offered by other coal sources. As IPL has been facing delayed payments by JBVNL, it has to arrange funds on its own sources which makes the advance payment criteria difficult to fulfil.

Views of the Commission

4.31 The Commission has considered the submissions of the Stakeholders and replies of the Petitioner.

Energy Charge Rate

Public Comments/Suggestions

4.32 Petitioner has claimed per unit energy charge for FY 20-21 as Rs. 2.82 against the approved Rs. 2.09. Also, the invoice raised by Inland Power was Rs. 4.30 per unit for FY 20-21 excluding Fuel Price Adjustment (FPA). The bill of Fuel Price Adjustment raised by Inland Power on JBVNL is Rs. 0.57 per unit on an average for FY 20-21.



Petitioner Response

4.33 IPL humbly submits that IPL has claimed the tariff rate of the MYT petition for the control period FY 2016-17 to FY 2020-21. The energy rate has already been revised due to changing coal prices. The same has also been communicated to JSERC and JBVNL. IPL humbly submits that Fuel Price Adjustment has been done as per the Regulation and Order published by the Hon'ble Commission. IPL also humbly confirms that it submits quarterly billing reports to Hon'ble JSERC and the same has also been provided to JBVNL for verification. After review, JBVNL pays the amount due to IPL and there has been no additional billings.

Views of the Commission

4.34 The Commission has considered the submissions of the Stakeholders and replies of the Petitioner.

FPA Charges

Public Comments/Suggestions

4.35 For FY 2021-22 the invoice for per unit rate of electricity raised by Inland Power is Rs. 4.19 per unit excluding the FPA. The invoice raised by Inland Power, for FPA is Rs. 0.564 per unit, i.e., the total cost for per unit electricity is Rs 4.75 per unit. The per unit energy charge as claimed by petitioner in its MYT petition is Rs. 2.61 per unit. We understand that per unit electricity charge, as claimed includes the FPA charges and should not be imposed on JBVNL in addition to Rs. 2.61 per unit. The FPA charges that are imposed on JBVNL was, due to inefficiency in the part of IPL as it could not arrange the required fuel mix for the operation of their plant. Hence, it should not be passed on to the consumers.

4.36 For FY 2022-23 the invoice for per unit rate of electricity raised by Inland Power is Rs. 4.25 per unit excluding the FPA. The invoice raised by Inland Power for FPA is Rs. 2.10 per unit, i.e. the total cost for per unit electricity is Rs. 6.35 per unit. The per unit energy charge as claimed by petitioner in its MYT petition, is Rs. 2.70 per unit. We understand that, per unit electricity charge as claimed includes the FPA charges and should not be imposed on JBVNL in addition to Rs. 2.70 per unit. The FPA charges that are imposed on JBVNL was due to inefficiency in the part of IPIL as it could not arrange the required fuel mix for the operation of their plant. Hence, it should not be passed on to the consumers.



Petitioner Response

4.37 IPL humbly submits before this Hon'ble Commission that IPL has submitted the MYT Petition for the Control Period FY 2021-22 to FY 2025-26 on 25th March 2021. In that, the energy rate has already been revised due to changing coal prices. The same has also been communicated to JSERC and JBVNL. IPL humbly submits before this Hon'ble Commission that IPL has submitted the True-up petition for FY 2021-22 to this Hon'ble JSERC on 20.04.2023. IPL also humbly confirms that it submits quarterly billing reports to Hon'ble JSERC and the same has also been provided to JBVNL for verification. After review, it was found that JBVNL pays the amount due to IPL and there has been no additional billing.

Views of the Commission

4.38 The Commission has considered the submissions of the Stakeholders and replies of the Petitioner.



Chapter 5: Business Plan and Multi Year Tariff for Control Period FY 2021-22 To FY 2025-26

- 5.1 The Petitioner filed its Business Plan and Multi Year Tariff for Control Period FY 2021-22 to FY 2025-26 in line with the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020. Accordingly, the Commission has approved the Business Plan and Multi Year Tariff for the Control Period FY 2021-22 to FY 2025-26, in line with the relevant Regulations.
- 5.2 The component-wise description of the Petitioner's submission and the Commission's analysis thereof is provided hereunder.

Business Plan and Capital Investment Plan

Petitioner's Submission

Shift from use of HSD to LDO

- 5.3 The Petitioner has submitted that 63 MW coal-based power generating plant has a 250 TPH CFBC Boiler. Usually during the startup of the Boiler, HSD is used as light up fuel to preheat the combustion chamber to induce self-ignition of fuel. As per the directives issued by the Commission vide order dated 22nd September 2020, the Petitioner has submitted the capex plan for installation of LDO System as an alternate light up fuel and effects of heat exchanger & pollution control equipment's life is also analyzed through its Business Plan for the Control Period. The total investment considered is Rs. 8.21 Cr. in the FY 2021-22 as shown in table below:

TABLE 8: CAPEX FOR INSTALLATION OF LDO SYSTEM AS SUBMITTED BY THE PETITIONER (RS. CR.)

Particulars	Unit	FY 22	FY23	FY24	FY25	FY26
Gross Block Opening	Rs. Cr.	-	8.21	8.21	8.21	8.21
Addition during the year	Rs. Cr.	8.21	-	-	-	-
Gross Block Closing	Rs. Cr.	8.21	8.21	8.21	8.21	8.21



Fly Ash Brick Manufacturing Unit

5.4 The Petitioner submits that as per the directives issued by the Commission vide order dated 22.09.2020, it has projected the commissioning of its Fly Ash Brick Manufacturing Unit of 2.00 Lakh ton of Fly Ash/ Annum (80% operating capacity) by March 2021. The Petitioner, in this instant petition, is submitting the capex plan during the Control Period for enhancement of fly ash brick manufacturing unit for approval.

TABLE 9: CAPEX FOR ENHANCEMENT OF THE FLY ASH BRICK UNIT AS SUBMITTED BY THE PETITIONER (RS. CR.)

Items	Amount
Plant & Machinery	10.10
Building & Civil Works	3.26
TOTAL PROJECT COST	13.36

Commission's Analysis

- 5.5 The Commission has observed that the Petitioner has already incurred CAPEX towards the development of Fly Ash manufacturing unit during FY 2020-21 itself. It is understood that the instant Petition is governed under JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020, which is applicable for the Control period FY 2021-22 to 2025-26 (CAPEX on or after 01-04-2021). The Petitioner was directed to clarify on this aspect.
- 5.6 The Petitioner in its reply dated 12th November, 2022 claimed that it has projected the commissioning of its Fly Ash Brick Manufacturing Unit of 2.00 Lakh ton of Fly Ash/ Annum (80% operating capacity) by March 2021. The March 2021 timeline for the commissioning was done taking an optimistic view despite the Covid-19 related delays. However, the Fly Ash Unit achieved commissioning on 17th July, 2021. Thus, the Petitioner has submitted to allow the proposed capex for Fly Ash Unit during this control period.
- 5.7 The Petitioner has further submitted that it has not incurred the capital expenditure to install the LDO system as the same is yet to be approved by the Commission. Once the Commission approves the projected capital expenditure for LDO system, the Petitioner will submit a revised timeline for installation of the LDO system.
- 5.8 The Commission had directed the Petitioner to submit efficiency improvement, Cost Benefit Analysis associated with the proposed Capital Expenditure (Installation of LDO System, Fly Ash Brick Manufacturing Unit) read with the



directive of the JSERC Order dated 22.09.2020 wherein the Commission has directed the IPL to submit DPR along with all the necessary details of work.

- 5.9 The Petitioner has submitted that the analysis for substitution of HSD with LDO has already been submitted to the Hon'ble Commission vide letter dated 29th December, 2020. Considering that more than 22 months have passed since the report on substitution of HSD with LDO had been submitted, there has been a high variation in fuel prices globally as well as probable impact on the estimated capital expenditure for the proposed project. The Petitioner has further submitted that as per the Commission's order on True Up for FY 2019-20 dated 4th November, 2022, it was directed to submit the detailed proposal for the proposed project for approval within two months from the date of the said Order. Hence, the Petitioner will submit a revised detailed proposal of the same based on the current price projections within the timeframe required by the Commission.
- 5.10 Later, the Commission had redirected the Petitioner to submit DPR along with all necessary details of works and the Cost Benefit Analysis associated with the proposed Capital Expenditure with regard to the installation of the LDO System and Fly Ash Brick Manufacturing Unit.
- 5.11 The Petitioner had submitted the revised DPR for the substitution of HSD with LDO system vide its letter dated 24th January, 2023 along with Cost Benefit Analysis based upon current market prices.
- 5.12 The revised cost benefit analysis, as submitted by the Petitioner for the LDO system, is shown below,

TABLE 10: CAPEX FOR INSTALLATION OF LDO SYSTEM AS SUBMITTED BY THE PETITIONER (RS.)

Particulars	Amount in Rs.
LDO Storage System	1,451,800.00
LDO Transfer System	515,958.00
LDO Unloading System	342,804.00
Electrical Cable & Fitting And Instrumentation	161,000.00
Air Pre Heater Coil Grade To Be Replaced	102,317,040.00
Installation & Erection Cost	10,104,920.00
TOTAL	114,893,562.00
Generation Loss For 30 Days Shutdown For APH Tube Replacement Due To Hookup Of LDO System	75,000,000.00
GRAND TOTAL	189,893,562.00

**TABLE 11: COST COMPARISON FOR HSD AND LDO FIRING AS SUBMITTED BY THE PETITIONER**

Particulars	UoM	Qty	HSD	LDO
Rates of HSD/ LDO	Rs./Ltr.		94.28	81.50
HSD/ LDO for Load on each KWh	Rs./kWh		0.094	0.0815
Total Capex recovery in 1 years due to end of PPA	Rs.	189,893,562		0.42
Total			0.094	0.499
Additional cost on use of LDO				0.404
Net Annual Loss By Switching From HSD to LDO	Rs./Yr	184,074,815.22		

TABLE 12: ASSUMPTIONS AS SUBMITTED BY THE PETITIONER

Particulars	UoM	
PLF considered	%	82.5
Total power Generation yearly	Kwh	455301000
Annual HSD/ LDO Consumption	Rs/Ltr	455301
Rate of HSD	Ltr	94.28
Rate of LDO	Rs/Ltr	81.5

5.13 Further, the Petitioner has submitted that the Fly Ash Unit has been commissioned during FY 2021-22 the details of which were submitted to the Hon'ble Commission as part of its APR Petition for FY 2021-22.

5.14 The Commission observes that the Petitioner has prayed to approve 'Generation Loss due to 30 Days Shutdown' as a part of the Capex. The Commission is of the opinion that such submission shall not be allowed as a part of Capex as such claims aren't allowed as per any clause in the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020. Further, even if such claims are treated as a part of Capex, the physical nature of 'Generation Loss' cannot be attributed as addition to GFA, as such O&M Expenses cannot be allowed on such submission. Further, the Depreciation Schedule of the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 does not allow any head as 'Generation Loss', as such no depreciation can be allowed on such submission. Further, even if a normative debt:equity ratio of 70:30 is allowed, the source of funding of such 'Generation Loss' cannot be quantified. As such, the Capex and the entire Fixed Cost, associated with such 'Generation Loss' has not been approved by the Commission. Further, the Commission observes that the Petitioner has made an error in the summation of detailed breakup for the Installation of LDO System.

5.15 Considering the above submissions of the Petitioner, the Commission analyzed two scenarios of the Control Period, wherein in the first scenario the LDO



switchover is allowed, and in the second scenario, the LDO switchover is disallowed. The Commission observed that keeping all other parameters constant, with the switchover, there is a reduction of Rs 0.02/kWh in Energy Charges from the year in which the switchover is made. However, the Fixed Charges shows an increase of Rs 0.05/kWh due to the effect of the additional capitalization, thus a net increase of Rs 0.03/kWh is observed in the Average Cost of Supply (ACoS). With such observation, the Commission disapproves the switchover of secondary fuel from HSD to LDO and thus disallows the Capital Investment required for the switchover.

- 5.16 In case of the Fly Ash Brick Plant, the Petitioner in its APR Petition had submitted that as per the directives issued by the Hon'ble Commission vide order dated 22.09.2020, the Petitioner has commissioned its Fly Ash Brick Manufacturing Unit of 2.00 Lakh ton of Fly Ash/ Annum (80% operating capacity) on 17.07.2021. The total capital cost for the plant in FY 2021-22 is Rs. 8.05 Cr. Considering that the Hon'ble Commission is yet to issue the MYT order for IPL's MYT Petition for FY 2021-22 to FY 2025-26 where IPL had projected the capital cost and whereas IPL had already begun its investment for the Fly Ash Brick Plant vide Hon'ble Commission's directive, IPL management has entered into a Leasing Arrangement for Rs. 4.16 Cr. to save on Financing & Depreciation costs towards the power plant. IPL was able to secure the lease rental at Rs. 20.76 per thousand per month which would be lower than the combined Normative Interest Rate and Depreciate Charges for the equipment.
- 5.17 The Commission observes that the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 do not provide for a mechanism of capitalization whereby a petitioner is allowed to enter into a Leasing Arrangement to save on Financing & Depreciation costs. As such, the Commission allows capitalization of the entire amount of Rs. 8.05 Cr. incurred towards the commissioning of the Fly Ash Brick Manufacturing Unit.
- 5.18 Further, the Commission vide Order dated August 29, 2023 in Case No. 24 of 2023 approved the Capital expenditure to be included in the Capital Investment Plan for replacement of Exciter and Converter with an estimated cost of approximately Rs. 2.80 Cr. as urgent and emergency requirement. The relevant portion of the Order is extracted below,



“Considering the facts and circumstances of the case, the prayers of the petitioner are allowed and the Commission approves Capital expenditure for replacement of Exciter and Convertor as prayed for by the petitioner with an estimated cost of approximately Rs. 2.8 crores subject to prudence check by the Commission in the True-up petition, to be submitted by the petitioner-IPL.”

5.19 Considering the above submissions of the Petitioner, the Commission approves the Capital Investment Plan as shown below,

TABLE 13: CAPEX FOR FLY ASH BRICK MANUFACTURING UNIT AS APPROVED BY THE COMMISSION (RS. CR.)

Particulars	Unit	FY 22	FY23	FY24	FY25	FY26
Gross Block Opening	Rs. Cr.	-	8.05	8.05	8.05	8.05
Addition during the year	Rs. Cr.	8.05	-	-	-	-
Gross Block Closing	Rs. Cr.	8.05	8.05	8.05	8.05	8.05

TABLE 14: CAPEX FOR REPLACEMENT OF EXCITER AND CONVERTOR AS APPROVED BY THE COMMISSION (RS. CR.)

Particulars	Unit	FY 22	FY23	FY24	FY25	FY26
Gross Block Opening	Rs. Cr.	-	-	-	2.80	2.80
Addition during the year	Rs. Cr.	-	-	2.80	-	-
Gross Block Closing	Rs. Cr.	-	-	2.80	2.80	2.80

TABLE 15: TOTAL CAPEX AS APPROVED BY THE COMMISSION (RS. CR.)

Particulars	Unit	FY 22	FY23	FY24	FY25	FY26
Gross Block Opening	Rs. Cr.	-	8.05	8.05	10.85	10.85
Addition during the year	Rs. Cr.	8.05	-	2.80	-	-
Gross Block Closing	Rs. Cr.	8.05	8.05	10.85	10.85	10.85

Components of Fixed Cost

Depreciation

Petitioner's Submission

5.20 The Petitioner has submitted that the depreciation for the plant has been computed as per the rates provided in JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020. The details of year wise depreciation submitted by the Petitioner are provided in the following table.

TABLE 16: DEPRECIATION AS SUBMITTED BY THE PETITIONER

Particulars	Unit	FY 21 (Estd.)	FY 22	FY 23	FY 24	FY 25	FY 26
Opening Balance for Gross Fixed Assets (GFA)	Rs. Cr.	335.11	348.47	356.67	356.67	356.67	356.67
Addition	Rs. Cr.	13.36	8.21	-	-	-	-
Closing Balance for Gross Fixed Assets (GFA)	Rs. Cr.	348.47	356.67	356.67	356.67	356.67	356.67
Depreciation	Rs. Cr.	17.66	17.96	17.96	17.96	17.96	17.96



Commission's Analysis

5.21 The Commission calculated the depreciation for the plant by considering the approved capital cost and the depreciation rates specified in the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020. The following table shows the depreciation for the Plant as approved by the Commission.

TABLE 17: DEPRECIATION AS APPROVED BY THE COMMISSION

Particulars	Unit	FY 22	FY 23	FY 24	FY 25	FY 26
Depreciation	Rs. Cr.	17.49	17.49	17.59	17.59	17.59

Interest on Loan

Petitioner's Submission

5.22 The Petitioner submits that it has computed the Interest on long term Loan in line with the actual interest amount projected during the MYT Control Period. The Petitioner has considered loan outstanding as on 31st March, 2021 along with debt components for financing new projects as detailed earlier in this Order.

5.23 Weighted average of the actual interest rate of outstanding loans on year-on-year basis has been considered for projecting the interest on loan. The table below summarizes the computation of interest on loan for the Control Period.

TABLE 18: INTEREST ON LOAN AS SUBMITTED BY THE PETITIONER

Particulars	Unit	FY 21 (Estd.)	FY 22	FY 23	FY 24	FY 25	FY 26
Opening Balance for Long Term Loans	Rs. Cr.	119.68	105.07	83.39	55.97	33.18	29.69
Additions during the Year	Rs. Cr.	9.35	5.74	-	-	-	-
Repayment	Rs. Cr.	23.96	27.43	27.42	22.79	3.49	1.14
Closing Balance for Long Term Loans	Rs. Cr.	105.07	83.39	55.97	33.18	29.69	28.55
Weighted Average Rate of Interest	%	11.38%	10.72%	10.96%	11.42%	11.91%	11.98%
Interest on Loan	Rs. Cr.	12.78	10.10	7.64	5.09	3.74	3.49

Commission's Analysis

5.24 The Commission has considered the opening balance of FY 2021-22 as the closing balance approved in the truing-up of FY 2020-21. The repayment has been considered equal to depreciation allowed for the respective year. The rate of interest has been considered equal to the rate as filed by the Petitioner, however the weighted average rate of interest based on the actual loan portfolio



as submitted by the Petitioner will be considered while conducting true-up exercise for the Control Period. The table below summarizes the computation of interest on loan as approved by the Commission.

TABLE 19: INTEREST ON LOAN AS APPROVED BY THE COMMISSION

Particulars	Unit	FY 22	FY 23	FY 24	FY 25	FY 26
Opening Long term loans	Rs. Cr.	129.52	117.67	100.18	84.55	66.96
Additions during the year	Rs. Cr.	5.64	-	1.96	-	-
Repayment	Rs. Cr.	17.49	17.49	17.59	17.59	17.59
Closing Long term loans	Rs. Cr.	117.67	100.18	84.55	66.96	49.37
Average Loan	Rs. Cr.	123.59	108.93	92.37	75.75	58.16
Rate of Interest	%	10.72%	10.96%	11.42%	11.91%	11.98%
Interest on Loan	Rs. Cr.	13.25	11.94	10.55	9.02	6.97

Return on Equity

Petitioner's Submission

5.25 The Petitioner has projected the return on equity (RoE) considering opening equity of Rs. 99.58 Cr at the rate of 14.00% for the current control period. The addition in equity is due to Installation of LDO System in FY 2021-22. The Petitioner also submits that ROE has been grossed up by applicable MAT rate in order to account for the tax liability to be incurred during the ensuing period. However, IPL petitions the Commission to allow IPL to claim ROE as per actual tax paid during truing up of sub-sequent years.

TABLE 20: RETURN ON EQUITY AS SUBMITTED BY THE PETITIONER

Particulars	Unit	FY 21 (Estd.)	FY 22	FY 23	FY 24	FY 25	FY 26
Opening Equity	Rs. Cr.	99.58	103.59	106.05	106.05	106.05	106.05
Additions during the Year	Rs. Cr.	4.01	2.46	-	-	-	-
Closing Equity	Rs. Cr.	103.59	106.05	106.05	106.05	106.05	106.05
Average Equity	Rs. Cr.	101.58	104.82	106.05	106.05	106.05	106.05
Rate of Return on Equity	%	15.50%	14.00%	14.00%	14.00%	14.00%	14.00%
Applicable MAT Rate	%	17.47%	17.47%	17.47%	17.47%	17.47%	17.47%
Return on Equity	Rs. Cr.	19.08	17.78	17.99	17.99	17.99	17.99

Commission's Analysis

5.26 The Commission has considered the opening balance of FY 2021-22 as the closing balance approved in the truing-up of FY 2020-21. The Return on Equity for the Control Period as approved by the Commission is given in the following table.

**TABLE 21: RETURN ON EQUITY AS APPROVED BY THE COMMISSION**

Particulars	Unit	FY 22	FY 23	FY 24	FY 25	FY 26
Opening Equity	Rs. Cr	90.31	92.73	92.73	93.57	93.57
Addition	Rs. Cr	2.42	-	0.84	-	-
Closing Equity	Rs. Cr	92.73	92.73	93.57	93.57	93.57
Average Equity	Rs. Cr	91.52	92.73	93.15	93.57	93.57
Rate of Equity	%	15.00%	15.00%	15.00%	15.00%	15.00%
Applicable MAT rate	%	17.47%	17.47%	17.47%	17.47%	17.47%
Gross Rate of Equity	%	18.18%	18.18%	18.18%	18.18%	18.18%
Return on Equity	Rs. Cr	16.63	16.85	16.93	17.01	17.01

Operation and Maintenance Expenses

Petitioner's Submission

5.27 The Petitioner has submitted that it has considered an escalation of 6.09% on the estimated figures of O&M of FY 2020-21. As per the provisions of the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020, the Petitioner has considered the same INDXn /INDXn-1 value for all years of the control period for the purpose of estimation. The 'K' factor has been computed in line with Regulation 15.42 of the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 and is projected to be 1.41 % for the Control Period. The Petitioner has further submitted that it has considered a Growth Factor of 4% considering past trends for employee expenses.

5.28 The Petitioner has claimed Rs. 0.26 Cr as Contribution towards terminal benefits, Rs. 0.25 Cr as legal charges, and Rs. 0.45 Cr as security expenses for each year during the Control Period based on estimated value for FY 2020-21. However, the Petitioner has prayed to revise these claims based on actual data during truing up of subsequent years during the control period.

TABLE 22: O&M EXPENSES AS SUBMITTED BY THE PETITIONER

Particulars	Unit	FY 22	FY 23	FY 24	FY 25	FY 26
R&M Expenses	Rs. Cr.	5.23	5.35	5.35	5.35	5.35
Employee Expenses (excl. terminal benefits)	Rs. Cr.	8.03	8.86	9.78	10.79	11.90
A&G Expenses (excl. legal charges and security expenses)	Rs. Cr.	13.51	14.34	15.21	16.14	17.12
Contribution towards terminal benefits	Rs. Cr.	0.26	0.26	0.26	0.26	0.26
Legal Charges	Rs. Cr.	0.25	0.25	0.25	0.25	0.25
Security Expenses	Rs. Cr.	0.45	0.45	0.45	0.45	0.45
Total O&M Expenses	Rs. Cr.	27.34	29.09	30.86	32.77	34.83



Commission's Analysis

5.29 For determination of O&M Expenses for existing generation stations, the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 states,

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

15.41 The O&M expenses permissible towards ARR of each year of the Control Period shall be approved based on the formula shown below:

$$O\&M_n = (R\&M_n + EMP_n + A\&G_n) + \text{Terminal Liabilities}$$

Where,

R&M_n – Repair and Maintenance Costs of the Generating Company for the nth year;

EMP_n – Employee Costs of the Generating Company for the nth year excluding terminal liabilities;

A&G_n – Administrative and General Costs of the Generating Company for the nth year.

15.42 The above components shall be computed in the manner specified below:

$$a) (\text{Repair \& Maintenance})_n = K * GFA * (\text{INDX}_n / \text{INDX}_{n-1})$$

Where,

‘K’ is a constant (expressed in %) governing the relationship between Repair & Maintenance costs and Gross Fixed Assets (GFA) and shall be calculated based on the % of Repair & Maintenance to GFA of the preceding years of the Base Year in the MYT Order after normalising any abnormal expenses;

‘GFA’ is the opening value of the gross fixed asset of the nth year;

$$b) EMP_n + A\&G_n = [(EMP_{n-1}) * (1 + G_n) + (A\&G_{n-1})] * (\text{INDX}_n / \text{INDX}_{n-1})$$

Where,

EMP_{n-1} – Employee Costs of the Generating Company for the (n-1)th year excluding terminal liabilities;



A&Gn-1 – Administrative and General Costs of the Generating Company for the (n-1)th year excluding legal/litigation expenses;

INDXn – Inflation factor to be used for indexing the employee cost and A&G cost. This will be a combination of the Consumer Price Index (CPI) and the Wholesale Price Index (WPI) for immediately preceding year before the base year;

Gn – is a growth factor for the nth year and it can be greater than or lesser than zero based on the actual performance. Value of Gn shall be determined by the Commission in the MYT Order for meeting the additional manpower requirement based on the Generating Company Filing, benchmarking and any other factor that the Commission feels appropriate;

$$c) \text{INDXn} = 0.55 * \text{CPI}_{n-1} + 0.45 * \text{WPI}_{n-1};$$

5.30 The Commission had directed the Petitioner to submit the basis of projecting the Growth Factor (Gn) equal to 4.0% in its MYT Petition. Also, the Petitioner is required to submit the projected Y-o-Y increase in employee strength throughout the control period.

5.31 The Petitioner vide its reply dated 24.01.2023, stated that it had computed the Growth Rate for Employee Expenses based on the Total Employees Expenses growth rate (excl. terminal liabilities) as per the Actual of FY 2019-20 (Rs. 6.89 Cr.) and the Estimated expenses as per APR filing of FY 2020-21 (Rs. 7.28 Cr.).

5.32 Further it is submitted that it has projected the employee strength during the control period to be as per follows,

TABLE 23: PROJECTED EMPLOYEE STRENGTH AS SUBMITTED BY THE PETITIONER

Particulars	FY 22		FY 23		FY 24		FY 25		FY 26	
	Open.	Close.								
Manager & Above	30	30	30	30	30	30	30	30	30	30
Upto Officer Level	117	117	117	117	117	117	117	117	117	117
Casual Labor	216	216	216	216	216	216	216	216	216	216
TOTAL	363									

5.33 The Commission has considered the submissions of the Petitioner and observes that there is no increase in employee strength as projected by the Petitioner, as such no Growth Factor (Gn) has been considered by the Commission for the Petitioner throughout the control period.



5.34 The Commission has accordingly approved the O&M Expenses with an escalation of 6.09% as per the provisions of the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 as shown in the table below,

TABLE 24: O&M EXPENSES AS APPROVED BY THE COMMISSION

Particulars	Unit	FY 22	FY 23	FY 24	FY 25	FY 26
R&M Expenses	Rs. Cr.	3.64	3.73	3.73	3.76	3.76
Employee Expenses (excl. terminal benefits)	Rs. Cr.	13.21	14.01	14.87	15.77	16.73
A&G Expenses (excl. legal charges)	Rs. Cr.	7.97	8.45	8.97	9.51	10.09
Contribution towards terminal benefits	Rs. Cr.	0.23	0.23	0.23	0.23	0.23
O&M Expenses	Rs. Cr.	25.05	26.42	27.79	29.27	30.81

Water Charges

Petitioner's Submission

5.35 The Petitioner submits that, the water charges claimed by IPL for FY 2020-21 is estimated to be around Rs. 1.51 Cr. IPL also submits that the price for drawing water is set by Damodar Valley Corporation (DVC) and total water consumption is based on actual plant operation. The Petitioner further submits that as per the tariff notification issued by DVC, the water tariff is expected to increase by 10% annually for the ensuing year. In light of the above facts, the Petitioner, has projected the expenditure due to water charges during the MYT Control Period with an escalation of 10% on year-on-year basis based on estimated value for FY 2020-21. The projected water charges claimed by the petitioner is shown in the table below,

TABLE 25: WATER CHARGES AS SUBMITTED BY THE PETITIONER

Particulars	Unit	FY 22	FY 23	FY 24	FY 25	FY 26
Water Charges	Rs. Cr.	1.66	1.82	2.00	2.20	2.42

Commission's Analysis

5.36 The Commission has projected the water charges for the control period based on trued-up value for FY 2020-21 with an escalation of 10% as claimed by the petitioner subject to truing-up based on audited accounts, as shown below,

TABLE 26: WATER CHARGES AS APPROVED BY THE COMMISSION

Particulars	Unit	FY 22	FY 23	FY 24	FY 25	FY 26
Water Charges	Rs. Cr.	1.64	1.81	1.99	2.19	2.41



Interest on Working Capital

Petitioner's Submission

5.37 The Petitioner has submitted the working capital as per the Regulation 15.23 of the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020, for non-pithead coal based thermal generating stations. Thus, as per the Regulations, the Working Capital requirement comprises of the following components:

- Cost of Coal for 50 days (20 days towards stock of Coal for non-pit head generating stations and 30 days for generation corresponding to NAPAF)
- Cost of secondary fuel oil for 2 months
- O&M Expenses for 1 month (including water charges & security expenses)
- Maintenance spares @20% of O&M Expenses (including water charges & security expenses)
- Receivables equivalent to 45 days average billing

5.38 For computation of interest on working capital for the MYT control period, the bank rate has been calculated as on 1st April, 2020, which comes out to be 11.50% and the same has been used.

TABLE 27: INTEREST ON WORKING CAPITAL AS SUBMITTED BY THE PETITIONER

Particulars	Unit	FY 22	FY 23	FY 24	FY 25	FY 26
Cost of Coal for 50 days	Rs. Cr.	13.98	14.54	15.12	15.73	16.37
Cost of secondary fuel oil for 2 months	Rs. Cr.	0.56	0.50	0.50	0.50	0.50
O&M Expenses for 1 month	Rs. Cr.	2.42	2.58	2.74	2.91	3.10
Maintenance spares @20% of O&M Expenses	Rs. Cr.	5.80	6.18	6.57	6.99	7.45
Receivables equivalent to 45 days average billing	Rs. Cr.	22.87	23.31	23.79	24.46	25.31
Working Capital Requirement	Rs. Cr.	45.63	47.11	48.73	50.60	52.74
Applicable Rate of Interest	%	11.50%	11.50%	11.50%	11.50%	11.50%
Interest on Working Capital	Rs. Cr.	5.25	5.42	5.60	5.82	6.07

Commission's Analysis

5.39 The Commission has approved the Interest on working capital as per provisions in the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020.

5.40 Clause 15.26 of JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 states,



“The rate of Interest on Working Capital shall be on normative basis and shall be equal to Bank Rate plus 350 basis points as on September 30 of the financial year in which the MYT Petition is filed or as on April 01, of the year during the Control Period from FY 2021-22 to FY 2025-26 in which the generating station or a Unit thereof, is declared under commercial operation, whichever is later:

Provided that the rate of interest on working capital shall be true up on the basis of Bank Rate plus 350 basis points as applicable on April 01, of the respective financial year at the time of true up.”

- 5.41 The effective rate of interest of working capital according to the Regulations as mentioned above is computed as 10.50% (SBI One year MCLR as on 30th September, 2020, i.e., 7.00% plus 350 basis points). The details of working capital approved by the Commission is given in the following table.

TABLE 28: INTEREST ON WORKING CAPITAL AS APPROVED BY THE COMMISSION

Particulars	UoM	FY 22	FY 23	FY 24	FY 25	FY 26
Coal Cost for 50 Days	Rs. Cr	14.49	14.49	14.49	14.49	14.49
Cost of secondary fuel oil for 2 months	Rs. Cr	0.61	0.61	0.61	0.61	0.61
O&M Expenses for 1 month	Rs. Cr	2.22	2.35	2.48	2.62	2.77
Maintenance Spares (20% of O&M)	Rs. Cr	5.34	5.65	5.96	6.29	6.64
Receivables for 45 days	Rs. Cr	23.22	23.28	23.33	23.36	23.33
Total Working Capital	Rs. Cr	45.88	46.38	46.87	47.38	47.84
Rate of Interest	%	10.50%	10.50%	10.50%	10.50%	10.50%
Interest on Working Capital	Rs. Cr	4.82	4.87	4.92	4.97	5.02

Total Fixed Cost

Petitioner's Submission

- 5.42 Based on the above discussed fixed components, the total fixed charges for generating station of IPL for FY 2021-22 to FY 2025-26 has been computed. The Hon'ble Commission is requested to approve the fixed charges as projected in the table below.

TABLE 29: TOTAL FIXED COST AS SUBMITTED BY THE PETITIONER

Particulars	Unit	FY 22	FY 23	FY 24	FY 25	FY 26
Depreciation	Rs. Cr	17.96	17.96	17.96	17.96	17.96
Interest on Loan	Rs. Cr	10.10	7.64	5.09	3.74	3.49
Return on Equity	Rs. Cr	17.78	17.99	17.99	17.99	17.99
Interest on Working Capital	Rs. Cr	5.25	5.42	5.60	5.82	6.07
O&M Expenses	Rs. Cr	27.34	29.09	30.86	32.77	34.83
Water Charges	Rs. Cr	1.66	1.82	2.00	2.20	2.42
Total Fixed Cost	Rs. Cr.	80.09	79.92	79.51	80.49	82.77



Commission's Analysis

5.43 The Commission has summarized the total fixed cost in the table as shown below.

TABLE 30: TOTAL FIXED COST AS APPROVED BY THE COMMISSION

Particulars	Unit	FY 22	FY 23	FY 24	FY 25	FY 26
Depreciation	Rs. Cr.	17.49	17.49	17.59	17.59	17.59
Interest on Loan	Rs. Cr.	13.25	11.94	10.55	9.02	6.97
Return on Equity	Rs. Cr.	16.63	16.85	16.93	17.01	17.01
Interest on Working Capital	Rs. Cr.	4.82	4.87	4.92	4.97	5.02
O&M Expenses	Rs. Cr.	25.05	26.42	27.79	29.27	30.81
Water Charges	Rs. Cr.	1.64	1.81	1.99	2.19	2.41
Total Fixed Cost	Rs. Cr.	78.87	79.38	79.78	80.05	79.81

Performance Targets

Gross Station Heat Rate (SHR)

Petitioner's Submission

5.44 The Petitioner in the Business Plan, submitted the Station Heat Rate for the power plant at **2931.25 kCal/kWh** for the control period based on past performance of the power plant and considering difficult operating conditions and uncontrollable change in fuel mix.

Commission's Analysis

5.46 The Commission had directed the Petitioner to submit the reason for deviation from normative value in Gross Station Heat Rate. The Petitioner vide letter dated November 12, 2022, replied that higher Gross Station Heat Rate is due to variance in the fuel mix affecting Gross Calorific Value and ash content.

5.47 The Commission, in this MYT Order, has approved the Norms of Operation **as per Regulation A 16 of the JSERC (Terms & Conditions for Determination of Generation Tariff) (First Amendment) Regulations, 2023**. Accordingly, the approved Gross Station Heat Rate (GHR) is shown below.

TABLE 31: GROSS STATION HEAT RATE AS APPROVED BY THE COMMISSION

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Gross Station Heat Rate	kCal/kWh	2,902.00	2,902.00	2,902.00	2,902.00	2,902.00



Auxiliary Consumption

Petitioner's Submission

5.48 The Petitioner in the Business Plan submitted the Auxiliary Consumption for the power plant at **11.15%**. Further, the Petitioner mentioned that CFBC boilers involve higher fan power as compared to the pulverized fuel fired units, resulting in higher auxiliary power.

Commission's Analysis

5.49 The Commission had directed the Petitioner to submit the reason for deviation from normative value in auxiliary consumption as approved in MYT Order dated May 16, 2017. The Petitioner, vide letter dated November 04, 2022, replied that higher auxiliary consumption is due to higher consumption prevalent in CFBC technology plants.

5.50 Additionally, the Petitioner highlighted that State Electricity Regulatory Commission (SERC) in other States have allowed higher auxiliary consumption for plants operating on Circulating Fluidized-bed Combustion Technology (CFBC) as shown below.

- i. In the case of Rajasthan West Power Limited, Rajasthan Electricity Regulatory Commission had allowed the auxiliary consumption as 11.50%.
- ii. In the case of Gujarat Industries Power Company Limited, Gujarat Electricity Regulatory Commission had allowed an auxiliary consumption of 12.5% for 3 years and 11.5% from the 4th year onwards.
- iii. In the case of Bajaj Energy Pvt. Limited, Uttar Pradesh Electricity Regulatory Commission had allowed an auxiliary consumption of 11.50% during stabilization and 11.00% post stabilization period.

5.51 The Commission, in this MYT Order, has approved the Norms of Operation **as per Regulation A 16 of the JSERC (Terms & Conditions for Determination of Generation Tariff) (First Amendment) Regulations, 2023**. Accordingly, the approved Auxiliary Consumption is shown below.

TABLE 32: AUXILIARY CONSUMPTION AS APPROVED BY THE COMMISSION

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Auxiliary Consumption	%	10.50%	10.50%	10.50%	10.50%	10.50%



Normative Annual Plant Availability Factor (NAPAF)

Petitioner's Submission

5.52 The Petitioner, in the Business Plan submitted the Normative Annual Plant Availability Factor for the power plant at **82.50%**, after considering the relaxation of PAF for CFBC boilers provided in CERC Tariff Regulations 2019-24 and as per the Commission's order in Case No. 06 and 11 of 2016 dated 16th May, 2017.

Commission's Analysis

5.53 The Commission, in this MYT Order, has approved the Norms of Operation **as per Regulation A 16 of the JSERC (Terms & Conditions for Determination of Generation Tariff) (First Amendment) Regulations, 2023**. Accordingly, the approved Normative Annual Plant Availability Factor (NAPAF) is shown below.

TABLE 33: NORMATIVE ANNUAL PLANT AVAILABILITY FACTOR AS APPROVED BY THE COMMISSION

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Normative Annual Plant Availability Factor	%	82.50%	82.50%	82.50%	82.50%	82.50%

Secondary Fuel Oil Consumption

Petitioner's submission

5.54 The Petitioner had submitted the specific fuel oil consumption as **1.00 ml/kWh** in line to JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020.

Commission's Analysis

5.55 The Commission observes that the submission made by the Petitioner is in line with JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020. Hence, the Commission approves the secondary fuel oil consumption as **1.00 ml/kWh**.



Determination of Energy Charges

Fuel Price and Calorific Value

Petitioner's submission

5.56 The Petitioner has submitted that it doesn't have any fuel linkage, it's procuring fuel from various sources like:

- E - Auction CIL coal
- Shakti Scheme
- Coal from the forward auctions
- Washery Rejects of CCL
- Rejects from Tata Steel

5.57 The petitioner has projected a blending ratio of 35:65:00 for Coal-Coal Rejects-Dolochar. The price of coal and coal rejects has been escalated by 3% and 5% respectively on year-on-year basis.

5.58 The Petitioner further submits that 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 17.11 of the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020. The table below represents the fuel price and calorific value of primary fuel as projected for the MYT Control period.

TABLE 34: FUEL PRICE AND CALORIFIC VALUE AS SUBMITTED BY THE PETITIONER

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
GCV of Coal	Kcal/Kg	3,551.26	3,551.26	3,551.26	3,551.26	3,551.26
GCV of Rejects	Kcal/Kg	1,916.24	1,916.24	1,916.24	1,916.24	1,916.24
GCV of Dolochar	Kcal/Kg	-	-	-	-	-
Weighted average GCV of fuel	Kcal/Kg	2,488.50	2,488.50	2,488.50	2,488.50	2,488.50
Coal	%	35.00%	35.00%	35.00%	35.00%	35.00%
Rejects	%	65.00%	65.00%	65.00%	65.00%	65.00%
Dolochar	%	0.00%	0.00%	0.00%	0.00%	0.00%
Fuel mix		35:65:00	35:65:00	35:65:00	35:65:00	35:65:00
Price of Coal	Rs./MT	2,669.54	2,749.63	2,832.11	2,917.08	3,004.59
Price of Rejects	Rs./MT	1,476.18	1,549.99	1,627.49	1,708.86	1,794.31
Price of Dolochar	Rs./MT	-	-	-	-	-
Weighted average Price of Primary Fuel	Rs./MT	1,893.86	1,969.86	2,049.11	2,131.74	2,217.91
Transit Loss considered	%	0.80%	0.80%	0.80%	0.80%	0.80%
Weighted average Price of Primary Fuel after Transit Loss	Rs/MT	1,909.13	1,985.75	2,065.63	2,148.93	2,235.79



- 5.59 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 previously approved by the Commission and requests this Hon'ble Commission to approve the fuel prices as claimed by IPL for the MYT Control Period.
- 5.60 The Petitioner also humbly submits that as the above projected Fuel price and Calorific Value of Primary Fuel is based on historical trends and prevailing market prices, the same can change significantly during the Control Period. The Petitioner submits that it has no control over the Prices of the Fuel or the Calorific Value of Fuel available in the E -Auction CIL coal, Shakti Scheme, Coal from the forward auctions, Washery Rejects of CCL, Rejects from Tata Steel. Hence the Petitioner humbly prays to the Hon'ble Commission that while the Petitioner will make all earnest efforts to secure the most optimum fuel mix for its Power Plant, the actual incurred price and calorific value will be submitted during True Up for each year of the Control period for approval of the Hon'ble Commission.

Commission's Analysis

- 5.61 The Commission has directed The Petitioner to submit the basis of projecting the escalation factor of 3% for the Rate of Coal, 5% for the Rate of Coal Rejects.
- 5.62 The Petitioner vide its reply dated 24.01.2023 stated that the escalation factor for the Rate of Coal has been taken equal to CAGR between FY 2015-16 and FY 2019-20, and the escalation factor for the Rate of Coal Rejects has been conservatively estimated to be 5% since the CAGR between FY 2015-16 and FY 2019-20 is 23%.
- 5.63 The JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 states,

“17.10 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 Control period for existing stations and immediately preceding three months in case of new generating stations shall be taken into account.

17.11 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 pithead stations if coal or lignite is procured from sources other than the pithead 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%.”

- 5.64 For the determination of GCV and landed cost of fuel, as per Clause 17.10 of the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020, the Commission has considered the data for the last three months preceding the start of the Control Period, i.e., January, February and March considering the Petitioner’s audited data for FY 2020-21. However, the Commission has not considered any escalation rate, as the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020 do not provide such mechanism for the escalation of price of fuel throughout the Control Period. The GCV and price of fuel have not been treated as ‘Controllable’ items in the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020, as such, any variation in these parameters may be claimed by the Petitioner while truing up. The Commission after considering the submission of the Petitioner approves the blending ratio, GCV and landed price of primary as given in the following table:

TABLE 35: FUEL PRICE AND CALORIFIC VALUE AS APPROVED BY THE COMMISSION

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
GCV of Coal	Kcal/Kg	3,680.24	3,680.24	3,680.24	3,680.24	3,680.24
GCV of Rejects	Kcal/Kg	1,872.24	1,872.24	1,872.24	1,872.24	1,872.24
Weighted average GCV of fuel	Kcal/Kg	2,505.04	2,505.04	2,505.04	2,505.04	2,505.04
Weighted average GCV of fuel less Stacking Loss	Kcal/Kg	2,420.04	2,420.04	2,420.04	2,420.04	2,420.04
Coal	%	35.00%	35.00%	35.00%	35.00%	35.00%
Rejects	%	65.00%	65.00%	65.00%	65.00%	65.00%
Fuel mix	%	35:65	35:65	35:65	35:65	35:65



Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Price of Coal	Rs./MT	2,726.77	2,726.77	2,726.77	2,726.77	2,726.77
Price of Rejects	Rs./MT	1,498.75	1,498.75	1,498.75	1,498.75	1,498.75
Weighted average Price of Primary Fuel	Rs./MT	1,928.56	1,928.56	1,928.56	1,928.56	1,928.56
Transit Loss considered	%	0.80%	0.80%	0.80%	0.80%	0.80%
Weighted average Price of Primary Fuel after Transit Loss	Rs./MT	1,944.11	1,944.11	1,944.11	1,944.11	1,944.11

Primary Fuel Cost

Petitioner's submission

5.65 The Petitioner has submitted the primary fuel costs for the generating station for the entire control period as provided in the table below.

TABLE 36: PRIMARY FUEL COST AS SUBMITTED BY THE PETITIONER

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Capacity	MW	63.00	63.00	63.00	63.00	63.00
Plant Load Factor	%	82.50	82.50	82.50	82.50	82.50
Gross units generated	MU	455.30	455.30	455.30	455.30	455.30
Auxiliary consumption	MU	50.77	50.77	50.77	50.77	50.77
Auxiliary consumption	%	11.15	11.15	11.15	11.15	11.15
Net units Generated	MU	404.53	404.53	404.53	404.53	404.53
Weighted average GCV of Primary fuel	kCal/Kg.	2,488.50	2,488.50	2,488.50	2,488.50	2,488.50
Weighted average cost of primary fuel after Transit loss	Rs./MT	1,909.13	1,985.75	2,065.63	2,148.93	2,235.79
Primary Fuel Cost	Rs. Cr.	102.04	106.13	110.40	114.86	119.50

Commission's Analysis

5.66 The Commission has calculated the primary fuel costs for the generating station for the entire control period as provided in the table below.

TABLE 37: PRIMARY FUEL COST AS APPROVED BY THE COMMISSION

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Capacity	MW	63.00	63.00	63.00	63.00	63.00
Plant Load Factor	%	82.50	82.50	82.50	82.50	82.50
Gross units generated	MU	455.30	455.30	455.30	455.30	455.30
Auxiliary consumption	MU	47.81	47.81	47.81	47.81	47.81
Auxiliary consumption	%	10.50	10.50	10.50	10.50	10.50
Net units Generated	MU	407.49	407.49	407.49	407.49	407.49
Weighted average GCV of Primary fuel less Stacking Loss	kCal/Kg.	2,420.04	2,420.04	2,420.04	2,420.04	2,420.04
Weighted average cost of primary fuel after Transit loss	Rs./MT	1,944.11	1,944.11	1,944.11	1,944.11	1,944.11
Primary Fuel Cost	Rs. Cr.	105.78	105.78	105.78	105.78	105.78



Secondary Fuel Cost

Petitioner's submission

5.67 The Petitioner has proposed the secondary fuel cost as given in the following table below:

TABLE 38: SECONDARY FUEL COST AS SUBMITTED BY THE PETITIONER

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Gross Units generated	MU	455.30	455.30	455.30	455.30	455.30
Calorific value of Secondary fuel	kCal/L	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Specific fuel oil consumption	ml/kWh	1.00	1.00	1.00	1.00	1.00
Oil consumption	kL	455.30	455.30	455.30	455.30	455.30
Landed price of oil	Rs./kL	74,197.82	66,422.38	66,422.38	66,422.38	66,422.38
Cost of Secondary fuel oil	Rs. Cr	3.38	3.02	3.02	3.02	3.02

Commission's Analysis

5.68 The Commission had directed The Petitioner to submit the basis of projecting the rate of oil (Rs./kL) in its MYT Petition.

5.69 The Petitioner vide its reply dated 24.01.2023 stated that as per the DPR submitted to the Hon'ble Commission and its MYT Petition HSD is preferred during cold seasons compared to LDO due to high viscosity of LDO. Relevant portion of the DPR is reproduced below:

“During cold seasons due to high viscosity, it may become difficult to pump, hard to light the burner and tough to operate. LDO contains high carbon residue 1 percent or more. High carbon residue results in poor atomization, formation of carbon deposits on the burner tips and on the nozzles walls which leads to frequent flame failure and ultimately requires more time to light up boiler. Using of HSD causes less pollution as well light up of boiler takes in shorter duration which in turns give more availability of Plant for Power Generation. Considering to the environment aspects, more availability of plant for power generation and to avoid cold end corrosion due to SO₂. It is recommended to use HSD instead of LDO for the cold start up, flame stabilization of boiler.”

5.70 Thus the Petitioner has submitted that based on the projected timeframe for proposed capex of conversion of LDO system to HSD, the power plant was initially envisaged to run on HSD from 1st April 2021 for 150 Days till LDO system is installed. Then 30 Days shutdown would be required till switchover of SS APH Tubes was completed. Then for next 185 days, it will run on LDO



for 95 days and HSD for 90 days (during cold season). From 1st April 2022 onwards, plant will run on LDO except for Rainy and Winter seasons (5 months) as HSD is recommended during that time for boiler life. Based on the above projection IPL had considered the rate of Oil as below:

Particulars	UoM	FY 22	FY 23	FY 24	FY 25	FY 26
Rate of Oil	Rs./kL	74,197.82	66,422.38	66,422.38	66,422.38	66,422.38
		$= ((81,553.84 \times 240) + (55,614.20 \times 95)) / (240 + 95)$ (HSD operations for 240 days and LDO operations for 95 Days)	$= ((81,553.84 \times 5) + (55,614.20 \times 7)) / 12$			

- 5.71 The Petitioner has also submitted that the landed price of LDO considered for the purpose of determination of ARR for the MYT Control Period is Rs. 55,614.20/kL which included GST @18% and approximate transportation cost of Rs. 1,700/ (ex- budge budge). The price for Oil has been considered at Rs. 81,553.84/ litre which was the prevailing cost per litre. As the prices of LDO and HSD are decided by the Oil Marketing Companies and are subject to wide variation, IPL has not considered any escalation in the rates.
- 5.72 For the determination of landed price of oil, as per Clause 17.10 of the JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020, the Commission has considered the data for last three months preceding the start of the Control Period, i.e., January, February and March considering the Petitioner's audited data for FY 2020-21.
- 5.73 The Commission after scrutinizing the submission of the Petitioner calculated the weighted average landed price of secondary fuel as given in the following table.

TABLE 39: SECONDARY FUEL COST AS APPROVED BY THE COMMISSION

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Gross Units generated	MU	455.30	455.30	455.30	455.30	455.30
Calorific value of Secondary fuel	kCal/L	10,000.00	10,000.00	10,000.00	10,000.00	10,000.00
Specific fuel oil consumption	ml/kWh	1.00	1.00	1.00	1.00	1.00
Oil consumption	kL	455.30	455.30	455.30	455.30	455.30
Landed price of oil	Rs./kL	80,471.31	80,471.31	80,471.31	80,471.31	80,471.31
Cost of Secondary fuel oil	Rs. Cr	3.66	3.66	3.66	3.66	3.66



Energy Charge Rate (ECR)

Petitioner's submission

5.74 The Petitioner has submitted the energy charge for the entire control period as per the primary and secondary fuel cost discussed in the above paragraphs for the generating station as provided in the table below:

TABLE 40: ENERGY CHARGE RATE AS SUBMITTED BY THE PETITIONER

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Primary Fuel Cost	Rs. Cr.	102.04	106.13	110.40	114.86	119.50
Cost of Secondary fuel oil	Rs. Cr.	3.38	3.02	3.02	3.02	3.02
Total Energy Charge	Rs. Cr.	105.42	109.16	113.43	117.88	122.52
Net units Generated	MU	404.53	404.53	404.53	404.53	404.53
Total Energy charge per unit	Rs./kWh	2.61	2.70	2.80	2.91	3.03

Commission's Analysis

5.75 The JSERC (Terms & Conditions for Determination of Generation Tariff) Regulations, 2020 states,

“17.7 The energy (variable) charge shall cover primary fuel and secondary fuel costs and limestone consumption cost (where applicable) and 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). The total energy charge payable to the Generating Company for a month shall be:

Energy Charges = Energy Charge Rate (in Rs./kWh) x Scheduled Energy (Ex-Bus) for the Month (in kWh)

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

For coal-based stations and lignite fired stations:

Energy Charge Rate (ECR) = {(SHR - SFC x CVSF) x LPPF/CVPF+SFC x LPSFi+ LC x LPL} / (1 - Aux)”

5.76 Accordingly, the Commission has calculated the Energy Charge Rate as provided in the table below:



TABLE 41: ENERGY CHARGE RATE AS APPROVED BY THE COMMISSION

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Gross Generation	MU	455.30	455.30	455.30	455.30	455.30
Auxiliary consumption	%	10.50	10.50	10.50	10.50	10.50
Heat Rate	kCal/kWh	2,902.00	2,902.00	2,902.00	2,902.00	2,902.00
Specific Oil Consumption	ml/kWh	1.00	1.00	1.00	1.00	1.00
Calorific Value of primary fuel less staking loss	kCal/kg	2,420.04	2,420.04	2,420.04	2,420.04	2,420.04
Calorific Value of secondary fuel	kCal/ml	10.00	10.00	10.00	10.00	10.00
Landed price of Primary fuel	Rs./MT	1,944.11	1,944.11	1,944.11	1,944.11	1,944.11
Landed price of Secondary fuel	Rs./mL	0.08	0.08	0.08	0.08	0.08
Energy Charge Rate	Rs/kWh	2.69	2.69	2.69	2.69	2.69

Summary of ARR Components

Petitioner's Submission

5.77 The Summary of ARR Components for the Control Period as submitted by the Petitioner is shown in the table below,

TABLE 42: SUMMARY OF ARR COMPONENTS AS SUBMITTED BY THE PETITIONER

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Depreciation	Rs. Cr.	17.96	17.96	17.96	17.96	17.96
Interest on Loan	Rs. Cr.	10.10	7.64	5.09	3.74	3.49
Return on Equity	Rs. Cr.	17.78	17.99	17.99	17.99	17.99
Interest on working Capital	Rs. Cr.	5.25	5.42	5.60	5.82	6.07
O&M Expenses	Rs. Cr.	27.34	29.09	30.86	32.77	34.83
Water Charges	Rs. Cr.	1.66	1.82	2.00	2.20	2.42
Total Fixed Cost	Rs. Cr.	80.09	79.92	79.51	80.49	82.77
Cost of Primary fuel	Rs. Cr.	102.04	106.13	110.40	114.86	119.50
Cost of Secondary fuel	Rs. Cr.	3.38	3.02	3.02	3.02	3.02
Total Variable Cost	Rs. Cr.	105.42	109.16	113.43	117.88	122.52
Net Generation	MUs	404.53	404.53	404.53	404.53	404.53
Energy Charge Rate	Rs/kWh	2.61	2.70	2.80	2.91	3.03
Annual Revenue Requirement	Rs. Cr.	185.51	189.08	192.94	198.37	205.29



Commission's Analysis

5.78 The Summary of Operational Parameters and ARR Components for the Control Period as approved by the Commission is shown in the table below,

TABLE 43: SUMMARY OF OPERATIONAL PARAMETERS AND ARR COMPONENTS AS APPROVED BY THE COMMISSION

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Operational parameters						
Capacity	MW	63.00	63.00	63.00	63.00	63.00
Plant Load Factor	%	82.50%	82.50%	82.50%	82.50%	82.50%
Availability	%	82.50%	82.50%	82.50%	82.50%	82.50%
Gross Generation	MUs	455.30	455.30	455.30	455.30	455.30
Auxiliary Consumption	%	10.50%	10.50%	10.50%	10.50%	10.50%
Auxiliary Consumption	MUs	47.81	47.81	47.81	47.81	47.81
Net Generation	MUs	407.49	407.49	407.49	407.49	407.49
Weighted Average GCV of primary fuel less stacking loss	kCal/kg	2,420.04	2,420.04	2,420.04	2,420.04	2,420.04
Station Heat Rate	kcal/kWh	2,902.00	2,902.00	2,902.00	2,902.00	2,902.00
Calorific value of secondary fuel	kCal/ml	10.00	10.00	10.00	10.00	10.00
Primary fuel consumption	Tons	5,44,093.72	5,44,093.72	5,44,093.72	5,44,093.72	5,44,093.72
Secondary oil consumption	kL	455.30	455.30	455.30	455.30	455.30
Price of primary fuel after transit loss	Rs./Ton	1,944.11	1,944.11	1,944.11	1,944.11	1,944.11

Particulars	Units	FY 22	FY 23	FY 24	FY 25	FY 26
Annual Revenue Requirement						
Depreciation	Rs. Cr.	17.49	17.49	17.59	17.59	17.59
Interest on Loan	Rs. Cr.	13.25	11.94	10.55	9.02	6.97
Return on Equity	Rs. Cr.	16.63	16.85	16.93	17.01	17.01
Interest on working Capital	Rs. Cr.	4.82	4.87	4.92	4.97	5.02
O&M Expenses	Rs. Cr.	25.05	26.42	27.79	29.27	30.81
Water Charges	Rs. Cr.	1.64	1.81	1.99	2.19	2.41
Total Fixed Cost	Rs. Cr.	78.87	79.38	79.78	80.05	79.81
Cost of Primary fuel	Rs. Cr.	105.78	105.78	105.78	105.78	105.78
Cost of Secondary fuel	Rs. Cr.	3.66	3.66	3.66	3.66	3.66
Total Variable Cost	Rs. Cr.	109.44	109.44	109.44	109.44	109.44
Annual Revenue Requirement	Rs. Cr.	188.32	188.82	189.22	189.50	189.25



Chapter 6: Directives

Timeliness and Data Adequacy in the Next Tariff Petition

6.1 The Commission directs the Petitioner to file the next tariff Petition, after removing deficiencies highlighted in this Tariff Order. The Petitioner should ensure that the data submitted to the Commission is accurate and justified with adequate certification. The Commission also directs the licensee to ensure submission of the next tariff petition within the time frame as stipulated in the JSERC (Terms and Conditions for Determination of Generation Tariff) Regulations, 2020.

This Order is signed and issued by the Jharkhand State Electricity Regulatory Commission on November 16, 2023.

Date: 16.11.2023

Place: Ranchi

Sd/-	Sd/-	Sd/-
Atul Kumar	Mahendra Prasad	Justice Amitav Kumar Gupta
MEMBER (Technical)	MEMBER (Legal)	CHAIRPERSON



ANNEXURE - I

List of participating members in the Public Hearing

Sl. No	Name	Address/Organization
1.	Mr. Dhiresk Kumar	8/H, New Telephone Ex. Jhumri Telayiya, Koderma Present: Kokar, Ranchi
2.	Mr. Giriraj Kumar Jhavar	C 218, Ashok Nagar, Road No. 02, Ranchi
3.	Mr. Amit Kumar Chaudhary	101 A, Ratnawali Appt, Lalpur, Ranchi
4.	Mr. Ortan Tirkey	A.G. Collony, Doranda, Ranchi
5.	Dr. Brnnu Kumar	280, Magistrate Colony, Doranda, Ranchi
6.	Mr. Rajesh Kumar	Bariatu, Green Park, Appartment, Bariatu, Ranchi
7.	Mr. Pawan Kr. Thakur	Ranchi, Bariatu
8.	Mr. Saket Upadhyay	Advocate
9.	Mr. Anand Bardia	Inland Power Ltd.
10.	Mr. Shailendra Sinha	Inland Power Ltd.
11.	Mr. Sanjay Kr. Singh	Inland Power Ltd.
12.	Mr. A. Sengupta	Inland Power Ltd.
13.	Mrs. Shivani	Inland Power Ltd.
14.	Mr. Sujoy Kumar Das	Inland Power Ltd. (Consultant, Deloitte)
15.	Mrs. Anita Prasad	JBVNL
16.	Mr. Birendra Kisku	JBVNL
17.	Mrs. Veebha Kumari	JBVNL
18.	Mr. Sharat Kumar	JBVNL
19.	Mr. R.K. Tripathy	JBVNL (Consultant, PWC)