

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 489/GT/2020

Coram:

**Shri I. S Jha, Member
Shri Arun Goyal, Member
Shri Pravas Kumar Singh, Member**

Date of Order: 22nd September, 2022

In the matter of:

Petition for approval of tariff of Indira Gandhi Super Thermal Power Project Stage-I (1500 MW) for the period from 1.4.2019 to 31.3.2024

And

In the matter of:

Aravalli Power Company Private Limited,
NTPC Bhawan, Core-7, Scope Complex,
7, Institutional Area, Lodhi Road
New Delhi-110003

.....Petitioner

Vs

1. Haryana Power Purchase Centre,
Shakti Bhawan, Sector-VI, Panchkula,
Haryana-134109.
2. Tata Power Delhi Distribution Limited,
Grid Substation, Hudson Road, Kingsway Camp,
New Delhi- 110009.
3. BSES Rajdhani Power Limited,
BSES Bhawan, Nehru Place,
New Delhi-110019.
4. BSES Yamuna Power Limited,
Shakti Kiran Building, Karkardooma,
Delhi-110092

...Respondents

Parties Petitioner:

Ms. Swapna Seshadri, Advocate, APCPL
Shri Anand K. Ganesan, Advocate, APCPL
Ms. Ritu Apurva, Advocate, APCPL
Shri Jai Dhanani, Advocate, APCPL
Shri R.B. Sharma, Advocate, BRPL



Ms. Megha Bajpeyi, BRPL
Shri Buddy Ranganathan, Advocate, BYPL
Ms. Ranjana Roy Gawai, Advocate, TPDDL
Ms. Vasudha Sen, Advocate, TPDDL
Shri Shikher Upadhyay, Advocate, TPDDL
Shri Anurag Bansal, Advocate, TPDDL
Ms. Shefali Sobti, TPDDL
Shri Samir Malik, Advocate, HPPC
Ms. Nikita Choukse, Advocate, HPPC

ORDER

This petition has been filed by the Petitioner, Aravali Power Company Private Limited (in short 'APCPL'), for determination of tariff of Indira Gandhi Super Thermal Power Project, Stage-I (3 x 500 MW) (hereinafter referred to as 'the generating station') for the period from 1.4.2019 to 31.3.2024, in accordance with the provisions of the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2019 (hereinafter referred to as 'the 2019 Tariff Regulations').

2. The Petitioner, APCPL is a Joint Venture company incorporated under the Companies Act, 1956 with NTPC holding 50% share and 25% shares each being held by Haryana Power Generation Company Ltd (HPGCL) and Indraprastha Power Generation Company Ltd (IPGCL) respectively. The management and control of APCPL is vested with NTPC Ltd, a company owned and controlled by the Government of India. The generating station, with a capacity of 1500 MW, comprises of three units of 500 MW each and is located in the Jhajjar District of the State of Haryana. The dates of commercial operation of these units of the generating station are as under:

	Date of Commercial Operation
Unit-I	5.3.2011
Unit-II	21.4.2012
Unit-III	26.4.2013



3. The Commission vide its order dated 20.9.2022 in Petition No.157/GT/2020 had approved the capital cost and annual fixed charges of the generating station for the 2014-19 tariff period as under:

Capital Cost allowed

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost (A)	761233.37	801272.07	830580.56	843914.05	874245.10
Add: Admitted Additional capital expenditure (B)	40038.70	29308.48	13333.49	30331.06	678.88
Closing Capital cost (C) = (A+B)	801272.07	830580.56	843914.05	874245.10	874923.98
Average Capital cost (D) = (A+C)/2	781252.72	815926.32	837247.30	859079.58	874584.54

Annual Fixed Charges allowed

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	37154.82	38665.93	38430.49	39514.44	40339.43
Interest on Loan	49402.53	47523.17	45273.22	34501.00	31999.28
Return on Equity	45961.10	48233.48	49493.87	50784.49	51840.12
O&M Expenses	24922.37	26299.80	28243.05	29990.86	32272.71
Interest on Working Capital	18316.23	18464.81	18538.24	18784.09	18911.61
Total	175757.04	179187.19	179978.87	173574.88	175363.14

Present Petition

4. The Petitioner has filed the present Petition for determination of tariff for the generating station for the 2019-24 tariff period, in terms of the provisions of the 2019 Tariff Regulations and has claimed the capital cost and annual fixed charges as under:

Capital cost claimed

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening capital cost	880149.69	888349.69	899913.69	907832.69	908428.69
Add: Addition during the year/period	8200.00	11564.00	7919.00	596.00	0.00
Closing Capital Cost	888349.69	899913.69	907832.69	908428.69	908428.69
Average Capital Cost	884249.69	894131.69	903873.19	908130.69	908428.69

Annual Fixed Charges claimed

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	40127.25	40575.70	41017.77	41210.97	41224.49
Interest on Loan	29683.47	26789.31	23851.63	20549.69	16996.82



	2019-20	2020-21	2021-22	2022-23	2023-24
Return on Equity	49823.93	50379.77	50927.70	51167.62	51184.43
Interest on Working Capital	15279.67	15334.69	15384.91	15414.36	15429.61
O&M Expenses	36752.57	38292.52	39892.75	41354.75	42865.20
Annual Fixed Charges	171666.89	171371.99	171074.75	169697.39	167700.56

5. The Petitioner vide affidavit dated 30.6.2021 has filed the additional information and has served copies of the same on the Respondents. The Respondent HPPC has filed its reply vide affidavit dated 24.9.2021 and the Respondent BRPL and Respondent BYPL has filed their replies vide affidavits dated 17.8.2021 and 25.8.2021 respectively. The Petitioner vide its affidavits dated 11.11.2021 has filed its rejoinder to replies of the Respondents HPPC and BRPL. The Commission vide Record of the Proceeding (ROP) of the hearing dated 18.11.2021 directed the Petitioner to submit certain additional information and reserved its order in the matter. In response, the Petitioner vide affidavit dated 7.2.2022 has furnished the additional information after serving copies of the same on the Respondents. Taking into consideration the submissions of the parties and the documents available on record, we proceed to examine the claims of the Petitioner, on prudence check, as stated in the subsequent paragraphs.

Capital Cost

6. Clauses (1), (3), and (5) of Regulation 19 of the 2019 Tariff Regulations provides for the following:

“19. Capital Cost: (1) The Capital cost of the generating station or the transmission system, as the case may be, as determined by the Commission after prudence check in accordance with these regulations shall form the basis for determination of tariff for existing and new projects.

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(3) The Capital cost of an existing project shall include the following:

- (a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
- (b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
- (c) Capital expenditure on account of renovation and modernisation as admitted*



- by this Commission in accordance with these regulations;*
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
 - (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
 - (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.*

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(5) The following shall be excluded from the capital cost of the existing and new projects:

- (a) The assets forming part of the project, but not in use, as declared in the tariff petition;*
- (b) De-capitalised Assets after the date of commercial operation on account of replacement or removal on account of obsolescence or shifting from one project to another project:*
Provided that in case replacement of transmission asset is recommended by Regional Power Committee, such asset shall be de-capitalised only after its redeployment;
Provided further that unless shifting of an asset from one project to another is of permanent nature, there shall be no de-capitalization of the concerned assets.
- (c) In case of hydro generating stations, any expenditure incurred or committed to be incurred by a project developer for getting the project site allotted by the State Government by following a transparent process;*
- (d) Proportionate cost of land of the existing project which is being used for generating power from generating station based on renewable energy; and*
- (e) Any grant received from the Central or State Government or any statutory body or authority for the execution of the project which does not carry any liability of repayment.”*

7. The Petitioner has claimed capital cost of Rs.880149.69 lakh as on 1.4.2019. However, the closing capital cost approved vide order dated 20.9.2022 in Petition No. 157/GT/2020 was of Rs. 874923.98 lakh as on 31.3.2019 and the same has been considered as the opening capital cost as on 1.4.2019, for determination of tariff for the 2019-24 tariff period, in accordance with the 2019 Tariff Regulations.

Additional Capital Expenditure



8. Regulations 25 and 26 of the 2019 Tariff Regulations provides as under:

“25. Additional Capitalisation within the original scope and after the cut-off date:

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

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

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

(c) Deferred works relating to ash pond or ash handling system in the original scope of work;

(d) Liability for works executed prior to the cut-off date;

(e) Force Majeure events;

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

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

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

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

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

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

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

26. Additional Capitalisation beyond the original scope

(1) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts beyond the original scope, may be admitted by the Commission, subject to prudence check:

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

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

(c) Force Majeure events;

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

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

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

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

(2) In case of de-capitalisation of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as on the date of de-capitalisation shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from outstanding loan and the equity respectively in the year such de-capitalisation takes place with corresponding adjustments in cumulative depreciation and cumulative repayment of loan, duly taking into consideration the year in which it was capitalised.”

9. The year-wise projected additional capital expenditure claimed by the Petitioner for the 2019-24 tariff period are as under:

(Rs. in lakh)							
	Head of Work /Equipment	Regulation	2019-20	2020-21	2021-22	2022-23	2023-24
A	Works within original scope, Change in law etc. eligible for ROE at normal Rate						
1.	Enhanced Land Compensation	25 (1) (a)	8000.00	8000.00	7245.00	0.00	0.00
2.	Installation of LED Lights	26 (1) (b)	200.00	100.00	0.00	0.00	0.00
3.	Track electrification	26 (1) a & 26 (1) b	0.00	918.00	0.00	0.00	0.00
4.	Chlorine Dioxide plant	26 (1) (b) & 26 (1) (d)	0.00	750.00	0.00	0.00	0.00
5.	Implementation of 'Enterprise Resource Planning'	25 (2) c	0.00	919.00	0.00	0.00	0.00
6.	Procurement & installation of Coal Ash Analyser	26 (1) b	0.00	134.00	0.00	0.00	0.00
7.	Standard BOXN Rail Wagon (1 No) for testing requirement	26 (1) (b)	0.00	50.00	0.00	0.00	0.00
8.	Replacement of DCS HMI	25 (2) c	0.00	502.00	564.00	596.00	0.00
9.	Procurement of Fire Tender (4 No)	25 (2) b	0.00	110.00	110.00	0.00	0.00
	Subtotal (A)		8200.00	11483.00	7919.00	596.00	0.00
B	Works beyond original scope						
1.	Implementation of 'Energy Management System'	26 (1) with 76	0.00	81.00	0.00	0.00	0.00
	Total Projected additional capital expenditure claimed		8200.00	11564.00	7919.00	596.00	0.00



(a) Enhanced Land Compensation

10. The Petitioner has claimed total projected additional capital expenditure of Rs.23245.00 lakh during 2019-22 (Rs. 8000.00 lakh in 2019-20, Rs. 8000.00 lakh in 2020-21 and Rs. 7245.00 lakh in 2021-22) under Regulation 25(1)(a) of the 2019 Tariff Regulations towards enhanced land compensation. The Petitioner has submitted that Special Leave Petitions were filed before the Hon'ble Supreme Court for setting aside the enhanced Land Compensation as decided by the Hon'ble High Court. It has also submitted that the compensation was finally decided by the Hon'ble Court vide its judgement dated 5.9.2017 and the present additional capitalization claimed is towards the payment of compensation in terms of the said judgement. The petitioner has stated that enhanced compensation is being released to the landowners, as and when they approach the Petitioner for the same. The Respondents HPPC and BRPL have submitted that the details submitted by the Petitioner are incomplete with respect to the additional capitalisation claimed.

11. The matter has been considered. It is observed that the projected additional capital expenditure of Rs.23245.00 lakh claimed during 2019-22 is towards enhanced land compensation as finally decided by the Hon'ble Supreme Court vide its judgement dated 5.9.2017. In view of this, the total additional capital expenditure of Rs.23245.00 lakh claimed by the Petitioner is allowed under Regulation 25(1)(a) of the 2019 Tariff Regulations.

(b) Installation of LED Lights

12. The Petitioner has claimed projected additional capital expenditure of Rs.300 lakh during 2019-21 (i.e Rs.200 lakh in 2019-20 and Rs.100 lakh in 2020-21) towards



installation of LED lights under Regulation 26(1)(b) of the 2019 Tariff Regulations towards work. The Petitioner has submitted that the Hon'ble Prime Minister of India, on 5.1.2015, launched National LED Programme with an objective to reduce energy consumption by using energy efficient lighting and in line with this objective, Unnat Jyoti by Affordable LEDs for all (UJALA) and Street Lighting National Programme is being implemented by M/s EESL. The Petitioner has also stated that subsequently, the Govt of Haryana vide gazette notification dated 29.6.2016, has made it mandatory for all Central Govt/ State Govt/ Public Sector establishments, located in the state of Haryana to use LED lights.

13. The Respondents HPPC, BRPL and BYPL have submitted that the adoption of the energy conservation measure, is in the interest of the Petitioner, as the savings in energy would benefit the Petitioner, from the power generated and thus, the burden cannot be passed on to the beneficiaries, on this count. They have further submitted that the Petitioner may be directed to submit the details of energy savings as a result of the installation of LED lights and may be subject to prudence check.

14. The matter has been considered. It is observed that the Petitioner, in Petition No. 157/GT/2020 had claimed total additional capital expenditure for Rs. 124.06 lakh during 2017-19 towards installation of LED lighting and the Commission vide its order dated 20.9.2022 had not allowed the claim of the Petitioner as under:

"49.....It is noticed that the additional capital expenditure incurred towards installation of LED lighting is in terms of the MOP, GoI letter dated 2.8.2017, which recommends the replacement of existing old bulbs with LED bulbs, resulting in reduction of about 50% to 90% in energy consumption by lighting. In our view, the letter of the MOP, GOI, as referred to by the Petitioner, is recommendatory in nature. Also, the Govt of Haryana gazette notification dated 29.6.2016, is applicable only for new plants. In view of this, the recommendations/gazette notification, cannot be construed as a 'change in law' event or for compliance to an existing law, for this generating station, in order to permit the additional capital expenditure claimed by the Petitioner. Moreover, the benefits of the replacement of incandescent light with the LED lighting system, accrues only to the benefit of the Petitioner. In view of these, the additional capital expenditure of Rs. 124.06



lakh in 2017-18 and Rs. 93.07 lakh in 2018-19 towards Installation of LED Lighting claimed by the Petitioner is not allowed.”

15. Further the Petitioner has also submitted that, the Govt of Haryana vide gazette notification dated 29.6.2016, has made it mandatory for all Central Govt/ State Govt/ Public Sector establishments, located in the State of Haryana to use LED lights. In this regard it is to mention that the above notification dated 29.6.2016 is mandatory for new plants only. Accordingly, the same is not applicable in the instant case.

16. In line with the above decision, the total additional capital expenditure of Rs.300 lakh claimed during 2019-21 for the said item/asset is not allowed.

(c) Track Electrification

17. The Petitioner has claimed projected additional capital expenditure of Rs.918 lakh in 2020-21 for the Track Electrification work under Regulations 26(1)(a) and Regulation 26(1)(b) of the 2019 Tariff Regulations. The Petitioner has submitted that Railway siding of the generating station to receive coal from Indian Railways takes off from Sudhrana Station situated at Rewari - Hissar section. It has also submitted that Indian Railways is carrying out electrification of Rewari - Hissar railway line and therefore the electrification of APCPL's Railway Siding is also required to be carried out. The Petitioner has also submitted that Indian Railway has indicated that subsequent to electrification of its part, coal would be supplied through electric locos only and that vide letter dated 12.11.2012 also indicated that the cost of electrification of the said Railway Siding is to be borne by the Petitioner and conveyed the estimated cost of Rs 918 lakh towards the same. It has further submitted that the requirement of capitalization is due to the direction of Indian Railways and the Petitioner has no other option, but to agree for electrification of the section for receipt of coal.