

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Petition No. 157/GT/2020**

**Coram:**

**Shri I.S Jha, Member**

**Shri Arun Goyal, Member**

**Shri Pravas Kumar Singh, Member**

**Date of Order: 20<sup>th</sup> September, 2022**

**In the matter of**

Petition for truing up of tariff of Indira Gandhi Super Thermal Power Project, Stage- I (1500 MW) for the 2014-19 tariff period.

**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 present:**

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 (APCPL) for truing-up of tariff of Indira Gandhi Super Thermal Power Project (IGSTPP), Stage-I (3 x 500 MW) (hereinafter referred to as 'the generating station') for the 2014-19 tariff period, in accordance with Regulation 8(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as 'the 2014 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 Jhajjar District of the State of Haryana. The dates of commercial operation of these units of the generating station are as under:

	<b>Date of Commercial Operation</b>
Unit-I	05.3.2011
Unit-II	21.4.2012
Unit-III	26.4.2013

3. The Commission vide its order dated 9.3.2017 in Petition No. 266/GT/2014 had approved the capital cost and annual fixed charges of the generating station for the 2014-19 tariff period as under:



## Capital Cost allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	761233.37	801272.07*	830580.55	830580.55	830580.55
Add: Additional Capital Expenditure	40038.70	29308.48	0.00	0.00	0.00
Closing Capital Cost	801272.07	830580.55	830580.55	830580.55	830580.55
<b>Average Capital cost</b>	<b>781252.72</b>	<b>815926.31*</b>	<b>830580.55</b>	<b>830580.55</b>	<b>830580.55</b>

- The closing capital cost of 2014-15 was not matching with the opening capital cost of 2015-16 so it is corrected

## Annual Fixed Charges allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	37154.45	38666.17	38124.60	38124.60	38124.60
Interest on Loan	50374.19	48862.23	45758.26	41553.14	37348.02
Return on Equity	45961.10	48233.48	49099.77	49099.77	49099.77
Interest on Working Capital	15532.61	15682.66	15699.77	15969.85	15982.10
O & M Expenses	24101.15	25427.16	26978.66	28631.66	30386.16
<b>Total</b>	<b>173123.49</b>	<b>176871.71</b>	<b>175661.06</b>	<b>173379.03</b>	<b>170940.66</b>

4. The Petitioner in the present petition in terms of Regulation 8(1) of the 2014 Tariff Regulations and has claimed the capital cost and annual fixed charges for the 2014-19 tariff period, as follows:

## Capital Cost claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	761233.37	801272.07	830580.55	844045.04	874806.30
Add: Addition during the year / period	23058.59	25020.00	7976.85	2925.56	3359.82
Less: Decapitalization during the year /period	1936.77	1653.99	60.13	420.30	679.58
Less: Reversal during the year / period	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year /period	18916.88	5942.47	5547.76	28256.00	2663.15
<b>Closing Capital Cost</b>	<b>801272.07</b>	<b>830580.55</b>	<b>844045.04</b>	<b>874806.30</b>	<b>880149.69</b>
<b>Average Capital Cost</b>	<b>781252.72</b>	<b>815926.31</b>	<b>837312.80</b>	<b>859425.67</b>	<b>877478.00</b>

## Annual Fixed Charges claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	37154.45	38666.17	38433.49	38976.67	40018.26
Interest on Loan	50374.19	48862.23	46154.64	34979.09	32727.59
Return on Equity	45963.44	48235.93	49500.26	50807.53	52011.63



	<b>2014-15</b>	<b>2015-16</b>	<b>2016-17</b>	<b>2017-18</b>	<b>2018-19</b>
Interest on Working Capital	19458.28	19683.03	19682.92	20035.84	20200.70
O&M Expenses	25449.74	27877.12	28339.18	30213.39	32893.88
<b>Sub-total</b>	<b>178400.10</b>	<b>183324.48</b>	<b>182110.48</b>	<b>175012.52</b>	<b>177852.06</b>
<b>Additional O&amp;M expenses</b>					
Impact of Pay Revision	0.00	15.23	504.29	1833.48	1708.94
Impact of GST	0.00	0.00	0.00	189.27	288.09
<b>Total</b>	<b>178400.10</b>	<b>183339.71</b>	<b>182614.77</b>	<b>177035.27</b>	<b>179849.09</b>

5. The Petitioner vide affidavit dated 30.6.2021 has filed certain additional information after serving copies on the Respondents. The Respondent, TPDDL, the Respondent BRPL and Respondent BYPL have filed their replies vide affidavits dated 23.7.2021, 23.7.2021 and 17.8.2021 respectively. The Petitioner vide separate affidavits dated 16.8.2021 has filed its rejoinders to the replies of the Respondents TPDDL and Respondent BYPL. The Petitioner vide affidavit dated 9.11.2021 filed the additional information after serving copies to the Respondents. Thereafter, this petition, along with Petition No. 489/GT/2020 (tariff of this generating station for the 2019-24 tariff period) was heard on 18.11.2021, and the Commission, directed the Petitioner to file certain additional information in both the petitions. In response, the Petitioner vide its affidavit dated 7.2.2022 has furnished the additional information after serving copies of the same on the Respondents. The Respondent TPDDL has filed its reply to the same on 19.2.2022. Subsequently, these petitions were heard on 25.2.2022 through video conferencing, and the Commission, after directing the Petitioner to file certain additional information, in this petition, reserved order in the matter. The Petitioner, on 25.2.2022, has also placed on record, the brief note of its arguments and the compilation of documents. 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. Regulation 9 (3) of the 2014 Tariff Regulations provides as under:

*“9. Capital Cost:*

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

- (a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;*
- (b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and*
- (c) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”*

7. The Petitioner has claimed the opening capital cost of Rs. 761233.37 lakh as on 1.4.2014, the Commission vide its order dated 17.1.2017 in Petition No. 437/GT/2014 read with corrigendum order dated 14.2.2017, had allowed the closing capital cost of Rs. 761233.37 lakh, as on 31.3.2014, which was considered as the opening capital cost as on 1.4.2014 in order dated 9.3.2017 in Petition No. 266/GT/2014. Accordingly, in terms of Regulation 9 of the 2014 Tariff Regulations, the closing capital cost of Rs. 761233.37 lakh (as on 31.3.2014) has been considered as the opening capital cost, as on 1.4.2014, for the generating station, for the purpose of tariff.

## **Additional Capital Expenditure**

8. The provisions of Regulation 14 of the 2014 Tariff Regulations provides as under:

*“14(1) The capital expenditure in respect of the new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:*

- (i) Undischarged liabilities recognized to be payable at a future date;*
- (ii) Works deferred for execution;*
- (iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;*
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and*
- (v) Change in law or compliance of any existing law:*

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

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



- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;*
- (ii) Change in law or compliance of any existing law;*
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work; and*
- (iv) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.*

*(3) 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 after the cut-off date, may be admitted by the Commission, subject to prudence check:*

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;*
- (ii) Change in law or compliance of any existing law;*
- (iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;*
- (iv) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;*
- (vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;*
- (vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal/lignite based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;*
- (viii) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) and due to geological reasons after adjusting the proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;*
- (ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system; and*
- (x) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialisation of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:*

*Provided that any expenditure on acquiring the minor items or the assets including tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, computers, fans, washing machines, heat convectors, mattresses, carpets etc. brought after the cut-off date shall not be considered for additional capitalization for determination of tariff w.e.f. 1.4.2014:*



Provided further that any capital expenditure other than that of the nature specified above in (i) to (iv) in case of coal/lignite-based station shall be met out of compensation allowance:

Provided also that if any expenditure has been claimed under Renovation and Modernisation (R&M), repairs and maintenance under (O&M) expenses and Compensation Allowance, same expenditure cannot be claimed under this regulation.

(4) In case of de-capitalization 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 decapitalization 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-capitalization takes place, duly taking into consideration the year in which it was capitalized.”

9. The details of the projected additional capital expenditure allowed under provisions of Regulation 14(1) of the 2014 Tariff Regulations, vide order dated 9.3.2017 in Petition No. 266/GT/2014 is summarized below:

<i>(Rs. in lakh)</i>							
Sl. No.	Head of Work /Equipment	2014-15	2015-16	2016-17	2017-18	2018-19	Total
1	Land	1228.61	0.00	0.00	0.00	0.00	1228.61
2	SG & TG Package	4499.63	600.33	0.00	0.00	0.00	5099.96
3	BOP Mechanical	2102.75	5790.49	0.00	0.00	0.00	7893.24
4	BOP Electrical	199.46	247.72	0.00	0.00	0.00	447.18
5	Civil Works	7803.70	15075.47	0.00	0.00	0.00	22879.17
6	C&I Package	88.27	51.24	0.00	0.00	0.00	139.51
7	MBOA	351.42	569.21	0.00	0.00	0.00	920.63
8	Initial spares	6784.75	2685.54	0.00	0.00	0.00	9470.29
	<b>Total</b>	<b>23058.59</b>	<b>25020.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>48078.59</b>
	Decapitalization of spares	(-) 527.37	(-)1577.32	0.00	0.00	0.00	(-) 2104.69
	Decapitalization of MBOA items	(-) 21.85	(-) 76.67	0.00	0.00	0.00	(-) 98.52
	Decapitalization of excess initial spares	(-)1387.55	0.00	0.00	0.00	0.00	(-)1387.55
	<b>Total De-capitalization</b>	<b>(-)1936.77</b>	<b>(-) 1653.99</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>(-)3590.76</b>
	<b>Net Additional capital expenditure</b>	<b>21121.82</b>	<b>23366.01</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>44487.83</b>
	Discharged of Liabilities	18916.88	5942.47	0.00	0.00	0.00	24859.35
	<b>Total Additional capital expenditure</b>	<b>40038.70</b>	<b>29308.48</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>69347.18</b>

10. The Petitioner, in Petition No. 266/GT/2014 had submitted the actual additional capitalization for the years 2014-15 and 2015-16, which was subsequently allowed by the Commission in its order dated 9.3.2017. Further, the Commission in the said order dated 9.3.2017, had directed the Petitioner to furnish the details of IDC, if any, included in the additional capital expenditure claimed during the years 2014-15 and 2015-16. The Commission had also directed the Petitioner to furnish proper



justification for de-capitalisation of some of the assets, within a year of being put to use, at the time of truing up tariff for the period 2014-19. Also, the Commission vide ROP of the hearing dated 18.11.2021 and 25.2.2022 directed the Petitioner to submit Form 9A, Form 9Bi, 9C and 9D for the years 2014-15 and 2015-16, with details. The Petitioner has submitted the details vide additional submissions filed on 9.2.2022.

11. The Petitioner, in revised Form-9A of the petition, has submitted the actual additional capital expenditure incurred during the period from 2014-15 to 2018-19, on accrual, as well as on cash basis, which also includes IDC. The Petitioner has, however, not sought any revision of the additional capital expenditure for the period from 2014-15 to 2015-16, which was already admitted by the Commission vide order dated 9.3.2017 in Petition No. 266/GT/2014, based on actual details furnished. The additional capital expenditure claimed by the Petitioner (on cash basis), in this petition, for the 2014-19 tariff period, is as under:

<i>(Rs. in lakh)</i>								
Sl. No.	Head of Work /Equipment	Regulation	2014-15	2015-16	2016-17	2017-18	2018-19	Total
<b>A</b>	<b>Additional Capitalization</b>							
1	Land	14(1)(ii)	1228.61	0.00	180.72	0.00	1715.22	3124.55
2	SG & TG Package	14(1)(ii)	4499.63	600.33	1113.75	74.03	42.64	6330.38
3	BOP Mechanical	14(1)(ii)	2102.75	5790.49	0.00	0.00	0.00	7893.24
4	BOP Electrical	14(1)(ii)	199.46	247.72	0.00	0.00	0.00	447.18
5	Civil Works	14(1)(ii)	7803.70	15075.47	0.00	0.00	0.00	22879.17
6	C&I Package	14(1)(ii)	88.27	51.24	0.00	0.00	0.00	139.51
7	MBOA	14(1)(ii)	351.42	569.21	0.00	0.00	0.00	920.63
8	Initial spares	14(1)(iii)	6784.75	2685.54	0.00	0.00	0.00	9470.29
9	Ash Related Works	14 (3) (iv)	0.00	0.00	662.51	35.60	7.95	706.06
10	IP Camera based Surveillance System	14 (3)(iii)	0.00	0.00	242.91	0.00	0.00	242.91
11	RO Plant Package	14 (3) (v)	0.00	0.00	0.00	0.07	0.00	0.07
12	Makeup water civil works package	14 (1) (ii) read with 54	0.00	0.00	35.49	10.67	0.00	46.16
13	Fire detection and protection system, Air Conditioning System and Station piping package	14 (1) (ii) read with 54	0.00	0.00	18.97	12.90	0.00	31.87





Sl. No.	Head of Work /Equipment	Regulation	2014-15	2015-16	2016-17	2017-18	2018-19	Total
14	Permanent Township Civil work	14 (1) (ii) read with 54	0.00	0.00	4053.91	1216.91	128.07	5398.90
15	Main plant and offsite Civil Works	14 (1) (ii) read with 54	0.00	0.00	1412.91	1196.20	1292.02	3901.13
16	Satcom and EDP facilities	14 (1) (ii) read with 54	0.00	0.00	255.70	19.83	8.43	283.95
17	Deposit Work of Railways	14 (3) (v)	0.00	0.00	0.00	231.91	0.00	231.91
18	Erection and Commissioning of 02 No Transformers	14 (1) (ii) read with 54	0.00	0.00	0.00	3.37	0.00	3.37
19	Installation of LED Lighting	14 (3) (ii)	0.00	0.00	0.00	124.06	93.07	217.13
20	Transit Camp	14 (3) (i)	0.00	0.00	0.00	0.00	8.71	8.71
21	ABT system with server	14 (3) (ii)	0.00	0.00	0.00	0.00	53.32	53.32
22	7.5 KWP Solar panel	14 (3) (x)	0.00	0.00	0.00	0.00	10.95	10.95
23	Construction 3 no RCC Water tank		0.00	0.00	0.00	0.00	-0.56	-0.56
	<b>Sub Total (A)</b>		<b>23058.59</b>	<b>25020.00</b>	<b>7976.85</b>	<b>2925.56</b>	<b>3359.82</b>	<b>62340.82</b>
<b>B</b>	<b>Decapitalization</b>							
1	Decapitalization of Spares: Part of Capital Cost		(-)527.37	(-)1577.32	(-)60.13	(-)209.27	(-)603.55	(-)2977.64
2	Decapitalization of MBOA: Part of Capital Cost		(-)21.85	(-)76.67	0.00	0.00	0.00	(-)98.52
3	Decapitalization of excess initial spares		(-)1387.55	0.00	0.00	0.00	0.00	(-)1387.55
4	Decapitalization of Lighting System		0.00	0.00	0.00	(-)112.94	0.00	(-)112.94
5	Decapitalization of Electrical Installations		0.00	0.00	0.00	(-)98.08	(-)76.03	(-)174.11
	<b>Sub Total (B)</b>		<b>(-)1936.77</b>	<b>(-)1653.99</b>	<b>(-)60.13</b>	<b>(-)420.30</b>	<b>(-)679.58</b>	<b>(-)4750.76</b>
<b>C</b>	<b>Liability Discharge</b>							
	Add. Discharge of Liabilities pertaining to works allowed for prior period		18916.88	5942.47	5547.76	28256.00	2663.15	61326.26
	<b>Sub Total (C)</b>		<b>18916.88</b>	<b>5942.47</b>	<b>5547.76</b>	<b>28256.00</b>	<b>2663.15</b>	<b>61326.26</b>
<b>D</b>	<b>Total Additional capital expenditure claimed (D=A+B+C)</b>		<b>40038.70</b>	<b>29308.48</b>	<b>13464.49</b>	<b>30761.26</b>	<b>5343.38</b>	<b>118916.32</b>

12. It is observed that there is variation in the additional capital expenditure allowed by the order dated 9.3.2017 in Petition No. 266/GT/2014 and those claimed by the

Petitioner, in the present petition (except for the years 2014-15 and 2015-16). This variation appears to be on account of (i) the difference between the projected additional capital expenditure allowed by order dated 9.3.2017 in Petition No. 266/GT/2014 and the additional capital expenditure claimed in this petition, based on the actual capitalization during the 2014-19 tariff period; and (ii) due to the claim for new items/ assets in the present petition.

13. It is pertinent to mention that in respect of the additional capital expenditure claimed, after the cut of date, for items such RO Plant Package, SG and TG Package, Permanent Township & Main Plant and Off site Civil Works, Fire detection and Protection system, Air Conditioning System and Station piping package, Ash Handling Package, Satcom and EDP facilities and Deposit Work of Railways in Petition No.266/GT/2014, the Commission, vide its order dated 9.3.2017, had granted liberty to the Petitioner, to approach the Commission, with proper justification and documentary evidence, at the time of truing up tariff. The Petitioner, in this petition, has furnished detailed justification along with supporting documents, for most of the aforementioned items/assets. However, for some of the items/assets, the Petitioner has furnished the same reason/justification, as submitted in Petition No. 266/GT/2014. Accordingly, the admissibility of these items, have been examined and decided, based on the available information and after prudence check, as stated below:

***Additional capital expenditure incurred within the cut-off date- Works deferred for Execution claimed under Regulation 14(1)(ii) of 2014 Tariff Regulations***

14. The Petitioner has submitted that in Petition No. 266/GT/2014 it had furnished the actual additional capitalization for the years 2014-15 and 2015-16, which was subsequently allowed by the Commission vide order dated 9.3.2017. As stated above, the Commission in its order dated 9.3.2017 had directed the Petitioner to furnish the details of IDC, if any, included in the additional capital expenditure claimed during the

