

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 376/GT/2020

Coram:

Shri Jishnu Barua, Chairperson

Shri Ramesh Babu V, Member

Shri Harish Dudani, Member

Date of Order: 7th April, 2025

In the matter of:

Petition for approval of generation tariff of Pragati-III CCPS (1371.2 MW) Power Plant of Pragati Power Corporation Limited for the period 2019-24.

And

In the matter of:

Pragati Power Corporation Limited
Himadri Corporate Office
Rajghat Power House Complex
New Delhi-110002

... Petitioner

Vs

1. BSES Yamuna Power Limited,
Regd. Office: Shakti Kiran Building
Karkardooma, Delhi-110092
2. New Delhi Municipal Council
Regd. Office: Palika Kendra, Sansad Marg,
New Delhi-110001
3. Tata Power Delhi Distribution Limited,
Regd. Office: Grid Sub Station Building
Hudson Lines, Kingsway Camp, Delhi-110009
4. BSES Rajdhani Power Limited,
Regd. Office: BSES Bhawan, Nehru Place,
New Delhi-110019
5. Punjab State Power Corporation Limited,
Regd. Office: The Mall, Patiala, Punjab-147001.
6. Haryana Power Purchase Centre
Regd. Office: Shakti Bhawan, Sector -6,
Panchkula, Haryana-134109



7. Military Engineering Services,
Gopi Nath Market, Kotwali Road
Delhi Cantonment-110010

... Respondent(s)

Parties Present:

Shri Tarun Kumar, Advocate, PPCL
Ms. Shaida Das, Advocate, PPCL
Shri Akash Lamba, Advocate, PPCL
Shri Surendra Kumar, PPCL
Shri Abhishek Rohilla, PPCL
Ms. Suparna Srivastava, Advocate, PSPCL
Shri Tushar Mathur, Advocate, PSPCL
Shri Anand Shrivastava, Advocate, TPDDL
Ms. Priya Goel, Advocate, TPDDL
Shri Rahul Kinra, Advocate, BSES Discoms
Shri Aditya Ajay, Advocate, BSES Discoms
Ms. Isnain, Advocate, BSES Discoms

ORDER

This Petition has been filed by the Petitioner, Pragati Power Corporation Limited, for approval of generation tariff of Pragati-III CCPS (1371.2 MW) power plant (in short, “the project/ generating station”) for the period 2019-24 in accordance with the provisions of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short “the 2019 Tariff Regulations”). The Petitioner, PPCL, is an undertaking of the Government of Delhi, incorporated under the Companies Act, 1956. It carries out the business of power generation in the National Capital Region. Further, it is a Generating Company as defined under Section 2 (28) of the Electricity Act, 2003. The generating station was commissioned in stages and was declared under commercial operation on 27.3.2014. The capacity configuration of the different blocks of the generating station along with their scheduled date of commercial operation is as under:

Block	Unit	Capacity	Date of Commercial Operation
Block I	GT I	216 MW	27.12.2011
	GT II	216 MW	16.7.2012
	GT I with HRSG I (ST I)		1.4.2012
	GT I & II with HRSG I & II (ST I)	253.6 MW	14.12.2012



	Total	685.60 MW	
Block II	GT III	216 MW	28.10.2013
	GT IV	216 MW	27.2.2014
	ST II	253.6 MW	27.3.2014
	Total	685.60 MW	
	Grand Total	1371.20 MW	

2. The Commission, vide its order dated 27.3.2025 in Petition No. 361/GT/2020, revised the tariff of the generating station for the period 2014-19, after the truing-up exercise, based on the actual additional capital expenditure approved for the period 2014-19. Accordingly, the capital cost and the annual fixed charges approved vide order dated 27.3.2025 are as under:

Capital Cost

	<i>(Rs in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	384562.93	410016.84	413772.95	416981.15	423567.96
Addition due to Additional Capitalization Approved	25454.23	3756.11	3211.20	6586.81	2693.88
Decapitalization during the year	-0.32	0.00	-3.00	0.00	0.00
Net Capitalization during the year	25453.91	3756.11	3208.20	6586.81	2693.88
Closing Gross Block	410016.84	413772.95	416981.15	423567.96	426261.84
Average Gross Block	397289.88	411894.90	415377.05	420274.56	424914.90

Annual Fixed Charges

	<i>(Rs in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	20146.46	20878.75	21036.24	21276.55	21516.46
Interest on Loan	27794.23	26484.45	23793.68	21646.53	19213.48
Return on Equity	23372.56	24349.17	24555.01	24844.53	25186.41
Interest on Working Capital	14590.44	14801.62	14929.69	16054.86	15410.92
O&M Expenses	36658.85	39072.51	41709.42	57012.37	49095.83
Total AFC	122562.55	125586.49	126024.05	140834.85	130423.10

Present Petition

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



Capital Cost

(Rs in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Gross Block	455835.47	474262.81	492554.66	494214.10	494294.98
Addition during the year	135.49	0.00	1659.44	80.88	0.00
Add: Discharges during the year	18291.85	18291.85	0.00	0.00	0.00
Closing Gross Block	474262.81	492554.66	494214.10	494294.98	494294.98
Average Gross Block	465049.14	483408.73	493384.38	494254.54	494294.98

Annual Fixed Charges

(Rs in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	23624.50	24557.16	25063.93	25108.13	25110.19
Interest on Loan	19374.40	18154.90	16245.42	13645.61	10987.68
Return on Equity	26203.66	28994.37	29592.70	29644.89	29647.32
Interest on Working Capital	12370.82	12486.39	12559.92	12624.96	12696.82
O&M Expenses	38804.40	40535.14	42091.78	43713.58	45402.95
Total	120377.78	124727.97	125553.75	124737.17	123844.95

4. The Petition was heard on 13.4.2021 and the Commission, directed the Petitioner to furnish certain additional information. Thereafter, the matter was listed on 6.1.2023, 14.7.2023, 8.11.2023 and the Commission, after hearing the parties, directed the Petitioner to file certain additional information. Subsequently, the matter was listed on various dates, viz., 27.2.2024, 27.6.2024, and 13.8.2024 and the Commission, after hearing the parties, reserved its order in the Petition on 23.10.2024. The Petitioner, in compliance with the directions furnished the additional information vide affidavits dated 30.6.2021, 28.2.2023, 9.10.2023, 29.1.2024, 12.7.2024, and 21.10.2024 after serving a copy on the Respondents. The Respondents, TPDDL, BRPL, and BYPL, have filed their replies vide affidavits dated 30.6.2021, 11.2.2023, 25.10.2023, 4.4.2024, 26.7.2024, and 16.11.2024. The Petitioner, vide separate affidavits dated 29.3.2022 and 14.3.2023, has filed its rejoinders to the replies of the Respondents. The Petitioner, vide affidavits dated 30.6.2021, 28.2.2023, 9.10.2023, 29.1.2024, 12.7.2024, and 21.10.2024 has filed the additional information in compliance with the directions in the ROPs dated 13.4.2021, 13.3.2024, 16.1.2023, 25.8.2023, 29.11.2023, and 22.8.2024, after serving copies to the Respondents. Taking into consideration the submissions of the parties and the



documents on record, we proceed to examine the claims of the Petitioner, on prudence check, as stated in the subsequent paragraphs.

Capital Cost

5. Clauses (1), (3) and (5) of Regulation 19 (3) of the 2019 Tariff Regulations provides as under:

“(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 modernization 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.

(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-capitalized 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 decapitalized 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.”

6. The Petitioner has claimed the capital cost of Rs.433835.47 lakh, as on 1.4.2019. However, the closing capital cost of Rs.426261.84 lakh, as on 31.3.2019, as approved vide Commission's order dated 27.3.2025, has been considered as the opening capital cost, as on 1.4.2019.

Additional Capital Expenditure

7. Regulation 25 and Regulation 26(1) of the 2019 Tariff Regulations provides as under:

“25. Additional Capitalization 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 Capitalization 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 Modernization (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”

Projected additional capital expenditure for the period of 2019-2024

8. The projected additional capital expenditure claimed by the Petitioner for the period 2019-24, are as under:

	(Rs in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Add: Addition during the year	1863.48	-646.96	281.79	2609.90	369.00
Less: Decapitalization during the year	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year	16799.97	6850.71	68.87	0.00	0.00
Net Additional Capital Expenditure	18663.45	6203.75	350.66	2609.90	369.00

9. The Petitioner has claimed the following assets/works for the period 2019-24:

2019-20

(Rs in lakh)						
SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation	Justification
		Accrual basis	UDL incl. in Col.3	Cash basis		
1	2	3	4	5 = 3-4	6	7
A	2019-20					
1	Addition in Gross Block (Bought out items of station)	1.78		1.78	25 (2) (c)	
a	Furniture and fixtures	0.51		0.51		Exhaust Fans purchased first time for plant
b	EDP, WP machines	1.26		1.26		Purchase of Laptop for local PLC of HWG&WBH system and Ferule printer
2	Addition in Gross Block (Transferred from CWIP)	3050.32	1214.21	1836.10	25 (1) (d)	
a	Water supply, drainage & sewerage	43.07		43.07		The Items listed were in the original scope of work of the Turnkey Project awarded to BHEL in 2008.
b	Roads, bridges., culverts & helipads	190.18		190.18		
c	Main Plant Buildings	357.50		357.50		
d	Other Buildings	0.18		0.18		
e	Safety & Security Equipment	114.06		114.06		
F	Steam Turbine & Waste Heat Recovery Boilers	474.71		474.71		
g	Diesel electric & gas plant	1079.18		1079.18		
h	Cooling towers and circulating water systems	0.06		0.06		
I	Transformers of 100 kilo volt amperes and over	0.32		0.32		
k	Switchgear, including cable connections	770.99		770.99		



SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation	Justification
		Accrual basis	UDL incl. in Col.3	Cash basis		
1	2	3	4	5 = 3-4	6	7
L	Air conditioning plants – Static	0.78		0.78		
m	P/M-Any Other Asset	19.29		19.29		
3	Addition in Gross Block (HQ Share)	25.59		25.59	25 (1) (d)	
a	EDP, WP machines	25.40		25.40		
b	Furniture and fixtures	0.19		0.19		
4	Additional Capitalization (Transferred from un - discharged of liability)	16799.97		16799.97	26 (1) (d)	
	Total	19877.66	1214.21	18663.45		

2020-21

(Rs in lakh)

SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation	Justification
		Accrual basis	UDL incl. in Col.3	Cash basis		
1	2	3	4	5 = 3-4	6	7
B	FY 2020-21					
1	Addition in Gross Block (Bought out items of station)	7.75		7.75	25 (2) (c)	
b	Communication equipment	3.44		3.44		Telephone (Intercom) sets purchased for communication setup in Plant
c	Furniture and fixtures	3.90		3.90		Purchase of Chairs for Control Room and Conference Room and Wall Fan for Security Watch Towers
d	Vehicles	0.40		0.40		Purchased hand pallet truck for efficient handling of Spares and material
2	Addition in Gross Block (Transferred from CWIP)	1034.45	1693.20	-658.75	25 (1) (d)	
a	Air conditioning plants - Static	5.0		5.0		The Items listed were in the original scope of work of the Turnkey Project awarded to BHEL in 2008.
b	Diesel electric & gas plant	569.7		569.7		
c	P/M-Any Other Asset	2.3		2.3		
d	Safety & Security equipment's	240.0		240.0		
e	Steam Turbine & Waste Heat Recovery Boilers	217.5		217.5		



SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation	Justification
		Accrual basis	UDL incl. in Col.3	Cash basis		
1	2	3	4	5 = 3-4	6	7
3	Addition in Gross Block (HQ Share)	4.04		4.04	25 (1) (d)	
a	EDP, WP machines	3.77		3.77		
B						
c	Other Office equipment's	0.27		0.27		
4	Additional Capitalization (Transferred from un discharged of liability)	6850.71		6850.71	25 (1) (d)	
	Total	7896.95	1693.20	6203.75		

2021-22

(Rs in lakh)

SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation	Justification
		Accrual basis	UDL incl. in Col.3	Cash basis		
1	2	3	4	5 = 3-4	6	7
C	FY 2021-22					
1	Addition in Gross Block (Bought out items of station)	33.45		33.45		
a	Communication Equipment	2.09		2.09	25 (1) (d)	
b	Furniture and fixtures	0.82		0.82	25(1)(d)	Purchased 100 Ceiling Fans for CISF Security Quarters at Bawana
c	Laboratory and Work shop equipment's	2.50		2.50	25(2)(C)	Purchased EPBAX System for Bawana Unit
d	Software	12.10		12.10	25(2)(C)	Purchased ABT software for Pragati-111 Unit
e	Vehicles	15.95		15.95	25(2)(C)	Purchased CNG Tippler for Disposal of sludge from ETP of Pragati-111, Bawana
2	Addition in Gross Block (Transferred from CWIP)	358.20	127.28	230.92	25 (1) (d)	
a	Batteries- Cable duct system	4.39		4.39		The Items listed were in the original scope of work of the Turnkey Project awarded to BHEL in 2008.
b	Diesel Electric and Gas plant	645.23		645.23		
c	P/M-Any Other Asset	11.78		11.78		
d	Steam turbine & waste heat recovery Boilers	-303.20		-303.20		
3	Addition in Gross Block (HQ Share)	17.42		17.42	25 (1) (d)	
a	EDO, WP Machines	9.80		9.80		
b	Furniture and Fixtures	0.14		0.14		



c	Other office equipment's	1.27		1.27		
d	Safety and security equipment's	6.22		6.22		
4	Additional Capitalization (Transferred from un discharged of liability)	68.87		68.87	25 (1) (d)	
	Total	477.94	127.28	350.66		

2022-23

(Rs in lakh)

SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation	Justification
		Accrual basis	UDL incl. in Col.3	Cash basis		
1	2	3	4	5 = 3-4	6	7
D	2022-23					
1	Addition in Gross Block (Transferred from CWIP & Undischarged Liability)	2609.90		2609.90	25(1)(d)	The account for 2022-23 is yet to be finalized; therefore, the figures related to the actual amount paid and undischarged liability is provisional and shall be submitted during the True-up of the Tariff.

2023-24

(Rs in lakh)

SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation under which claimed	Justification
		Accrual basis	UDL incl. in Col.3	Cash basis		
1	2	3	4	5 = 3-4	6	7
E	FY 2023-24					
1	Addition in Gross Block (Transferred from CWIP & Undischarged Liability)					
2	Additional Capitalization	369		369.00	26 (1) (a)	Automatic Generation Control (AGC) implementation for providing Ancillary Services to NLDC

10. The claims of the Petitioner are grouped and examined, on a prudence check, as under:

Bought Out Items of Station and Head Quarter (HQ)

11. The Petitioner has claimed an amount of Rs. 459.03 lakh expenses after the cut-off date, i.e., 31.3.2017, under Regulation 25(1)(d) and 25 (2) (c) of the 2019 Tariff Regulations. These expenses include items such as furniture, fixtures, EDP (Electronic Data Processing)



equipment, WP machines, communication instruments, etc. It is observed that the aforementioned regulations, under which the claims have been made, pertain to Liability for works executed prior to the cut-off date [25(1)(d)] and the replacement of assets deployed under the original scope of the existing project after the cut-off date due to the obsolescence of the technology of those assets [25 (2)(c)]. As per these regulations, additional capital expenditure claimed on a replacement basis may be admitted by the Commission, provided that necessary adjustments are made in the gross fixed assets (i.e., the old asset is decapitalized against which additional capital expenditure is claimed). We have examined the claims of the Petitioner under this head. On scrutiny, it is noticed that the additional capital expenditure claimed pertains to new assets and is not part of the Liability for works executed prior to the cut-off date. Also, the expenditure claimed is not on a replacement basis. Further, the Petitioner has not provided the details, such as whether it forms part of the liability for the works executed prior to the cut-off date. In addition, no supporting documents for the obsolescence of the existing assets, such as OEM certificates or clarification that these assets form part of the original scope of work, have been provided. It is also observed that no decapitalization value has been furnished in respect of the old replaced assets. In light of the above, we find no reason to allow the Petitioner's claim for additional capitalization in this petition. However, the Petitioner is granted the liberty to claim these assets/works, after submission of the relevant details, as above, under the relevant regulations at the time of the truing-up of tariff.

Capitalization from Capital Work in Progress (CWIP)

12. The Petitioner has claimed the additional capitalization for an amount of Rs. 4018.17 lakh under this head, during 2019-24, as per the provisions of Regulation 25(1)(d) of the 2019 Tariff Regulations, for additions transferred from CWIP. The regulations pertaining to the additional capital expenditure apply to liabilities for works executed prior to the cut-off date. The Petitioner,

in its justification, submitted that these items form part of the original scope of work of the Turnkey Project awarded to M/s BHEL in 2008. However, it is observed that the Petitioner has not furnished the details of the period of execution of the above works, along with the justification for the delay in the execution of such works after the cut-off date for which the liability is claimed. In view of the above and considering the fact that the period 2019-24 is already over, we have not considered the claim of the Petitioner in this petition. The Petitioner is, however, directed to submit the details of the works executed and capitalized from the CWIP claimed in this petition, the documentary evidence justifying that it was within in the original scope of work, the detailed break-up of the hard cost, and the IDC corresponding to the CWIP from the cut-off date (from 1.4.2017 onwards), along with an explanation for the delay in capitalizing these works, at the time of truing-up of tariff for the period 2019-24.

Additional Capitalization beyond the original scope of work: Automatic Generation Control (AGC)

13. The Petitioner, has claimed the projected additional capital expenditure of Rs.369.00 lakh under Regulation 25(1)(d) of the 2019 Tariff Regulations, towards the implementation of Automatic Generation Control (AGC) for participation in Secondary Reserves Ancillary Services (SRAS) under the Central Electricity Regulatory Commission (Ancillary Services) Regulations, 2022. In addition, the Petitioner has also provided the details of correspondence with the OEM regarding the proposal. The Petitioner has submitted that the Commission has notified the Ancillary Services Regulations, which is effective from 5.12.2022. It has been submitted that the Project is an inter-state generating station (ISGS); however, its scheduling is done by Delhi SLDC as per the provisions of the IEGC, as more than 50% of the share of power is allocated to beneficiaries within the State of Delhi. Regulation 7 of the CERC (Ancillary Services) Regulations 2022 provides the eligibility for an SRAS provides as under:

“7. Eligibility for an SRAS Provider

(1) A generating station or an entity having energy storage resource or an entity capable of providing demand response, on standalone or aggregated basis, connected to inter-State transmission system or intra-State transmission system, shall be eligible to provide Secondary Reserve Ancillary Service, as an SRAS Provider, if it

(a) has bi-directional communication system with RLDC, as per the requirements stipulated in the Detailed Procedure by the Nodal Agency:

Provided that till such bi-directional communication system with RLDC is fully established, communication system with NLDC shall be considered for eligibility;

(b) is AGC-enabled, in case of a generating station;

(c) can provide minimum response of 1 MW;

(d) has metering and SCADA telemetry in place for monitoring and measurement of energy delivered under SRAS, as stipulated in the Detailed Procedure by the Nodal Agency;

(e) is capable of responding to SRAS signal within 30 seconds and providing the entire SRAS capacity obligation within fifteen (15) minutes and sustaining at least for the next thirty (30) minutes;”

14. According to the Petitioner, the Project will be eligible for providing SRAS if it installs the AGC and bi-directional communication system with RLDC.

15. We have examined the matter. It is pertinent to mention that the Commission, in the Record of Proceedings of the hearing of the petition 13.8.2024, directed the Petitioner to provide the status of implementation of this asset. In response, the Petitioner, vide affidavit dated 4.11.2024, submitted that the implementation of the AGC system could not be carried out in 2023-24, as the case file is still under the administrative approval process. Therefore, the Petitioner has prayed that the Commission may consider the additional expenditure for the implementation of AGC in the Project during the period 2024-29. Though the expenditure related to the AGC system, is a statutory requirement, under Regulation 26 (1) (a) of the 2019 Tariff Regulations, since the Petitioner has not yet installed the AGC system before 31.3.2024, and will be put to use during 2024-29, the claim of the Petitioner, has not been considered in this order. However, the Petitioner is granted liberty to claim the same after commissioning, along with the relevant documentary evidence and justification for the expenses incurred, and the same will be considered in accordance with the prevailing regulations.

16. Accordingly, the year-wise detailed analysis of additional capital expenditure, claimed by the Petitioner, for the period 2019-24 is examined, and the admissibility of the same on prudence check is tabulated below:

2019-20

SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation	Justification	Remarks for admissibility
		Accrual basis	UDL incl. in Col.3	Cash basis			
1	2	3	4	5 = 3-4	6	7	8
A	2019-20						
1	Addition in Gross Block (Bought out of station)	1.78		1.78	25 (2) (c)		
a	Furniture and fixtures	0.51		0.51		Exhaust Fans purchased first time for plant	Not allowed. However, liberty is granted to claim the expenditure at the time of truing-up of tariff (refer to paragraph 11 above)
b	EDP, WP machines	1.26		1.26		Purchase of Laptop for local PLC of HWG&WBH system and Ferule printer	
2	Addition in Gross Block (Transferred from CWIP)	3050.32	1214.21	1836.10	25 (1) (d)		
a	Water supply, drainage & sewerage	43.07				The Items listed were in the original scope of work of Turnkey Project awarded to BHEL in 2008.	Not allowed. However, liberty is granted to claim the expenditure at the time of truing-up of tariff. (refer to paragraph 12 above)
b	Roads, bridges., culverts & helipads	190.18					
c	Main Plant Buildings	357.50					
d	Other Buildings	0.18					
e	Safety & Security Equipment	114.06					
f	Steam Turbine & waste Heat Recovery Boilers	474.71					
g	Diesel electric & gas plant	1079.18					



SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation	Justification	Remarks for admissibility
		Accrual basis	UDL incl. in Col.3	Cash basis			
1	2	3	4	5 = 3-4	6	7	8
h	Cooling towers and circulating water systems	0.06					
i	Transformers of 100 kilo volt amperes and over	0.32					
k	Switchgear, including cable connections	770.99					
l	Air conditioning plants - Static	0.78					
m	P/M-Any Other Asset	19.29					
3	Addition in Gross Block (HQ Share)	25.59		25.59	25 (1) (d)		
a	EDP, WP machines	25.40		25.40			Not allowed. However, liberty is granted to claim the expenditure at the time of truing-up of tariff. (refer to paragraph 11 above)
b	Furniture and fixtures	0.19		0.19			
4	Additional Capitalization (Transferred from un-discharged of liability)	16799.97		16799.97	25 (1) (d)		
	Total	19877.66	1214.21	18663.45			

2020-21

(Rs in lakh)

SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation	Justification	Remarks
		Accrual basis	UDL incl. in Col.3	Cash basis			
1	2	3	4	5 = 3-4	6	7	8
B	2020-21						
1	Addition in Gross Block (Bought out items of station)	7.75		7.75	25 (2) (c)		
b	Communication equipment	3.44		3.44		Telephone (Intercom) sets	Not allowed However, liberty is



SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation	Justification	Remarks
		Accrual basis	UDL incl. in Col.3	Cash basis			
1	2	3	4	5 = 3-4	6	7	8
						purchased for communication setup in Plant	granted to claim the expenditure at the time of truing-up of tariff. (refer to paragraph 11 above)
c	Furniture and fixtures	3.90		3.90		Purchase of Chairs for Control Room and Conference Room and Wall Fan for Security Watch Towers	
d	Vehicles	0.40		0.40		Purchased hand pallet truck for efficient handling of Spares and material	
2	Addition in Gross Block (Transferred from CWIP)	1034.45	1693.20	-658.75	25 (1) (d)		
a	Air conditioning plants - Static	5.0				The Items listed were in the original scope of work of the Turnkey Project awarded to BHEL in 2008.	Not allowed. However, liberty is granted to claim the expenditure at the time of truing-up of tariff (refer to paragraph 12 above)
b	Diesel electric & gas plant	569.7					
c	P/M-Any Other Asset	2.3					
d	Safety & Security equipment's	240.0					
e	Steam Turbine & Waste Heat Recovery Boilers	217.5					
3	Addition in Gross Block (HQ Share)	4.04		4.04	25 (1) (d)		
a	EDP, WP	3.77		3.77			Not allowed. However, liberty is granted to claim the expenditure at the time of truing-up of tariff. (refer paragraph 11 above)
b	machines						
c	Other Office equipment's	0.27		0.27			
4	Additional Capitalization (Transferred from un discharged of liability)	6850.71		6850.71	25 (1) (d)		
	Total	7896.95	1693.20	6203.75			



2021-22
(Rs in lakh)

SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation	Justification	Remarks
		Accrual basis	UDL incl. in Col.3	Cash basis			
1	2	3	4	5 = 3-4	6	7	8
C	2021-22						
1	Addition in Gross Block (Bought out items of station)	33.45		33.45			
a	Communication Equipment	2.09		2.09	25 (1) (d)		Not allowed. However, liberty is granted to claim the expenditure at the time of truing-up of tariff. (refer to paragraph 11 above)
b	Furniture and fixtures	0.82		0.82	25(1)(d)	Purchased 100 Ceiling Fans for CISF Security Quarters at Bawana	
c	Laboratory and Work shop equipment's	2.50		2.50	25(2)(C)	Purchased EPBAX System for Bawana Unit	
d	Software	12.10		12.10	25(2)(C)	Purchased ABT software for Pragati-111 Unit	
e	Vehicles	15.95		15.95	25(2)(C)	Purchased CNG Tippler for Disposal of sludge from ETP of Pragati-111, Bawana	
2	Addition in Gross Block (Transferred from CWIP)	358.20	127.28	230.92	25 (1) (d)		
a	Batteries- Cable duct system	4.39				The Items listed were in the original scope of work of the Turnkey Project awarded to BHEL in 2008.	Not allowed. However, liberty is granted to claim the expenditure at the time of truing-up of tariff. (refer to paragraph 12 above)
b	Diesel Electric and Gas plant	645.23					
c	P/M-Any Other Asset	11.78					
d	Steam turbine & waste heat recovery Boilers	-303.20					
3	Addition in Gross Block (HQ Share)	17.42		17.42	25 (1) (d)		Not allowed. However, liberty is granted to claim the expenditure at the time of truing-up of tariff. (refer to paragraph 11 above)
a	EDO, WP Machines	9.80		9.80			
b	Furniture and Fixtures	0.14		0.14			



c	Other office equipment's	1.27		1.27			
d	Safety and security equipment's	6.22		6.22			
4	Additional Capitalization (Transferred from un discharged of liability)	68.87		68.87	25 (1) (d)		
	Total	477.94	127.28	350.66			

2022-23

(Rs in lakh)

SL No.	Head of work/ equipment	Additional capital expenditure claimed (Actual / Projected)			Regulation	Justification	Remarks
		Accrual basis	UDL incl. in Col.3	Cash basis			
1	2	3	4	5 = 3-4	6	7	8
D	2022-23						
1	Addition in Gross Block (Transferred from CWIP & Undischarged Liability)	2609.90		2609.90	25(1)(d)	The account for 2022-23 is yet to be finalized therefore, figures related to the actual amount paid and undischarged liability is provisional and shall be submitted during the True-up of the Tariff.	Not allowed. However, liberty is granted to claim the expenditure at the time of truing-up of tariff. (refer to paragraph 11 above)

2023-24

(Rs in lakh)

SL No.	Head of work/ equipment	ACE Claimed (Actual / Projected)			Regulation	Justification	Remarks
		Accrual basis	UDL incl. in Col.3	Cash basis			
1	2	3	4	5 = 3-4	6	7	8
E	2023-24						
1	Addition in Gross Block (Transferred from CWIP & Undischarged Liability)						



SL No.	Head of work/ equipment	ACE Claimed (Actual / Projected)			Regulation	Justification	Remarks
		Accrual basis	UDL incl. in Col.3	Cash basis			
1	2	3	4	5 = 3-4	6	7	8
2	Additional Capitalization	369		369.00	26 (1) (a)	Automatic Generation Control implementation for providing Ancillary Services to NLDC	Not allowed. However, liberty is granted to claim the expenditure at the time of truing-up of tariff. (refer to paragraph 15 above)

Decapitalization

17. The Petitioner has not claimed any decapitalization for the period 2019-24.

Discharge of Liabilities

18. The Petitioner has claimed the discharge of liabilities towards additional capitalization incurred even after the cut-off date. The Petitioner, in response to the queries raised by the Commission, revised the liability flow statement vide affidavit dated 21.10.2024 in Petition No. 361/GT/2020 for the period 2014-19. However, the Petitioner has not revised the discharge of liabilities for the period 2019-24. Hence, the Commission has approved the discharge of liabilities of Rs.6362.51 lakh in 2019-20 to the extent of undischarged liabilities of Rs. 6362.51 lakh standing as on 31.3.2019, as against the claim of Rs.16799.97 lakh in 2019-20.

19. The summary of the year-wise additional capitalization claimed (on an accrual basis) by the Petitioner and allowed by the Commission is summarized below:

2019-20

(Rs in lakh)

	Regulation	Amount Claimed	Amount Allowed
Bought out items of Station	25(2)(c)	1.78	0.00
Bought out items of HQ share	25(1)(d)	25.59	0.00
Transferred from CWIP	25(1)(d)	3050.32	0.00
Discharge of Liability		16799.97	6362.51



	Regulation	Amount Claimed	Amount Allowed
Retirement/ Deletion		0.00	0.00
Total Additional Capitalization		19877.66	6362.51

2020-21

(Rs in lakh)

	Regulation	Amount Claimed	Amount Allowed
Bought out items of Station	25(2)(c)	7.75	0.00
Bought out items of HQ share	25(1)(d)	4.04	0.00
Transferred from CWIP	25(1)(d)	1034.45	0.00
Discharge of Liability		6850.71	0.00
Retirement/ Deletion		0.00	0.00
Total Additional Capitalization		7896.95	0.00

2021-22

(Rs in lakh)

	Regulation	Amount Claimed	Amount Allowed
Bought out items of Station	25(2)(c)/ 25(1)(d)	33.45	0.00
Bought out items of HQ share	25(1)(d)	17.42	0.00
Transferred from CWIP	25(1)(d)	358.20	0.00
Discharge of Liability		68.87	0.00
Retirement/ Deletion		0.00	0.00
Total Additional Capitalization		477.94	0.00

2022-23

(Rs in lakh)

	Regulation	Amount Claimed	Amount Allowed
Bought out items of Station	25 (1)(d)	0.00	0.00
Bought out items of HQ share		0.00	0.00
Transferred from CWIP		2609.90	0.00
Discharge of Liability		0.00	0.00
Retirement/ Deletion		0.00	0.00
Total Additional Capitalization		2609.90	0.00

2023-24

(Rs in lakh)

	Regulation	Amount Claimed	Amount Allowed
Bought out items of Station		0.00	0.00
Bought out items of HQ share	-	0.00	0.00
Transferred from CWIP	-	0.00	0.00
Discharge of Liability		0.00	0.00
Retirement/ Deletion		0.00	0.00
Beyond Original Scope	26(1)(a)	369.00	0.00
Total Additional Capitalization		369.00	0.00



Capital cost allowed for the period 2019-24

20. Accordingly, the capital cost approved for the generating station for the period 2019-24 is summarized below:

	(Rs in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	426261.84	432624.35	432624.35	432624.35	432624.35
Addition due to Projected Additional Capitalization	6362.51	0.00	0.00	0.00	0.00
Closing Capital Cost	432624.35	432624.35	432624.35	432624.35	432624.35
Average Capital Cost	429443.10	432624.35	432624.35	432624.35	432624.35

Debt Equity Ratio

21. Regulation 18 of the 2019 Tariff Regulations provides as under:

“18. Debt-Equity Ratio: (1) For new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:

Provided that:

- where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff;
- the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment;
- any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.

Explanation-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilized for meeting the capital expenditure of the generating station or the transmission system.

(1) The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(2) In case of the generating station and the transmission system including communication, system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:

Provided that in case of a generating station or a transmission system including communication, system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;

Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.

(4) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff,

22. The Commission, vide its order dated 27.3.2025 in Petition No. 361/GT/2020, had considered the gross loan and equity amounting to Rs.298383.29 lakh and Rs.127878.55 lakh, respectively, as on 31.3.2019, and the same has been considered as the opening gross loan and equity as on 1.4.2019. In terms of Regulation 18 of the 2019 Tariff Regulations, the debt-equity ratio of 70:30 has been applied on year-wise admitted additional capital expenditure for arriving at the additions to loan and equity during each year of the period 2019-24. Accordingly, the details of debt-equity ratio in respect of the generating station as on 1.4.2019 and as on 31.3.2024 is as under:

<i>(Rs in lakh)</i>						
	Capital cost as on 1.4.2019	%	Additional Capital Expenditure	%	Capital cost as on 31.3.2024	%
Debt	298383.29	70	4453.76	70	302837.05	70
Equity	127878.55	30	1908.75	30	129787.31	30
Total	426261.84	100	6362.51	100	432624.35	100

Return on Equity

23. Regulation 30 and Regulation 31 of the 2019 Tariff Regulations provides as under:

“30. Return on Equity:

Return on equity shall be computed in rupee terms, on the equity base determined in accordance with Regulation 18 of these regulations.

Return on equity shall be computed at the base rate of 15.50% for thermal generating station, transmission system including communication system and run-of- river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run-of-river generating station with pondage:

Provided that return on equity in respect of additional capitalization after cut-off date beyond the original scope shall be computed at the weighted average rate of interest on actual loan portfolio of the generating station or the transmission system Provided further that:

In case of a new project, the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any

of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;

in case of existing generating station, as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the concerned RLDC, rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;

in case of a thermal generating station, with effect from 1.4.2020:

rate of return on equity shall be reduced by 0.25% in case of failure to achieve the ramp rate of 1% per minute;

an additional rate of return on equity of 0.25% shall be allowed for every incremental ramp rate of 1% per minute achieved over and above the ramp rate of 1% per minute, subject to ceiling of additional rate of return on equity of 1.00%:

Provided that the detailed guidelines in this regard shall be issued by National Load Dispatch Centre by 30.6.2019."

"31. Tax on Return on Equity. (1) The base rate of return on equity as allowed by the Commission under Regulation 30 of these regulations shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax paid on income from other businesses including deferred tax liability (i.e. income from business other than business of generation or transmission, as the case may be) shall be excluded for the calculation of effective tax rate.

Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t)

Where "t" is the effective tax rate in accordance with clause (1) of this Regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business, as the case may be, and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT), "t" shall be considered as MAT rate including surcharge and cess.

Illustration-

In case of a generating company or a transmission licensee paying Minimum Alternate Tax (MAT) @ 21.55% including surcharge and cess:

Rate of return on equity = $15.50 / (1 - 0.2155) = 19.758\%$

In case of a generating company or a transmission licensee paying normal corporate tax including surcharge and cess:

Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1,000 crore;

Estimated Advance Tax for the year on above is Rs 240 crore;

Effective Tax Rate for the year 2019-20 = Rs 240 Crore / Rs 1000 Crore = 24%;

Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$.

The generating company or the transmission licensee, as the case may be, shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon, duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2019-24 on actual gross income of any financial year. However, penalty, if any, arising on account of delay in deposit or short deposit of tax amount shall not be

claimed by the generating company or the transmission licensee, as the case may be. Any under-recovery or over-recovery of grossed up rate on return on equity after truing up, shall be recovered or refunded to beneficiaries or the long-term customers, as the case may be, on year to year basis.”

24. The Petitioner has claimed an additional Return on Equity (ROE) of 1% towards ramp rate with effect to 1.4.2020, in terms of the 2019 Tariff Regulations. We note that the Petitioner has not provided the RLDC/SLDC certificate, certifying the ramp-up capability, in response to the queries raised by the Commission. Hence, the Commission has not considered the additional ROE for the period 2019-24. However, the Petitioner is at liberty to approach the Commission for the additional ROE along with the requisite documentary evidence at the time of truing up of tariff. For the grossing up of ROE during the period 2019-24, the rate of ROE as 18.782%, i.e., base rate of 15.50% and MAT rate of 17.472%, has been considered. Accordingly, ROE has been allowed based on projected additional capital expenditure as under:

		(Rs in lakh)				
		2019-20	2020-21	2021-22	2022-23	2023-24
Gross Notional Equity	A	127878.55	129787.31	129787.31	129787.31	129787.31
Addition due to Additional Capitalisation	B	1908.75	0.00	0.00	0.00	0.00
Closing Equity	C=A+B	129787.31	129787.31	129787.31	129787.31	129787.31
Average Equity	D= Average (A, C)	128832.93	129787.31	129787.31	129787.31	129787.31
Return on Equity (Base Rate)	E	15.500%	15.500%	15.500%	15.500%	15.500%
Tax rate for the year	F	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity (Pre-Tax)	G= E/(1-F)	18.782%	18.782%	18.782%	18.782%	18.782%
Return on Equity (Pre-Tax)	H= D*G	24197.40	24376.65	24376.65	24376.65	24376.65

Interest on loan

25. Regulation 32 of the 2019 Tariff Regulations provides as under:

“32. Interest on loan capital: (1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.

The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.



The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalization of such asset.

Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.

The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered; Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.”

26. The necessary calculation of Interest on loan is as under:

- i) Gross normative loan amounting to Rs.298383.29 lakh, as on 31.3.2019, as considered in order dated 27.3.2025 in Petition No. 361/GT/2020 has been considered as on 1.4.2019.
- ii) Cumulative repayment amounting to Rs.127778.91 lakh, as considered in order dated 27.3.2025 in Petition No. 361/GT/2020 has been considered as on 1.4.2019.
- iii) Accordingly, the net normative opening loan as on 1.4.2019 is Rs.170604.38 lakh.
- iv) The repayment for the respective years of the period 2019-24 has been considered equal to the depreciation allowed for that year.
- v) The weighted average rate of interest on loan (WAROI) is based on the details of the actual loan portfolio and rate of interest furnished by the Petitioner, subject to truing up.

27. Based on the above, interest on loan has been worked out as under:

		(Rs in lakh)				
		2019-20	2020-21	2021-22	2022-23	2023-24
Gross Notional Loan	A	298383.29	302837.05	302837.05	302837.05	302837.05
Cumulative Repayment of Loan up to previous year	B	127778.91	149524.67	171431.52	193338.37	215245.22
Net Opening Loan	C=A-B	170604.38	153312.38	131405.53	109498.68	87591.83
Addition due to Additional Capitalization	D	4453.76	0.00	0.00	0.00	0.00
Repayment of Loan during the period	E	21745.76	21906.85	21906.85	21906.85	21906.85



		2019-20	2020-21	2021-22	2022-23	2023-24
Net Closing Loan	$F = C + D - E$	153312.38	131405.53	109498.68	87591.83	65684.98
Average Loan	$G = (C + F) / 2$	161958.38	142358.95	120452.10	98545.25	76638.41
Weighted Average Rate of Interest on Loan	H	9.88%	9.62%	9.57%	9.56%	9.54%
Interest on Loan	$I = G * H$	16005.91	13694.63	11525.94	9416.05	7307.57

Depreciation

28. Regulation 33 of the 2019 Tariff Regulations provides as under:

“33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:

Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.

The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:

Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;

Provided further that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:

Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:

Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life or the extended life.

Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.

Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-I to these regulations for the assets of the generating station and transmission system:

Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.

In case of the existing projects, the balance depreciable value as on 1.4.2019 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2019 from the gross depreciable value of the assets.

The generating company or the transmission licensee, as the case may be, shall submit the details of proposed capital expenditure five years before the completion of useful life of the project along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure.

In case of de-capitalization of assets in respect of generating station or unit thereof or transmission system or element thereof, the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the de-capitalized asset during its useful services.”

29. Cumulative depreciation amounting to Rs.127778.91 lakh as on 31.3.2019, as considered in order dated 27.3.2025 in Petition No. 361/GT/2020, has been considered for the purpose of tariff. The Petitioner has claimed depreciation considering the weighted average rate of depreciation (WAROD) of 5.08% for the period 2019-24. The WAROD of 5.064%, as allowed in 2018-19, has been considered for the period 2019-24. Accordingly, depreciation allowed for the generating station is as under:

<i>(Rs in lakh)</i>						
		2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	A	426261.84	432624.35	432624.35	432624.35	432624.35
Addition due to Additional Capitalisation	B	6362.51	0.00	0.00	0.00	0.00
Closing Capital Cost	C=(A+B)	432624.35	432624.35	432624.35	432624.35	432624.35
Average Capital Cost	D=(A+C)/2	429443.10	432624.35	432624.35	432624.35	432624.35
Value of freehold land	E	-	-	-	-	-
Depreciable Value	F= (D -E) *90%	386498.79	389361.92	389361.92	389361.92	389361.92
Remaining Depreciable Value	G= F – Cum. Dep. of previous year	258719.88	239837.25	217930.40	196023.55	174116.70
WAROD	H	5.064%	5.064%	5.064%	5.064%	5.064%
Depreciation	I=D*H	21745.76	21906.85	21906.85	21906.85	21906.85
Cumulative Depreciation (at the end of the period)	J= I+ Cum. Dep. of previous year	149524.67	171431.52	193338.37	215245.22	237152.06

Operation & Maintenance Expenses

30. The O&M expenses claimed by the Petitioner for the period 2019-24 is as under:



	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses <i>claimed</i> under Reg.35 (1) in Rs lakh / MW	36117.41	37392.62	38708.98	40066.46	41465.09
Capital Spares <i>claimed</i>	0.00	0.00	0.00	0.00	0.00
Water Charges <i>claimed</i>	502.55	739.67	739.67	739.67	739.67
Security charges <i>claimed</i>	2184.44	2402.85	2643.14	2907.45	3198.19
Total O&M Expenses Claimed	38804.40	40535.14	42091.79	43713.58	45402.95

31. Regulation 35 (1) (3) of the 2019 Tariff Regulations provides the year-wise O&M expense norms for the generating station as under:

(Rs in lakh/MW)				
2019-20	2020-21	2021-22	2022-23	2023-24
17.58	18.20	18.84	19.50	20.19

32. Accordingly, the normative O&M expenses claimed by the Petitioner are as under:

(Rs in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
36117.41	37392.62	38708.98	40066.46	41465.09

33. As the year-wise O&M expenses claimed by the Petitioner for the period 2019-24 as above is in accordance with Regulation 35(1)(1) of the 2019 Tariff Regulations, the same is allowed.

Water Charges, Security Charges and Capital Spares

34. Regulation 35(1)(6) of the 2019 Tariff Regulations provides for the claim towards water charges, security expenses and capital spares as under:

*“The Water Charges, Security Expenses and Capital Spares for thermal generating stations shall be allowed separately after prudence check:
Provided that water charges shall be allowed based on water consumption depending upon type of plant and type of cooling water system, subject to prudence check. The details regarding the same shall be furnished along with the petition;
Provided further that the generating station shall submit the assessment of the security requirement and estimated expenses;
Provided also that the generating station shall submit the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance as per Regulation 17 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 or Special Allowance or claimed as a part of additional capitalization or consumption of stores and spares and renovation and modernization.”*

Water Charges

35. The Petitioner has claimed projected water charges (including maintenance charges) in terms of Regulation 35(6) of the 2019 Tariff Regulations as under:

<i>(Rs in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
502.55	739.67	739.67	739.67	739.67

36. The Petitioner, vide affidavit dated 30.6.2021, has submitted the details of the expenditure towards electricity charges and ground rent claimed as part of water charges for the years 2019-20 and 2020-21. The Commission vide ROP dated 29.11.2023 directed the Petitioner to submit the justification for the expenses claimed under the head 'Water charges' and in response, the Petitioner, vide affidavit dated 29.1.2024, submitted that the water requirement of the project is met from the Rithala Sewage Treatment Plant of Delhi Jal Board (DJB). It has also stated that the sewage treated is available as raw water for its further processing to meet out the cooling water, DM water, fire water, and service water requirements and this has been done to avoid the dependency on freshwater from the sources such as the River Yamuna, and it is environmentally friendly. However, it has been submitted that the use of sewage treated water involves a higher cost in terms of the cost for treating sewage water and making it fit for use in the plant. The Petitioner has added that the National Tariff Policy, 2016 also mandates thermal plants to mandatorily use Sewage Treated Water.

37. The Commission, vide its earlier orders, decided that the water charges to be allowed are for the contracted quantum and the actual water consumption for the generating station only. For eg.in order dated 24.4.2024 in Petition No. 563/GT/2020 (truing up of tariff of Kudgi STPS for 2017-19), the Commission decided as under:



*“... To negate the anomaly arising out of this situation, the Commission, in its regulations, has permitted the water charges separately. Further, the normative auxiliary consumption norms are in due consideration of historical power consumption, furnished for the various generating stations for the past five-year period and the same includes the power charges for pumping water as well. **Accordingly, the water charges to be allowed are for the contracted quantum and the actual water consumption for the generating station only, and the power charges are not to be allowed separately in the water charges. ...**”*

38. Accordingly, after the prudence check, the actual water charges, after deducting the electricity charges and the yearly ground rent, are allowed. The actual water charges incurred for the years 2019-20 and 2020-21 for Rs.282.33 lakh and Rs.304.21 lakh (after excluding the provisioned amounts) during the years 2019-20 and 2020-21 have been considered and allowed. For the remaining period (2021-22 to 2023-24), the actual claim of Rs.304.21 lakh for 2020-21 has been considered. This is subject to the condition that the Petitioner shall, at the time of truing-up of tariff, submit the actual bills for the water charges, along with other relevant details in terms of Regulation 35(1)(6) of the 2019 Tariff Regulations. Accordingly, the water charges allowed for the period 2019-24 are as under:

<i>(Rs in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
282.33	304.21	304.21	304.21	304.21

Security Charges

39. The Petitioner has claimed projected security expenses, in terms of the second proviso to Regulation 35(6) of the 2019 Tariff Regulations, as under:

<i>(Rs in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
2184.44	2402.85	2643.14	2907.45	3198.19

40. The Petitioner, vide affidavit dated 4.11.2024, has submitted that the details of actual security expenses incurred during the period 2019-24, duly certified by the Statutory Auditor. The Petitioner has submitted that since the details of the years 2022-23 and 2023-24 are based on unaudited books of accounts, the certificate from statutory auditors for the years 2022-23 to 2023-24 has been obtained on a provisional basis. This has been considered subject to the

condition that the Petitioner shall, at the time of truing-up of tariff, submit the actual bills along with other relevant details in terms of the said proviso to Regulation 35(1)(6) of the 2019 Tariff Regulations. Accordingly, the revised security expenses claimed by the Petitioner is allowed are as under:

<i>(Rs in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
1717.75	2026.76	2096.59	2258.14	2220.14

Capital Spares

41. The Petitioner has not claimed any capital spares, during the period 2019-24 and has submitted that the same shall be claimed at the time of truing up of tariff, in terms of the last proviso to Regulation 35(6) of the 2019 Tariff Regulations, based on actual consumption of capital spares. Accordingly, the same has not been considered in this order. The claim of the Petitioner, if any, at the time of truing-up of tariff, shall be considered on merits after prudence check.

42. Based on the above, the total O&M expenses allowed for the period 2019-24 are summarized below:

<i>(Rs in lakh)</i>					
	2019-20	2020-21	2021-22	2022-23	2023-24
O&M Expenses <i>claimed</i> under Reg.35 (1) in Rs lakh / MW	36117.41	37392.62	38708.98	40066.46	41465.09
O&M Expenses <i>allowed</i> under Reg.35 (1) in Rs lakh / MW (A)	36117.41	37392.62	38708.98	40066.46	41465.09
Capital Spares <i>claimed</i>	0.00	0.00	0.00	0.00	0.00
Capital Spares <i>allowed</i> (B)	0.00	0.00	0.00	0.00	0.00
Water Charges <i>claimed</i>	502.55	739.67	739.67	739.67	739.67
Water Charges <i>allowed</i> (C)	282.33	304.21	304.21	304.21	304.21
Security charges <i>claimed</i>	2184.44	2402.85	2643.14	2907.45	3198.19
Security charges <i>allowed</i> (D)	1717.75	2026.76	2096.59	2258.14	2220.14
Total O&M Expenses Claimed	38804.40	40535.14	42091.79	43713.58	45402.95
Total O&M Expenses Allowed	38117.49	39723.59	41109.78	42628.81	43989.44



Operational Norms

43. The operational norms claimed by the Petitioner are in accordance with the provisions of Regulation 49 of the 2019 Tariff Regulations and hence allowed for the period 2019-24, as under:

Normative Annual Plant Availability Factor (NAPAF) (%)	85.00%
Gross Station Heat Rate (kcal/kwh)	1845.14
Auxiliary Power Consumption (%)	2.75%

Interest on Working Capital

44. Regulation 34(1)(b) of 2019 Tariff Regulations provides as under:

“34. Interest on Working Capital: (1) The working capital shall cover:

(b) For Open-cycle Gas Turbine/Combined Cycle thermal generating stations:

(i) Fuel cost for 30 days corresponding to the normative annual plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel;

(ii) Liquid fuel stock for 15 days corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel, cost of main liquid fuel duly taking into account mode of operation of the generating stations of gas fuel and liquid fuel;

(iii) Maintenance spares @ 30% of operation and maintenance expenses including water charges and security expenses;

(iv) Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel; and

(v) Operation and maintenance expenses, including water charges and security expenses, for one month.”

45. Clause (3) and (4) of Regulation 34 of the 2019 Regulations provides as under:

“(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later:

Provided that in case of truing-up, the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.

Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency.”

Fuel Cost and Energy Charges for Working Capital

46. The Petitioner has claimed the following fuel components as part of working capital, based on the price and GCV of APM gas, RLNG and Naphtha for the preceding three months, i.e., October 2018, November 2018, and December 2018. The Energy Charges arrived based on the same are as under:

Description	Unit	2019-24
Capacity	MW	1371.2
Gross Station Heat Rate (combined cycle)	kcal/kWh	1845.14
Gross Station Heat Rate (open cycle)	kcal/kWh	2755.78
Auxiliary Energy Consumption (combined cycle)	%	2.75
Auxiliary Energy Consumption (open cycle)	%	1
GCV of Gas (Weighted Average)	kcal/SCM	9427.167
Price of Gas (Weighted Average)	Rs/1000 SCM	17681.79
Rate of Energy Charge (ex-bus) (combined cycle)	Rs/kWh	3.559
Rate of Energy Charge (ex-bus) (open cycle)	Rs/kWh	5.221

47. Based on the details submitted by the Petitioner in Form-15, the fuel cost for 30 days for computation of working capital is allowed as under:

	(Rs in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of Fuel for corresponding to NAPA 30 days	29042.07	29042.07	29042.07	29042.07	29042.07

Maintenance Spares

48. The Petitioner has claimed maintenance spares for working capital as follows:

(Rs in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
11641.32	12160.54	12627.53	13114.08	13620.88

49. Maintenance spares for the purpose of working capital in accordance with Regulation 34(1)(b)(iii) of the 2019 Tariff Regulations (30% of the O&M expenses, including water charges and security expenses) is worked out and allowed as under:

(Rs in lakh)				
2019-20	2020-21	2021-22	2022-23	2023-24
11435.25	11917.08	12332.93	12788.64	13196.83



Receivables

50. Receivables equivalent to 45 days of capacity charges and energy charges for the purpose of working capital have been worked out and allowed as under:

	<i>(Rs in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Energy Charges corresponding to NAPAF (A)	43567.34	43567.34	43567.34	43567.34	43567.34
Capacity Charges corresponding to NAPAF (B)	13799.95	13700.30	13514.41	13448.25	13517.12
Total (C) = (A)+(B)	57367.29	57267.64	57081.75	57015.59	57084.46

O & M Expenses (one month)

51. O&M expenses for the purpose of working capital claimed by the Petitioner is as follows:

<i>(Rs in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
3233.70	3377.93	3507.65	3642.80	3783.58

52. Regulation 34(1)(b)(v) of the 2019 Tariff Regulations provides for O&M expenses for one month, including water charges and security expenses. Accordingly, the O&M expenses for working capital are allowed as under:

<i>(Rs in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
3176.46	3310.30	3425.81	3552.40	3665.79

Rate of interest on Working Capital

53. In accordance with Regulation 34(4) of the 2019 Tariff Regulations, the rate of interest on working capital has been considered as 12.05% (i.e., 1-year SBI MCLR of 8.55% (as on 01.04.2019) + 350 bps) for the year 2019-20, 11.25% (i.e. 1 year SBI MCLR of 7.75% (as on 01.04.2020) + 350 bps) for the year 2020-21, 10.50% (i.e. 1 year SBI MCLR of 7.00% (as on 01.04.2021 and 01.04.2022) + 350 bps) for the period 2021-22 and 2022-23, 12.00% (i.e. 1 year SBI MCLR of 8.50% (as on 01.04.2023) + 350 bps) for the period 2023-24. Accordingly, the interest on working capital has been considered as 12.05% for 2019- 20, 11.25% for 2020-

21, 10.50% for the period 2021-22 and 2022-23, and 12.00% for the Period of 2023-24.

Accordingly, interest on working capital is worked out and allowed as under:

(Rs in lakh)						
		2019-20	2020-21	2021-22	2022-23	2023-24
Working capital for Fuel cost for 30 days	A	29042.07	29042.07	29042.07	29042.07	29042.07
Working capital for Maintenance Spares @ 30% of O&M expenses	B	11435.25	11917.08	12332.93	12788.64	13196.83
Working capital for Receivables corresponding to NAPAF (2 Months)	C	57367.29	57267.64	57081.75	57015.59	57084.46
Working capital for O&M expenses for 1 month	D	3176.46	3310.30	3425.81	3552.40	3665.79
Total Working Capital	E= A+B+C+D	101021.07	101537.09	101882.57	102398.70	102989.15
Rate of Interest	F	12.05%	11.25%	10.50%	10.50%	12.00%
Total Interest on Working Capital	G= F*E	12173.04	11422.92	10697.67	10751.86	12358.70

Annual Fixed Charges for the period 2019-24

54. Accordingly, the annual fixed charges allowed for the generating station for the period 2019-24, are summarized as under:

(Rs in lakh)					
	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	21745.76	21906.85	21906.85	21906.85	21906.85
Interest on Loan	16005.91	13694.63	11525.94	9416.05	7307.57
Return on Equity	24197.40	24376.65	24376.65	24376.65	24376.65
Interest on Working Capital	12173.04	11422.92	10697.67	10751.86	12358.70
O&M Expenses	38117.49	39723.59	41109.78	42628.81	43989.44
Total annual fixed charges	112239.60	111124.64	109616.88	109080.23	109939.21

55. The annual fixed charges approved as above are subject to truing up in terms of Regulation 13 of the 2019 Tariff Regulations

Energy Charge Rate (ECR)

56. Based on the above norms of operation, GCV, and price of Natural Gas for the preceding three months, i.e., October 2018, November 2018, and December 2018, the ECR in ₹/kWh on ex-power plant may be considered for the purpose of tariff as under:



Description	Unit	2019-24
Capacity	MW	1371.2
Gross Station Heat Rate (combined cycle)	kcal/kWh	1845.14
Gross Station Heat Rate (open cycle)	kcal/kWh	2755.78
Auxiliary Energy Consumption (combined cycle)	%	2.75
Auxiliary Energy Consumption (open cycle)	%	1
GCV of Gas (Weighted Average)	kcal/SCM	9427.167
Price of Gas (Weighted Average)	₹ /1000 SCM	17681.79
Rate of Energy Charge (ex-bus) (combined cycle)	₹/kWh	3.559
Rate of Energy Charge (ex-bus) (open cycle)	₹/kWh	5.221

57. The energy charge on a month-to-month basis shall be billed by the Petitioner in terms of the 2019 Tariff Regulations.

Month-to-Month Energy Charges

58. Regulation 43(2)(b) of the 2019 Tariff Regulations provides as under:

“(2) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formulae:

(b) For gas and liquid fuel based stations:

ECR = SHR x LPPF x 100 / {(CVPF) x (100 – AUX)}

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = (a) Weighted Average Gross calorific value of coal as received, in kCal per kg for coal based stations less 85 Kcal/Kg on account of variation during storage at generating station;

(b) Weighted Average Gross calorific value of primary fuel as received, in kCal per kg, per litre or per standard cubic meter, as applicable for lignite, gas and liquid fuel based stations;

(c) In case of blending of fuel from different sources, the weighted average Gross calorific value of primary fuel shall be arrived in proportion to blending ratio:

CVSF = Calorific value of secondary fuel, in kCal per ml;

ECR = Energy charge rate, in Rupees per kWh sent out;

SHR = Gross station heat rate, in kCal per kWh;

LC = Normative limestone consumption in kg per kWh;

LPL = Weighted average landed cost of limestone in Rupees per kg;

LPPF = Weighted average landed fuel cost of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month. (In case of blending of fuel from different sources, the weighted average landed fuel cost of primary fuel shall be arrived in proportion to blending ratio);

SFC = Normative Specific fuel oil consumption, in ml per kWh;

LPSFi = Weighted Average Landed Fuel Cost of Secondary Fuel in Rs/ml during the month.”

59. The Petitioner shall compute and claim the Energy Charges on a month-to-month basis from the beneficiaries, based on the formula given under Regulation 43(2)(b) of the 2019 Tariff Regulations.

Property Tax

60. The Petitioner has sought recovery of the Property tax for Rs 0.40 crore to be paid to the Municipal Corporation of Delhi. The Petitioner submitted that such expenses are Statutory in nature and to be allowed to recover the same from its Beneficiaries in line with Regulation 56 of the 2019 Tariff Regulations. In our view, the expenses on this count may be claimed based on the actual amount incurred at the time of the truing-up of the tariff. Accordingly, the Petitioner is directed to submit the details of the same along with the required documentary evidence and justification at the time of the truing-up of the tariff.

Application Fee and Publication Expenses

61. The Petitioner has sought reimbursement of fees paid by it for filing the tariff petition for the period 2019-24 and for the publication expenses. The Petitioner shall be entitled to reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries, on a pro-rata basis, in accordance with Regulation 70(1) of the 2019 Tariff Regulations.

62. Similarly, RLDC Fees & Charges paid by the Petitioner in terms of the Central Electricity Regulatory Commission (Fees and Charges of Regional Load Dispatch Centre and other related matters) Regulations, 2019, shall be recovered from the beneficiaries. In addition, the Petitioner is entitled to recovery of statutory taxes, levies, duties, cess, etc., levied by the statutory authorities in accordance with the 2019 Tariff Regulations.

63. Petition No. 376/GT/2020 is disposed of in terms of the above.

Sd/-
(Harish Dudani)
Member

Sd/-
(Ramesh Babu V.)
Member

Sd/-
(Jishnu Barua)
Chairperson

