

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 254/GT/2020

Coram:

**Shri Jishnu Barua, Chairperson
Shri Arun Goyal, Member
Shri Ramesh Babu V, Member**

Date of Order: 1st August, 2024

In the matter of:

Petition for approval of tariff for NLC Tamil Nadu Power Limited (1000 MW) for the period 2019-24.

And

In the matter of:

NLC India Limited,
Neyveli House, 135, EVR Periyar Road,
Kilpauk, Chennai - 600010

...Petitioner

Vs

1. Tamil Nadu Generation and Distribution Corporation Limited,
NPKRR Maaligai, 144, Anna Salai, Chennai – 600002.
2. Transmission Corporation of Andhra Pradesh,
Vidyut Soudha, Gunadala, Eluru Road,
Vijaywada, Andhra Pradesh – 520004.
3. Southern Power Distribution Company of Andhra Pradesh Limited,
D. No: 19-13-65/A, Srinivasapuram, Tiruchhanur Road,
Kesavayanagunta, Tirupati (AP) – 517501
4. Eastern Power Distribution Company of Andhra Pradesh Limited,
Corporate Office P&T Colony, Seethammadhara,
Visakhapatnam (AP) – 530013
5. Transmission Corporation of Telangana Limited,
Vidyut Soudha Khairatabad, Hyderabad – 500082
6. Northern Power Distribution Company of Telangana Limited,
H.No 1-1-504, Opp. NIT petrol pump, Chaityanarayani colony,
Hanamkonda, Warangal (Telangana) – 506001



7. Southern Power Distribution Company of Telangana Limited,
2nd Floor, H.No. 6-1-50, Mint Compound, Hyderabad – 500063
8. Power Company of Karnataka Limited,
KPTCL Complex, Kaveri Bhawan, Bangalore – 560009
9. Bangalore Electricity Supply Company Ltd,
Krishna Rajendra Circle, Bangalore – 560001
10. Mangalore Electricity Supply Company Limited,
Paradigm Plaza A.B Shetty circle, Mangalore – 560009
11. Chamundeshwari Electricity Supply Company Limited,
Corporate Office No. 927, L.J Avenue, New Kantharaj Urs Road,
Saraswathipuram, Mysore – 570009
12. Gulbarga Electricity Supply Company Limited,
Main Road, Gulbarga, Karnataka – 585102
13. Hubli Electricity Supply Company Limited,
PB.Road, Navanagar, Hubli – 580025
14. Kerala State Electricity Board,
Vaidyuthi Bhavanam, Pattom
Thiruvananthpuram – 695004
15. Puducherry Electricity Department,
137, NSC Bose Salai, Puducherry – 605001

...Respondents

Parties present:

Ms. Anushree Bardhan, Advocate, NTPL
Ms. Surbhi Kapoor, Advocate, NTPL
Shri S. Vallinayagam, Advocate, TANGEDCO

ORDER

This Petition has been filed by the Petitioner for the determination of tariff of NLC Tamil Nadu Power Limited (2 x 500 MW) (in short, “the generating station/ project”) for the period 2019-24, in accordance with Regulation 9(2) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (in short “the 2019 Tariff Regulations”). The generating station, with a capacity of 1000 MW, comprises two units of 500 MW each. The date of commercial operation of Unit-I is 18.6.2015, and that of Unit-II and the generating station, as a whole, is 29.8.2015.



2. The Commission vide its order dated 21.6.2024 in Petition No. 528/GT/2020 had determined the capital cost and the annual fixed charges for the generating station for the period 2015-19, after truing up exercise, as under:

Capital Cost allowed

(Rs. in lakh)

	2015-16		2016-17	2017-18	2018-19
	As on 18.6.2015 (COD of Unit-I)	As on 29.8.2015 (COD of Unit-II/ generating Station)			
Opening capital cost	246119.82	524531.92	539732.66	566316.36	590889.08
Add: Additional capital expenditure	-	17447.53	27257.02	27403.45	9546.83
Less: Excess initial spares	-	57.31	673.32	1124.33	-
Less: Post COD overhead expenditure (Revenue expenditure in nature) in cash as per Form 5B not allowed in "additional capital expenditure"	-	2189.48	-	1706.40	-
Closing capital cost	246119.82	539732.66	566316.36	590889.08	600435.91

Annual Fixed Charges allowed

(Rs.in lakh)

	2015-16			2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 4.9.2015	5.9.2015 to 31.3.2016			
Depreciation	2530.57	524.56	15888.66	28067.30	29363.02	30228.40
Interest on Loan	3385.50	711.36	20991.04	36004.64	34931.84	33144.48
Return on Equity	2211.06	443.38	13569.28	31429.49	32941.55	34041.35
Interest on Working Capital	928.30	184.18	5506.31	9884.00	10162.80	10248.91
O&M Expenses	1673.11	325.75	9725.98	18412.00	19719.13	21038.79
Total	10728.55	2189.23	65681.28	123797.43	127118.34	128701.93

3. The Petitioner in the present Petition has claimed the following capital cost and annual fixed charges:

Capital cost claimed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	603654.28	605407.28	610257.28	613907.28	613907.28
Add: Additions during the year/period	1753.00	4850.00	3650.00	0.00	0.00
Closing capital cost	605407.28	610257.28	613907.28	613907.28	613907.28



	2019-20	2020-21	2021-22	2022-23	2023-24
Average capital cost	604530.78	607832.28	612082.28	613907.28	613907.28

Annual fixed charges claimed

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Return on Equity	34297.53	34452.18	34667.04	34775.22	34775.22
Return on Equity for the addition beyond the cut-off date	4.95	48.28	25.38	25.38	25.38
Interest on Loan	29293.40	26482.09	23716.04	20772.56	17702.23
Depreciation	31565.40	31732.95	31948.64	32041.26	32041.26
Interest on Working Capital	9886.85	9943.18	9977.02	9991.78	9993.94
O&M Expenses	23814.62	25583.67	26979.10	28107.57	29182.72
Total Annual Fixed Charges	128862.75	128242.34	127313.22	125713.77	123720.74

4. Respondents TANGEDCO and KSEBL have filed their replies vide affidavits dated 8.12.2020 and 20.7.2021, respectively. The Petitioner, vide affidavit dated 23.4.2021(TANGEDCO) and 26.7.2021 (KSEBL), has filed its rejoinders to the said replies. The Petitioner has also filed the additional information, vide affidavits dated 28.6.2021, 19.10.2021, 21.9.2022, and 12.12.2022, after serving a copy on the Respondents. The Petition was heard on 6.9.2022 (along with Petition No. 528/GT/2020-tariff for the period 2014-19 after truing up exercise), and the Commission directed the Petitioner to submit certain additional information. In response, the Petitioner vide affidavit dated 21.9.2022 filed the additional information after serving copies on the Respondents. The Respondent TANGEDCO has filed its reply vide affidavit dated 6.10.2022, and the Petitioner vide affidavit dated 18.10.2022 has filed its rejoinder to the said reply. The Petition was thereafter heard on 2.11.2022 along with Petition No. 528/GT/2020, and the Commission, after directing the Petitioner to submit certain additional information (in Petition No. 528/GT/2020), reserved its order in both the Petitions. In response, the Petitioner vide affidavit dated 12.12.2022 has filed the additional information after serving a copy to the Respondents. The Respondent TANGEDCO vide affidavit dated 20.12.2022, has filed a combined reply for both the Petitions on the additional information, and the Petitioner, vide affidavit dated



29.12.2022, has filed its rejoinder to the same. Since the order in the present Petition could not be issued prior to one Member of this Commission, who formed part of the Coram demitting office, this Petition was re-listed and reserved for orders on 6.2.2024. However, as the order in the Petition (which was reserved on 6.2.2024) could not be issued, the matter was again re-listed for hearing on 13.6.2024. During the hearing, the learned counsels for the Petitioner and the Respondent TANGEDCO submitted that since the pleadings and arguments have already been completed, the Commission may reserve its order in the petition. Based on the consent of the parties, the Commission reserved its order in the petition. Accordingly, 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

5. Clause (1) of Regulation 19 of the 2019 Tariff Regulations provides that the capital cost as determined by the Commission after prudence check, in accordance with this regulation, shall form the basis of the determination of tariff for existing and new projects. Clause 3 of Regulation 19 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 modernisation as admitted by this Commission in accordance with these regulations;*
- (d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
- (e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
- (f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries.”*



6. The Commission, vide its order dated 21.6.2024 in Petition No. 528/GT/2020, allowed the closing capital cost of Rs. 600435.91 lakh, as on 31.3.2019. Accordingly, in terms of Regulation 19(3) of the 2019 Tariff Regulations, the capital cost of Rs. 600435.91 lakh, has been considered as the opening capital cost as on 1.4.2019, for the purpose of determining the tariff for the period 2019-24.

Additional Capital Expenditure

7. Regulations 25 and 26 of the 2019 Tariff Regulations, provide as under:

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

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

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

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

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

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

(e) Force Majeure events;

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

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

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

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

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

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

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

26. Additional Capitalisation beyond the original scope

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

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



- (b) Change in law or compliance of any existing law;*
- (c) Force Majeure events;*
- (d) Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security;*
- (e) Deferred works relating to ash pond or ash handling system in additional to the original scope of work, on case to case basis:*

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

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

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

8. Respondent, TANGEDCO has submitted that the COD of the generating station is 29.8.2015, and the cut-off date for the station is 31.3.2018 and, therefore, Regulations 25 and 26 of the 2019 Tariff Regulations are applicable for admitting the additional capital expenditure after cut-off date. The Respondent has further stated that while Regulation 25 of the 2019 Tariff Regulations allows the additional capital expenditure within the original scope and after the cut-off date, subject to fulfilment of the conditions therein, Regulation 26 of the 2019 Tariff Regulations allows the additional capital expenditure beyond the original scope. The Respondent pointed out that the Petitioner in Form 9 has not indicated the Regulations under which the additional capital expenditure is claimed for the period 2019-24. In response, the Petitioner has submitted that the Petitioner has claimed the projected additional capital expenditure for the years 2019-20, 2020-21, and 2021-22, along with the Regulations in Form 9.

9. The Commission, vide its ROP of the hearing dated 6.9.2022, had directed the Petitioner to submit revised Form-9A clearly indicating the sub-clause of the relevant regulations, under which the additional capital expenditure was claimed. In response, the Petitioner, vide affidavit dated 21.9.2022, has submitted the revised Form 9A,



specifying the relevant regulations under which the additional capital expenditure has been claimed for the period 2019-24.

10. The Petitioner has not claimed any additional capital expenditure for the years 2022-23 and 2023-24. However, the projected additional capital expenditure claimed by the Petitioner for the period 2019-22 are as under:

<i>(Rs. in lakh)</i>					
Sl. No	Head of Work/Equipment	Regulation	2019-20	2020-21	2021-22
A	Works within original scope, change-in-law etc.				
1	Ash Dyke	Reg 25 (1)(C)	618.00	-	-
2	Implementation of ERP	Reg 25 (1) (b)	800.00	-	-
3	Natural Draft Cooling Tower (NDCT) Modification	Reg 25 (2)(C)	200.00	3100.00	3300.00
4	Additional Silos	Reg 25 (1)(C)	-	500.00	350.00
	Sub-Total (A)		1618.00	3600.00	3650.00
B	Works beyond Original scope excluding add-cap due to Change in Law.				
1	HPT Rotor	Reg 26 (1)(C)	135.00	1250.00	-
	Sub- Total (B)		135.00	1250.00	-
Total Additional capital expenditure claimed (A+B)			1753.00	4850.00	3650.00

11. We now examine the projected additional capital expenditure claimed by the Petitioner as under:

Ash Dyke

12. The Petitioner has claimed the projected additional capital expenditure of Rs.618.00 lakh towards Ash dyke in 2019-20, under Regulation 25(1)(c) of the 2019 Tariff Regulations. In justification for the same, the Petitioner has submitted that it is a standby arrangement to ensure 100% ash evacuation for uninterrupted generation of power.

13. Respondent KSEBL submitted that the Petitioner has not justified the requirement of the proposed expenditure. In response, the Petitioner has clarified that the generating station is equipped with only a Dry Ash disposal system. Hence, in case of issues in the disposal of dry fly ash by the cement & brick manufacturing companies, an Ash dyke is necessary for contingency disposal of ash, ensuring sustained power generation. The Petitioner has further submitted that the proposed expenditure of Rs. 618.00 lakh in



2019-20 towards Ash dyke has been claimed under Regulation 25 (1), which allows additional capital expenditure within the original scope and after the cut-off date.

14. The matter has been considered. It is observed that the Petitioner has claimed the total additional capital expenditure of Rs 618.00 lakh towards the Ash dyke in 2019-20 under Regulation 25(1)(c) of the 2019 Tariff Regulations, which covers the deferred work relating to the ash pond or ash handling system within the original scope of work and after the cut-off date. The cut-off date of the generating station is 31.3.2018. However, keeping in view that the ash-related works are continuous in nature during the entire operational life of the generating station and are within the original scope of work, we **allow** the projected additional capital expenditure claimed by the Petitioner under Regulation 25(1)(c) of the 2019 Tariff Regulations. This is subject to the condition that the Petitioner, at the time of truing-up of the tariff, shall furnish the complete details and the amount envisaged for the ash dyke work, as per the original investment approval, along with the amount of work completed towards the Ash dyke, reconciling with Form-B. In addition, the Petitioner has submitted that the generating station is equipped only with a dry ash disposal system. In view of this, the Petitioner shall, at the time of truing-up of tariff, also provide a detailed explanation for the necessity of an ash dyke, despite the absence of a wet ash handling system.

Implementation of ERP

15. The Petitioner has claimed the projected additional capital expenditure of Rs. 800.00 lakh towards the implementation of ERP in 2019-20 under Regulation 25(1)(b) of the 2019 Tariff Regulations. In justification for this claim, the Petitioner has submitted that the implementation of ERP is intended to improve system performance in the Finance, Human Resources, and Technical Departments.

16. Respondent KSEBL submitted that the Petitioner has not justified the requirement



of the proposed expenditure. In response, the Petitioner has submitted that ERP is implemented in the generating station to improve the system performance in the Finance, Human Resources and Technical Departments.

17. The matter has been considered. Since the expenditure is part of the original scope and is considered necessary for the efficient management of the activities of the generating station, the projected additional capital expenditure claimed by the Petitioner is **allowed**. However, the Petitioner shall furnish the complete details and the amount envisaged for the work of implementation of ERP, as per original investment approval reconciling with Form-B, at the time of filing the truing up Petition.

Natural Draft Cooling Tower (NDCT) Modification

18. The Petitioner has claimed the projected additional capital expenditure of Rs. 6600.00 lakhs during 2019-22 (Rs. 200.00 lakhs in 2019-20, Rs. 3100.00 lakh in 2020-21, and Rs. 3300.00 lakh in 2021-22) towards the modification of the Natural Draft Cooling Tower (NDCT) under Regulation 25(2)(c) of the 2019 Tariff Regulations. In justification for the same, the Petitioner submitted that the modification aims to improve the NDCT thermal performance and its capability, as well as to enhance the station heat rate and efficiency. It has also been submitted that M/s. Gammon India Limited, to whom the NDCT package was awarded, is yet to complete the PG test, since both the NDCTs have not performed as per design since inception, and therefore, the Petitioner has proposed to engage another agency to re-design the complete water distribution system at an estimated expense of Rs. 66 crores.

19. Respondents TANGEDCO and KSEBL have mainly stated that the generating station was commissioned in 2015, but the Petitioner has not provided any detailed information on the necessity and nature of the modification required. In response, the Petitioner has clarified that NDCT forms part of the original scope of work for the project.



It has also clarified that the modifications include retrofitting the internals such as fills, nozzles, and the water distribution system to enhance the thermal performance and capability of the NDCT and these improvements will, in turn, enhance the Station Heat Rate and efficiency. The Petitioner has further submitted that the proposed modification expenses for the NDCT fall under Regulation 25 of the 2019 Tariff Regulations, which allows the additional capital expenditure within the original scope of work and even after the cut-off date.

20. The Commission, vide ROP of the hearing dated 6.9.2022, directed the Petitioner to furnish the details with regard to the expenditure of Rs 6600.00 lakh for modification in the natural draft cooling tower along with the reason and justification for claiming such a huge expenditure along with its cost-benefit analysis. In response, the Petitioner vide affidavit dated 21.9.2022 submitted that the contract work for the “NDCT Package” was awarded to M/s Gammon India Limited, who is yet to complete the PG testing process. It has also submitted that the financial loss on account of the additional coal consumption due to higher Condenser BP is Rs. 91.19 crore during the period from 2016-17 to 2021-22. The Petitioner has submitted that the average financial loss is Rs. 17.70 crore/annum, including the cost of the water treatment chemicals, and hence, the Petitioner has proposed to engage an agency to re-design the complete water distribution system consisting of distribution pipes, nozzles, and splash fills, the vital system of cooling tower and replace the existing water distribution system with redesigned system to enhance the performance of cooling towers at an estimate of Rs. 66.00 crore.

21. Respondent TANGEDCO mainly submitted that the details of the guarantee period, action taken to encash the Performance guarantee, and other recoveries as per the contract have not been indicated by the Petitioner, and the Commission may direct



the Petitioner to furnish all details. It has also stated that a comprehensive study shall be made by competent agencies such as CECRI to analyse the cause of failure within 5 years before going in for re-designing. The Respondent has pointed out that the failure is on the part of the Petitioner in not enforcing strict inspection in the checking of materials/ workmanship, and therefore, this additional cost of Rs. 66 crores shall be to the account of Petitioner, as the initial cost incurred during the execution of the project has been added in the capital cost which is being serviced by the beneficiaries. In response, the Petitioner has clarified that both NDCTs have not performed as per design since inception, and M/s Gammon India Limited is reluctant to come forward to complete the PG test process. The Petitioner has also submitted that the guarantee period is one year from the date of handing over of the package by the contractor, but as the package has not yet handed over due to unsuccessful conductance of the PG Test, the guarantee period is not yet defined. The Petitioner has stated that it has acted to encash the Contract Performance Guarantee (CPG), but M/s Gammon India Limited has filed an arbitration against the same and the matter is pending.

22. The matter has been considered. We note from the above submissions that the NDCT package has not yet been handed over to the Petitioner by the contractor due to the unsuccessful conduct of the PG test. Also, the Petitioner's efforts to encash the CPG are subject to arbitration and is still pending. Keeping in view that the previous contract has not yet been settled, the projected additional capital expenditure for the new contract, in respect of the same work, which is still in progress, cannot be permitted. However, the Petitioner is granted liberty to claim the same along with all relevant details at the time of truing-up of tariff.



Additional Silos

23. The Petitioner has claimed the projected additional capital expenditure of Rs. 850.00 lakh (Rs. 500.00 lakh in 2020-21 and Rs. 350.00 lakh in 2021-22) for the period 2020-22, towards Additional silos under Regulation 25(1)(c) of the 2019 Tariff Regulations. In justification for the same, the Petitioner has submitted that the goal is to increase the storage capacity of Dry Ash to ensure uninterrupted power generation.

24. Respondents TANGEDCO and KSEBL have mainly stated that the Petitioner has not justified the requirement of the proposed expenditure, and, therefore, the above claims may be disallowed. In response, the Petitioner has submitted that the generating station is equipped with only Dry Ash disposal system hence in case of issues in the disposal of dry fly ash by cement & brick manufacturing companies, the additional silos are necessary for increasing the storage capacity of Dry Fly Ash, thus ensuring sustained power generation.

25. The matter has been considered. The Petitioner has claimed the said expenditure under Regulation 25 (1)(c) of the 2019 Tariff Regulations, which provides for deferred work relating to an ash pond or ash handling system within the original scope of work and after the cut-off date. The Petitioner has submitted that the said silos are procured to ensure uninterrupted power generation by increasing the storage capacity of Dry fly ash. The Petitioner is already equipped with the dry ash disposal system, and silos are additional requirements. It is, therefore, not clear as to how the claims towards additional silos are covered under the original scope of work. In his background, the claim of the Petitioner is not allowed at this stage. However, the Petitioner is granted liberty to claim the said expenditure towards additional silos at the time of truing-up of tariff. The Petitioner is also directed to provide the details and break-up of the ash disposal system and ash handling, linking the requirement of additional silos in the original scope of work



and reconciling the same with the investment approval cost.

HPT Rotor

26. The Petitioner has claimed the projected additional capital expenditure of Rs. 1385.00 lakh during 2019-21 (Rs. 135.00 lakh in 2019-20 and Rs. 1250.00 lakh in 2020-21) towards HPT rotor under Regulation 26(1)(c) of the 2019 Tariff Regulations. In justification for the same, the Petitioner has submitted that this item/asset is for stand-by to ensure the uninterrupted generation of power.

27. Respondents TANGEDCO and KSEBL have submitted that the commissioning of two units which was in 2015, renders the need for purchasing a new rotor unjustified. They have also stated that the Petitioner had previously sought approval for the procurement of an LP rotor, wherein the Commission had directed them to provide details and justification for the said procurement. However, the Petitioner is now seeking approval for the procurement of the same. Respondent TANGEDCO contends that the station only achieved the Date of Commercial Operation (DOC) in 2015, and considering the make, original equipment manufacturer's warranty, and the minimal life period served by the turbine from the DOC date, the inclusion of expenses for the idle HP rotor does not appear reasonable. Additionally, in the year 2020-21, an amount of Rs. 1250.00 lakh has been claimed without providing details, actual cost, or justification for the claim, and the details and justification for the claim should be furnished by the Petitioner. In response, the Petitioner has submitted that in case of any failure of the HP Rotor, lead time for the procurement of the HP Rotor will take more than 18 months and hence, it is necessary to keep a standby rotor to ensure the restoration of the Unit at a minimum time period to minimize loss of power generation and to cater the power demand of Southern states. The Petitioner has also submitted that a phased expenditure of Rs 135.00 lakh was considered in 2019-20, and Rs 1250.00 lakh was



considered in 2020-21 towards the procurement of HP Rotor. and also, the claim towards the same is covered under Regulation 26 of the 2019 Tariff Regulations which allows the additional capitalization beyond the original scope of work.

28. The matter has been considered. The Petitioner has claimed the expenditure of Rs 1385.00 lakh towards HP rotor under Regulation 26(1)(c) of the 2019 Tariff Regulations, which provides for consideration of the additional capital expenditure beyond the original scope of work towards force majeure events. The COD of the generation station is 29.8.2015, and hence, the cut-off date of the generating station is 31.3.2018. It is noticed that in respect of the additional capitalization claim of the Petitioner for HP rotor, the Commission, vide its order dated 11.7.2017 in Petition No.135/GT/2015, had observed as under:

The petitioner has also not submitted as to whether the assets like Generator Rotor, LP/HP rotor etc are in the nature of spares or whether these assets are required to replace the existing rotors due to breakdown....” The Petitioner is however directed to submit detailed justification along with relevant clauses / documentary evidence at the time of truing up of tariff”

29. However, the Petitioner, vide affidavit dated 5.7.2022, has submitted that a phased expenditure of Rs 135.00 lakh was considered in 2019-20 and Rs 1250.00 lakh was considered in 2020-21 and has reiterated that the claim towards procurement of HP Rotor is covered under Regulation 26 of the 2019 Tariff Regulations which allows additional capitalization beyond the original scope of work. It is noticed that the claim of the Petitioner is in nature of spares and the 4% of plant & equipment limit towards the initial spares for the generating station has already been exhausted. In this background, we find no reason to allow the claim of the Petitioner. However, the same may be considered as a “capital spare” and reimbursed under O&M as and when the asset is put to use by the Petitioner.



Additional capital expenditure allowed

30. Based on the above, the additional capital expenditure claimed and allowed for the period 2019-22 is as under:

	<i>(Rs. in lakh)</i>		
	2019-20	2020-21	2021-22
Claimed	1753.00	4850.00	3650.00
Allowed	1418.00	-	-

Capital cost allowed for the period 2019-24

31. Accordingly, the capital cost allowed for the generating station period 2019-24 is as under:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening capital cost	600435.91	601853.91	601853.91	601853.91	601853.91
Add: Additional capital expenditure	1418.00	0.00	0.00	0.00	0.00
Closing capital cost	601853.91	601853.91	601853.91	601853.91	601853.91

Debt-Equity Ratio

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

“18. Debt-Equity Ratio: (1) For a 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:

i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:

ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

iii. 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 utilised for meeting the capital expenditure of the generating station or the transmission system.

(2)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.

(3) 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 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.

(4) 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.

(5) 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, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.

33. The Commission. vide its order dated 21.6.2024 in Petition No. 528/GT/2020, had considered the gross normative loan and equity of Rs. 426712.42 lakh (i.e., 71.07% of the admitted capital cost as on 31.3.2019) and Rs. 173723.49 lakh (i.e., 28.93% of the admitted capital cost as on 31.3.2019), respectively. The same has been considered as gross loan and equity as on 1.4.2019. The debt-equity ratio of 71.07:28.93 has been considered as on 1.4.2019. The Petitioner has claimed the debt-equity ratio of 0:100 for additional capital expenditure for the period 2019-24 in Form-10. In view of Regulation 18(5) read with Regulation 18(1), the debt-equity ratio for the additional capital expenditure for the period 2019-24 has been considered as 70:30. Accordingly, the debt-equity ratio has been approved as under:

	As on 1.4.2019		Additional capital expenditure during 2019-24		As on 31.3.2024	
	Rs. in lakh	(%)	Rs. in lakh	(%)	Rs. in lakh	(%)
Debt	426712.42	71.07	992.60	70:00	427705.02	71.06
Equity	173723.49	28.93	425.40	30:00	174148.89	28.94
Total	600435.91	100.00	1418.00	100.00	601853.91	100.00

Return on Equity

34. Regulation 30 of the 2019 Tariff Regulations provides as under:

“30. Return on Equity:



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

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations 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 excluding additional capitalization due to Change in Law 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:

(i) 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;

(ii) 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;

(iii) in case of a thermal generating station with effect from 1.4.2020:

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

(b) 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.

35. Regulation 31 of the 2019 Tariff Regulations provides as under:

“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.

(2) 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-

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

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

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

(a) Estimated Gross Income from generation or transmission business for FY 2019-20 is Rs 1000 crore;

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

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

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

(3) 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 transmission customers as the case may be on year to year basis.”

36. The Petitioner has claimed HPT Rotor as additional capital expenditure as works beyond the original scope, excluding the additional capital expenditure due to a change in law under Regulation 26(1)(c) and has accordingly claimed ROE at the Weighted Average Rate of Interest (WAROI). However, the Commission has not allowed the additional capitalisation towards the HPT Rotor in this order. For the additional capital expenditure within the original scope of work and after the cut-off date, the Petitioner has claimed the ROE, considering the base rate of 15.50% and the effective tax rate of 21.550 % for the period 2019-24, and the same has been considered for the purpose of tariff. Accordingly, ROE has been worked out and allowed as under:

	(Rs. in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Normative Equity - Opening	173723.49	174148.89	174148.89	174148.89	174148.89
Add: Addition of Equity due to additional capital expenditure	425.40	0.00	0.00	0.00	0.00
Normative Equity - Closing	174148.89	174148.89	174148.89	174148.89	174148.89
Average Normative Equity	173936.19	174133.72	174133.72	174133.72	174133.72
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate for the respective year/period	21.550%	21.550%	21.550%	21.550%	21.550%
Rate of Return on Equity	19.758%	19.758%	19.758%	19.758%	19.758%



	2019-20	2020-21	2021-22	2022-23	2023-24
(Pre-tax)					
Return on Equity (Pre-tax) - (annualised)	34366.31	34408.34	34408.34	34408.34	34408.34

Interest on Loan

37. 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.

(2) 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.

(3) 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.

(4) 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.

(5) 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.

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

(7) The changes to the terms and conditions of the loan shall be reflected from the date of such re-financing.”

38. Interest on the loan has been computed as under:

(i) The ‘gross loan’ and the ‘net loan’ amounting to Rs. 426712.42 lakh and Rs. 320109.90 lakh respectively, as on 31.3.2019, as considered in order dated 21.6.2024 in Petition No. 528/GT/2020, has been retained as on 1.4.2019.

(ii) Addition to normative loan on account of additional capital expenditure approved above has been considered;

(iii) Depreciation allowed has been considered as the repayment of the normative loan during the respective years of the period 2019-24;

(iv) WAROI as claimed by the Petitioner, has been considered for the purpose of tariff;



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

	(Rs. in lakh)				
	2019-20	2020-21	2021-22	2022-23	2023-24
Gross Opening Loan (A)	426712.42	427705.02	427705.02	427705.02	427705.02
Cumulative Repayments of Loan up to Previous Year (B)	106602.52	137110.62	167654.71	198198.80	228742.88
Net Opening Loan (C =A-B)	320109.90	290594.40	260050.31	229506.22	198962.14
Less: Repayments during the year (D)	30508.10	30544.09	30544.09	30544.09	30544.09
Addition due to additional capital expenditure (E)	992.60	0.00	0.00	0.00	0.00
Net Closing Loan (F = C-D+E)	290594.40	260050.31	229506.22	198962.14	168418.05
Average Loan (G=(F+C)/2)	305352.15	275322.35	244778.27	214234.18	183690.10
Weighted Average Rate of Interest (H)	9.582%	9.582%	9.582%	9.582%	9.582%
Interest on Loan (I=H*G)	29260.06	26382.49	23455.63	20528.78	17601.92

Depreciation

40. 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.

(2) 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.

(3) 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 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.

(4) 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.

(5) 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.

(6) 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 up to 31.3.2019 from the gross depreciable value of the assets.

(7) The generating company or the transmission license, 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.

(8) 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.”

41. Since, as on 1.4.2019, the generating station has not completed its useful life of 12 years from the effective station COD (i.e., 24.7.2015), depreciation has been calculated by applying the weighted average rate of depreciation (WAROD) for the period 2019-24. WAROD, as claimed by the Petitioner, has been considered.

Necessary calculations in support of depreciation are as under:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost (A1)	600435.91	601853.91	601853.91	601853.91	601853.91
Addition During the year (A2)	1418.00	-	-	-	-
Closing Capital Cost (A3)	601853.91	601853.91	601853.91	601853.91	601853.91
Average capital cost (A = (A1+A3)/2)	601144.91	601853.91	601853.91	601853.91	601853.91
Less: Land Value (B)	0.00	0.00	0.00	0.00	0.00
Aggregate Depreciation value at 90% (C = 0.9*(A-B))	541030.42	541668.52	541668.52	541668.52	541668.52
Balance useful life (D)	21.31	20.31	19.31	18.31	17.31
Remaining depreciable value at the beginning of the year (E) = [(C) -	434427.90*	404557.89	374013.81	343469.72	312925.64



	2019-20	2020-21	2021-22	2022-23	2023-24
(Cumulative depreciation at the end of the preceding period i.e., 'H')]					
Weighted Average Rate of Depreciation (F)	5.075%	5.075%	5.075%	5.075%	5.075%
Depreciation during the year (G) = (Ax F)	30508.10	30544.09	30544.09	30544.09	30544.09
Cumulative depreciation at the end of the year (H) = [(G)+ (Cumulative depreciation at the end of previous period)]	137110.62*	167654.71	198198.80	228742.88	259286.97

*Cumulative depreciation as on 1.4.2019 has been considered as Rs.106602.52 lakh

Operation & Maintenance Expenses

42. The O&M expenses claimed by the Petitioner is as under:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Normative O&M expenses claimed under Regulation 35(1)(1) of the 2019 Tariff Regulations (a)	22510	23300	24120	24970	25840
Normative O&M expenses allowed under Regulation 35(1)(1) of the 2019 Tariff Regulations(b)	22510	23300	24120	24970	25840
Additional O&M on Desalination Plant claimed under Regulation 35(1)(6) of the 2019 Tariff Regulations(c)	611.10	641.66	673.74	707.42	742.80
Additional O&M on Desalination Plant allowed under Regulation 35(1)(6) of the 2019 Tariff Regulations(d)	602.72	623.82	645.65	668.04	691.42
Water Charges claimed under Regulation 35(1)(6) of the 2019 Tariff Regulations (e)	27.77	29.16	30.62	32.15	33.76
Water Charges allowed under Regulation 35(1)(6) of the 2019 Tariff Regulations (f)	26.45	26.45	26.45	26.45	26.45
Security Expenses claimed under Regulation 35(1)(6) of the 2019 Tariff Regulations (g)	665.75	1612.85	2154.74	2397.99	2566.16
Security Expenses allowed under Regulation 35(1)(6) of the 2019 Tariff Regulations (h)	665.75	1612.85	2154.74	2397.99	2566.16
Total O&M expenses allowed under Regulation 35 of the 2019 Tariff Regulations (b+d+f+h)	23804.92	25563.12	26946.84	280632.48	29124.03

43. The normative O&M expenses claimed by the Petitioner are in terms of Regulation



35(1)(1) of the 2019 Tariff Regulations and hence allowed.

Water Charges

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

“35(1)(6) The Water, Security Expenses and Capital Spares for thermal generating stations shall be allowed separately and after prudence check:

Provided that water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., 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 part of additional capitalization or consumption of stores and spares and renovation and modernization.”

45. The actual water charges claimed by the Petitioner in Petition No. 528/GT/2020 for the period 2014-19 and allowed by order dated 21.6.2024 are as under:

	<i>(Rs. in lakh)</i>			
	2015-16 (from COD)	2016-17	2017-18	2018-19
Claimed	13.04	13.04	15.70	26.45
Approved	13.04	13.04	15.70	26.45

46. The details of water charges claimed by the Petitioner are as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
27.77	29.16	30.62	32.15	33.76

47. The matter has been considered. In terms of the first proviso to Regulation 35(1)(6) of the 2019 Tariff Regulations, water charges are to be allowed based on the water consumption depending upon the type of plant, type of cooling water system, etc., subject to prudence check of the details furnished by the Petitioner. The Petitioner has submitted that the generating station has a closed-circuit seawater cooling system. The water charge claimed by the Petitioner consists of the consent fee payable to the Tamil



Nadu Pollution Control Board under the Water Act. The Petitioner has claimed the projected water charges for the period 2019-24, based on the actual expenditure incurred for the year 2018-19 and by an escalation of 5% each year. It is noticed that the Petitioner has not furnished any justification for the escalation claimed. Considering the fact that the Commission vide its order dated 21.6.2024 in Petition No. 528/GT/2020 had allowed the water charges of Rs 26.45 lakh in 2018-19 based on audited figures, the same has been also considered and allowed for the period 2019-24. Accordingly, the projected 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
26.45	26.45	26.45	26.45	26.45

48. The water charges allowed above are subject to the Petitioner furnishing all the details on actual consumption at the time of truing up of tariff. The Petitioner, at the time of truing up, is required to furnish documents pertaining to the agreement, as well as the receipt for the consent fee paid to the Tamil Nadu Pollution Control Board.

Security Expenses

49. The security expenses claimed by the Petitioner are as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
665.75	1612.85	2154.74	2397.99	2566.16

50. The Petitioner has submitted that the above expenses have been claimed based on the estimated expenses for the period 2019-24 and are subject to adjustment based on actuals at the time of truing up. We have examined the matter. Though the Petitioner has claimed projected security expenses, it has not furnished the assessment of security requirements as required under the second proviso to Regulation 35(1)(6) of the 2019 Tariff Regulations. Accordingly, the Petitioner is directed to furnish the requisite details for carrying out the prudence check of security expenses at the time of



truing up of tariff. For the present, the projected security expenses for the period 2019-24 have been considered for the purpose of tariff. Accordingly, the security expenses as claimed by the Petitioner are allowed.

Capital Spares

51. The Petitioner has not claimed capital spares during the period 2019-24 but has submitted that the same shall be claimed based on actual consumption of spares during the period 2019-24, at the time of truing up, in terms of proviso to Regulation 35(1)(6) of the 2019 Tariff Regulations. Accordingly, the same has not been considered in this order. The claim of the Petitioner, if any, towards capital spares at the time of truing up shall be considered on merits after prudence check.

Additional O&M expenses

Desalination plant

52. The Petitioner has claimed the projected O&M expenses for the period 2019-24 based on the actual expenditure incurred in 2018-19 towards chemicals, filters, and membranes used in the desalination plant. The expenses have been claimed at an escalation rate of 5% based on actual O&M expenses for 2018-19, as under.

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
611.10	641.66	673.74	707.42	742.80

53. It is observed that these special features of the coastal generating station are required for the smooth and efficient operation of the generating station. Moreover, the normative O&M expenses under the 2019 Tariff Regulations do not include the expenditures incurred for the additional features viz. the desalination plant. The Petitioner, in respect of the additional O&M expenses, claimed towards the desalination plant in Petition No. 528/GT/2020, had furnished the LOAs issued to the different vendors for the claims made during the period 2015-19, duly certified by an auditor.



Considering the fact that the same was certified by the auditor, the Commission vide order dated 21.6.2024 had allowed the additional O&M expenses for the desalination plant as under:

(Rs. in lakh)

	2015-16		2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 31.3.2016			
Additional O&M expenses impact for desalination plant allowed	-	-	318.96	483.42	582.34

54. The Commission, in the said order, had allowed these expenses, stating that the same is required for smooth and efficient operations of the generating station. Accordingly, considering the need for this feature, the additional O&M expenses for the desalination plant have been allowed, based on the actual expenditure incurred during 2018-19, along with an escalation of 3.5% annually in line with the 2019 Tariff Regulations for the period 2019-24. However, the Petitioner shall, at the time of truing up of tariff, furnish the complete breakup clearly indicating each and every expenditure which have been made part of the additional O&M expenditure incurred for the desalination plant.

55. Accordingly, the total O&M expenses, including water charges and security expenses, allowed to the generating station for the period 2019-24 is as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Normative O&M expenses claimed under Regulation 35(1)(1) of the 2019 Tariff Regulations (a)	22510	23300	24120	24970	25840
Normative O&M expenses allowed under Regulation 35(1)(1) of the 2019 Tariff Regulations(b)	22510	23300	24120	24970	25840
Additional O&M on Desalination Plant claimed under Regulation 35(1)(6) of the 2019 Tariff Regulations(c)	611.10	641.66	673.74	707.42	742.80
Additional O&M on Desalination Plant allowed	602.72	623.82	645.65	668.04	691.42



	2019-20	2020-21	2021-22	2022-23	2023-24
under Regulation 35(1)(6) of the 2019 Tariff Regulations(d)					
Water Charges claimed under Regulation 35(1)(6) of the 2019 Tariff Regulations (e)	27.77	29.16	30.62	32.15	33.76
Water Charges allowed under Regulation 35(1)(6) of the 2019 Tariff Regulations (f)	26.45	26.45	26.45	26.45	26.45
Security Expenses claimed under Regulation 35(1)(6) of the 2019 Tariff Regulations (g)	665.75	1612.85	2154.74	2397.99	2566.16
Security Expenses allowed under Regulation 35(1)(6) of the 2019 Tariff Regulations (h)	665.75	1612.85	2154.74	2397.99	2566.16
Total O&M expenses allowed under Regulation 35 of the 2019 Tariff Regulations (b+d+f+h)	23804.92	25563.12	26946.84	280632.48	29124.03

Operational Norms

56. The Petitioner has considered following operational norms for the purpose of tariff:

Normative Annual Plant Availability Factor (NAPAF) (%)	85.00
Heat Rate (kCal/kwh)	2358.84
Auxiliary Power Consumption (%)	6.75
Specific Oil Consumption (ml/kwh)	0.5

Normative Annual Plant Availability Factor

57. Regulation 49(A)(e) of the 2019 Tariff Regulations provides as under:

“(A) Normative Annual Plant Availability Factor (NAPAF)

(a) For all thermal generating stations, except those covered under clauses (b), (c), (d), & (e) - 85%;

58. Since the Petitioner has considered NAPAF of 85% in terms of Regulation 49(A)(a) of the 2019 Tariff Regulations, the same is allowed.

Gross Station Heat Rate (kCal/kWh)

59. Regulation 49(C)(b) of the 2019 Tariff Regulations provides as under:

*“(i) For Coal-based and lignite-fired Thermal Generating Stations:
1.05 X Design Heat Rate (kCal/kWh)*

Where the Design Heat Rate of a generating unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure Provided that the design heat rate shall not



exceed the following maximum design unit heat rates depending upon the pressure and temperature ratings of the units:

Pressure Rating (Kg/cm ²)	150	170	170
SHT/RHT (°C)	535/535	537/537	537/565
Type of BFP	Electrical Driven	Turbine Driven	Turbine Driven
Max Turbine Heat Rate (kCal/kWh)	1955	1950	1935
Min. Boiler Efficiency			
Sub-Bituminous Indian Coal	0.86	0.86	0.86
Bituminous Imported Coal	0.89	0.89	0.89
Max. Design Heat Rate (kCal/kWh)			
Sub-Bituminous Indian Coal	2273	2267	2250
Bituminous Imported Coal	2197	2191	2174

Provided also that in case of lignite-fired generating stations (including stations based on CFBC technology), maximum design heat rates shall be increased using factor for moisture content given in sub-clause (C)(a)(iv) of this Regulation.

xxx

Note: In respect of generating units where the boiler feed pumps are electrically operated, the maximum design heat rate of the unit shall be 40 kCal/kWh lower than the maximum design heat rate of the unit specified above with turbine driven Boiler Feed Pump”

60. In terms of Regulation 49(C)(b)(i) of the 2019 Tariff Regulations, for the generating station achieving COD on or after 1.4.2009, the Gross Station Heat Rate is 1.05 x design heat rate. The Petitioner has furnished the design Turbine Cycle heat rate of 1932 kCal/kWh and Boiler Efficiency of 85.67%. Accordingly, the design heat rate of the generating station is 2255.17 kCal/kWh (1932/0.8567). Further, the fourth proviso to the above Regulation provides that where the boiler efficiency is lower than 86% for subbituminous Indian coal, the same shall be considered as 86%. Considering the boiler efficiency as 86%, the unit design heat rate works out to 2246.51 kCal/kWh. Provided that the design heat rate shall not exceed the maximum design unit heat rate depending upon the pressure and temperature rating of the units as specified by the Commission, where the design heat rate for plants having temperature and pressure rating nearer to the Petitioner’s plant using sub-bituminous coal is given as maximum 2250 kcal/kwh. The Design heat rate of 2246.51 kCal/kWh for this generating station is lower than the ceiling design heat rate of 2250 kcal/kwh. In view of this, the design heat rate of 2246.51



kCal/kWh has been considered as the “design heat rate”. Thus, by taking the multiplying factor of 1.05, the applicable Station Heat rate is 2358.84 kcal/kwh (1.05x2246.51). Accordingly, a GSHR of 2358.84 kcal/kWh is considered for the purpose of determining the tariff.

Secondary Fuel Oil Consumption

61. Regulation 49(D)(a) of 2019 Tariff Regulations provides as under:

“(a) Coal-based generating stations other than at (c) below: 0.50 ml/kWh”

62. Since the Petitioner has considered the secondary fuel oil consumption of 0.50 ml/kWh in terms of Regulation 49(D)(a) of the 2019 Tariff Regulations, the same is allowed.

Auxiliary Power Consumption

63. Regulation 49(E)(a) of 2019 Tariff Regulations provides as under:

“49 (E) Auxiliary Energy Consumption

(a) Coal-based generating stations except at (b) below:

	<i>With Natural Draft cooling tower or without cooling Tower</i>
<i>(i) 200 MW series</i>	8.5%
<i>(ii) 300/330/350/500 MW and above</i>	
<i>Steam driven boiler feed pumps</i>	5.75%
<i>Electrically driven boiler feed pumps</i>	8.00%

Provided that for thermal generating stations with induced draft cooling towers and where tube type coal mill is used, the norms shall be further increased by 0.5% and 0.8%, respectively:

Provided further that Additional Auxiliary Energy Consumption as follows shall be allowed for plants with Dry Cooling Systems:

Type of Dry Cooling System	(% of gross generation)
Direct cooling air cooled condensers with mechanical draft fans	1.0%
Indirect cooling system employing jet condensers with pressure recovery turbine and natural draft tower	0.5%

64. The Petitioner has submitted that for the period 2014-19, the Commission vide order dated 11.7.2017 in Petition No.135/GT/2015, while determining the tariff for the



generating station, had allowed an APC of 6.25% against the normative APC of 5.25% considering the special features viz., Cross Country Conveyor system, Shore Unloader and Desalination Plant and also directed to furnish the details of the actual APC, PLF of the generating station from COD to 31.3.2019 at the time of truing up of tariff. Based on the submissions of the Petitioner, the Commission vide its order dated 21.6.2024 in Petition No. 528/GT/2020 had allowed the auxiliary consumption of 6.25%, considering 1% of the additional auxiliary power consumption due to the special features of the desalination plant. The Petitioner, in the present Petition has prayed for an upward revision of the normative Auxiliary Energy Consumption from 5.75% to 6.75% in exercise of the 'power to relax' considering the Auxiliary Energy Consumption for external coal handling plant (jetty and associated infrastructure) and also Desalination Plant as allowed during the period 2014-19.

65. The matter has been considered. It is noticed that Regulation 49(E)(a) of the 2019 Tariff Regulations provides for auxiliary power consumption of 5.75% for the coal-based plants with natural draft cooling towers. Considering 1% additional auxiliary power consumption due to additional features like Offshore conveyor system for coal transportation from mine to sea and from sea to the nearest Tuticorin port, two nos. of electrically operated Shore un-loader installed for unloading of coal from the ship and to transfer coal from ship's hold to materials handling conveyor of the jetty, and for the electrical equipment installed for the desalination plant for RO production, we at present allow the auxiliary power consumption of 6.25% for the period 2019-24, which is same as allowed during the period 2014-19. However, the Petitioner is directed to furnish the details of the actual APC and power consumed by all the additional features along with the PLF of the generating station for the period 2019-24 at the time of the truing-up tariff.



Interest on Working Capital

66. Sub-section (a) of clause (1) of Regulation 34 of the 2019 Tariff Regulations provides as under:

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

(a) *For Coal-based/lignite-fired thermal generating stations:*

(i) *Cost of coal or lignite and limestone towards stock if applicable for 10 days for pit-head generating stations and 20 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;*

(ii) *Advance payment for 30 days towards cost of coal or lignite and limestone for generation corresponding to the normative annual plant availability factor;*

(iii) *Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor and in case of use of more than one secondary fuel oil cost of fuel oil stock for the main secondary fuel oil;*

(iv) *Maintenance spares @ 20% of operation and maintenance expenses including water charges and security expenses;*

(v) *Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on the normative annual plant availability factor; and*

(vi) *Operation and maintenance expenses including water charges and security expenses for one month.*

(b) *xxxx*

(c) *xxxx*

(2) *The cost of fuel in cases covered under sub-clauses (a) and (b) of clause (1) of this Regulation shall be based on the landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) by the generating station and gross calorific value of the fuel as per actual weighted average for the third quarter of preceding financial year in case of each financial year for which tariff is to be determined:*

Provided that in case of new generating station the cost of fuel for the first financial year shall be considered based on landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) and gross calorific value of the fuel as per actual weighted average for three months as used for infirm power preceding date of commercial operation for which tariff is to be determined.

(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.

(4) *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 in working capital

67. Regulation 34(2) of the 2019 Tariff Regulations provides for the computation of the



cost of fuel as a part of Interest on Working Capital (IWC), to be based on the landed price and gross calorific value of the fuel as per actuals, for the third quarter of preceding financial year in case of each financial year for which tariff is to be determined.

Regulation 43(2) 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:

(a) For coal based and lignite fired stations:

$$ECR = \{(SHR - SFC \times CVSF) \times LPPF / CVPF + SFC \times LPSFi + LC \times LPL\} \times 100 / (100 - AUX)$$

(b) For gas and liquid fuel based stations:

$$ECR = SHR \times LPPF \times 100 / \{(CVPF) \times (100 - AUX)\}$$

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:

Provided that energy charge rate for a gas or liquid fuel based station shall be adjusted for open cycle operation based on certification of Member Secretary of respective Regional Power Committee during the month.”

68. The Petitioner has claimed the cost of fuel component in working capital and Energy Charge Rate (ECR) based on the following:

- (a) Operational norms as per the 2019 Tariff Regulations;
- (b) Price and 'as received GCV of coal procured for the three months of October 2018, November 2018, and December 2018.
- (c) Price and GCV of secondary fuel oil for the three months of October, 2018, November, 2018 and December, 2018.



69. The Petitioner has claimed the Energy Charge Rate (ECR) ex-bus of 317.00 paise/kWh for the period 2019-24 for the generating station, based on the GCV and price of fuel (coal and secondary fuel oil) prevailing during the preceding three months. Accordingly, the cost of the fuel component in working capital claimed by the Petitioner is as under:

	<i>(Rs. in lakh)</i>				
	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of coal for towards stock	12045.07	12045.07	12045.07	12045.07	12045.07
Cost of Coal towards Generation	18067.60	18067.60	18067.60	18067.60	18067.60
Cost of secondary fuel oil for 2 months	244.00	243.33	243.33	243.33	244.00

70. The Petitioner in Form-15 has furnished the details of fuel for the month of October, 2018, November, 2018 and December, 2018. Accordingly, in terms of Regulation 34(2) of the 2019 Tariff Regulations, the computation of cost of fuel as part of IWC is to be based on the landed price and GCV of fuel as per actuals. Therefore, in terms of the said Regulation and based on the submission of the Petitioner, the weighted average price and GCV of coal and oil claimed and allowed for the period 2019-24 is as under:

	<i>(Rs. in lakh)</i>	
	Claimed	Allowed
Weighted average price of coal (Rs./MT)	4922.859	4940.119
Weighted average GCV of coal (kCal/kg)	3912.58	3922.87
Weighted average price of oil (Rs./KL)	39215.71	39215.71
Weighted average GCV of oil (kCal/Ltr.)	9776.45	9776.45

71. It is noticed that the weighted average price of coal and GCV of coal allowed is higher than the claimed price, and the said variation is due to the fact that while the Petitioner has considered the Gross Station Heat Rate of 2351.25 kCal/kWh as per the 2014 Tariff Regulations, the Commission has allowed the GSHR of 2358.84 kCal/kWh in terms of the 2019 Tariff Regulations. Similarly, the Petitioner has calculated the weighted average price and GCV of coal based on the consumption of coal, but the Commission has considered the net coal supplied for computation of the weighted average price and GCV of coal. Accordingly, the rate of energy charges, based on the



operational norms, as approved above, is determined as under:

	2019-20 & 2023-24	2020-23
Capacity (MW)	1000.00	1000.00
Aux. Power Consumption	6.75%	6.75%
Gross Station Heat Rate (kCal/kwh)	2358.840	2358.840
Specific Fuel Oil Consumption (ml/kwh)	0.50	0.50
Weighted Avg. GCV of Oil (kCal/Lit.)	9776.45	9776.45
Weighted Avg. Price of Oil (Rs/KL)	39215.71	39215.71
Oil Stock- 2 months- (Rs. in Lakhs)	244.00	243.33
Weighted Avg. GCV of Coal (kCal/kg)	3922.87	3922.87
Weighted Avg. Price of Coal (Rs./MT)	4940.119	4940.119
Rate of Energy Charge (Ex Bus) (Paise/kWh)	319.997	319.997

72. Accordingly, the fuel component in working capital, energy charges, and ECR allowed is as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of Coal for 30 days	18141.89	18141.89	18141.89	18141.89	18141.89
Cost of secondary fuel oil for 2 months	244.00	244.00	243.33	243.33	244.00
Energy charges for 45 days	27392.83	27392.83	27392.83	27392.83	27392.83
ECR (Paise/kWh)	319.997	319.997	319.997	319.997	319.997

73. The Petitioner, on a month-to-month basis shall compute and claim the energy charges from the beneficiaries based on formulae given under Regulation 43 of the 2019 Tariff Regulations.

Working Capital for Maintenance Spares

74. The Petitioner in Form-O has claimed maintenance spares in working capital as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
4762.92	5116.73	5395.82	5621.51	5836.54

75. Regulation 34(1)(a)(iv) of the 2019 Tariff Regulations provide for maintenance spares @ 20% of the O&M expenses (including water charges and security expenses). Accordingly, maintenance spares @ 20% of the O&M expenses (including the water charges and security expenses) allowed for the period 2019-24 is as under:



<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
4760.98	5112.62	5389.37	5612.50	5824.81

76. The difference between the maintenance spares claimed and those allowed is due to the fact that the Commission has restricted the additional O&M expenses towards desalination plant and water charges as discussed in the relevant paragraphs above.

Working Capital for Receivables

77. In terms of Regulation 34(1)(a)(v) of the 2019 Tariff Regulations, the variable charges for receivables equivalent to 45 days of capacity charges and energy charges is worked out and allowed as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
27392.83	27392.83	27392.83	27392.83	27392.83

78. As per Regulation 34(2) of the 2019 Tariff Regulations, the cost of fuel shall be based on landed fuel cost (taking into account the normative transit and handling losses in terms of Regulation 39 of the 2019 Tariff Regulations) by the generating station and GCV of fuel as per the actual weighted average for the third quarter of preceding financial year. Hence, the Petitioner shall, at the time of truing up of tariff, furnish the details of the quantity of coal (fuel) as per Regulation 34(2) of 2019 Tariff Regulations. The Petitioner shall not alter or modify any of the columns and lines provided in the forms/ annexures and shall submit the details strictly in accordance with the said forms/ annexures of the 2019 Tariff Regulations.

79. The Petitioner, on a month to month basis, shall compute and claim the energy charges from the beneficiaries based on the formulae as per Regulation 43 of the 2019 Tariff Regulations. Further, the Petitioner is directed to calculate the input price of lignite as per Regulation 36 of the 2019 Tariff Regulations.



Working Capital for O&M Expenses for 1 month

80. The Petitioner in Form-O has claimed the O&M expenses for 1 month in the working capital as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
1984.55	2131.97	2248.26	2342.3	2431.893

81. Regulation 34(1)(a)(vi) of the 2019 Tariff Regulations provide for O&M expenses equivalent to 1 month of the O&M expenses (including water charges and security expenses). Accordingly, O&M expenses equivalent to 1 month of the O&M expenses (including water charges and security expenses) allowed for the period 2019-24 are as under:

<i>(Rs. in lakh)</i>				
2019-20	2020-21	2021-22	2022-23	2023-24
1983.74	2130.26	2245.57	2338.54	2427.00

82. The difference between the O&M expenses claimed and allowed is due to the fact that we have restricted the additional O&M expenses towards the desalination plant and water charges as discussed in the relevant paragraphs.

Rate of Interest on working Capital

83. In line with Regulation 34(3) of the 2019 Tariff Regulations, the rate of interest on working capital is considered as 12.05% (i.e., 1 year SBI MCLR of 8.55% as on 1.4.2019 + 350 bps) for the year 2019-20, 11.25% (i.e., 1 year SBI MCLR of 7.75% as on 1.4.2020 + 350 bps) for the year 2020-21, 10.50% (i.e., 1 year SBI MCLR of 7.00% as on 1.4.2021/1.4.2022 + 350 bps) for the period 2021-23 and 12.00% (i.e., 1 year SBI MCLR of 8.50% as on 1.4.2023 + 350 bps) for the financial year 2023-24. Accordingly, Interest on working capital has been computed as under:

<i>(Rs. in lakh)</i>					
	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for Cost of coal for towards stock (A)	12094.59	12094.59	12094.59	12094.59	12094.59
Working Capital for Cost of Coal towards Generation (B)	18141.89	18141.89	18141.89	18141.89	18141.89



	2019-20	2020-21	2021-22	2022-23	2023-24
Working Capital for Cost of secondary fuel oil - 2 months (C)	244.00	244.00	243.33	243.33	244.00
Working Capital for Maintenance Spares @ 20% of O&M expenses (D)	4760.98	5112.62	5389.37	5612.50	5824.81
Receivables for 45 Days (E)	43083.39	42923.48	42660.32	42438.23	42319.63
Working Capital for O&M expenses - 1 month (F)	1983.74	2130.26	2245.57	2338.54	2427.00
Total Working Capital (G = A+B+C+D+E+F)	80308.60	80646.84	80775.07	80869.08	81051.92
Rate of Interest (H)	12.050%	11.250%	10.500%	10.500%	12.000%
Interest on Working Capital for annualized (I=G*H)	9677.19	9072.77	8481.38	8491.25	9726.23

Annual Fixed Charges for the period 2019-24

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

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	30508.10	30544.09	30544.09	30544.09	30544.09
Interest on Loan	29260.06	26382.49	23455.63	20528.78	17601.92
Return on Equity	34366.31	34408.34	34408.34	34408.34	34408.34
Interest on Working Capital	9677.19	9072.77	8481.38	8491.25	9726.23
O&M Expenses	23804.92	25563.12	26946.84	28062.48	29124.03
Total annual fixed charges	127616.59	125970.80	123836.28	122034.93	121404.60

Note: (1) All figures are on an annualized basis. (2) All figures under each head have been rounded. The figure in total column in each year is also rounded. As such, the sum of individual items may not be equal to the arithmetic total of the column.

85. The annual fixed charges approved as above, is subject to truing-up in terms of Regulation 13 of the 2019 Tariff Regulations.

Application Fee and Publication expenses

86. The Petitioner has sought the reimbursement of fees paid by it for filing the petition for the period 2019-24 and for 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.

87. 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 recover the statutory taxes, levies, duties, cess, etc. levied by the statutory authorities in accordance with the 2019 Tariff Regulations.

88. Petition No. 254/GT/2020 is disposed of in terms of the above.

Sd/-
(Ramesh Babu V.)
Member

Sd/-
(Arun Goyal)
Member

Sd/-
(Jishnu Barua)
Chairperson

