CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 271/GT/2019

Coram:

Shri P.K. Pujari, Chairperson
Shri I.S. Jha, Member
Shri Arun Goyal, Member

Date of Order: 26th June, 2021

In the matter of

Petition for revision of tariff of Tripura Gas Based Power Plant (TGBP) (101 MW) based on truing-up exercise for the period 24.12.2015 to 31.3.2019

And

In the matter of

North Eastern Electric Power Corporation Limited
Corporate Office: Brookland Compound Lower New Colony,
Shillong 793 003, Meghalaya **…Petitioner**

Vs

1. Tripura State Electricity Corporation Ltd.,
Bidyut Bhavan, North Banamalipur,
Agartala -799 001, Tripura

2. North Eastern Regional Power Committee,
NERPC Complex, Dong Parmaw
Lapalang, Shillong-793006,
Meghalaya

3. North Eastern Regional Load Despatch Centre
Dongtieh, Lower Nongrah,
Lapalang, Shillong -793006,
Meghalaya **…Respondents**

Parties Present:

Shri Ranjan Mallik, NEEPCO
Shri Devapriya Choudhury, NEEPCO
Ms. Elizabeth Pyrbot, NEEPCO

ORDER

This Petition has been filed by the Petitioner, NEEPCO for revision of tariff of Tripura Gas based Power Plant (101 MW) (hereinafter referred to as "the project" or "the generating station") for the period from COD of Gas Turbine Unit (24.12.2015) till 31.3.2019 in terms of Regulation 8 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations").

2. The Petitioner has set up a 101 MW (1 x 65.42 + 1 x 35.58) Tripura Gas based power plant at Monarchak, Sepahijala District, in the State of Tripura. The generating station comprises of one combined cycle module consisting of one Gas Turbine (GT) unit with capacity of 65.42 MW and Steam Turbine (ST) unit of capacity 35.58 MW. The Power Purchase Agreement (PPA) dated 19.3.2008 has been entered into with the Respondent No. 1, TSECL (Tripura State Electricity Corporation Ltd.) for off-take of the entire power from the generating station. The date of commercial operation of GT and ST units of the generating station are as under:

Unit	COD
GT unit	24.12.2015
ST unit	31.3.2017
Station (101 MW)	31.3.2017

3. Petition No. 148/GT/2015 was filed by the Petitioner for approval of tariff of the generating station for the period from the anticipated COD of GT (30.6.2015) and ST (30.8.2015) till 31.3.2019 in accordance with the provisions of the 2014 Tariff Regulations. As the declaration of COD of the units/ generating station was not possible within 180 days from the date of filing the said petition for the reasons thereof, the Commission vide its order dated 27.11.2015 disposed of Petition No. 148/GT/2015 granting liberty to the Petitioner to approach the Commission after the

units are commissioned. The relevant portion of the order dated 27.11.2015 is extracted hereunder:

> *"6. According to this, the generating company is permitted to make application for determination of tariff in respect of units/station which are expected to be declared under COD within 180 days from the making of the application. Considering the anticipated COD of the units' as 30.6.2015 (GT) and 30.8.2015 (ST), the Petitioner has filed this application for determination of tariff on 27.5.2015. However, from the submissions made above, it is clear that difficulties are being faced by the Petitioner in the declaration of COD and the units/station are not expected to be declared under commercial operation in the near future. Moreover, there will be revision of capital cost as on the COD of the generating station. In this background, we find no reason to keep this application pending. Accordingly, we dispose of this petition as infructuous with liberty to the Petitioner to approach the Commission with an appropriate application for determination of tariff of the generating station from its COD till 31.3.2019 in accordance with the provisions of the 2014 Tariff Regulations after the Petitioner starts the process of commissioning."*

4. In terms of the liberty granted as above, Petition No. 128/GT/2017 was filed by the Petitioner for approval of tariff of the generating station for the period from COD of GT unit (24.12.2015) till 31.3.2019 in terms of the 2014 Tariff Regulations and the Commission vide its order dated 4.4.2019 approved the tariff of the generating station as under:

(Rs in lakh)

	24.12.2015 to 31.3.2016	**1.4.2016 to 30.3.2017**	**31.3.2017**	**2017-18**	**2018-19**
Return on Equity	1007.14	3713.15	16.18	5996.29	6142.61
Interest on Loan	768.32	2911.31	7.71	2794.73	2619.24
Depreciation	829.61	3058.63	13.33	4939.32	5059.85
Interest on Working Capital	208.35	737.18	2.49	926.16	944.21
O&M Expenses	501.85	1976.14	8.38	3267.35	3490.56
Total	**3315.26**	**12396.41**	**48.08**	**17923.85**	**18256.47**

5. The annual fixed charges determined as above were subject to revision, based on truing-up exercise. Accordingly, the Petitioner vide affidavit dated 5.8.2019 has filed the present petition for revision of tariff based on truing up exercise in terms of Regulation 8 of the 2014 Tariff Regulations and has claimed annual fixed charges for the period from 24.12.2015 till 31.3.2019 as under:

(` in lakh)

	24.12.2015 to 31.3.2016	1.4.2016 to 30.3.2017	31.3.2017	2017-18	2018-19
Depreciation	101.04	2047.93	7.26	4822.77	4953.87
Interest on Loan	404.02	3009.48	10.53	4895.69	5150.09
Return on Equity	558.94	4722.96	16.76	6620.31	6127.90
Interest on Working Capital	471.69	689.05	260.97	915.44	898.84
O & M Expenses	501.85	1976.14	8.38	3267.35	3490.56
Total	**2037.54**	**12445.56**	**303.90**	**20521.56**	**20621.26**

6. The Commission vide Record of the Proceeding (ROP) of the hearing dated 2.6.2020, directed the Petitioner to submit certain additional information and reserved its order in the petition. In response, the Petitioner has filed the additional information vide affidavits dated 31.8.2020 and 12.10.2020 and has served copies of the same on the Respondents. None of Respondents have filed their replies. Taking into consideration the submissions of the parties and the documents available on record, we proceed to determine the tariff of the generating station, on prudence check, as stated in the subsequent paragraphs.

Capital Cost

7. Regulation 9(3) of the 2014 Tariff Regulations provides as under:

"9 (3) The Capital cost of an existing project shall include the following:
(a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;

(b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and

(a) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15."

Approved Capital Cost

8. Ministry of Power (MOP), GOI vide letter dated 14.7.2009 approved the capital cost of the project as Rs.421.01 crore, including hard cost of Rs.393.54 crore and Interest During Construction (IDC) & Financial Charges (FC) of Rs.27.47 crore at December, 2008 price level. As none of the bidders fulfilled the qualifying criteria, it was decided to award the EPC contract to Bharat Heavy Electricals Limited (BHEL)

on nomination basis, with the assistance of the Central Electricity Authority (CEA). M/s BHEL submitted a technical offer of Rs.729.77 crore for EPC contract and Rs.878.85 crore for total project cost. The price offer of M/s BHEL was negotiated and the total project cost of Rs.607.91 crore was agreed upon and the project cost was approved as Rs.623.44 crore at November, 2009 price level by MOP, GOI vide letter dated 23.2.2011. Further, CEA vide its letter dated 14.6.2017, vetted the Revised Cost Estimate-II (RCE-II) of the project for Rs.1062.24 crore, including the hard cost of Rs.919.00 crore and IDC, FC & actual Foreign Exchange Rate Variation (FERV) amounting to Rs.143.24 crore and submitted the same for approval of MOP, GOI on 27.2.2018, which is still awaited.

Admitted Capital Cost

9. In consideration of CEA letter dated 14.6.2017, the Commission vide its order dated 4.4.2019 in Petition No.128/GT/2017 had admitted the capital cost for the 2015-19 tariff period as under:

(Rs. in lakh)

	2015-16	**2016-17**	**2016-17**	**2017-18**	**2018-19**
	24.12.2015 to 31.3.2016	1.4.2016 to 30.3.2017	31.3.2017		
Opening capital cost	63289.96	63289.96	100376.60	100376.60	103474.86
Additional capital expenditure allowed	0.00	0.00	0.00	3098.26	1876.09
Closing capital cost	63289.96	63289.96	100376.60	103474.86	105350.95

Claimed Capital Cost

10. The capital cost claimed by the Petitioner, on accrual basis, is as under:

(Rs. in lakh)

	2015-16	**2016-17**	**2016-17**	**2017-18**	**2018-19**
	24.12.2015 to 31.3.2016 (for GT)	**1.4.2016 to 30.3.2017 (for GT)**	**31.3.2017 (for CC)**		
Opening Gross Block	2797.19	67644.51	68152.66	105163.79	105333.96
Add: Gross Addition during the year/period including capital liabilities	64847.48	509.87	37219.06	216.56	3340.81
Less: De-capitalisation during the year/period	0.00	0.00	0.00	46.39	2.85

Less: Reversal during the year/period	0.16	1.72	207.93	0.00	0.00
Closing Capital Cost	**67644.51**	**68152.66**	**105163.79**	**105333.96**	**108671.92**

The claimed capital cost has been examined in the following paragraphs.

Capital Cost for the period from 24.12.2015 to 31.3.2016

11. The Petitioner has considered the opening capital cost of Rs.2797.19 lakh which is the opening gross block as per books as on 24.12.2015, which is COD of GT unit. As there is no un-discharged liability, the opening gross block, on cash basis, is Rs.2797.19 lakh. During the said period, there is total addition of Rs.64847.48 lakh, on accrual basis, in respect of assets and works which are within the original scope of work of the project, out of which an amount of Rs.14.98 lakh is towards direct purchase and Rs.64832.50 lakh is towards Capital Works in Progress (CWIP). There is also an un-discharged liability of Rs.4354.55 lakh. Considering the reversal of Rs.0.16 lakh, the closing gross block as on 31.3.2016 works out as Rs.67644.51 lakh (Rs.2797.19 lakh + Rs.64847.48 lakh - Rs.0.16 lakh) on accrual basis and Rs.63289.96 lakh on cash basis, after excluding the un-discharged liability of Rs.4354.55 lakh. As such, the opening gross block i.e. Rs.2797.19 lakh and the closing gross block of Rs.67644.51 lakh are within the CEA vetted cost of Rs.106224 lakh. Accordingly, the corresponding opening and closing gross blocks, on cash basis i.e. Rs.2797.19 lakh and Rs.63289.96 lakh respectively are allowed for the purpose of tariff, in terms of the 2014 Tariff Regulations.

Capital Cost for the period from 1.4.2016 to 30.3.2017

12. Considering the opening capital cost of Rs.67644.51 lakh as on 1.4.2016 and the addition of Rs.509.87 lakh (direct purchase of Rs.126.14 lakh and addition of Rs.383.73 lakh, in lieu of CWIP and reversal of Rs.1.72 lakh), the closing gross block during the period from 1.4.2016 to 30.3.2017 is Rs.68152.66 lakh on accrual basis. As per affidavit dated 12.1.2020, the Petitioner has indicated the un-discharged

liability of Rs.4211.17 lakh. Accordingly, on cash basis, the closing gross block as on 30.3.2017 works out to Rs.63941.49 lakh (Rs.68152.66 lakh - Rs.4211.17 lakh). Therefore, the opening gross block i.e. Rs.67644.51 lakh and the closing gross block i.e. Rs.68152.66 lakh are within the CEA vetted cost of Rs.106224 lakh. Accordingly, the corresponding opening and closing gross block, on cash basis i.e. Rs.63289.96 lakh and Rs.63941.49 lakh respectively, is allowed for the purpose of tariff in terms of the 2014 Tariff Regulations.

Capital Cost as on 31.3.2017

13. The Waste Heat Recovery Boiler and Steam Turbine were commissioned and capitalized on 31.3.2017 i.e. COD of the generating station, on combined cycle mode. Considering the opening capital cost of Rs.68152.66 lakh (closing gross block as on 30.3.2017), the addition of Rs.37219.06 lakh (direct purchase of Rs.176.29 lakh and addition of Rs.37042.77 lakh on account of capitalization of Waste Heat Recovery Boiler and Steam Turbine) and reversal of Rs.207.93 lakh, the closing gross block as on 31.3.2017 is Rs.105163.79 lakh, on accrual basis. The Petitioner vide affidavit dated 12.10.2020 has submitted the un-discharged liabilities of Rs.4974.35 lakh as on 31.3.2017. Accordingly, on cash basis, the closing gross block as on 31.3.2017 works out to Rs.100189.44 lakh. As such, the opening gross block on accrual basis i.e.Rs.68152.66 lakh and closing gross block i.e. Rs.105163.79 lakh are within the CEA vetted cost of Rs.106224 lakh. Accordingly, the corresponding opening gross block and closing gross block on cash basis i.e. Rs.63941.49 lakh and Rs.100189.44 lakh respectively, are allowed for the purpose of tariff in terms of the 2014 Tariff Regulations. This is however, subject to verification as to whether the amount of initial spares capitalized till COD of the generating station i.e. 31.3.2017 are within the prescribed ceiling in terms of the 2014 Tariff Regulations. The same has been dealt with in the following paragraphs.

Initial spares

14. Regulation 13 of the 2014 Tariff Regulations provides as under:

> *"13. Initial Spares: Initial spares shall be capitalized as a percentage of the Plant and Machinery cost up to cut-off date, subject to following ceiling norms:*
> *(a) Coal-based/lignite-fired thermal generating stations - 4.0%*
>
> *(b) Gas Turbine/Combined Cycle thermal generating stations - 4.0%*
>
> *Provided that:*
> *i. where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:*
>
> *ii. where the generating station has any transmission equipment forming part of the generation project, the ceiling norms for initial spares for such equipments shall be as per the ceiling norms specified for transmission system under these regulations:*
>
> *iii. once the transmission project is commissioned, the cost of initial spares shall be restricted on the basis of plant and machinery cost corresponding to the transmission project at the time of truing up.*
>
> *iv. for the purpose of computing the cost of initial spares, plant and machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the break-up of head wise IDC & IEDC in its tariff application."*

15. The Commission vide its order dated 4.4.2019 in Petition No. 128/GT/2017, had directed the Petitioner to furnish the details of initial spares capitalized up to the cut-off date at the time of truing-up of tariff of the generating station. The Petitioner vide affidavit dated 31.8.2020 has submitted the details of initial/ mandatory spares capitalized in respect of the generating station as on COD, as under:

(Rs. in lakh)

	Date	**Amount**
As on COD of Gas Turbine unit	24.12.2015	971.42
As on COD of Steam Turbine unit	31.3.2017	541.93
Total		**1513.35**

16. The Petitioner, in Form-5C of the Petition No.128/GT/2017, had furnished the total Plant and Machinery cost for Rs.78684.21 lakh as on COD (i.e. up to 31.3.2017) which included IEDC and IDC. Accordingly, the Commission in its order dated 4.4.2019 in Petition No. 128/GT/2017 had allowed the initial spares of

Rs.1513.35 lakh as claimed by the Petitioner, which works out to 1.92% of the Plant & Machinery cost.

17. The COD of the generating station is 31.3.2017 and, therefore, the cut-off date of the generating station is 31.3.2020. In terms of the proviso to Regulation 13(iv) of the 2014 Tariff Regulations, the cost of Plant and Machinery as on the cut-off date, for the purpose of calculating the allowable initial spares, shall be exclusive of IDC, IEDC, land cost and cost of civil works. Hence, the consideration of Plant and Machinery cost of Rs.78684.21 lakh for calculating the limit of initial spares was an inadvertent error in the said order dated 4.4.2019 in Petition No. 128/GT/2017, as the same includes IDC and IEDC. In the present petition, the cost of Plant and Machinery, excluding IDC and IEDC, as on the cut-off date, is not available. In the absence of the same, we consider the Plant and Machinery cost of Rs.46990 lakh, as indicated in RCE of Rs.106224 lakh as vetted by the CEA, which represents the allowable limit of capital expenditure till the cut-off date i.e. 31.3.2020. Accordingly, the adoption of the plant and machinery cost of Rs.46990 lakh, which does not include IDC and IEDC, for the purpose of calculating the allowable initial spares, is considered reasonable. Based on this, the limit of initial spares allowed till the cut-off date works out as Rs.1879.60 lakh, which represents 4% of the Plant and Machinery cost of Rs.46990 lakh. The cost of initial spares capitalized till the COD of the generating station is Rs.1513.35 lakh, which is within the allowable limit. As such, the closing capital cost, for the purpose of tariff, as on the COD of the generating station i.e., Rs.100189.44 lakh, does not require any adjustment in respect of the allowable limit of initial spares.

18. The Petitioner has further claimed total additional capitalisation of spares for Rs.2710.22 lakh (i.e., Rs.34.60 lakh during 2017-18 and Rs.2685.62 lakh during 2018-19). Accordingly, the cumulative initial spares amount claimed is Rs.4233.57

lakhs, which constitutes 9% of the CEA vetted Plant and Machinery cost of Rs.46990 lakh, which is higher than the 4% ceiling norm permissible in terms of Regulation 13 of the 2014 Tariff Regulations. We, therefore, restrict the capitalisation of initial spares only upto the ceiling norm of 4% of the Plant and Machinery cost of Rs.46990 lakh (i.e., Rs.1879.60 lakh) till 31.3.2019 and the balance amount Rs.2353.97 lakh is not allowed. Therefore, the balance limit of initial spares which can be allowed to be capitalized after the COD and till the cut-off date is Rs.366.25 lakh (1879.60-1513.35).

Infirm power

19. The Petitioner, in compliance with the directions in the order dated 4.4.2019 in Petition No.128/GT/2017, has submitted the details of the infirm power injected in the grid, as under:

Period		**Net Export from GTG in kWh**
From	**To**	
21.9.2015	27.9.2015	(-)32250.028
28.9.2015	4.10.2015	(-)34867.213
5.10.2015	11.10.2015	3500085.92
12.10.2015	18.10.2015	2867812.515
19.10.2015	25.10.2015	(-)27656.225
26.10.2015	1.11.2015	(-)28539.056
2.11.2015	8.11.2015	(-)32109.37
9.11.2015	15.11.2015	(-)29921.896
16.11.2015	22.11.2015	(-)34773.439
23.11.2015	29.11.2015	2274007.835
30.11.2015	6.12.2015	7785499.994
7.12.2015	13.12.2015	8206257.83
14.12.2015	20.12.2015	8713109.391
21.12.2015	23.12.2015	4587328.133
Total		**37713984.39**

+ve sign means net weekly injection in to the grid.
-ve sign means net weekly drawl from the grid.

Period		**Generation from STG in kWh**
From	**To**	
11.1.2016	17.1.2016	23403.13
2.5.2016	8.5.2016	168471.88
5.12.2016	11.12.2016	822506.25
12.12.2016	18.12.2016	760331.25
19.12.2016	25.12.2016	681250.00
20.2.2017	26.2.2017	1561368.25
27.2.2017	5.3.2017	3212459.38
6.3.2017	12.3.2017	224625.00
20.3.2017	26.3.2017	2905290.63
27.3.2017	30.3.2017	2963959.38
Total		**13323665.63**

20. Further, the Petitioner vide its affidavit dated 31.8.2020 has submitted the details of the (i) revenue generated from the sale of infirm power and (ii) cost of fuel gas and chemicals used during generation of Infirm Power, as under:

(Rs. in lakh)

Infirm power (24.12.2015)	
Sale of Infirm power	1557.42
Purchase of gas relating to infirm power	1527.48

Net charged to IEDC	29.94
Infirm power (31.3.2017)	
Sale of Infirm power	**284.36**
Expenditure incurred on account of purchase of chemicals for STG & other expenses prior to COD.	4.71
Net charged to IEDC	**279.65**

21. As the Petitioner has adjusted the revenue generated from the sale of infirm power in the capital cost, no further adjustment is required to be effected in the capital cost on this count.

Interest During Construction

22. The Petitioner has claimed Interest During Construction (IDC) amounting to Rs.12277.54 lakh. The Petitioner has furnished the details of the amount, date of drawl, rate of interest etc., in respect of the loans. Based on these details, IDC claimed has been worked out and allowed.

Foreign Exchange Rate Variation

23. The Petitioner has claimed Foreign Exchange Rate Variation (FERV) amounting to Rs.2355.71 lakh. In support of this, the Petitioner has submitted detailed calculations with documentary proof, duly certified by Chartered Accountant, for the rates applied in the calculation of FERV. Accordingly, the same has been considered in the capital cost.

Financing Charges

24. The Petitioner has claimed financing charges for Rs.1223.95 lakh duly certified by Chartered Accountant and the same has been considered for capital cost.

Liquidated Damages and Insurance

25. In compliance with the directions in the order dated 4.4.2019 in Petition No. 128/GT/2017, the Petitioner has submitted that no Liquidated Damages (LD) or Insurance amounts were received. In case any recovery is made by the Petitioner,

on this count in future, the same will be considered for adjustment for the purpose of tariff.

Capital Liabilities

26. It was noticed that there is mismatch in the flow of liabilities as per Form-18 and as per Form 9E. However, the Petitioner in its submission dated 12.10.2020, has clarified the reason for the said difference as follows:

> *"In Form 9E, the Petitioner had calculated closing gross blocks which are the figures as per the books of accounts of the Petitioner:-*
>
> *Opening gross block + additions in gross block – deletion from gross block = the closing gross block as per Form 9E and as per books. Similarly in the above manner, the closing capital liabilities were also calculated and shown in Form 9E. But the liabilities discharged during the periods were not considered by the Petitioner while calculating the closing liabilities. Hence, the closing liabilities shown in Form 9E as included in the gross block, did not represent the figures as per the books of accounts. The Petitioner submits below the corrected closing capital liabilities as per the books of accounts for consideration by the Hon'ble Commission.*

(Rs. in lakh)

	24.12.2015 (COD-GT)	*31.3.2016*	*31.3.2017 (COD-CC)*	*31.3.2018*	*31.3.2019*
Previous submission of Capital liabilities included in Closing gross blocks as per books in Form 9E	*4354.55*	*4738.28*	*6495.50*	*6461.91*	*7010.53*
Present submission of Corrected Capital liabilities included in Closing gross blocks as per books in Form 9E	*4354.55*	*4211.17*	*4974.35*	*3300.16*	*3244.47*

27. Therefore, the capital liabilities as on COD of GT (24.12.2015) and COD of CC (31.3.2017) have been considered as Rs.4354.55 lakh and Rs.4974.35 lakh respectively. Accordingly, the capital cost considered for the purpose of tariff is as under:

(Rs. in lakh)

	24.12.2015 to 31.3.2016	**1.4.2016 to 30.3.2017**	**31.3.2017**
Opening Capital Cost	2797.19	63289.96	63941.49
Additional Capitalization	60492.77	651.53	36247.95
Closing Capital Cost	63289.96	63941.49	100189.44

Additional Capital Expenditure

28. Regulations 14(1) of the 2014 Tariff Regulations provides as under:

> *"14.(1) The capital expenditure in respect of the new project or an existing project incurred or projected to be incurred, on the following counts within the original scope of*

work, after the date of commercial operation and up to the cut-off date may be admitted by the Commission, subject to prudence check:

(i) Un-discharged liabilities recognized to be payable at a future date;
(ii) Works deferred for execution;
(iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;

(iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and

(v) Change in law or compliance of any existing law:

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

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

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

29. Though the Petitioner in Petition No.128/GT/2017 had claimed additional capital expenditure of Rs.38476.57 lakh for the 2015-19 tariff period, it had not submitted any details or break-up of the said expenditure claimed. Accordingly, the Commission vide its order dated 4.4.2019 observed the following:

"44. Since, the Petitioner in Form-9A has not furnished the details and bifurcation of additional capital expenditure, the same is not allowed and not considered in the capital cost for the purpose of tariff. However, the additional capital expenditure may be considered at the time of truing up of tariff of the generating station, after furnishing the details and bifurcation based on the merit."

30. The Petitioner vide affidavit dated 5.8.2019, in Form-9A of the present petition, has submitted the actual additional capital expenditure incurred for the period 2017-19. Thereafter, the Petitioner, vide affidavit dated 12.10.2020, revised Form-9A and has claimed actual additional capital expenditure for the years 2017-18 and 2018-19, under Regulation 14(1) of the 2014 Tariff Regulations, as under:

2017-18

(Rs. in lakh)

Sr. No.	Head of Work/ Equipment	Regulation	Actual additional capital expenditure incurred
1	Construction of Helipad	14(1)(ii)	24.97
2	RCC Pathway at water reservoir side		5.25
3	Laying of tiles at pave way to STG building		4.73
4	Type 'A' Quarter at colony		52.12
5	Interior Civil & Electrical works including fire protection at Conference room		26.05
6	RCC room near N2 compressor	14(1)(ii)	2.49
7	Construction of toilet inside main plant area		1.81
8	Sliding Gate & Security room		8.77
9	Laying of LT power cable in cable trench		16.22
Total (1)			**142.41**
1	Free hold land	14(1)(ii)	0.12
2	Fire Fighting equipment		2.10
3	Furniture & Fixtures		10.17
4	EDP equipment		1.91
5	Office equipment		2.03
6	Guest House equipment		0.16
7	Misc. Equipment’s		1.15
8	Energy Conservation equipment		4.13
9	Audio Visual equipment		17.46
10	Fixed assets of minor value		0.32
Total (2)			**39.55**
1	Gas Turbine spares (capitalised in line with relevant Accounting Standard and Accounting Policy)	14(1)(iii) & 14(1)(iv)	34.60
Total (3)			**34.60**
Total (1+2+3)			**216.56**

2018-19

(Rs. in lakh)

Sr. No.	Head of Work/ Equipment	Regulation	Actual additional capital expenditure incurred
a	Construction of retaining wall at Plant area	14(1)(ii)	5.58
b	Guest House Building		141.22
c	Development Football ground		14.00
d	Primary Health Centre		90.39
e	Extension of car shed & construction of platform		10.00
f	Boundary fencing of HOP Building		11.33
g	Store Room near Community Hall		6.32
Total (1)			**278.84**

1	Furniture & Fixtures		7.88
2	Other EDP machine		3.01
3	Office Equipment		0.21
4	Hospital Equipment		2.16
5	Misc. Equipment		0.28
6	Fixed assets of minor value >750 & < 5000		0.62
Total (2)			**14.16**
	Spares capitalized in line with relevant accounting standard & accounting policy		
1	Gas Turbine	14(1)(iii)	2615.63
2	Gas Booster station		62.81
3	Steam Turbine: Acid storage tank		7.18
Total (3)			**2685.62**
Amount capitalized on account of allocation of IEDC on provision made against arrear pay parity payment - executive:			
1	Gas Turbine	14(1)(iv)	205.78
2	Gas Booster station		3.99
3	Transformer rating of 100KV & above		8.83
4	132 KV/ 220 kV Switchyard		25.39
5	Main Plant Building		118.20
	Total (4)		**362.19**
	Grand Total (1+2+3+4)		**3340.81**

Reconciliation of the actual Additional Capital Expenditure

31. The Petitioner has furnished the reconciliation statement of the actual additional capital expenditure for the years 2017-18 to 2018-19, with the books as under:

(Rs. in lakh)

	2017-18	2018-19
Closing Gross Block **(a)**	105333.96	108671.92
Less: Opening Gross Block **(b)**	105163.79	105333.96
Total Additional capital expenditure as per books **(c)= (a)-(b) or (c1) - (c2)**	170.17	3337.96
Additions **(c1)**	216.56	3340.81
De-capitalization **(c2)**	**46.39**	**2.85**
Less: Exclusions (items not allowable / not claimed) **(d)**	**39.55**	**14.16**
Net Additions claimed **(e) = (c1) - (d)**	177.01	3326.65
Net Additional Capital Expenditure claimed (f) = (e) – (c2)	**130.62**	**3323.80**

32. It is noticed from the above that the actual additional capital expenditure claimed by the Petitioner is at variance with the additional capital expenditure as per books of accounts. This is on account of 'exclusion' of certain expenditure for the purpose of tariff. We now examine the exclusions in following paragraphs.

33. The summary of exclusions from books of accounts, as claimed for the years 2017-18 and 2018-19, under different heads for the purpose of tariff are examined are as under:

(Rs. in lakh)

Sr. No.	**Head of Work/Equipment**	**Additional Capital Expenditure claimed under Exclusion**			
		Accrual basis	**Un-discharged liability included in column 3**	**Cash basis**	**IDC included in column 3**
1	**2**	**3**	**4**	**5=(3-4)**	**6**
2017-18					
1	Free hold Land	0.12	0.00	0.12	nil
2	Fire Fighting Equipment	2.10		2.1	
3	Furniture & Fixtures	10.17		10.17	
4	EDP Equipment	1.91		1.91	
5	Office Equipment	2.03		2.03	
6	Guest House Equipment	0.16		0.16	
7	Misc. Equipment	1.15		1.15	
8	Energy Conservation Equipment	4.13		4.13	
9	Audio Visual Equipment	17.46		17.46	
10	Fixed assets of minor value	0.32		0.32	
Total		**39.55**		**39.55**	
2018-19					
1	Furniture & Fixtures	7.88	0.00	7.88	nil
2	Other EDP Machine	3.01		3.01	
3	Office Equipment	0.21		0.21	
4	Hospital Equipment	2.16		2.16	
5	Misc. Equipment	0.28		0.28	
6	Fixed assets of minor value >750 & <5000	0.62		0.62	
Total		**14.16**	**0.00**	**14.16**	

34. The Petitioner has incurred actual additional capital expenditure of Rs.39.55 lakh in 2017-18 towards free hold land, equipment for fire-fighting, EDP, office, guest house, energy conservation, audio visual, miscellaneous, furniture & fixtures and towards fixed value of minor assets. It has submitted that these items were purchased as an essential requirement for the smooth functioning of its office and for the convenience of the officials of the Petitioner Company. The Petitioner, in Form-9D, has however claimed the said amount in 2017-18, as exclusion. Considering the

fact that the Petitioner has put this additional expenditure under exclusion category and has not claimed tariff in respect of the said expenditure, the exclusion of positive entries, as considered by the Petitioner is allowed.

35. Further, the Petitioner has incurred actual additional capital expenditure of Rs.14.16 lakh in 2018-19 in respect of assets such as Furniture & Fixtures, EDP machines, equipment for office, hospital & miscellaneous and towards fixed assets of minor value. The Petitioner has, however, not furnished any justification in respect of these claims. The Petitioner, in Form-9D, has claimed the said amount in 2018-19, as exclusion. Considering the fact that the Petitioner has put this additional expenditure under exclusion category and has not claimed tariff in respect of the said expenditure, the exclusion of positive entries, as considered by the Petitioner is allowed.

Actual Additional Capital Expenditure for 2017-19

36. We now examine the actual additional capital expenditure claimed by the Petitioner for the years 2017-18 and 2018-19.

<u>2017-18</u>

Construction of Helipad

37. The Petitioner has claimed actual additional capital expenditure of Rs.24.97 lakh under Regulation 14(1)(ii) of the 2014 Tariff Regulations towards construction of helipad. The Petitioner has submitted that the helipad was constructed to facilitate the movement of men & materials during the period of exigencies when the road communications are disrupted. The work is the deferred work within the original scope of work as furnished by the Petitioner. Moreover, the plant is located in extreme remote corner of the country and is within 200 metres proximity of the international border. In view of the above submission, the actual additional capital

expenditure of Rs.24.97 lakh incurred by the Petitioner is allowed under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

RCC Pathway at Water Reservoir Side

38. The Petitioner has claimed additional capital expenditure of Rs.5.25 lakh, on accrual basis, towards construction of RCC pathway at water reservoir side, under Regulation 14(1)(ii) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that there was no road to approach the raw water reservoir, as required by the maintenance team and that the area near the existing raw water treatment plant was inaccessible due to the presence of loose soil as a result of water logging. It has further submitted that the area was developed and an RCC footpath was constructed for ease of duty of the O&M staff. In consideration of the justification submitted by the Petitioner and in view of the fact that the said expenditure is in respect of asset/ works which are under the original scope of work of the project and capitalized in books of accounts after COD, but within the cut-off date, the same is allowed under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Laying of Tiles on Pave-way to STG Building

39. The Petitioner has claimed actual additional capital expenditure of Rs.4.73 lakh for replacing CC pavement with tiles on pave way to STG building under Regulation 14(1)(ii) of the 2014 Tariff Regulations, as the existing CC pavement had become unsafe due to growth of 'algae' on account of the extremely humid weather conditions and prolonged rainfall. It has further submitted that the pavement was tiled to take care of the safety of O&M staff. It is observed that the work of laying of tiles at pave way to STG building was carried out concerning the safety of the staff working at the site. The work includes the replacement of CC pavement with tiles to STG building, but the Petitioner has not furnished the de-capitalised amount for CC pavement. In our view, the concerned work is O&M in nature and can be met through

the normative O&M expenses allowed to the generating station. Accordingly, we find no reason to allow the expenditure claimed by the Petitioner.

Construction of A-Type Staff Quarters

40. The Petitioner has claimed actual additional capital expenditure of Rs.52.12 lakh towards the construction of 4 (four) A-Type staff quarters. It has submitted that the construction of six A-type quarters (out of 8 envisaged in DPR/ RCE-II) was completed and further, the Petitioner has planned and constructed four A-type quarters to accommodate the O&M staff. It is observed that the construction of staff quarters is within the original scope of work of the project and has been capitalised in books of accounts and is within the cut-off date (31.3.2020) of the generating station. In view of this, the claim of the Petitioner is allowed under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Interior Civil & Electrical works including Fire protection in Conference Room

41. The Petitioner has claimed actual additional capital expenditure of Rs.26.05 lakh towards Interior Civil & Electrical works including fire protection in conference room and has submitted that there was no conference room, which caused inconvenience for the management to hold meetings which are essential for smooth operation of the generating station. Accordingly, the Petitioner has submitted that a conference room was constructed to take care of the same. In consideration of the submissions of the Petitioner, the actual additional capital expenditure claimed is allowed under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

RCC Room near N_2 Compressor

42. The Petitioner has claimed actual additional capital expenditure of Rs.2.49 lakh for construction of RCC room near N_2 compressor. The Petitioner has submitted that an RCC room was constructed near the N_2 compressor for operation staff, on round

the clock shift duty, which is necessary as per the relevant provisions of the Factories Act, 1948. Considering the fact that the said expenditure is in respect of construction of the asset which is within the original scope of work of the project and capitalized in books of accounts after COD, but within the cut-off date, the actual additional expenditure incurred is allowed to be capitalised under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Construction of Toilet inside Main Plant Area

43. The Petitioner has claimed actual additional capital expenditure of Rs.1.81 lakh towards construction of toilet inside main plant area under Regulation 14(1)(ii) of the 2014 Tariff Regulations. The Petitioner has submitted that as mandated under the Factories Act, 1948, it was essential to construct an easily accessible toilet for the O&M staff posted in the N_2 compressor area as the existing toilets were not easily accessible. The Petitioner has further submitted that a toilet was also required for general sweeping and mopping workers, horticultural workers and other construction workers. Considering the fact that the expenditure incurred is in respect of an asset which falls within the original scope of works and capitalized in books after COD, but within the cut-off date, the actual expenditure incurred is allowed to be capitalised under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Sliding Gate & Security Room

44. The Petitioner has claimed actual additional capital expenditure of Rs.8.77 lakh for sliding gate and security room. The Petitioner has submitted that though the same has already been constructed, the power house area has been separated by this gate from the rest of the Project, considering the safety and security of vital installations. The Petitioner has added that the security room was required to facilitate the security personnel to check, frisk and restrict entry into the power plant for authorised persons only. Considering the submissions of the Petitioner and since

the asset is within the original scope of work of the project and capitalized in books of accounts after COD, but within the cut-off date, the actual expenditure incurred is allowed to be capitalised under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Laying of Low Tension Power Cable in Cable Trench

45. The Petitioner has claimed actual additional capital expenditure of Rs.16.22 lakh for laying of low tension (LT) power in cable trench. The Petitioner has submitted that the cables for the colony supply were kept over the ground, which resulted in frequent faults and huge voltage drops in end positions. It has, therefore, submitted that after the construction of colony sub-stations, besides guest house, the cables were laid throughout the colony for uninterrupted power supply. Considering the justification submitted by the Petitioner and since the expenditure incurred is in respect of the asset falling within the original scope of work of the project and has been capitalized in books of accounts after COD, but within the cut-off date, the actual expenditure incurred is allowed to be capitalised under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Gas Turbine Spares

46. The Petitioner has claimed actual additional capital expenditure of Rs.34.60 lakh towards purchase of spares for gas turbine and has submitted that spares have been purchased to maintain the machine availability and to reduce the outage period, as mandatory spares were not available. It has stated that the lead time of these spares is very high and, therefore, purchase of the spares is also for emergency use. The Petitioner has claimed capitalisation of the said expenditure under Regulation 14(1)(iii) (*Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13*) and Regulation 14(1)(iv) (*Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law*) of the 2014 Tariff Regulations.

47. We notice that the purchase of spares by the Petitioner is not as a result of any arbitration award or in compliance with the directions of Court or any order of appropriate authority. The Petitioner has also not filed any document in support of the said claim. In view of this, the claim of the Petitioner for capitalisation of the said expenditure under Regulation 14(1)(iv) of 2014 Tariff Regulations is not permitted. As stated in paragraph 17 above, an amount of Rs.1879.60 lakh (restricted to 4% of Plant and Machinery cost as on the cut-off date) towards initial spares has been allowed to be capitalised up to the cut-off date of the generating station, out of which spares amounting to Rs.1513.34 lakh has already been capitalised by the Petitioner upto COD (i.e. 31.3.2017), leaving a balance amount of Rs.366.25 lakh to be capitalised under 'initial spares'. Accordingly, we allow the expenditure of Rs.34.60 lakh as claimed by the Petitioner towards purchase of spares for GT during 2017-18 and carry forward the balance amount of Rs.331.65 lakh under the head, for capitalisation of initial spares during 2018-19.

<u>2018-19</u>

Construction of Retaining Wall at Plant Area

48. The Petitioner, on accrual basis, has claimed additional capital expenditure of Rs.5.58 lakh for construction of a retaining wall at plant area. The Petitioner has submitted that due to landslides from the higher elevated grounds adjacent to the 132 kV Switchyard, the loose soil blocked the nearby drainage system. It has stated that the blockage of the drainage system resulted in accumulation of rain water in the switchyard area and, therefore, a retaining wall was constructed to protect the switchyard area from landslides and blockage of drains. Considering the fact that the claim of the Petitioner is in respect of the asset falling within the original scope of work of the project and has been capitalized in books of accounts after COD, but

within the cut-off date, actual expenditure incurred is allowed to be capitalised under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Guest House Building

49. The Petitioner, on accrual basis, has claimed additional capital expenditure of Rs.141.22 lakh for construction of guest house building. The Petitioner has submitted that the claims are within the original scope of work. Considering the fact that the claim of the Petitioner is in respect of the asset falling within the original scope of work of the Project and has been capitalized in books of accounts after COD, but within the cut-off date, the actual expenditure incurred is allowed to be capitalised under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Development of Football Ground

50. The Petitioner, on accrual basis, has claimed additional capital expenditure of Rs.14 lakh for development of football ground. Considering the fact that the expenditure incurred is towards the welfare of the employees working in remote location of the Project and since the expenditure on this count was envisaged within the original scope of work of the Project and has been capitalized in books of accounts after COD, but within cut-off date, the actual expenditure incurred is allowed to be capitalised under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Primary Health Centre

51. The Petitioner, on accrual basis, has claimed additional capital expenditure of Rs.90.39 lakh for construction of a Primary Health Centre, under Regulation 14(1)(ii) of the 2014 Tariff Regulations. Considering the fact that the expenditure incurred is towards the welfare of the employees working in remote location of the Project and since the expenditure on this count was envisaged within the original scope of work of the Project and has been capitalized in books of accounts after COD, but within

cut-off date, the actual expenditure incurred is allowed to be capitalised under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Extension of Car Shed & Construction of Platform

52. The Petitioner, on accrual basis, has claimed additional capital expenditure of Rs.10 lakh for extension of car shed and construction of platform, under Regulation 14(1)(ii) of the 2014 Tariff Regulations. The Petitioner has submitted that the present car shed near the administration building was inadequate, for parking of all the vehicles and accordingly, the parking facility was extended to cater to the actual number of vehicles in respect of the officials working in the administration building. It is observed that the additional capital expenditure has been claimed under 'original scope of work of project' and had been deferred for execution. Since the claim of the Petitioner falls within the original scope of work of the Project and within the cut-off date and is within the ceiling of the completion cost of Rs.106224 lakh, the same is allowed to be capitalised.

Boundary Fencing of HOP Building

53. The Petitioner, on accrual basis, has claimed additional capital expenditure of Rs.11.33 lakh for boundary fencing of HOP building under Regulation 14(1)(ii) of the 2014 Tariff Regulations. Since the claim of the Petitioner is within the original scope of work of Project and is within the cut-off date of the generating station, the actual additional expenditure of Rs.11.33 lakh is allowed to be capitalised under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Store Room near Community Hall

54. The Petitioner, on accrual basis, has claimed additional capital expenditure of Rs.6.30 lakh towards the construction of store room near community hall under Regulation 14(1)(ii) of the 2014 Tariff Regulations. The Petitioner has submitted that

it was required for storing of chairs/ tables, utensils etc., utilized during the community programme. Since the expenditure incurred is within the original scope of work of project and is within the cut-off date of the generating station, the actual expenditure of Rs.6.30 lakh is allowed to be capitalised under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Spares Capitalized in line with relevant accounting standard & accounting policy (Gas Turbine, Gas Booster Station and Steam Turbine: Acid Storage Tank Spares)

55. The Petitioner has claimed actual additional capital expenditure of Rs.2685.62 lakh for purchase of Gas Turbine, Gas Booster Station (GBC) and Steam Turbine: Acid Storage Tank Spares under Regulation 14(1)(ii) and 14(1)(iii) of the 2014 Tariff Regulations. The Petitioner has submitted that as per the OEM guidelines and for continuous running of GBC, remoteness of the power plant and for safety reasons, these spares were required. As stated earlier (paragraph 17 above), the spares claimed as part of the additional capital expenditure is to be restricted to 4% of the Plant and Equipment cost. Accordingly, we allow the balance amount of Rs.331.65 lakh (upto cut-off date) towards capitalisation of initial spares.

56. An amount of Rs.362.19 lakh has been accounted by the Petitioner as un-discharged liability as allocation of IEDC on a provision made against arrear payments made to executives of the Petitioner Company. The Petitioner has submitted that as per judgment of the Hon'ble High Court of Meghalaya and subsequent directive by the MOP, GOI, a provision was made on account of arrear payments made to executives w.e.f. 1.1.2007. The total expenditure claimed is in respect of the employees deployed in GT, GBS, transformer area, switchyard and main plant building. Though the additional capital expenditure of Rs.362.19 lakh claimed in 2018-19 is in compliance with the judgment of the Hon'ble High Court of

Meghalaya, the Petitioner has kept the provision in the form of un-discharged liability in 2018-19. Considering the fact that the additional capital expenditure incurred is for compliance with the judgment of Hon'ble High Court of Meghalaya, the same is allowed to be capitalised under Regulation 14(1)(iv) of 2014 Tariff Regulations.

57. Based on the above discussions, the additional capital expenditure claimed and allowed for the years 2017-18 and 2018-19 are summarised under:

2017-18

(Rs. in lakh)

Sr. No	Head of Work/Equipment	Additional capital expenditure claimed on accrual basis	Additional capital expenditure allowed on accrual basis	Additional capital expenditure allowed on cash basis for purpose of tariff
1	Construction of Helipad	24.97	24.97	24.97
2	RCC Pathway at Water Reservoir Side	5.25	5.25	1.06
3	Laying of Tiles on Pave-way to STG Building	4.73	0.00	0.00
4	A-Type Quarters	52.12	52.12	52.12
5	Interior Civil & Electrical works including fire protection in Conference Room	26.05	26.05	26.05
6	RCC Room near N2 Compressor	2.49	2.49	2.49
7	Construction of Toilet inside Main Plant Area	1.81	1.81	1.81
8	Sliding Gate & Security Room	8.77	8.77	8.77
9	Laying of LT Power Cable in Cable Trench	16.22	16.22	16.22
Total (1)		**142.41**	**137.68**	**133.49**
1	Free hold Land	0.12	0.00	0.00
2	Fire Fighting Equipment	2.10	0.00	0.00
3	Furniture & fixtures	10.17	0.00	0.00
4	EDP Equipment	1.91	0.00	0.00
5	Office Equipment	2.03	0.00	0.00
6	Guest House Equipment	0.16	0.00	0.00
7	Misc. Equipment	1.15	0.00	0.00
8	Energy Conservation Equipment	4.13	0.00	0.00
9	Audio Visual Equipment	17.46	0.00	0.00
10	Fixed assets of minor value	0.32	0.00	0.00
Total (2)		39.55	0.00	0.00
1	Gas Turbine Spares (Capitalised in line with relevant accounting standard and accounting policy) – within the balance available under initial spares head of 4% of P&M cost	34.60	34.60	34.60

Total (3)	**34.60**	**34.60**	**34.60**
Total (1+2+3)	**216.56**	**172.28**	**168.09**

2018-19

(Rs. in lakh)

Sr. No	Head of Work/Equipment	Additional capital expenditure claimed on accrual basis	Additional capital expenditure allowed on accrual basis	Additional capital expenditure allowed on cash basis for purpose of revision of tariff
1	Construction of Retaining Wall at Plant area	5.58	5.58	0.97
2	Guest House Building	141.22	141.22	46.94
3	Development Football Ground	14.00	14.00	0.00
4	Primary Health Centre	90.39	90.39	36.42
5	Extension of Car Shed & construction of Platform	10.00	10.00	0.00
6	Boundary Fencing of HOP Building	11.33	11.33	5.65
7	Store Room near Community Hall	6.32	6.32	1.12
Total (1)		**278.84**	**278.84**	**91.10**
1	Furniture & fixtures	7.88	0.00	0.00
2	Other EDP Machine	3.01	0.00	0.00
3	Office Equipment's	0.21	0.00	0.00
4	Hospital Equipment's	2.16	0.00	0.00
5	Misc. Equipment's	0.28	0.00	0.00
6	Fixed Assets of Minor Value >750 & <5000	0.62	0.00	0.00
Total (2)		**14.16**	**0.00**	**0.00**
Spares Capitalized in line with relevant accounting standard & accounting policy				
1	Gas Turbine spares (restricted to 4% of P&M cost)	2615.63	331.65	331.65
2	Gas Booster Station	62.81		0
3	Steam Turbine: Acid Storage Tank	7.18		0
Total (2)		**2685.62**	**331.65**	**331.65**
Amount capitalized on account of allocation of IEDC on provision made against arrear pay parity payment - executive :				
1	Gas Turbine	205.78	205.78	0.00
2	Gas Booster Station	3.99	3.99	0.00
3	Transformer rating of 100 kV & above	8.83	8.83	0.00
4	132 KV/ 220 KV Switchyard	25.39	25.39	0.00
5	Main Plant Building	118.20	118.20	0.00
Total (3)		**362.19**	**362.19**	**0.00**
Grand Total (1+2+3)		**3340.81**	**972.68**	**422.75**

De-capitalization

2017-18

58. The Petitioner has de-capitalized an amount of Rs.46.39 lakh, including an amount of Rs.37.78 lakh in 2017-18, on account of the excess provision capitalized earlier for the work of Make-up Water System (outfall drainage system) and written back on settlement of final bill. The balance amount is towards de-capitalization of assets like Furniture, Fixtures and Office equipment which have become unserviceable. Since these unserviceable assets do not render any useful service, their de-capitalization for the purpose of tariff is in order.

2018-19

59. The Petitioner has de-capitalized an amount of Rs.2.85 lakh, including an amount of Rs.1.31 lakh in 2018-19, towards the work of residential building (children's park) on account of the excess provision made and has accordingly written back on settlement of final bill. Also, an amount of Rs.0.39 lakh on miscellaneous equipment, Rs.0.27 lakh on tools & plants, Rs.0.70 lakh on EDP equipment and the balance on hospital equipment and minor assets has been de-capitalized on account of assets becoming un-serviceable. Since these unserviceable assets do not render any useful service, their de-capitalization for the purpose of tariff is in order.

Discharge of liabilities

60. Based on forms submitted by the Petitioner and discussions as above, the details of liabilities are as under:

(Rs. in lakh)

Liabilities as on COD	**4974.35**
Add: Liabilities for additional capital expenditure 2017-18	4.19
Less: Discharges during 2017-18	1640.59
Less: Reversals during 2017-18	37.79
Liabilities as on 31.3.2018	**3300.16**
Add: Liabilities for additional capital expenditure 2018-19	549.93

Less: Discharges during 2018-19	605.62
Less: Reversals during 2018-19	0.00
Liabilities as on 31.3.2019	**3244.47**

61. Discharges amounting to Rs.1640.59 lakh and Rs.605.62 lakh for the years 2017-18 and 2018-19, respectively, have been considered as additional capital expenditure. The Petitioner has claimed reversals during the year 2017-18 for Rs.37.79 lakh towards discharge of liabilities. However, reversals shall not be considered as discharge of liabilities since on such reversal, the capital cost on cash basis is not altered, both while considering as liabilities and after reversal of the same.

62. Accordingly, the net additional capital expenditure allowed is as under:

(Rs. in lakh)

	2017-18	**2018-19**
Additional capital expenditure allowed	172.28	972.68
Less: De-capitalization	46.39	2.85
Less: Liabilities for additional capital expenditure	4.19	549.93
Add: Discharge of liabilities	1640.59	605.62
Total Additional Capital Expenditure allowed	**1762.29**	**1025.52**

Capital Cost allowed for the period from 24.12.2015 to 31.3.2019

63. Accordingly, the capital cost allowed for the purpose of tariff is as under:

(Rs. in lakh)

	24.12.2015 to 31.3.2016	**1.4.2016 to 30.3.2017**	**31.3.2017**	**2017-18**	**2018-19**
Opening Capital Cost	2797.19	63289.96	63941.49	100189.44	101951.73
Add: Additional Capital Expenditure allowed	60492.77	651.53	36247.95	1762.29	1025.52
Capital Cost as on 31st March of the year	**63289.96**	**63941.49**	**100189.44**	**101951.73**	**102977.25**

Debt-Equity ratio

64**.** Regulation 19 of the 2014 Tariff Regulations provides as under:

"(1) For a project declared under commercial operation on or after 1.4.2014 the debt equity ratio would be considered as 70:30 as on COD. 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:

(c) 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 shall submit the resolution of the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund from internal resources in support of the utilisation 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 1.4.2014 debt equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered.

(4) In case of generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014 but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2014 the Commission shall approve the debt: equity ratio based on actual information provided by the generating company or the transmission licensee as the case may be.

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2014 as may be admitted by the Commission as additional capital expenditure for determination of tariff and renovation and modernisation expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation."

65. Accordingly, the debt equity ratio of 70:30 has been considered for the purpose of tariff, in terms of the above regulation.

Return on Equity

66. Regulation 24 of the 2014 Tariff Regulations provides as under:

"24. Return on Equity:

(1) Return on equity shall be computed in rupee terms on the equity base determined in accordance with regulation 19.

(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:

(i) in case of projects commissioned on or after 1st April 2014 an additional return of 0.50% shall be allowed if such projects are completed within the timeline specified in Appendix-I:
(ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:
(iii) additional ROE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee / National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:
(iv) the rate of return of a new project shall be reduced by 1% 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 any of the Restricted Governor Mode Operation (RGMO) / Free Governor Mode Operation (FGMO) data telemetry communication system up to load dispatch centre or protection system:
(v) as and when any of the above requirement are found lacking in a generating station based on the report submitted by the respective RLDC ROE shall be reduced by 1% for the period for which the deficiency continues: (vi) additional ROE shall not be admissible for transmission line having length of less than 50 kilometres."

67. Regulation 25 of the 2014 Tariff Regulations provides as under:

"25. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 24 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 the 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 income on other income stream (i.e. income of non-generation or non-transmission business as the case may be) shall not be considered 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) @ 20.96% including surcharge and cess: Rate of return on equity = 15.50/(1-0.2096) = 19.610%

(ii) In case of 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 2014-15 is Rs 1000 crore.*
> *(b)Estimated Advance Tax for the year on above is Rs 240 crore.*
> *(c) Effective Tax Rate for the year 2014-15 = 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 2014-15 to 2018-19 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/DICs as the case may be on year to year basis."

68. The base rate of return on equity as allowed by the Commission under Regulation 24 is required to be grossed up with the effective tax rate of the respective financial years. Also, in term of Regulation 25(3) of the 2014 Tariff Regulations, 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 2014-15 to 2018-19 on actual gross income of any financial year. For the purpose of tax rate for grossing up of rate of ROE, the Commission vide ROP for the hearing dated 2.6.2020 specified a format and had directed the Petitioner to submit details with tax audit report for each year of the tariff period. The Petitioner has submitted the format, duly certified by the Chartered Accountant. The Commission vide its order dated 7.6.2021 in Petition No. 273/GT/2019 (truing-up of tariff of Ranganadhi HEP for the 2014-19 tariff period) filed by the Petitioner had considered the tax rate as under:

	Effective Tax rate
2014-15	20.2521%
2015-16	25.9099%
2016-17	34.6080%
2017-18	27.3764%
2018-19	21.5488%

69. Since effective tax rate is considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts

by the concerned generating company, the tax rate as worked out and allowed in the said order dated 7.6.2021 in Petition No. 273/GT/2019 has been considered for the computation of ROE for this generating station, as under:

(Rs. in lakh)

	24.12.2015 to 31.3.2016	1.4. 2016 to 30.3. 2017	31.3.2017	2017-18	2018-19
Opening Equity	839.16	18986.99	19182.45	30056.83	30585.52
Addition due to Additional capital expenditure	18147.83	195.46	10874.39	528.69	307.66
Closing Equity	18986.99	19182.45	30056.83	30585.52	30893.18
Average Equity	9913.07	19084.72	24619.64	30321.18	30739.35
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Tax rate for the year	25.910%	34.608%	34.608%	27.376%	21.549%
Rate of Return on Equity (Pre Tax)	20.920%	23.703%	23.703%	21.343%	19.758%
Return on Equity (Pre Tax)	**560.95**	**4511.26**	**15.99**	**6471.45**	**6073.48**

Interest on loan

70. Regulation 26 of the 2014 Tariff Regulations provides as under:

> *"26. Interest on loan capital:*
>
> *(1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.*
>
> *(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.*
>
> *(3) The repayment for each of the year of the tariff period 2014-19 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 generating company or the transmission licensee as the case may be shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee as the case may be in the ratio of 2:1.

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

(9) In case of dispute any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 as amended from time to time including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan."

71. Interest on loan has been computed as under:

(i) The weighted average rate of interest has been worked out on the basis of the actual loan portfolio of respective year, applicable to the project;

(ii) The repayment for the year of the 2015-19 tariff period has been considered equal to the depreciation allowed for that year;

(iii) Interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest.

72. Interest on loan has been worked out as under:

(Rs. in lakh)

	24.12.2015 to 31.3. 2016	**1.4. 2016 to 30.3. 2017**	**31.3.2017**	**2017-18**	**2018-19**
Gross Normative Loan	1958.03	44302.97	44759.04	70132.61	71366.21
Cumulative Repayment up to Previous Year	0.00	373.53	2423.77	2431.04	7252.80
Net Loan-Opening	1958.03	43929.44	42335.27	67701.57	64113.41
Addition due to Additional Capitalization	42344.94	456.07	25373.57	1233.60	717.86
Repayment during the year	373.53	2050.24	7.27	4821.76	4895.61
Net Loan-Closing	43929.44	42335.27	67701.57	64113.41	59935.67
Average Loan	22943.74	43132.36	55018.42	65907.49	62024.54
Weighted Average Rate of interest on loan	6.47%	6.96%	6.96%	7.40%	8.16%
Interest on loan	**401.64**	**2993.97**	**10.49**	**4874.30**	**5060.48**

Depreciation

73. Regulation 27 of the 2014 Tariff Regulations provides as under:

"27. Depreciation:

(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. 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 or elements thereof.

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 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 in case of hydro generating station the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:

Provided further 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 generating unit or transmission system as the case may be shall not be allowed to be recovered at a later stage during the useful life and 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-II 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 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 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 during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

(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 decapitalized asset during its useful services."

74. The weighted average rate of depreciation calculated in terms of the above regulation has been considered for the calculation of depreciation. Accordingly, depreciation has been worked out and allowed as under:

(Rs. in lakh)

	24.12.2015 to 31.3. 2016	**1.4.2016 to 30.3.2017**	**31.3.2017**	**2017-18**	**2018-19**
Opening Capital Cost	2797.19	63289.96	63941.49	100189.44	101951.73
Addition due to Additional Capitalization	60492.77	651.53	36247.95	1762.29	1025.52
Closing Capital Cost	63289.96	63941.49	100189.44	101951.73	102977.25
Average Capital Cost	33043.58	63615.73	82065.47	101070.59	102464.49
Rate of Depreciation	4.179%	3.232%	3.232%	4.771%	4.778%
Depreciable Value	29055.25	56464.52	73658.91	90172.51	91427.02
Remaining Depreciable Value	29055.25	56090.99	71235.14	87741.47	84177.52
Depreciation	**373.53**	**2050.24**	**7.27**	**4821.76**	**4895.61**

O & M Expenses

75. The O&M expenses as considered in Commission's order dated 4.4.2019 in Petition No. 128/GT/2017, has been considered as under.

(Rs. in lakh)

24.12.2015 to 31.3.2016 (for GT)	**1.4.2016 to 30.3.2017 (for GT)**	**31.3.2017 to 31.3.2017 (for CC)**	**2017-18**	**2018-19**
501.85	1976.14	8.38	3267.35	3490.56

Water Charges

76. The Petitioner has furnished that no water charges have been paid by it during the 2015-19 tariff period. Accordingly, water charges have not been considered for the purpose of tariff.

Impact of Pay/ Wage Revision

77. The Petitioner has submitted that it has incurred additional O&M expenses due to increase in employee cost on account of wage revision of its employees and that of Meghalaya Home Guards for financial years 2016-17, 2017-18 and 2018-19. The

Petitioner has submitted that the total impact due to wage revision is Rs.444.58 lakh and, therefore, it may be allowed to recover the impact of wage revision, as additional O&M expense from the Respondent No.1, Tripura State Electricity Corporation Ltd, as one-time payment in exercise of the powers of the Commission under Regulations 54 and 55 of the 2014 Tariff Regulations.

78. The Commission vide ROP of the hearing dated 2.6.2020 directed the Petitioner to furnish, amongst others, the following:

> (a) *PRP/Incentive included in the wage revision impact claimed (year wise details duly certified by the Auditor);*
>
> (b) *Comparative statement of the normative O&M expenses allowed to the station versus actual audited O&M for the period from 2015-16 to 2018-19.*

79. In compliance with the above directions, the Petitioner vide its affidavit dated 31.8.2020 has furnished the audited details of additional cost in respect of employees due to wage revision and has submitted that the same does not include the impact of PRP/ incentive due to wage revision. The Petitioner has submitted the details of additional cost in respect of employees due to wage revision as under:

(Rs. in lakh)

		Additional employee costs due to pay revision w.e.f. 1.1.2016 to 31.3.2019			**Total**
		Salary & Wages	**Leave Encashment**	**Others**	
2016-17	Executive	38.15	3.15	3.75	45.05
	Supervisor	5.24	0.464	0.00	5.70
	Workman	13.02	0.61	0.00	13.63
	Total of 2016-17	**56.40**	**4.22**	**3.75**	**64.38**
2017-18	Executive	154.65	12.78	16.74	184.16
	Supervisor	20.80	1.85	0.00	22.65
	Workman	49.09	2.30	0.00	51.39
	Total of 2017-18	**224.54**	**16.92**	**16.74**	**258.20**
2018-19	Executive	22.12	1.83	1.80	25.75
	Supervisor	23.21	2.06	0.00	25.27
	Workman	67.80	3.18	0.00	70.98
	Total of 2018-19	113.13	7.07	1.80	**122.00**
Grand Total		**394.07**	**28.22**	**22.29**	**444.58**

80. The Petitioner has submitted the break-up of the actual O&M expenditure (excluding expenses towards Interest on Loan capital/ Bond Issue Expenses after COD and FERV after COD) as under:

(Rs. in lakh)

Sr. No.	Heads	Actual O&M Expenses		
		2016-17	**2017-18**	**2018-19**
1	Salary (Workmen, Supervisor & Executive)	1176.89	1430.77	1715.07
2	Gratuity	33.71	342.61	61.95
3	Leave Encashment	71.74	202.01	133.72
4	Award of Gold Coin for Retired Employee	7.46	0.37	0.10
5	Staff Welfare Expenses/ Family Planning	1.91	0.86	0.25
6	Interest subsidy on HBA	2.97	2.28	0.71
7	NEEPCO Employee Welfare Expenses / workmen Compensation	0.44	1.03	1.90
8	Rent Paid for Staff Accommodation	4.00	0.00	0.00
9	Social Welfare/ sports/ Cable Tv. Connection	1.63	0.10	1.79
10	Education Facilities VKV/DPS/	0.00	0.00	0.00
11	Sabka Saath Sabka Vikash/ Swachh Bharat/ Other	0.00	8.93	0.79
12	Pollution Control Expenses	0.32	0.00	0.00
13	Medical Expenses/ Purchase of Medicine	40.00	44.95	56.91
14	Electricity & Water Charges	0.00	0.00	0.00
15	Repairs & Maintenance (other) – Minor	1.80	8.47	10.98
16	Legal Expenses/ Consultancy /Bank Charges	3.09	2.90	4.05
17	Postage & Telegram	0.23	0.20	0.28
18	Telephone Expenses	10.23	7.50	6.83
19	Communication Expenses	0.00	0.00	4.72
20	Travelling Expenses	28.94	28.02	28.65
21	Advertisement & Publicity Expenses	12.44	15.80	4.50
22	Printing & Stationery	1.58	2.28	2.73
23	Computer System & Consumables	2.05	4.15	4.52
24	Security Arrangement (MLHG/ Others)	81.77	98.87	95.84
25	1B Expenses	2.36	2.93	2.97
26	News Paper & Periodicals/ Books & Manuals	0.00	0.00	0.00
27	Rent, Rates & Taxes	0.00	0.33	0.54
28	Transport	47.11	37.86	58.25
29	Office Furnishing	0.00	0.00	0.00
30	Miscellaneous Expenses	9.59	12.90	11.83
31	Insurance – Others	0.84	0.76	0.46
32	Licence & Registration	7.52	5.24	5.66
33	Entertainment	0.00	0.00	0.00
34	Uniform & Liveries	0.79	0.14	0.05
35	Fire & Safety Expenses	0.00	0.00	0.00
36	ISO	0.00	0.00	0.00
37	Training Expenses	1.06	5.91	5.75
38	Energy Conservation expenses	1.07	27.91	0.00
39	Audit expenses	0.00	0.35	1.01
40	Stock written off/Loss on sale of assets	0.00	0.00	0.00
41	Filling Fees for Commission	0.00	5.02	4.25
42	Environment & ecology	0.00	31.21	22.04
43	Share of Corporate offices Revenue Expenditure	88.63	462.63	1075.00
44	C.S.R.	0.00	32.89	2.05

45	Repairs and Maintenance, Insurance & NERLDC	245.72	468.53	543.29
Total		1887.90	3296.68	3869.44

81. The Statement of Reasons (SOR) to the 2014 Tariff Regulations stipulates the following with respect to recovery of impact of wage revision by a generator:

> *"29.26 Some of the generating stations have suggested that the impact of pay revision should be allowed on the basis of actual share of pay revision instead of normative 40% and one generating company suggested that the same should be considered as 60%. In the draft Regulations, the Commission had provided for a normative percentage of employee cost to total O&M expenses for different type of generating stations with an intention to provide a ceiling limit so that it does not lead to any exorbitant increase in the O&M expenses resulting in spike in tariff. The Commission would however, like to review the same considering the macroeconomics involved as these norms are also applicable for private generating stations. In order to ensure that such increase in employee expenses on account of pay revision in case of central generating stations and private generating stations are considered appropriately, the Commission is of the view that it shall be examined on case to case basis, balancing the interest of generating stations and consumers.*
>
> *33.2 The draft Regulations provided for a normative percentage of employee cost to total O&M expenses for generating stations and transmission system with an intention to provide a ceiling limit so that the same should not lead to any exorbitant increase in the O&M expenses resulting in spike in tariff. The Commission shall examine the increase in employee expenses on case to case basis and shall consider the same if found appropriate, to ensure that overall impact at the macro level is sustainable and thoroughly justified. Accordingly, clause 29(4) proposed in the draft Regulations has been deleted. The impact of wage revision shall only be given after seeing impact of one full year and if it is found that O&M norms provided under Regulations are inadequate/insufficient to cover all justifiable O&M expenses for the particular year including employee expenses, then balance amount may be considered for reimbursement."*

82. We observe that the methodology as indicated in SOR as quoted above suggests a comparison of the normative O&M expenses with the actual O&M expenses on an year to year basis. However, in this respect, the following facts need consideration:

a) The norms are framed based on the averaging of the actual O&M expenses of past five years to capture the year on year variations in sub-heads of O&M;

b) Certain cyclic expenditure may occur with a gap of one year or two years and as such adopting a longer duration i.e. five years for framing of norms also captures such expenditure which is not incurred on year to year basis;

c) Generators who find that their actual expenditure has gone beyond the Normative O&M in a particular year put departmental restrictions and try to bring the expenditure for the next year below the norms.

83. In consideration of above facts, for ascertaining whether the norms of O&M expenses provided under Regulations are inadequate or insufficient to cover all justifiable O&M expenses including employee expenses, the Commission finds it appropriate to compare the normative O&M expenses with the actual O&M expenses for three years over 2016-19 (period over which the wage revision claim is being spread) on combined basis so as to capture the variation in sub-heads of O&M expenses. The comparative statement of the normative O&M expenses allowed to the generating station for the 2016-19 tariff period and the actual audited O&M expenses incurred for the said period is as under:

(Rs in lakh)

	Normative O&M Expenses	Actual O&M Expenses	Difference between the normative and actual O&M expenses	Wage revision impact claimed
1.4.2016 to 30.3.2017 (for GT)	1976.14	1887.90	96.62	64.38
31.3.2017 (for C.C.)	8.38			
2017-18	3267.35	3296.68	(-) 29.33	258.20
2018-19	3490.56	3869.44	(-) 378.87	122.00
Total	**8742.43**	**9054.02**	**(-) 311.58**	**444.58**

84. Further, for like to like comparison, the components of O&M expenses like productivity linked incentive, filing fee, ex-gratia, loss of store, provisions, prior period expenses, RLDC fee & charges, others (without break-up/ details), etc., which were not considered while framing the O&M expense norms for the 2014-19 tariff period, needs to be excluded from the yearly actual O&M expenses. Though the Petitioner, in response to the ROP of hearing dated 2.6.2020, has submitted details of the actual O&M expenses, it has not submitted the details of productivity linked incentive and ex-gratia paid to the employees of the generating station and corporate centre.

85. After going through the details submitted by the Petitioner, it is observed that allocation of corporate office expenses to the generating station for the year 2018-19 is abnormally high at Rs.1075 lakh as against the previous year's (2017-18)

allocation of Rs.462.62 lakh, an increase of 132% over 2017-18. In general, the allocation of corporate office expenses to a particular generating station is based on the capacity (MW) of that generating station as a percentage of the total capacity of all the operating generating stations. It is noted that for 2017-18 as well as 2018-19, the generating station was operational at full capacity. Thus, there was no apparent reason for such an abnormal increase. On seeking clarification, the Petitioner vide e-mail dated 8.6.2021, has submitted the following:

> *"Increase in corporate share of employee cost in FY 2018-19 in comparison to FY 2017-18 was due to substantial increase in employees benefit expenses on account of implementation of decision of Govt. of India communicated by MoP vide their letter dt.29.1.2019 for regularization of pay scales of below Board level Executives with effect from 01.01.1997."*

86. Thus, the Petitioner has submitted that the allocation of corporate office expenses for 2018-19 (@Rs.1075 lakh) is abnormally high due to payment of arrears in 2018-19 related to pay regularization with effect from 1.1.1997. However, in this Petition, we are considering the impact of wage revision with effect from 1.1.2017 only. Therefore, the allocation of corporate office expenses to the instant generating station for the year 2018-19 has been restricted to Rs. 555 lakh i.e. 120% of previous year allocation of Rs.462.62 lakh. This methodology of restricting to 20% above the previous year expenditure has been consistently adopted by the Commission while framing the O&M expense norms for sub-heads, where no reason/ justification for an abnormal increase are available. Though in the present case, the reason for the abnormal increase in expenditure is available, the same is on account of prior period expenses (pay regularisation w.e.f. 1.1.1997) being paid in 2018-19. Restricting the allocation of corporate office expenses to Rs.555 lakh for the year 2018-19 leads to a reduction of Rs.520 lakh (Rs.1075 lakh-Rs.555 lakh) in the actual O&M expenses for the period 2016-19.

87. In addition to reducing the allocated corporate office expenses by Rs.520 lakh, the expenditure under the following sub-heads have been excluded from the actual O&M expenses for the purpose of arriving at the normalized actual O&M expenses in order to compare the same with normative O&M expenses for the period 2016-19:

a) Award of Gold Coin for Retired Employee (Rs.7.83 lakh);
b) Filling fees for CERC (Rs.9.27 lakh);
c) CSR (Rs.34.94 lakh); and

88. After adjusting for the factors mentioned in paragraph 87 above, the comparison of total normative O&M expenses and the actual O&M expenses (normalized) for the period 2016-19 on combined basis is as follows:

(Rs. in lakh)

	Normative O&M Expenses	**Normalized actual O&M Expenses**	**Difference between the normative and normalized actual O&M Expenses**
Total for 2016-19	8742.43	8481.98 [9054.02 -7.83 -9.27 -34.94 -520.0]	260.46

89. Thus, it is observed from the above comparison that the normative O&M expenses for the period 2016-19 exceeds the normalized actual O&M expenses, which is inclusive of the wage revision impact by Rs.260.46 lakh. Therefore, claim of the Petitioner to provide additional O&M expenses towards the wage revision impact is rejected.

Normative Annual Plant Availability Factor

90. The Normative Annual Plant Availability Factor (NAPAF) of 85% as considered in Commission's order dated 4.4.2019 in Petition No.128/GT/2017 for 2014-19 tariff period has been considered for purpose of tariff.

Gross Station Heat Rate

91. The Gross Station Heat Rate of 2984.539 kCal/kWh for Open cycle and 1967.385 kCal/kWh for Combined Cycle as considered in the order dated 4.4.2019 in Petition No.128/GT/2017 for 2014-19 tariff period has been considered for the purpose of tariff.

Auxiliary Power Consumption

92. The Auxiliary Energy Consumption (AEC) for Combined Cycle Gas based Projects in terms of the 2014 Tariff Regulations is 2.5%. The Petitioner vide affidavit dated 6.9.2018 in Petition No.128/GT/2017 had requested the Commission to consider and allow the Auxiliary Power Consumption of 5.5% for the Project on certain grounds. However, the Commission in its order dated 4.4.2019 had allowed 2% of AEC for Open Cycle operation and 3.5% of AEC for Combined Cycle operation. The relevant portion is extracted hereunder:

> "*76. The Petitioner has furnished the actual auxiliary energy consumption for April, 2016 to July, 2018 the average of which works out to 4.91% approx. Considering the fact that the Petitioner has not furnished the actual consumption of electric motor driven GBC (Gas Booster Compressor) separately, the actual difference due to application of electric driven GBC cannot be made out. However, the Commission, vide order dated 30.3.2017 in Petition No. 129/GT/2015 had allowed AEC of 3.5% considering the additional AEC of 1% due to GBC. Accordingly, we allow 2% of AEC for open cycle and 3.5% of AEC for combined cycle and Petitioner is directed to furnish the actual consumption of electric motor driven GBC (Gas Booster Compressor) separately from the COD of the station till date at the time of truing up*."

93. In response, the Petitioner, in this petition, has submitted that the consumption of Electric Motor Driven GBC from COD of the generating station till 31.3.2019 is 13.9529 MU. The Petitioner has also submitted that the recording of energy consumption of GBC motors separately commenced from 21.5.2019. It has stated that the energy consumption of Motor Driven GBC was not recorded separately after COD (31.3.2017), but the same was included in the overall AEC of the generating station. Based on trends for the period from 21.5.2019 to 18.6.2019,

the Petitioner has submitted that GBC motor consumption is 1% of gross Combined Cycle generation and 1.43% of GTG generation (Gross OC). The Petitioner has further submitted that this metering does not include AEC of systems installed for GBC such as lubrication system, cooling system, ventilation system and illumination etc. In terms of the above, the Petitioner has prayed for allowing the normative AEC of 5% for the generating station.

94. The Commission vide ROP of the hearing dated 2.6.2020 directed the Petitioner to clarify as to whether Gas Booster Compressor (GBC) was envisaged in FSA and whether it formed part of the original scope of work of the Project or not. In case GBC was envisaged at a later stage, the Petitioner was directed to (i) clarify as to whether the consent of beneficiaries was obtained for adding a system which would substantially increase the AEC from 3.5% to 5.5% and (ii) submit the year of capitalization of the Gas Booster Compressor.

95. In compliance to the above directions, the Petitioner vide affidavit dated 31.8.2020 has submitted that the Gas Booster Compressor for the Project was envisaged in Fuel Supply Agreement (FSA) and formed part of the original scope of work of the Project. It also submitted that as per GSA between M/s ONGC and the Petitioner, M/s ONGC was to deliver gas at a pressure 20±1 kg/cm^2, but the requirement of gas pressure for GT was on higher side and there was loss of pressure in gas pipeline also. The Petitioner has, therefore, incorporated GBC facility with motor driven centrifugal compressor within the original scope of work of the Project and included the same in the EPC contract with M/s BHEL for the power plant. The Petitioner has clarified that M/s BHEL had designed the Gas Based Combined Cycle Power Plant with 5.5% of AEC and the year of capitalization of GBC was 2015-16.

96. Based on the above submissions of the Petitioner, we infer that:

(a) The Gas Booster Compressor is an additional feature of the Project which consumes additional AEC over and above the normative AEC notified in the 2014 Tariff Regulations. The same was envisaged in the FSA and has been incorporated within the original scope of work of the Project and also included in the EPC contract with M/s BHEL for the plant.

(b) The average additional AEC by GBC, when the generating station is operating on Open cycle mode is 1.43% and it is 1%, when operating on Combined cycle mode.

97. Accordingly, the normative AEC for the generating station is considered and allowed as 2.43% (1.43% + 1%) for Open Cycle mode operation (i.e. 1.43% over and above the notified normative auxiliary consumption of 1%). For Combined cycle mode, AEC allowed is 3.5% (1% +2.5%) (i.e. 1% over and above the notified normative AEC of 2.5%).

Interest on Working Capital

98. Regulation 28 of the 2014 Tariff Regulations provides as under:

> *"28. Interest on Working Capital:*
> *(1) The working capital shall cover*
> *(b) 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) Maintenance spares @ 30% of operation and maintenance expense specified in regulation 29; and*
> *(iii) 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";*
> *(iv) Receivables equivalent to two months 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;*
> *(v) Operation and maintenance expenses for one month."*

Fuel Cost and Energy Charges in Working Capital

99. The Fuel cost for 30 days and Energy charges for two months have been calculated based on the Gross Calorific Value (GCV) and price of the gas as

adopted in the order dated 4.4.2019 in Petition No. 128/GT/2017. Since the Petitioner has not used any liquid fuel in the generation of electricity, the same has not been considered. Accordingly, the fuel cost and Energy charges allowed are as under:

(Rs. in lakh)

	24.12.2015 to 31.3.2016	1.4.2016 to 30.3.2017	31.3.2017 to 31.3.2017	2017-18	2018-19
Fuel cost for 30 days	967.62	967.62	984.80	984.80	984.80
Energy charges for two months	1967.49	1962.12	1996.95	1996.95	1996.95

Energy Charge Rate

100. Based on the above operational norms, GCV & the price of Natural Gas for the preceding three months from COD of the Combined Cycle GT, the Energy Charge Rate (ECR) in Rs/kWh, on ex-power plant, is calculated and considered as under:

(Rs. in lakh)

		24.12.2015 to 31.3.2016 (for GT)	1.4.2016 to 30.3.2017 (for GT)	31.3.2017 to 31.3.2017 (for CC)	2017-18	2018-19
Capacity	MW	65.42	65.42	101	101	101
Normative PLF	hours/ kW/year	85	85	85	85	85
Gross Station Heat Rate	kCal/ kWh	2984.539	2984.539	1967.385	1967.385	1967.385
Auxiliary Energy Consumption	%	2.43	2.43	3.5	3.5	3.5
Weighted Average GCV of Gas	kCal/ SCM	9221.34	9221.34	9221.34	9221.34	9221.34
Weighted Average Price of Gas	*Rs.*/1000 SCM	7468.64	7468.64	7468.64	7468.64	7468.64
Rate of Energy Charge (ex-bus)	Rupees/ kWh	2.477	2.477	1.651	1.651	1.651

101. The energy charge, on month to month basis, shall be billed by the Petitioner in terms of Regulation 30 (6) (b) of the 2014 Tariff Regulations

Maintenance Spares

102. Regulation 28(1)(b)(iii) of the 2014 Tariff Regulations provides for Maintenance spares @ 30% of the O&M expenses. Accordingly, maintenance spares as allowed in the order dated 4.4.2019 in Petition 128/GT/2017 has been considered for the purpose of tariff, as under:

(Rs. in lakh)

24.12.2015 to 31.3.2016 (for GT)	1.4.2016 to 30.3.2017 (for GT)	31.3.2017 to 31.3.2017 (for CC)	2017-18	2018-19
150.56	592.84	2.51	980.21	1047.17

O & M Expenses (1 month)

103. The O&M expenses for one month (on pro-rata basis) as allowed in the order dated 4.4.2019 in Petition 128/GT/2017 has been considered for the purpose of tariff as under:

(Rs. in lakh)

24.12.2015 to 31.3.2016 (for GT)	1.4.2016 to 30.3.2017 (for GT)	31.3.2017 to 31.3.2017 (for CC)	2017-18	2018-19
41.82	164.68	0.70	272.28	290.88

Receivables

104. The Receivable component of working capital is allowed as under:

(Rs. in lakh)

24.12.2015 to 31.3.2016	1.4.2016 to 30.3.2017	31.3.2017	2017-18	2018-19
866.78	4000.77	12.89	5399.00	5415.39

Rate of interest on working capital

105. In terms of clause (3) of Regulation 28 of the 2014 Tariff Regulations, the Bank rate of 13.50% for the period 2015-16 and 12.80% for the period 2016-19 has been considered for the purpose of tariff. Accordingly, Interest on working capital has been computed as under:

(Rs. in lakh)

	24.12.2015 to 31.3.2016	1.4.2016 to 30.3.2017	31.3.2017	2017-18	2018-19
Fuel Cost	261.73	964.97	2.70	984.80	984.80
O & M expenses	41.82	164.68	0.70	272.28	290.88
Maintenance Spares	150.56	592.84	2.51	980.21	1047.17
Receivables	866.78	4000.77	12.89	5399.00	5415.39
Total	1320.89	5723.26	18.80	7636.28	7738.24
Interest Rate	13.50%	12.80%	12.80%	12.80%	12.80%
Interest on Working Capital	**178.32**	**732.58**	**2.41**	**977.44**	**990.49**

Fixed Charges

106. Based on the above, the fixed charges allowed for the period from 24.12.2015 to 31.3.2019 are summarized as under:

(Rs. in lakh)

	24.12.2015 to 31.3.2016	1.4.2016 to 30.3.2017	31.3.2017	2017-18	2018-19
Return on Equity	560.95	4511.26	15.99	6471.45	6073.48
Interest on Loan	401.64	2993.97	10.49	4874.30	5060.48
Depreciation	373.53	2050.24	7.27	4821.76	4895.61
Interest on Working Capital	178.32	732.58	2.41	977.44	990.49
O & M Expenses	501.85	1976.14	8.38	3267.35	3490.56
Total	**2016.29**	**12264.18**	**44.53**	**20412.30**	**20510.62**

107. The difference between the fixed charges recovered by the Petitioner vide Commission's order dated 4.4.2019 in Petition No.128/GT/2017 and the fixed charges determined by this order shall be adjusted in terms of Regulation 8 of the 2014 Tariff Regulations.

108. Petition No. 271/GT/2019 is disposed of in terms of the above.

Sd/-
(Arun Goyal)
Member

Sd/-
(I.S. Jha)
Member

Sd/-
(P. K. Pujari)
Chairperson