CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 386/GT/2020

Coram:

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

Date of Order: **21st November, 2023**

In the matter of:

Petition for approval of tariff for Barsingsar Thermal Power Station (250 MW) for the period from 1.4.2019 to 31.3.2024.

And

IN THE MATTER OF

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

Vs

1. Jodhpur Vidyut Vitaran Nigam Limited,
   New Power House, Heavy Industrial Area, Jodhpur,
   Rajasthan - 342003

2. Jaipur Vidyut Vitaran Nigam Limited,
   Vidyut Bhavan, I floor, Janpath, Jaipur,
   Rajasthan - 302005

3. Ajmer Vidyut Vitaran Nigam Limited,
   Old Power House, Hathi Bhata, Jaipur Road, Ajmer,
   Rajasthan – 305001 **...Respondents**

Parties present:

Ms. Anushree Bardhan, Advocate, NLCIL
Ms. Surbhi Kapoor, Advocate, NLCIL
Shri Anukirat Singh, Advocate, NLCIL
Shri Ravi. S, NLCIL
Shri Vasughi. P, NLCIL
Shri P. Ravikumar, NLCIL
Shri Srinivasan. A, NLCIL
Shri Anand K Ganesan, Advocate, RUVNL
Ms. Swapna Seshadri, Advocate, RUVNL
Shri Amal Nair, Advocate, RUVNL
Ms. Sugandh Khanna, Advocate, RUVNL
Ms. Kritika Khanna, Advocate, RUVNL

ORDER

This petition has been filed by the Petitioner, NLC India Limited, for truing-up of tariff of Barsingsar Thermal Power Station (2 x 125 MW) (in short 'the generating station') for the period 2019-24, in accordance with Regulation 9(2) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2019 (hereinafter referred to as 'the 2019 Tariff Regulations'). The generating station, with an installed capacity of 250 MW comprises of two units of 125 MW each with Circulating Fluidized Bed Combustion lignite fired boilers feeding to Turbines. Units I and II of the generating station were commissioned on 20.1.2012 and 29.12.2011, respectively. Accordingly, the date of commercial operation of the generating station is 20.1.2012.

2. The Commission vide its order dated 6.10.2023 in Petition No. 366/GT/2020 had approved the capital cost and the annual fixed charges for the generating station for the period 2014-19 (after truing up exercise) as under:

Capital Cost allowed

(Rs. in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Opening Capital Cost (A)	169081.03	173371.86	173850.95	173884.53	173994.68
Add: Addition during the year / period (B)	246.26	482.47	50.01	110.15	55.68
Less: Decapitalisation during the year /period (C)	0.00	3.38	16.43	0.00	0.00
Add: Discharges during the year /period (D)	4044.57	0.00	0.00	0.00	0.00
Less: Exclusion not allowed (E)	0.00	0.00	0.00	0.00	2478.41
Closing Gross Block (F) = (A+B-C+D-E)	**173371.86**	**173850.95**	**173884.53**	**173994.68**	**171571.95**
Average Gross Block (G) = (A+F)/2	171226.45	173611.41	173867.74	173939.61	172783.31

Annual Fixed Charges allowed

(Rs.in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Depreciation	8775.45	8898.72	8911.74	8915.80	8857.20
Interest on Loan	9527.89	8760.15	7850.96	6930.70	5972.57
Return on Equity	12061.70	10263.04	10278.19	10282.44	10241.56

	2014-15	2015-16	2016-17	2017-18	2018-19
Interest on Working Capital	1817.31	1831.13	1851.53	1855.47	1872.79
O&M Expenses	7727.83	8291.97	8964.61	9365.71	10036.21
Total	**39910.18**	**38045.02**	**37857.03**	**37350.12**	**36980.33**

Present Petition

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

Annual Fixed Charges claimed

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	8804.06	8963.52	9182.88	9322.56	9363.63
Interest on Loan	4467.75	3904.30	3396.22	2777.89	2034.29
Return on Equity	10461.46	10577.89	10720.75	10811.72	10838.48
Interest on Working Capital	1248.88	1261.10	1274.63	1285.13	1290.64
O&M Expenses	9072.81	9378.53	9694.94	10023.56	10366.23
Total	**34054.96**	**34085.34**	**34269.42**	**34220.86**	**33893.27**

Capital Cost claimed as per Form I

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Opening Capital Cost	175625.21	178022.50	182030.50	186833.80	187641.30
Add: Additions during the year	1460.09	4008.00	4803.30	807.50	842.50
Less: Decapitalization during the year	0.00	0.00	0.00	0.00	0.00
Less: Reversal during the year	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year	0.00	0.00	0.00	0.00	0.00
Closing capital cost	**177085.30**	**182030.50**	**186833.80**	**187641.30**	**188483.80**
Average capital cost	176355.26	180026.50	184432.15	187237.55	188062.55

4. The Respondent Rajasthan Urja Vikas Nigam Limited (RUVNL) for and on behalf of Respondent beneficiaries (JVVNL, JoVVNL and AVVNL) has filed its reply vide affidavit dated 27.8.2021 and the Petitioner vide its affidavit dated 16.10.2021 has filed its rejoinder to the said reply. This Petition along with Petition No. 366/GT/2020 was heard on 25.2.2022. Thereafter, the Commission after hearing the matter on 23.8.2022, reserved its order in the matter, after directing the Petitioner to submit certain additional

information. In response, the Petitioner vide affidavit dated 29.9.2022 has submitted the additional information (also revising Form 5A) after serving copies on the Respondents. The Respondent RUVNL has filed the reply vide affidavit dated 24.11.2022 and the Petitioner vide affidavit dated 21.12.2022 has filed its rejoinder to the same. Taking into consideration the submissions of the parties and the documents available on record, we proceed to examine the claims of the Petitioner, on prudence check, as stated in the subsequent paragraphs.

Capital Cost

5. Clause (1) of Regulation 19 of the 2019 Tariff Regulations provides that the capital cost as determined by the Commission after prudence check, in accordance with this regulation, shall form the basis of determination of tariff for existing and new projects. Clause 3 of Regulation 19 of the 2019 Tariff Regulations provides as under:

> *"(3) The Capital cost of an existing project shall include the following:*
>
> *(a) Capital cost admitted by the Commission prior to 1.4.2019 duly trued up by excluding liability, if any, as on 1.4.2019;*
>
> *(b) Additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with these regulations;*
>
> *(c) Capital expenditure on account of renovation and modernisation as admitted by this Commission in accordance with these regulations;*
>
> *(d) Capital expenditure on account of ash disposal and utilization including handling and transportation facility;*
>
> *(e) Capital expenditure incurred towards railway infrastructure and its augmentation for transportation of coal upto the receiving end of generating station but does not include the transportation cost and any other appurtenant cost paid to the railway; and*
>
> *(f) Capital cost incurred or projected to be incurred by a thermal generating station, on account of implementation of the norms under Perform, Achieve and Trade (PAT) scheme of Government of India shall be considered by the Commission subject to sharing of benefits accrued under the PAT scheme with the beneficiaries."*

6. The Commission vide its order dated 6.10.2023 in Petition No. 366/GT/2020, had allowed the closing capital cost of Rs. 171571.95 lakh, as on 31.3.2019. Accordingly, in terms of Regulation 19(3) of the 2019 Tariff Regulations, the capital cost of Rs. 171571.95 lakh as on 31.3.2019 has been considered as the opening capital cost as on

1.4.2019, on cash basis, for the purpose of determination of tariff for the 2019-24 tariff period.

Additional Capital Expenditure

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

> *"**25**. Additional Capitalisation within the original scope and after the cut-off date:*
>
> *(1) The additional capital expenditure incurred or projected to be incurred in respect of an existing project or a new project on the following counts within the original scope of work and after the cut-off date may be admitted by the Commission, subject to prudence check:*
>
> *(a) Liabilities to meet award of arbitration or for compliance of the directions or order of any statutory authority, or order or decree of any court of law;*
>
> *(b) Change in law or compliance of any existing law;*
>
> *(c) Deferred works relating to ash pond or ash handling system in the original scope of work;*
>
> *(d) Liability for works executed prior to the cut-off date;*
>
> *(e) Force Majeure events;*
>
> *(f) Liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments; and*
>
> *(g) Raising of ash dyke as a part of ash disposal system.*
>
> ***(2)** In case of replacement of assets deployed under the original scope of the existing project after cut-off date, the additional capitalization may be admitted by the Commission, after making necessary adjustments in the gross fixed assets and the cumulative depreciation, subject to prudence check on the following grounds:*
>
> *(a) The useful life of the assets is not commensurate with the useful life of the project and such assets have been fully depreciated in accordance with the provisions of these regulations;*
>
> *(b) The replacement of the asset or equipment is necessary on account of change in law or Force Majeure conditions;*
>
> *(c) The replacement of such asset or equipment is necessary on account of obsolescence of technology; and*
>
> *(d) The replacement of such asset or equipment has otherwise been allowed by the Commission.*
>
> *26. Additional Capitalisation beyond the original scope*
>
> *(1) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts beyond the original scope, may be admitted by the Commission, subject to prudence check:*
>
> *(a) Liabilities to meet award of arbitration or for compliance of order or directions of any statutory authority, or order or decree of any court of law;*
>
> *(b) Change in law or compliance of any existing law;*
>
> *(c) Force Majeure events;*
>
> *(d) Need for higher security and safety of the plant as advised or directed by appropriate Indian Government Instrumentality or statutory authorities responsible for national or internal security;*
>
> *(e) Deferred works relating to ash pond or ash handling system in additional to the original scope of work, on case to case basis:*

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

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

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

8. The Commission vide its ROP of the hearing dated 23.8.2022, had directed the Petitioner to submit revised Form-9A clearly indicating the sub-clause of the relevant regulations, under which the additional capital expenditure was claimed. In response, the Petitioner vide affidavit dated 29.9.2022, has submitted revised Form 9A, indicating the break-up details of the additional capital expenditure claimed for the period 2019-24, as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
1460.09	4008.00	4803.30	807.50	842.50

9. The Respondent, RUVNL has submitted that the Petitioner has claimed the entire additional capitalization in a general manner under Regulation 25 and 26, without specifying the specific head under the said Regulations in terms of which the proposed additional capitalization is admissible. The Respondent has also submitted that the Petitioner ought to clarify as to whether the expenditure proposed is within the original scope of the plant or not. In response, the Petitioner has clarified that item wise detailed justifications have been submitted in revised Form-9A. It has also stated that the additional capital expenditure has been incurred only on essential items that are required in accordance with applicable regulations for existing generating stations. The Petitioner has further submitted that the expenditure claimed are incurred for continuous sustenance of the plant operation and towards safety and statutory requirements.

Claims under Regulation 25(2)(a) of the 2019 Tariff Regulations

10. The Petitioner has claimed the following additional capital expenditure under Regulation 25(2)(a) of the 2019 Tariff Regulations and the same are examined on prudence check and allowed as under:

(Rs. in lakh)

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
1.	Misc. workshop Machineries & Tools	10.0	10.0	5.0	2.0	5.0	32.0	Due to ageing and continuous operation for long period, motors need overhauling. Tools/ machineries are required for the repair, maintenance and overhaul of equipments.	The additional capital expenditure claimed is not covered under Regulation 25(2)(a) of the 2019 Tariff Regulations. As the expenditure claimed for assets (@sl nos 1 to 4) are in the nature of O&M expenses, the claims of the Petitioner are **not allowed**.	0.00
2.	Measuring instruments & workshop furniture	10.0	5.0	-	3.0	-	18.0	To check the performance of the machineries.		0.0
3.	Measuring tools	3.0	2.0	-	1.0	-	6.0	To monitor the performance of equipments.		0.0
4.	Hydraulic puller	10.0	-	-	15.0	-	25.0	During breakdown and regular motor changing we need to remove the coupling flange from old motor, it requires Hydraulic pullers of various capacities for various capacities of motors.		0.0
5.	Plante type Lead acid Stationery Battery Banks	150.0	100.0	150.0	100.0	200.0	700.0	Generally the life of Plante type Lead acid batteries is 10 years and after that period the capacity of the Battery bank will get reduced. In BTPS, the·220 VDC systems with Plante type batteries in unit-I, unit-II and station are in continuous service for 11 years from commissioning. Hence due to ageing, the batteries are getting deteriorated resulting in reduction in the healthiness of the battery banks. As per IEEE recommendation, when the capacity of Lead acid battery banks goes below 80% they shall be replaced by new battery. Hence purchased new battery banks.	Considering the fact that the item was deployed within the original scope of work since COD and is being replaced, the same is being allowed. However, the Petitioner has not submitted the decapitalization value of the replaced asset, aaccordingly, assumed deletion has been considered. (refer assumed deletion).	700.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
6.	Tools and Tackles	5.0	6.0	5.0	5.0	5.0	26.0	The tools and tackles are used during the regular maintenance work. Due to frequent usage, the tools has become worn-out and hence purchased new tools.	As the expenditure claimed for the asset is in the nature of O&M expenses, the claim of the Petitioner is **not allowed**.	0.00
7.	Transport air compressors	20.00	-	-	20.00	-	40.00	Due to frequent usage, the life expectancy of the existing compressors got reduced. Hence purchase the new.	Considering the fact that the additional capital expenditure claimed for the asset, has outlived its useful life, the claim of the Petitioner for new asset is **allowed**. The Petitioner is however directed to substantiate its claim with regard to the useful life of the existing asset with documentary evidence at the time of truing up of tariff. It is observed that the Petitioner has not furnished the decapitalisation value of the existing item. Accordingly, assumed deletion has been considered for the same and the gross value of the old asset has been assumed as Rs. 117.54 lakh (Rs. 25.23 lakh towards Transport air compressor and Rs. 92.31 lakh towards ILMS) (refer assumed deletion).	40.00
8.	Providing new ILMS at BCN-19A/19B Drive Heads	30.000	30.00	30.00	30.00	30.00	150.00	To avoid magnetic material entry to boiler bunker, new ILMS at conveyor BCN 19A/B drive head was provided. ILMS at BCN19A/B will remove magnetic material in onward stream and generation loss due to entry of magnetic material in TRC.		150.00
9.	Increasing Length of tripper car, intermediate Conveyor at SCR and related works	50.0	50.0	50.0	50.0	50.0	250.0	Huge spillages are observed on stacker path which is very tough to clear the accumulation manually and also affects the movement of stacker in emergency time. It is observed that the spillage of lignite is due to more inclination of tripper car and for pressing belt additional pressing rollers are provided due to the above inclination problem on impact table which results further lignite hitting on pressing rollers and heavy spillage observed continuously. To reduce inclination in tripper car, length of the tripper car and intermediate conveyor is increased.	The additional capitalisation under Regulation 25(2)(a) of the 2019 Tariff Regulations, is towards the replacement of assets deployed under the original scope of the existing project and after the cut-off date, where the useful life of the assets is not commensurate with the useful life of the project. Since the existing asset is already under utilization, and the problem is due to Operation of the assets already in service, the additional capital expenditure claimed under this head is **not allowed**. However, the Petitioner is granted liberty to claim the expenditure at the	0.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
									time of truing up with proper justification.	
10.	Portable Fire Extinguishers and high capacity water mist fire extinguishers	15.00	10.00	10.00	10.00	10.00	55.00	The life of existing fire extinguisher of DCP and foam type is 10 years only. Already the lives of 8 numbers of fire extinguishers in the fire tenders are completed. Hence procured new for the replacement of the above fire extinguishers	Considering the fact that the additional capital expenditure claimed for the asset, has outlived its useful life, the claim of the Petitioner for new asset is **allowed**. The Petitioner is however directed to substantiate its claim with regard to the useful life of the existing asset with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing asset, the assumed deletion of the old asset has been considered as Rs. 34.15 lakh	55.00
11.	Sodium & cationic conductivity measurement of SWAS system in both units.	4.0	4.0	4.0	4.0	4.0	20.0	For efficient operation of thermal power plant, Sodium & cationic conductivity measurements are important as these parameters in the steam will affect the internal parts of turbine and boiler. It is recommended by technical audit team of OSMG for the measurement of these parameters.	Additional capitalisation under Regulation 25(2)(a) is towards the replacement of assets deployed under the original scope of the existing project and after the cut-off date, where the useful life of the assets is not commensurate with the useful life of the project. Hence, the additional capital expenditure claimed by the Petitioner is **not allowed.**	0.00
12.	33kV Meggar	-	10.0	-	10.0	-	20.0	A megger is used to measure insulation resistance. Due to frequent usage the instrument has become less efficient and therefore purchased new megger	Considering the fact that the additional capital expenditure claimed for the asset, has outlived its useful life, the claim of the Petitioner for new asset is **allowed**. The Petitioner is however directed to substantiate its claim with regard to the useful life of the existing asset with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing asset, the assumed deletion of the old asset has been considered as Rs. 12.29 lakh	20.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
13.	Centralized Industrial vacuum cleaning system for JNT-II,JNT-III, Primary Crusher House, Screen House, Secondary crusher House, JNT-I and Bunker Floor	-	100.0	150.0	200.0	250.0	700.0	Every Day nearly about 5000 Tons of Lignite are being handled by the Conveyors in LHS. The Centralized Industrial Vacuum Cleaning System is being identified as an effective and efficient method to keep the Lignite Dusts in control.	Additional capitalisation under Regulation 25(2)(a) is towards the replacement of assets deployed under the original scope of the existing project and after the cut-off date, where the useful life of the assets is not commensurate with the useful life of the project. Hence, the additional capital expenditure claimed by the Petitioner is **not allowed.**	0.0
14.	Hydraulic Jacks	-	-	10.0	5.0	-	15.0	Hydraulic jacks are used for lifting heavy loads. Due to frequent usage, the jacks have become worn-out and therefore purchased new one.	Considering the fact that the additional expenditures claimed (@sl nos 14 to 16) are towards for replacement of the existing equipment's which are within the original scope of work, the same are **allowed** under Regulation 25(2)(a) of the 2019 Tariff Regulations. As the Petitioner has not furnished the decapitalisation value of the existing assets, the assumed deletion considered for the old assets are Rs. 9.06 lakh towards Hydraulic Jacks, Rs. 9.36 lakh towards Replacement / Addition of Air conditioners-split and Rs. 9.36 lakh towards Replacement/ addition of Air conditioners-windows	15.00
15.	Replacement / Addition of Air conditioners - Split	-	-	5.0	6.0	5.0	16.0	Out of total 100 nos. of Split AC installed at BP, a large number of them have already serviced more than their useful life, therefore considering the climatic condition of Barsingsar, periodical replacement of Split AC units is required		16.00
16.	Replacement/ addition of Air conditioners - windows	-	-	5.0	6.0	5.0	16.0	Out of total 50 nos. of Window AC installed at BP, a large number of them have already serviced more than their useful life, therefore considering the climatic condition of Barsingsar, periodical replacement of Window AC units are required.		16.00
17.	Elect. Workshop-Establishing motor testing(test bed) facility	15.0	10.0	5.0	-	-	30.0	Due to ageing and continuous operation for long period, motors need overhauling. Tools/machineries are required for the repair, maintenance and overhaul of equipment's	As the additional capital expenditures claimed (@sl nos. 17& 18) are in the nature of O&M expenses, the claims of the Petitioner are **not allowed.**	0.00
18.	Motor testing equipments	3.0	2.0	1.0	-	1.0	7.0	To check the performance of the motors.		0.00
19.	Battery operated Trolley	7.0	-	-	-	-	7.0	In Electrical Mtc-EM3 division maximum time faulty motor required to shift from location to Maintenance room and healthy motor from Maintenance	The additional capital expenditure claimed (@ sl nos. 19 to 21) are not directly related to the efficient operation of the generating station. The Petitioner shall	0.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
								room to required location. Now sometimes shifting is done by hand operated trolley which is consuming more time in emergency. Also carrying materials and motors from one location to other for regular maintenance work.	meet this expenditure through the O&M expenses allowed to the generating station. Hence, the claim is **not allowed**.	
20.	Canopy for the outdoor HT & LT motors & allied works	4.0	4.0	4.0	-	-	12.0	For all outdoor HT motors bearing temp. go its maximum limit in peak Summer. To avoid from direct sunlight and dust canopy to be provide to improve efficiency and life of the motor ·		0.00
21.	Hand operated trolley	1.0	-	-	-	-	1.0	The trolley is required to move the materials and motors from one location to another.		0.00
22.	Hydraulic Crimping Tool	1.0	3.0	-	-	-	4.00	Hydraulic crimper is used to connect the ends of two cables, wires or other similarly flexible materials such as hydraulic hoses to a matching hose end.	As the additional expenditure claimed (@sl nos. 22& 23) in respect of the said work are in the nature O&M/tools & tackles, the claim of the Petitioner is **not allowed.**	0.00
23.	Tools & Tackles	0.5	-	-	-	-	0.50	The tools and tackles are used during the regular maintenance work. Due to frequent usage, the tools has become worn-out and hence purchased new tools.		0.00
24.	Battery operated Truck	7.0	-	-	-	-	7.00	MRT lab has many bulky and heavy test equipment's which are frequently moved to and from site for testing purposes and is also being used by the whole electrical maintenance department for transportation of materials. The life expectancy of existing battery-operated trolley has reduced due to wear and tear. Therefore, to facilitate smooth transportation and save manpower and time, new battery-operated trolley is required.	Since the additional capital expenditure claimed is towards the replacement of the existing battery-operated trolley, the claim of the Petitioner is **allowed**. As the Petitioner has not furnished the de-capitalisation value of the existing item, the assumed deletion of Rs. 4.74 lakh towards Battery operated Truck. has been considered.	7.00
25.	Lux Meter	0.5	-	-	-	-	0.5	Lux meter is used to measure the amount of light in a space/on a particular work surface. Due to frequent usage, the meter has become worn-out and hence	As the additional capital expenditure claimed (@sl nos. 25 to 27) are not covered under Regulation 25(2)(a) of the 2019 Tariff Regulations, the claims are **not**	0.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
								purchased new one.	**allowed**. The Petitioner shall meet the expenditure expenses through O&M expenses allowed to the generating station.	
26.	Ferrule Writing Machine	3.0	-	-	-	-	3.0	Due to frequent usage, the machine has become worn-out and hence purchased new one.		0.00
27.	Testing Kit/Lab Equipment	5.0	-	20.0	-	40.0	65.00	Due to frequent usage of 10KV insulator tester, Tan Delta Measurement Test kit, current and voltage transformer test, the life expectancy of existing test kit has reduced due to wear and tear. Therefore, purchase new testing kits.		0.00
28.	Hydraulic work platform	17.0	-	-	-	-	17.0	Due to frequent usage, the life expectancy of the existing hydraulic work platform got reduced. Hence purchase the new.	Considering the fact that the additional capital expenditure claimed on the asset has outlived its useful life, the claim of the Petitioner is **allowed.** The Petitioner is directed to substantiate its claim on the useful life of the asset along with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing item, the assumed deletion has been considered as Rs. 11.51 lakh towards Hydraulic work platform.	17.00
29.	2100KVA ID fan Transformer	50.0	-	-	-	-	50.0	This is special type of oil filled transformer which converts from three phase 6.6kV AC input to 725V AC output. 7. As the life of the existing ID fan Transformers have already been completed more than 10 years, minimum one number transformer for both Unit-1 and Unit-2 is required as a spare for ready replacement.	It is observed from the submissions of the Petitioner that the additional expenditure claimed for assets (@sl nos. 29 & 30) are in the nature of spares. In view of this, the claims are **not allowed**. However, the Petitioner is granted liberty to claim the same as Capital spares in terms of the relevant regulations, at the time of truing-up, as and when they are put to use.	0.00
30.	100kVA ESP Rectifier Transformer-4 Nos.	100.0	-	-	-	-	100.0	This is special type of oil filled transformer which converts from single phase AC input to DC output with inbuilt Bridge rectifier circuit. 8. As the life of the existing ESP Rectifier		0.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
								Transformers has already been completed more than 10 years, minimum two number transformers each for Unit-1 and Unit-2 are required as a spare for ready replacement.9. To meet out the emergency conditions, 4 Nos. of Rectifier Transformers was purchased.		
31.	Portable pulling and lifting machines	1.0	-	-	-	-	1.0	The portable pulling & lifting machines were used during routine maintenance of Turbine maintenance work.	Since these assets are not covered under Regulation 25(2)(a) of the 2019 Tariff Regulations, the claims (@sl nos 31& 32) of the Petitioner are **not allowed.**	0.00
32.	Wheel barrow trolleys	0.1	-	-	-	-	0.1	The trolleys are used convenient carriage of heavier and bulkier loads		0.00
33.	Temp Measuring laser Gun	0.2	-	-	-	-	0.2	Due to frequent usage, the life expectancy of the existing laser gun got reduced. Hence purchased the new.	Considering the fact that the expenditure claimed is towards replacement of the existing temperature measuring laser gun, the same is allowed under Regulation 25(2)(a) of the 2019 Tariff Regulations. As the Petitioner has not furnished the decapitalisation value of the existing item, the assumed deletion considered is Rs. 0.14 lakh.	0.20
34.	Portables sumps pumps	1.0	-	-	-	-	1.0	-	Ass the Petitioner has not furnished any justification for its claim on the asset, the same is **not allowed**.	0.00
35.	Replacement of existing Electrical Hoists of Bunker Bay to erect new ILMS at BCN-19A/19B Drive Heads	15.0	-	-	-	-	15.0	Two electrical hoists are used one after another to lift material from ground floor of boiler house to drive head of BCN 19A/B. Each hoist is capable of maximum weight of 2.5 Tons. Weight of each ILMS provided in 1000 mm conveyors of BTPS is approx.12 Tons. Existing hoists of 2.5 Tons cannot be used for erection and maintenance of the ILMS. Therefore, existing hoists are of 2.5 tons capacity is replaced for lifting JLMS above Drive Heads of BCN-19A/198	Considering the fact that the claimed additional capital expenditure has outlived its useful life, the additional capital expenditure as claimed is **allowed**. However, the Petitioner is directed to substantiate its claim on the useful life of the asset with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing item, the assumed deletion considered is Rs. 10.15 lakh.	15.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
36.	Providing automatic lubrication system at FF screens to avoid frequent bearings failure	10.0	-	-	-	-	10.0	By automatic greasing a measured quantity of 0.5 ml grease will be pumped to each bearing in each cycle of greasing which will prevent entry of dust and ensure lubrication continuously resulting increase in bearing life.	The additional capital expenditure claimed (@sl nos. 36 to 40) are towards O&M of the generating station. Hence, the claims of the Petitioner are **not allowed.**	0.00
37.	Providing automatic lubrication system at roll screens to avoid frequent bearings failure	10.0	-	-	-	-	10.0	Frequent bearing failure observed in gear boxes of roll screens due to dust entry. To prevent entry of grease, measured quantity of grease will be supplied to all labyrinths with regular intervals. By automatic greasing a measured quantity of 0.5 ml grease will be pumped to each bearing• in each cycle of greasing which will prevent entry of dust and ensure continuous lubrication resulting in increased bearing life.		0.0
38.	Procurement of JCB/Robo for area cleaning in LHS	20.0	-	-	-	-	20.0	As per Environment, Safety and Technical Audit team, it is essential to clear the accumulation lignite day to day basis. Manual cleaning is very tough on daily basis		0.0
39.	Breathing apparatus compressor set and containment fitting	8.0	-	-	-	-	8.0	It is required for refilling the breathing apparatus available and for the training purpose of breathing apparatus as per IS 3034. Moreover, the rescue tools are required for emergency situation and mutual aid scheme		0.0
40.	Rescue tools	10.0	10.0	-	-	-	20.0	Rescue tools are required for rescue and emergency services of plant and mutual aid scheme. These equipment's are needed in accordance with Disaster management act 2005.		0.0

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
41.	Generator Transformer, 3 Phase, 150 MVA, 10.5/230kV, Current HV/LV: 376.53/8247.86 A, 50Hz, Connection Symbol: YNd1, OFAF, Out door, oil cooled, as per IS-2026.	810.8	-	-	-	-	810.8	One number spare Generator Transformer is required to meet any emergency breakdown of respective Generator Transformer during operation as well as to replace during capital overhaul in case of necessity. In case of failure of any of the Generator Transformer due to occurrence of faults, there is no spare Generator Transformer available in BTPS for replacing the defective Transformer. In such case the failed GT has to be sent to the OEM site for repair. The repairing of Generator Transformer is a special work which is to be carried out by OEM only and it may take several months to get it repaired at BHEL site and receive back at BTPS site. Till such time there will be total loss of generation in one unit and it will lead huge financial loss to the company.	The Petitioner has claimed expenditure for Spare Generator Transformer on the ground that there is no spare available at the generating station and in case of failure, the repairing of Generator Transformer is to be carried out by OEM (M/s BHEL) only and it may take several months to get it repaired and receive back at site. However, the Petitioner has not furnished any reason /justification as to why such requirement was not included in the original scope of work. From the submissions of the Petitioner it is evident that the asset is in the nature of capital spares. In view of this, the claim of the Petitioner is **not allowed.** However, the Petitioner is granted liberty to claim the same as per relevant regulations at the time of truing up of tariff, as and when they are put to use.	0.00
42.	Industrial vacuum cleaner	-	2.0	1.0	-	-	3.0	Industrial Vacuum Cleaners are used for collection, extraction and separation of dust, particles, granulates and liquids. Due to frequent usage, the machine has become worn-out and therefore purchased new vacuum cleaner.	As the additional capital expenditure claimed for asset (@sl nos. 42 & 43) are not covered under Regulation 25(2)(a) of the 2019 Tariff Regulations and are in nature of O&M expenses, the claims are **not allowed.**	0.00
43.	Generator Tools	-	2.0	3.0	-	3.0	8.0	Due to frequent usage, the tools have become worn-out and therefore purchased new tools		0.00
44.	Rotor for Generator	-	100.0	1900.0	-	-	2000.0	Each Generator is having one Generator Rotor which is an integral part of the Generator. While awarding the main plant package, the total spares cost was restricted to 2.5 % of the Project cost as per CERC regulation and hence spare Rotors for Turbine and Generator were not	The Petitioner has claimed expenditure for Spare rotor for generator on the ground that it is required to meet any emergency breakdown of respective rotors during operation as well as to replace during capital overhaul in case of necessity. From the submissions of the	0.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
								included in the initial spares list of the main plant package contract. Spare Rotors of Generator are required to meet any emergency breakdown of respective rotors during operation as well as to replace during capital overhaul in case of necessity. In case of failure of any of the generator rotor due to occurrence of faults, there is no spare generator rotor available in BTPS for replacing the defective rotor. In such case the failed generator rotor has to be sent to the OEM site for repair. The repairing of generator rotor is a special work and is to be done by OEM only and it may take several months to get it repaired at BHEL site. Till such time there will be total loss of generation in one unit . To avoid the loss of generation generator rotor was purchased.	Petitioner it is evident that the asset is in the nature of capital spares. In view of this, the claim of the Petitioner is **not allowed.** However, the Petitioner is granted liberty to claim the same as per relevant regulations at the time of truing up of tariff, as and when they are put to use.	
45.	Aluminum ladder (various sizes)	-	3.0	-	-	2.0	5.0	Aluminum ladder is free from dust and corrosion and hence purchased to aid during the work.	As the additional capital expenditure claimed is not covered under Regulation 25(2)(a) of the 2019 Tariff Regulations and is in nature of O&M expenses, the claim of the Petitioner is **not allowed.**	0.00
46.	Earth resistance meggar	-	8.0	-	-	-	8.0	Due to frequent usage, the megger have become less efficient and therefore purchased new megger	Considering the fact that the additional capital expenditure claimed for the assets (@sl nos. 46 & 47) have outlived its useful life, the claims of the Petitioner are **allowed**. The Petitioner is however directed to substantiate its claim on the useful life of the asset along with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing item, the assumed deletions considered are Rs. 5.16 lakh for Earth resistance	8.00
47.	Transformer oil Filtration Unit		40.0				40.0	Due to frequent usage, the transformer oil filtration unit have become less efficient and therefore purchased new unit.		40.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
									meggar and Rs. 25.78 lakh for Transformer oil Filtration Unit	
48.	Self-supported telescopic Aluminum Ladder		3.0				3.0	Aluminum ladder is free from dust and corrosion and hence purchased to aid during the work.	As the additional capital expenditure claimed is not covered under Regulation 25(2)(a) of the 2019 Tariff Regulations and is in nature of O&M expenses, the claim is **not allowed**.	0.00
49.	2000 KVA Dry type Transformer		40.0				40.0	This is dry type transformer which converts from three phase 6.6kV AC input to 415V AC output. 6. As the life of the existing CT fan Transformers have already been completed more than 10 years, minimum one number transformer for both Unit-1 and Unit-2 are required as a spare for ready replacement. To meet out the emergency conditions and also to avoid reduction of power generation of any unit (Unit-1 or Unit-2), one number CT fan Transformer was procured.	Considering the fact that the additional capital expenditure is claimed for the assets having outlived its useful life, the claim of the Petitioner is **allowed**. The Petitioner is however directed to substantiate its claim on the useful life of the asset along with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing asset, the assumed deletion considered is Rs. 25.78 lakh	40.00
50.	DGA analyser kit for transformer		10.0				10.0	Healthiness of the transformer oil is to be checked by analyzing the dissolved gasses within the oil which is highly hygroscopic as a part of preventive maintenance of Transformer. Power transformer breakdown can be forecast by analysing the oil samples. DGA analyser kit has been purchased to avoid generation loss.	As the additional capital expenditure claimed (@sl nos. 50 &51) are not covered under Regulation 25(2)(a) of the 2019 Tariff Regulations and are in nature of O&M expenses, the claims of the Petitioner are **not allowed.**	0.00
51.	Gasket cutter		2.0				2.0	Due to frequent usage, the tools has become worn-out and hence purchased new gasket cutter.		0.00
52.	T.A exchange with capacity addition		5.0				5.0	At present T.A. Exchange is having a capacity of 350 lines, which is needed to be enhanced, due to construction of new Quarters. Additional cards will also be required	The additional capital expenditures claimed (sl nos. 52 to 55) are not covered under Regulation 25(2)(a) of 2019 Tariff Regulations	0.00
53.	Misc. Tools and tackles for computer division		0.5				0.5	Tools and tackles are required during maintenance of computer and		0.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
								printers.	and the Petitioner shall meet the same though the O&M expenses allowed to the generating station. Hence, the claims of the Petitioner are **not allowed.**	
54.	Establishment of Computer Lab		2.0				2.0	Proper Lab with adequate infrastructure is required for carrying out the maintenance activities of computers, printers & peripherals.		0.0
55.	Store for AHS site		20.0				20.0	As such there is no site store available in the AHS, Reconditioning works are carried out in open space & lots of repairable spares are in open space. During severe climate like peak summer, peak winter, rainy season and desert storm it is very difficult to do maintenance works in a open space. Hence constructed a store for AHS.		0.00
56.	PIPE BENDING M/C		7.0				7.0	In cyclone & ducts area bend plates are getting damaged due to refractory failure & needs to be replaced every year. The BTPS Boiler pressure parts is provided with super heater coils, Reheater coils, Economizer coils, Water wall & Evaporator coils. As per design, lot of bends are provided in the system. During running of Unit there is maximum possibility of tube punctures at bend areas which needs to be attended frequently. Hence pipe bending machine is essentially required to make these bends locally at site itself to reduce the down time of Boiler, thereby avoiding the generation loss.	The additional capital expenditure claimed is not covered under Regulation 25(2)(a) of 2019 Tariff Regulations and is in the nature of tools & tackles. Hence, the claim of the Petitioner is **not allowed**.	0.00
57.	Spectro XRF Analyzer		20.0				20.0	The spectro XRF analyser is used to check the materials composition of unknown materials.	As the additional capital expenditures claimed(@sl nos.57 to 63) are not covered under Regulation 25(2)(a) of the 2019 Tariff Regulations and are in nature of O&M expenses, the claims of the Petitioner are **not allowed**.	0.00
58.	Pipe bending machine - Hydraulic		0.5				0.5	Due to frequent usage, the machine has become worn-out and hence purchased new .		0.00
59.	Pipe thickness meter(Elco meter)		0.1				0.1	The Elco meter is essential for routine maintenance of Turbine maintenance		0.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
								equipments		
60.	Master level indicator		0.2				0.2	Due to frequent usage, the indicator has loss its efficiency, so purchased new.		0.00
61.	Pneumatic Grease Gun		0.1				0.1	Due to frequent usage, the pneumatic grease gun has become worn-out and hence purchased new .		0.00
62.	Electrostatic Liq cleaner for HP bypass Sys		1.0				1.0	Being system improvement, this equipment is used to ensure the cleanliness of the operating oil in HPBP system.		0.00
63.	Induction heater		3.0				3.0	The induction heater is used in Thermal stations.		0.00
64.	Aux Oil Pump / Main Oil Pump		21.00				21.0	Due to frequent usage, the pump has loss its efficiency, so purchased new.	Considering the fact that the additional capital expenditure is claimed for the asset having outlived its useful life, the claim of the Petitioner is **allowed**. The Petitioner is however directed to substantiate its claim on the useful life of the asset along with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing asset, the assumed deletion considered is Rs. 13.54 lakh towards Aux Oil Pump / Main Oil Pump. (Refer Assumed Deletion)	21.000
65.	Emergency Oil Pump		19.6				19.6	-	As the Petitioner has not furnished any justification for the said claim, the same is **not allowed**. However, the Petitioner is granted liberty to claim the said expenditure with justification at the time of truing up of tariff.	0.00
66.	LP Rotor		2000.0				2000.0	These are insurance spares. When the main plant package contract (RAI) was awarded, the total spares cost was restricted to 2.5% of the project cost, to comply with CERC regulations and therefore spare rotors of Main Turbine were not included in the list of initial spares to be supplied along with	The Petitioner has claimed spare LP rotor stating that it is essentially required order to meet any emergency during the course of O&M of the units and also for replacement during capital overhaul, in case of necessity. Since the additional capital expenditure claimed is towards spares, the claim of	0.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
								the main plant package. To meet any emergency during the course of operation and maintenance of the units and also for replacement during capital overhaul, in case of necessity, spare rotors are essentially required. Non availability of these critical spares at site may lead to prolonged undue shutdown resulting in loss of generation inviting revenue loss	the Petitioner is **not allowed**. However, the Petitioner is granted liberty to claim the same as part of capital spares under O&M expenses, as and when put to use.	
67.	ACW Pump		25.0	25.0		50.0	100.0	The existing casings and the internals have developed age related wear & tear, warranting replacement at the earliest to avoid non-availability of these equipment for routine operation.	Considering the fact that the additional capital expenditure claimed for the assets (@sl nos.67 & 68) have outlived the useful life, the claims of the Petitioner are **allowed**. The Petitioner is however directed to substantiate its claim on the useful life of the asset along with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing assets, the assumed deletion considered are Rs. 59.30 lakh for ACW Pump and Rs. 153.48 lakh for 20 MVA Oil filled transformer	100.00
68.	20 MVA Oil filled transformer			250.0			250.0	As the life of the existing oil filled Transformers has already been completed more than 10 years minimum one number transformer is required as a spare for ready replacement		250.0
69.	2100 KVA oil filled Transformer			40.0			40.0	This is oil filled transformer which converts from three phase 6.6kV AC input to 415V AC output. As the life of the existing oil filled Transformers has already been completed more than 10 years minimum one number transformer is required as a spare for ready replacement	As the expenditure claimed for the asset is in the nature of spares, the claim of the Petitioner is **not allowed**. However, the Petitioner is granted liberty to claim the same as per relevant regulation during truing up of tariff, as and when they are put to use.	0.00
70.	A.O exchange Replacement with Additional capacity			10.0			10.0	At present A.O. Exchange is having a capacity of 350 lines, which is needed to be enhanced, on construction of new Quarters. Additional cards will also be required.	As the additional capital expenditure claimed (@sl nos.70 to 75) are not covered under Regulation 25(2)(a) of the 2019 Tariff Regulations and are in nature of O&M expenses, the claims of the Petitioner are **not allowed.**	0.0
71.	Thermal Video surveillance			30.0			30.0	More cameras are required for enhanced security		0.0

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
	and monitoring system through wireless							and additional coverage of the thermal, TA, AO, CISF etc. locations		
72.	Blowers and Dryers			15.0			15.0	The Blowers and Dryers are much essential for conveying ash from ESP to Fly ash intermediate surge hopper and then from fly ash intermediate surge hopper to Silo. In the absence of the above blowers and dryers in the systems, ash conveying capacity gets drastically reduced which affect fly ash evacuation and in turn power generation. Due to continued operation from inception and ageing the screw element of blowers & dryers needs replacement,		0.0
73.	Pull lift 1T,3T and 5T			0.3			0.3	This tools are essential for Turbine maintenance and overhaul work.		0.0
74.	N pit Pump			2.0			2.0	The pumps have served more than their useful life and their efficiency has been reduced . Hence needs to be replaced.		0.0
75.	Torque wrenches			0.5			0.5	This tools are essential for Turbine maintenance and overhaul work.		0.0
76.	HP IP Rotor			2000.0			2000.0	These are insurance spares. When the main plant package contract (RAI) was awarded, the total spares cost was restricted to 2.5% of the project cost, to comply with CERC regulations and therefore spare rotors of Main Turbine were not included in the list of initial spares to be supplied along with the main plant package. To meet any emergency during the course of operation and maintenance of the units and also for replacement during capital overhaul, in case of necessity, spare rotors are essentially required. Non availability of	The Petitioner has claimed spare LP rotor stating that it is essentially required order to meet any emergency during the course of O&M of the units and also for replacement during capital overhaul, in case of necessity. Since the additional capital expenditure claimed is towards spares, the claim of the Petitioner is **not allowed**. However, the Petitioner is granted liberty to claim the same as part of capital spares under O&M expense as and when put to use.	0.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
								these critical spares at site may lead to prolonged undue shutdown resulting in loss of generation inviting revenue loss		
77.	Hot well Make up Pump			50.0		50.0	100.0	The pumps have served more than their useful life and their efficiency has been reduced. Hence needs to be replaced.	Considering the fact that the additional capital expenditure is claimed for the asset having outlived the useful life, the claim of the Petitioner is **allowed**. The Petitioner is however directed to substantiate its claim on the useful life of the asset along with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing asset, the assumed deletion considered is Rs. 58.54 lakh	100.00
78.	Revamping of Actuators				10.0	10.0	20.0	At Barsingsar Thermal power plant, 440 nos Motorized actuators are in service for both the units. In boiler the combustor material temperature is around 850 degree centigrade. During emergency condition these combustor materials has to be drained. At present draining is done by manual value. Draining by manual value is not safe, so it is proposed to introduce motorized actuator for both the units in addition to existing hand operated value with remote operation. It is proposed to purchase after obtaining approval from competent authority.	As the claims of the Petitioner (@sl nos. 78 to 80) are for an additional facility and does not fall under the Regulation 25(2)(a) of the 2019 Tariff Regulations, the same are **not allowed**. However, the Petitioner is granted liberty to claim the same as per relevant regulations at the time of truing-up of tariff, as and when they are put to use.	0.00
79.	BTS for Station 6.6 KV Switchgear				25.0		25.0	BTS 2000 is an advanced, fully integrated fast bus transfer system. It has powerful, state-of the-art features, to provide fast and safe bus transfer operations in an intelligent manner. The hardware used is an Edison Idea PLUS relay platform, which is a microprocessor controlled relay		0.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
								platform for power system protection, monitoring, and control. It is designed to the standards for robust, high-performance industrial computer systems.		
80.	SF6 leakage Detector				5.0		5.0	It is proposed to purchase the SF6 leakage detector.		0.00
81.	1600 KVA dry type Transformer				35.0		35.0	This is dry type transformer which converts from three phase 6.6kV AC input to 415V AC output. 5. As the life of the existing dry type Transformers have already been completed more than 10 years, minimum one number transformer for both Unit-1and Unit-2 are required as a spare for ready replacement.	As the expenditure claimed for the asset is in the nature of spares, the same is **not allowed**. However, the Petitioner is granted liberty to claim the same as per relevant regulation at the time of truing up of tariff as and when they are put to use.	0.00
82.	Retrofitting of 33 KV SF6 breakers in RA8				50.0		50.0	In raw water carrier system there are two 33KV/6.6KV indoor substations to supply uninterrupted power supply to the both Pump Houses 1 &2. 2. All 33 kV SF6 breaker panels are of CG make of year 2007. CG has already stopped production of same type breaker and has declared it as obsolete and no spares are available for these circuit breakers. OEM has suggested retrofitting of all existing breakers as these are now obsolete. Raw water carrier system is a vital system to run the Thermal plant therefore it is proposed to go for retrofitting of existing system for smooth running of RWCS	Considering the fact that the additional capital expenditure is claimed for the asset having outlived the useful life, the claim of the Petitioner is **allowed**. The Petitioner is however directed to substantiate its claim on the useful life of the asset along with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing asset, the assumed deletion considered is Rs. 29.23 lakh	50.0
83.	Cutting Machine				2.0		2.0	These machines are required for routine maintenance of Turbine Maintenance equipments	As the additional capital expenditure claimed is not covered under Regulation 25(2)(a) of the 2019 Tariff Regulations, the Petitioner may meet this requirement through the O&M expenses allowed to the generating station. Accordingly, the claim of the Petitioner is **not allowed.**	0.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
84.	Bend Removal Machine				6.0		6.0	-	As the Petitioner has not furnished any justification for the claim, the same is **not allowed.**	0.00
85.	Misc Equip (EBFP / Compressor / DG Set)				150.0		150.0	The existing casings and the internals have developed age related wear & tear. Therefore warranting replacement at the earliest to avoid non-availability of these equipment for routine operation is needed.	Though the Petitioner has submitted that the expenditure claimed is for the replacement of miscellaneous equipments for existing casings and internals, it has not furnished the details of the equipments. Accordingly, the claim of the Petitioner is **not allowed.** However, liberty is granted to the Petitioner to claim the same along with all relevant details/ justification at the time of truing up of tariff and the same will be dealt with in terms of the provisions of the 2019 Tariff Regulations.	0.00
86.	Providing tramp iron disposal pipe arrangement at BCN-4A/B,BCN-19A/B similar to that available for ILMS in other buildings				5.0		5.0	At present there is no iron disposal pipe arrangement in BCN-4A/48 and 19A/19B. Manually they are disposing from each floor which is not safe during system in operation. Scrap collection easily ensure at single place and disposal also. The modification will ensure non-mixing of foreign material in lignite.	As the expenditure claimed is an additional feature required for tramp iron disposal pipe and is not covered under Regulation 25(2)(a) of 2019 Tariff Regulations, the claim of the Petitioner is **not allowed.**	0.00
87.	BATTERY TESTING EQUIPMENT					12.0	12.0	Battery Testing Equipment is required for regular health checkup and monitoring of the actual condition of the batteries and also it will help to detect the early fault in battery so that it can be replaced before any inadvertent situation leading to unforeseen incident	The additional capital expenditure claimed is not covered under Regulation 25(2)(a) of the 2019 Tariff Regulations and the same may be met from the O&M expenses allowed to the generating station. Accordingly, the claim of the Petitioner is **not allowed.**	0.00

S. no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reason of admissibility	Amount allowed
88.	Instrument air compressors					25.0	25.0	It is proposed to procure Instrument air compressors.	The Petitioner has not provided proper justification as to why the additional capital expenditure has been claimed. It is not clear from the submissions, as to whether the claim is for procurement of IA compressor or for replacement of the existing IA compressor. In view of this, the claim of the Petitioner is **not allowed.** However, the Petitioner is granted liberty to claim the same at the time of truing-up of tariff with proper justification and documentary evidence.	0.00
89.	Procurement of Loader for Lime-Stone Handling					50.0	50.0	For feeding Lime stone from ground level to hoppers of Lime stone handling system a loader is required	It is not clear from the submissions of the Petitioner as to whether the expenditure claimed is for additional expenditure of new asset or for replacement of the existing loader. In view of this, the claim of the Petitioner is **not allowed.** However, the Petitioner is granted liberty to claim the same at the time of truing-up of tariff, with proper justification.	0.00
	Total	1407.10	2691.00	4780.80	755.00	807.00	10440.9			1660.20

Claims under Regulation 25(2)(c) of the 2019 Tariff Regulations

11. The Petitioner has claimed the following additional capital expenditure under Regulation 25(2)(c) of the 2019 Tariff Regulations and the same are discussed and allowed on prudence check as under:

(Rs. in lakh)

S no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reasons for admissibility	Amount allowed
1.	Improvement wireless connectivity in b/w BTPS & IGNP		5.0		5.0		10.0	At present the Analog Trunking System is being used for Wireless Communication in Thermal, Mines and CISF. The OEM M/s Motorola had already informed that analog system is obsolete now. Therefore up gradation	Since the OEM (M/s Motorola) has informed that analog system is obsolete, the claim of the Petitioner is **allowed** under Regulation 25(2)(c) of 2019 Tariff Regulations. The Petitioner is however directed to	10.00

S no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reasons for admissibility	Amount allowed
								to Digital Trunking System is required.	substantiate its claim on the useful life of the asset with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing item, the assumed deletion considered is Rs. 6.15 lakh.	
2.	Improving the data connectivity between BP & Neyveli		5.0	5.0	10.0	10.0	30.0	At present the Analog Trunking System is being used for Wireless Communication in Thermal, Mines and CISF. The OEM M/s Motorola had already informed that analog system is obsolete now. Therefore up gradation to Digital Trunking System is required.	Considering the fact that the additional capital expenditure claimed is on account of obsolesce of technology, the same is **allowed.** The Petitioner is however directed to substantiate its claim on the useful life of the asset with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing item, the assumed deletion considered is Rs. 17.71 lakh	30.00
3.	New purchase of Photocopiers		3.0	2.0	1.5	1.5	8.0	All Konica Minolta make photocopiers are outdated and their expected life is over. Hence purchased new photocopier.	The expenditures claimed by the Petitioner are routine office equipments covered under Normative O&M expenses. In view of above, the claims of the Petitioner (@ sl nos. 3&4) are not allowed.	0.00
4.	Replacement / New addition of Fax machines BP/ BTPS		1.0		1.0		2.0	All Canon Make Fax machines are getting obsolete, and users are facing malfunctioning issue frequently. Hence new fax machine was purchased.		0.00
5.	Replacement of wireless system		70.0				70.0	At present the Analog Trunking System is being used for Wireless Communication in Thermal, Mines and CISF. The OEM M/s Motorola had already informed that analog system is obsolete now. Therefore up gradation to Digital Trunking System is required.	Considering the fact that the additional capital expenditures claimed (@sl nos.5 to 7) are on account of obsolescence of technology, the claims are **allowed**, The Petitioner is however directed to substantiate its claim on the useful life of	70.00

S no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reasons for admissibility	Amount allowed
6.	Thermal exchange replacement/ Enhancement		10.0				10.0	The NEC make Thermal Exchange is in service for since 2006 & is an Analog based System. The OEM authorized firms are not ready to provide Service and Maintenance support for analog based telephone exchange. Also OEM support for Spares is also depleting. Therefore it is needed to migrate to Digital Telephone Exchange	the assets with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing assets, the assumed deletion considered is Rs. 45.12 lakh for Replacement of wireless system and Rs. 6.45 lakh for Thermal exchange replacement/ Enhancement and Rs. 5.85 lakh for T.A exchange replacement	10.00
7.	T.A exchange replacement				10.0		10.0	The TA exchange is in service for last 10 years and the exchange may get obsolete and in that case maintenance support will not be available from OEM. Therefore up gradation to new Exchange will be required		10.00
8.	Up gradation of Application and Database Servers					12.0	12.0	The server within next 3 years may become obsolete and with the emerging technology we require to upgrade the server with latest releases for continuous support.	Though the additional capital expenditure claimed is for upgradation of existing application and data base server, the Petitioner has not furnished the supporting documents issued by OEM as regards the obsolescence of technology. Accordingly, the additional capital expenditure claimed is **not allowed**. However, the Petitioner is granted liberty to claim the expenditure at the time of truing up with requisite documents, justification and certification.	0.00
9.	Relay communication unit	2.0		2.0		2.0	6.0	Change in latest technologies and versions of the numerical protection relays are rendering the existing communication unit/software obsolete. And therefore, up gradation of existing communication unit/software of the relays is becoming necessary. Hence purchase new relays to carry out regular maintenance work effectively.	Considering the fact that the additional capital expenditure claimed is on account of obsolesce of technology, the same is **allowed.** The Petitioner is however directed to substantiate its claim on the useful life of the asset along with documentary evidence at the time of truing up of tariff. As the Petitioner has not furnished the decapitalisation value of the existing asset, the assumed deletion considered is Rs. 3.70 lakh.	6.00

S no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reasons for admissibility	Amount allowed
10.	Wireless connectivity between exchanges	3.0		3.5			6.5	In case of Optical Fiber failure, Wireless connectivity is required amongs all three exchanges (AO, TA & Thermal) in Barsingsar Project.	Considering the fact that the Petitioner has not furnished any supporting documents with regard to the obsolescence of technology, the additional capital expenditures claimed (@sl nos.10 to 15) are **not allowed**.	0.00
11.	Up gradation of conference hall audio and other audio arrangements in thermal.	10.0				10.0	20.0	The existing system is 10 yrs old and become out of date. Hence replacement with new upgraded system is needed for smooth and true working		0.00
12.	LCD projection system for thermal/mines for technical reviews	8.0	3.0				11.0	At present only one projector is available in 2nd floor conference room & it is based on old technology. Therefore it does not support wireless connectivity and audio video features. In A.O. Building Sony make projector is 10 years old which is not functioning properly. Hence purchsed new item.		0.00
13.	service building music announcement system	2.0					2.0	To improve the efficiency of the work		0.00
14.	Computer Printers purchase	18.0					18.0	The computer printers are outdated and it has served for more than 10 year hence purchased new.		0.00
15.	Establishment of new LAN Infrastructure	10.0					10.0	Existing LAN Network is more than 11 yrs old and getting disrupted frequently. Therefore new infrastructure for PCs and Printers was established for better connectivity		0.00
16.	ESP RETROFIT (U1& U2)		1200.0				1200.0	To meet out the statutory requirement as per new environmental norms retrofitting/up gradation of existing ESP in Unit-I and Unit (2) has been carried out to achieve the targeted SPM level of less than 50 mg/Nm3 from the present operating emission level.	Since the Petitioner has claimed the additional capital expenditure to meet the statutory requirements (under change in law), the additional capital expenditure claimed is **allowed** under Regulation 26(1)(b) of the 2019 Tariff Regulations. The Petitioner is however directed to substantiate its claim on the useful life of the asset along with documentary evidence along with the actual de-capitalization value of the old asset, at the time of truing up of tariff.	1200.00

S no.	Head of Work/ Equipment	2019-20	2020-21	2021-22	2022-23	2023-24	Total	Justification of the Petitioner	Reasons for admissibility	Amount allowed
17.	Providing wireless phones in Mines			10.0			10.0	To improve the existing communication system and providing new technology to improve office automation	As the expenditure claimed is for Mines (of the Petitioner) the same is **not allowed**.	0.00
18.	Replacement of old computers and printers 1 ph.		20.0				20.0	As the computers and printers were outdated and it has served for many years, new computers and printers were replaced with old.	As the Petitioner has not furnished any supporting documents on the obsolescence of technology, the claim of the Petitioner is **not allowed**. However, the Petitioner is granted liberty to claim the expenditure at the time of truing up with requisite documents, justification and certification.	0.00
19.	Replacement of old computers and printers 2 ph.				25.0		25.0	As the computers and printers were outdated and it has served for many years, new computers and printers were replaced with old.		0.00
	Total	**53.00**	**1317.0**	**22.50**	**52.50**	**35.50**	**1480.5**			**1336.00**

~~12. The Petitioner has claimed total additional capital expenditure of Rs 1480.50 lakh under Regulation 25(2)(c) of the 2018 Tariff Regulations. Most of the additional capital expenditure claimed by the Petitioner are either are the O&M in nature. However, considering the nature of the assets and the justification thereon, the Commission had allowed the additional capital expenditure amounting to Rs 1336.00 lakh for the period 2019-24 under Regulatory power.~~

Liquidated Damages

13. It is observed that the Petitioner has claimed an amount of Rs. 883.45 lakh towards Liquidated Damages (LD) in 2019-20. The Petitioner has submitted that the claim is towards release of LD of RA-2 Package. In justification of the above claim, the Petitioner has submitted that M/s. McNally Bharat Engineering Company Limited (M/s. MBE) had invoked arbitration clause with regard to the levy of liquidated damages for the work of "Lignite and limestone handling Systems (RA-2) package for Barsingsar Thermal Power Project at Rajasthan. The Petitioner has submitted that on completion of the arbitral proceedings, it was directed to pay amount of Rs. 17,66,90,400 toward LD amount withheld, and the same was remitted to M/s. MBE on 7.6.2019. The Petitioner has

further submitted that the 50% of above said amount was abated from the capital cost of the Project by the Commission in its order dated 25.4.2017 in Petition no. 130/GT/2016, as under:

> *"18. The petitioner in this petition has furnished documents attested by the Chartered Accountant and has submitted that a sum of ₹108.39 crore has been actually recovered by the petitioner towards Liquidated Damages for the delay in all the packages (including the above against M/s BHEL) in the form of cash and a sum of ₹3.50 crore is available in the form of Bank Guarantee and with the petitioner. The petitioner has further submitted that the total amount of Liquidated Damages is ₹111.89 crore out of which the Contractors have disputed the levy and have initiated Arbitration/ Conciliation proceedings against the levy of Liquidated Damages amounting to ₹29.16 crore. Thus, the petitioner has submitted that the balance Liquidated Damages recovered is ₹82.73 crore and hence the adjustment of 50% of Liquidated Damages amounting to ₹64.94 crore in order dated 10.7.2015 in Petition No. 197/GT/2013 is incorrect. It has submitted that the finalized Liquidated Damages recovered due to the delay in all packages by the petitioner is ₹82.73 crore and hence the adjustment of LD is limited to ₹41.37 crore (50% of ₹82.73 crore). The submissions of the petitioner are not acceptable. It is noticed that as on date of COD of generating station the petitioner has recovered Liquidated Damages amounting to ₹111.89 crore (108.39 + 3.50) and the petitioner is still in possession of the same amount. Accordingly, we are inclined to consider 50% of the LD amount of ₹111.89 crore towards adjustment in capital cost of the generating station. However, if any amount is released by the petitioner on a subsequent date based on the final decision in Arbitration proceedings or Court, liberty is granted to the petitioner to claim the said amount."*

14. Accordingly, Petitioner, in the present petition, has claimed the amount of Rs. 937.20 lakh (Rs. 883.45 lakh for release of LD of RA-2 Package + Rs. 53.75 lakh towards the cost of arbitration) as additional capital expenditure under Regulation 25(1)(a) of the 2019 Tariff Regulations. Considering the submissions of the Petitioner, we allow the claim for Rs. 883.45 lakh as additional capital expenditure in 2019-20. However, the cost of arbitration for Rs.53.75 lakh, is allowed as a one-time reimbursement. The Petitioner is however directed to furnish proper justification at the time of the truing up of tariff.

Assumed Deletions

15. As per consistent methodology adopted by the Commission, the expenditure on replacement of assets, if found justified, is allowed for the purpose of tariff, provided that the capitalization of the said asset is followed by de-capitalization of the original value

of the old asset. However, in certain cases where de-capitalization is affected in books during the following years, to the year of capitalization of the new asset, the decapitalization of the old asset for the purpose of tariff is shifted to the very same year in which the capitalization of the new asset is allowed. Such de-capitalization which is not a book entry in the year of capitalization is termed as “Assumed deletion”. Further, in the absence of the gross value of the asset being de-capitalized, the same is calculated by de-escalating the gross value of the new asset @ 5% per annum till the year of capitalization of the old asset.

16. It is observed from the additional capital expenditure claims, on ‘replacement’ basis that the Petitioner has not furnished the de-capitalization value of the old asset/works, which have been replaced. Accordingly, in terms of the consistent methodology adopted by the Commission, the assumed deletions have been computed and the same has been considered for calculating the de-capitalization value, for the purpose of tariff. Based on the above methodology, the assumed deletions considered for the assets/items, are as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Plante type Lead acid Stationery Battery Banks	101.53	64.46	92.09	58.47	111.37
Transport air compressors	13.54	0.00	0.00	11.69	0.00
Providing new ILMS at BCN-19A/19B Drive Heads	20.31	19.34	18.42	17.54	16.71
Portable Fire Extinguishers and high capacity water mist fire extinguishers	10.15	6.45	6.14	5.85	5.57
33kV Meggar	0.00	6.45	0.00	5.85	0.00
Hydraulic Jacks	0.00	0.00	6.14	2.92	0.00
Replacement / Addition of Air conditioners - Split	0.00	0.00	3.07	3.51	2.78
Replacement/ addition of Air conditioners - windows	0.00	0.00	3.07	3.51	2.78
Battery operated Truck	4.74	0.00	0.00	0.00	0.00
Hydraulic work platform	11.51	0.00	0.00	0.00	0.00
Temp Measuring laser Gun	0.14	0.00	0.00	0.00	0.00
Replacement of existing Electrical Hoists of Bunker	10.15	0.00	0.00	0.00	0.00

Bay to erect new ILMS at BCN-19A/19B Drive Heads					
Earth resistance meggar	0.00	5.16	0.00	0.00	0.00
Transformer oil Filtration Unit	0.00	25.78	0.00	0.00	0.00
2000 KVA Dry type Transformer	0.00	25.78	0.00	0.00	0.00
Aux Oil Pump / Main Oil Pump	0.00	13.54	0.00	0.00	0.00
ACW Pump	0.00	16.12	15.35	0.00	27.84
20 MVA Oil filled transformer	0.00	0.00	153.48	0.00	0.00
Hot well Make up Pump	0.00	0.00	30.70	0.00	27.84
Retrofitting of 33 KV SF6 breakers in RA8	0.00	0.00	0.00	29.23	0.00
Improvement wireless connectivity in b/w BTPS & IGNP	0.00	3.22	0.00	2.92	0.00
Improving the data connectivity between BP & Neyveli	0.00	3.22	3.07	5.85	5.57
Replacement of wireless system	0.00	45.12	0.00	0.00	0.00
Thermal exchange replacement/ Enhancement	0.00	6.45	0.00	0.00	0.00
T.A exchange replacement	0.00	0.00	0.00	5.85	0.00
Relay communication unit	1.35	0.00	1.23	0.00	1.11
Total Assumed Deletion	**173.41**	**241.08**	**332.74**	**153.19**	**201.58**

Net Additional capital expenditure allowed

17. Based on the above, the net additional capital expenditure allowed for the period 2019-24 is as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**	**Total**
Additional capital expenditure eligible for RoE at Normal Rate	256.20	1574.00	542.00	262.00	362.00	2996.20
Additional capital expenditure eligible for RoE at Weighted Average rate of Interest	883.45	0.00	0.00	0.00	0.00	883.45
Total Additional Capitalization	**1139.65**	**1574.00**	**542.00**	**262.00**	**362.00**	**3879.65**
Decapitalization						
Assumed Deletion	173.41	241.08	332.74	153.19	201.58	1101.99
Discharge of liability						
Discharge of liability corresponding to allowed works	0.00	0.00	0.00	0.00	0.00	0.00
Net additional capitalization allowed	**966.25**	**1332.92**	**209.26**	**108.81**	**160.42**	**2777.66**

Capital Cost

18. Based on the above, the capital cost allowed for the period 2019-24 is as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Opening Capital Cost	171571.95	172538.19	173871.11	174080.37	174189.18
Net Additional Capital Expenditure	966.25	1332.92	209.26	108.81	160.42
Closing Capital Cost	**172538.19**	**173871.11**	**174080.37**	**174189.18**	**174349.61**
Average Capital cost	172055.07	173204.65	173975.74	174134.78	174269.39

Debt-Equity Ratio

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

> *"18. Debt-Equity Ratio: (1) For a new projects, the debt-equity ratio of 70:30 as on date of commercial operation shall be considered. If the equity actually deployed is more than 30% of the capital cost, equity in excess of 30% shall be treated as normative loan:*
>
> *Provided that:*
>
> *i. where equity actually deployed is less than 30% of the capital cost, actual equity shall be considered for determination of tariff:*
>
> *ii. the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*
>
> *iii. any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt: equity ratio.*
>
> *Explanation.-The premium, if any, raised by the generating company or the transmission licensee, as the case may be, while issuing share capital and investment of internal resources created out of its free reserve, for the funding of the project, shall be reckoned as paid up capital for the purpose of computing return on equity, only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.*
>
> *(2)The generating company or the transmission licensee, as the case may be, shall submit the resolution of the Board of the company or approval of the competent authority in other cases regarding infusion of funds from internal resources in support of the utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.*
>
> *(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, debt: equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2019 shall be considered:*
>
> *Provided that in case of generating station or a transmission system including communication system which has completed its useful life as on or after 1.4.2019, if the equity actually deployed as on 1.4.2019 is more than 30% of the capital cost, equity in excess of 30% shall not be taken into account for tariff computation;*
>
> *Provided further that in case of projects owned by Damodar Valley Corporation, the debt: equity ratio shall be governed as per sub-clause (ii) of clause (2) of Regulation 72 of these regulations.*
>
> *(4) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2019, but where debt: equity ratio has not been determined by the Commission for determination of tariff for the period ending 31.3.2019, the Commission shall approve the debt: equity ratio in accordance with clause (1) of this Regulation.*

(5) Any expenditure incurred or projected to be incurred on or after 1.4.2019 as may be admitted by the Commission as additional capital expenditure for determination of tariff, and renovation and modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this Regulation.

20. The Commission vide its order dated 6.10.2023 in Petition No. 366/GT/2020 had considered the gross loan and equity of Rs.120100.36 lakh and Rs. 51471.59 lakh respectively, as on 31.3.2019. The same has been considered as gross loan and equity, as on 1.4.2019. The debt-equity ratio of 70:30 claimed by the Petitioner for additional capital expenditure during the period 2019-24, has been considered. Accordingly, the debt-equity ratio in respect of generating station as on 1.4.2019 and as on 31.3.2024, is calculated as under:

(Rs. in lakh)

	Capital cost as on 1.4.2019		**Net Additional Capital Expenditure during 2019-24**		**Capital cost as on 31.3.2024**	
	Amount	**(%)**	**Amount**	**(%)**	**Amount**	**(%)**
Debt (A)	120100.36	70.00%	1944.36	70.00%	122044.72	70.00%
Equity (B)	51471.59	30.00%	833.30	30.00%	52304.88	30.00%
Total (A+B)	**171571.95**	**100.00%**	**2777.66**	**100.00%**	**174349.61**	**100.00%**

Return on Equity

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

"30. Return on Equity:

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

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

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

Provided further that:

(i) In case of a new project the rate of return on equity shall be reduced by 1.00% for such period as may be decided by the Commission if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO) or Free Governor Mode Operation (FGMO) data telemetry communication system up to load dispatch centre or protection system based on the report submitted by the respective RLDC;

(ii) in case of existing generating station as and when any of the requirements under (i) above of this Regulation are found lacking based on the report submitted by the

concerned RLDC rate of return on equity shall be reduced by 1.00% for the period for which the deficiency continues;

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

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

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

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

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

"31. Tax on Return on Equity:

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

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

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

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

Illustration-

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

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

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

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

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

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

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

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

equity after truing up shall be recovered or refunded to beneficiaries or the long-term transmission customers as the case may be on year to year basis."

23. Based on the existing asset base and the additional capital expenditure allowed in this order for the asset/works within the original scope of work, ROE has been calculated by grossing up the base rate of ROE at effective tax rate of 17.472% (based on MAT rate). Further, the additional capitalization which are beyond the original scope, excluding the additional capitalization due to change in law, ROE has been calculated considering the weighted average rate of interest on actual loan claimed by the Petitioner grossed up at effective tax rate of 17.472% (Based on MAT rate). Accordingly, ROE has been worked out and allowed as under:

Return on Equity at Normal Rate

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Normative Equity-Opening (A)	51471.59	51496.42	51896.30	51959.08	51991.72
Addition of Equity due to additional capital expenditure (B)	24.84	399.87	62.78	32.64	48.13
Normative Equity-Closing (C) = (A) + (B)	51496.42	51896.30	51959.08	51991.72	52039.85
Average Normative Equity (D) = [(A+C)/2]	51484.00	51696.36	51927.69	51975.40	52015.78
Return on Equity (Base Rate) (E)	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate (F)	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity (Pre-Tax) (G) = [(E)/(1-F)]	18.782%	18.782%	18.782%	18.782%	18.782%
Return on Equity (Pre-Tax) (H) = [(D)x(G)]	**9669.73**	**9709.61**	**9753.06**	**9762.02**	**9769.60**

Return on Equity at WAROI Rate

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Normative Equity-Opening (A)	0.00	265.04	265.04	265.04	265.04
Addition of Equity due to additional capital expenditure (B)	265.04	0.00	0.00	0.00	0.00

	2019-20	2020-21	2021-22	2022-23	2023-24
Normative Equity-Closing (C) = (A) + (B)	265.04	265.04	265.04	265.04	265.04
Average Normative Equity (D) = [(A+C)/2]	132.52	265.04	265.04	265.04	265.04
Return on Equity (Base Rate) (E)	10.261%	10.261%	10.261%	10.261%	10.261%
Effective Tax Rate (F)	17.472%	17.472%	17.472%	17.472%	17.472%
Rate of Return on Equity (Pre-Tax) (G) = [(E)/(1-F)]	12.433%	12.433%	12.433%	12.433%	12.433%
Return on Equity (Pre-Tax) annualized (H) = [(D)x(G)]	**16.48**	**32.95**	**32.95**	**32.95**	**32.95**

Interest on Loan

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

> *"32. Interest on loan capital: (1) The loans arrived at in the manner indicated in Regulation 18 of these regulations shall be considered as gross normative loan for calculation of interest on loan.*
>
> *(2) The normative loan outstanding as on 1.4.2019 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2019 from the gross normative loan.*
>
> *(3) The repayment for each of the year of the tariff period 2019-24 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets, the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalization of such asset.*
>
> *(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.*
>
> *(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:*
>
> *Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:*
>
> *Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.*
>
> *(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*
>
> *(7) The changes to the terms and conditions of the loan shall be reflected from the date of such re-financing."*

25. Interest on loan has been computed as under:

(a) The gross normative loan amounting to Rs. 120100.36 lakh has been considered as on 1.4.2019;

(b) Cumulative repayment amounting to Rs. 66733.22 lakh as on 31.3.2019 as considered in order dated 6.10.2023 in Petition No. 366/GT/2020 has been

considered as on 1.4.2019;

(c) Accordingly, the net normative opening loan as on 1.4.2019 works out to be Rs. 53367.14 lakh;

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

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

26. The Petitioner has claimed interest on loan by applying the weighted average rate of interest of 8.4832% for the period 2019-24. However, it is observed that the Petitioner in its affidavit dated 29.9.2022 has submitted the revised weighted average rate of interest in Annexure G (Revised WAROI as per Form-13 for the period 2014-19 in Petition No. 366/GT/2020). The WAROI of 10.261% for 2018-19 as submitted by the Petitioner has been considered for computation of interest on loan for the period 2019-24. Thus, the Petitioner is directed to submit the documentary evidence of rate of interest, considered in Form-13 and for repayment schedule of loan at the time of truing up of tariff. Accordingly, Interest on loan has been worked out as follows:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Gross opening loan (A)	120100.36	120776.73	121709.78	121856.26	121932.43
Cumulative repayment of loan upto previous year (B)	66733.22	75479.03	84242.50	92984.59	101822.08
Net Loan Opening (C) = (A) - (B)	53367.14	45297.71	37467.28	28871.67	20110.35
Addition due to additional capital expenditure (D)	676.37	933.04	146.48	76.17	112.30
Repayment of Loan during the period (E)	8819.87	8878.80	8918.33	8926.48	8933.38
Less: Repayment adjustment on a/c of de-cap (F)	74.07	115.33	176.24	88.99	127.43
Net Repayment	8745.80	8763.47	8742.09	8837.49	8805.95

	2019-20	2020-21	2021-22	2022-23	2023-24
of Loan during the period (G) = (E) - (F)					
Net Loan Closing (H) =(C) +(D) -(G)	45297.71	37467.28	28871.67	20110.35	11416.69
Average Loan (I) = (C+H)/2	49332.42	41382.49	33169.47	24491.01	15763.52
Weighted Average Rate of Interest of loan (J)	10.2610%	10.2610%	10.2610%	10.2610%	10.2610%
Interest on Loan (K) = (I)*(J)	**5062.00**	**4246.26**	**3403.52**	**2513.02**	**1617.49**

Depreciation

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

> *"33. Depreciation: (1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system or element thereof including communication system. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units:*
>
> *Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.*
>
> *(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of a transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.*
>
> *(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:*
>
> *Provided that the salvage value for IT equipment and software shall be considered as NIL and 100% value of the assets shall be considered depreciable;*
>
> *Provided that in case of hydro generating stations, the salvage value shall be as provided in the agreement, if any, signed by the developers with the State Government for development of the generating station:*
>
> *Provided also that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:*
> *Provided also that any depreciation disallowed on account of lower availability of the generating station or unit or transmission system as the case may be, shall not be*

allowed to be recovered at a later stage during the useful life or the extended life.

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

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

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

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

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

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

28. Cumulative depreciation of Rs. 66733.22 lakh, as on 31.3.2019, as considered in order dated 6.10.2023 in Petition No. 366/GT/2020, has been retained, as on 1.4.2019. As the Petitioner has not depicted the cost of Free-hold land and IT equipment and software, while calculating the depreciable value and therefore, the same has been considered as 'nil'. However, the same may be clarified at the time of truing-up of tariff. The Petitioner had claimed weighted average rate of depreciation @ 4.9790% for the period 2019-24. However, it is observed that the Petitioner vide affidavit dated 29.9.2022 has submitted the revised weighted average rate of depreciation in Annexure H (Depreciation as per Form-11 for the period 2014-19 in Petition No. 366/GT/2020). The WAROD of 5.1262% for 2018-19 as submitted by the Petitioner has been considered for computation of depreciation for the period 2019-24. Accordingly, depreciation has been worked out and allowed as follows:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Average Capital Cost (A)	172055.07	173204.65	173975.74	174134.78	174269.39
Value of freehold land included in average capital cost (B)	0.00	0.00	0.00	0.00	0.00
Value of software and IT equipment included in average capital cost (C)	0.00	0.00	0.00	0.00	0.00
Aggregated Depreciable Value (D)= (A-B-C)*90%+ (C)	154849.56	155884.19	156578.16	156721.30	156842.46
Remaining aggregate depreciable value at the beginning of the year (E) = (D) - (L, at the end of the previous year*)	88116.34	80405.16	72335.67	63736.71	55020.37
No. of completed years at the beginning of the year (F)	7.23	8.23	9.23	10.23	11.23
Balance useful life at the beginning of the year (G) = 25 - (F)	17.77	16.77	15.77	14.77	13.77
Weighted Average Rate of Depreciation (WAROD) (H)	5.1262%	5.1262%	5.1262%	5.1262%	5.1262%
Combined Depreciation during the year/ period (I) = (A) * (H)	8819.87	8878.80	8918.33	8926.48	8933.38
Cumulative depreciation at the end of the year (before adjustment for de-capitalization) (J) = (I) + (Cumulative Depreciation (shown at L), at the end of the previous year) *	75553.10	84357.83	93160.83	101911.07	110755.46
Less: Depreciation adjustment on account of de-capitalization (K)	74.07	115.33	176.24	88.99	127.43
Cumulative depreciation at the end of the year (L) = (J) - (K)	**75479.03**	**84242.50**	**92984.59**	**101822.08**	**110628.03**

**Cumulative depreciation as on 31.3.2019 is Rs. 66733.22 lakh*

Operation & Maintenance Expenses

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

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Normative O&M expenses claimed under Regulation 35(1)(1) of the 2019 Tariff Regulations **(a)**	7787.50	8060.00	8342.50	8635.00	8940.00

	2019-20	2020-21	2021-22	2022-23	2023-24
O&M expenses under Regulation 35(1)(6) of the 2019 Tariff Regulations:					
- Water Charges	486.02	495.26	504.46	515.15	526.62
- Security Expenses	799.29	823.27	847.97	873.41	899.61
Total O&M Expenses	**9072.81**	**9378.53**	**9694.94**	**10023.56**	**10366.23**

30. The normative O&M expenses claimed by the Petitioner is in terms of the Regulation 35(1)(1) of the 2019 Tariff Regulations and hence allowed.

Water Charges

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

> *"35(1)(6) The Water, Security Expenses and Capital Spares for thermal generating stations shall be allowed separately and after prudence check:*
>
> *Provided that water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details regarding the same shall be furnished along with the petition:*
>
> *Provided further that the generating station shall submit the assessment of the security requirement and estimated expenses;*
>
> *Provided also that the generating station shall submit the details of year-wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance as per Regulation 17 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 or Special Allowance or claimed as part of additional capitalization or consumption of stores and spares and renovation and modernization."*

32. The actual water charges claimed by the Petitioner in Petition No. 366/GT/2020 for the period 2014-19 and allowed by order dated 6.10.2023 are as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Claimed	624.49	509.92	521.30	537.41	552.76
Approved	264.45	253.71	271.52	247.57	214.69

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

(Rs. in lakh)

Period	Water pumping charges paid to IGNP	Personnel charges	Payment to contractors	Power Consumption value	Spares Cost and Others	Total
2019-20	46.81	87.43	159.00	188.07	4.70	486.02

Period	Water pumping charges paid to IGNP	Personnel charges	Payment to contractors	Power Consumption value	Spares Cost and Others	Total
2020-21	46.81	91.80	163.77	188.07	4.80	495.26
2021-22	46.81	96.39	168.68	188.07	4.50	504.46
2022-23	46.81	101.21	173.74	188.07	5.30	515.15
2023-24	46.81	106.27	178.96	188.07	6.50	526.62
Total						**2527.51**

34. The Petitioner has claimed water charges comprising of water pumping charges, water cess, personal charges, O&M cost of water carrier system, spares consumption in water carrier system and power consumption charges of water carrier system. The Commission vide order dated 6.10.2023 in Petition No. 366/GT/2020, while dealing with the claim of the Petitioner towards water charges for the period 2014-19 had observed as under:

> "52. As regards Personnel charges claimed, it is observed that the Petitioner, apart from basic pay, DA, common allowances of employees, have also included 'Other allowances' for which no justification has been submitted. The Petitioner in the Personnel charges have submitted the abstract of Manpower cost which constitutes of its own employees. Further, the Petitioner has also considered PRP of the employees in the Personnel charges. We are of the considered view that the said details of its own employees are already covered under the normative O&M expenses allowed to the generating station. Further, the Petitioner has not made out a point that the Normative O&M *expenses* allowed to the generating station is less than the actual O&M incurred by the generating station. Accordingly, the Personnel charges (Basic pay, DA, Common allowance, Superannuation fund and PRP etc.) in case of Barsingsar Thermal Power Station is not allowed. As regards the water charges of the Barsingsar Thermal Power station, the Petitioner has admitted that the only source of water of the generating station is Indira Gandhi Nahar Pariyojana, and for the expenditure pertaining to the contracts for patrolling, security & safety and O&M expenses, it has separately claimed O&M cost of water carrier system, Spares consumption in water carrier system and pumping charges also.
>
> 53. As regards O&M cost of water carrier system, it is observed that the said expenditure pertains to the contract awarded for the work of operation and preventive maintenance and security patrolling activities of water carrier system, contract for the work of manpower for operation of pumps and upkeeping of water carrier system, contract for the work of attending GRP pipeline puncture in water carrier system of the generating station and other contracts awarded from time to time for the water carrier system. Further, the spares include the total spares consumed during the period 2014-19 for consumption in water carrier system. It is noticed that the Commission vide order dated 10.7.2015 in Petition No. 197/GT/2013, while considering the additional expenditure incurred for the work of Operation and Maintenance and Security Patrolling activities to external water carrier system had allowed the expenditure claimed by the Petitioner over and above the normative O&M expenses allowed to the generating station separately. In this background, we allow the claim of the Petitioner towards O&M cost of water

carrier system and spares consumption of water carrier system separately without considering it as a part of the interest on working capital."

35. In line with the above decision, the Personnel charges in case of the generating station for the period 2019-24 is not allowed. Further, payments made to the contractor and for spares & other cost is allowed separately without considering it as a part of the working capital. Accordingly, the payments to contractor and the spares are allowed separately as under:

(Rs. in lakh)

	Payment to contractors	Spares Cost and Others
2019-20	159.00	4.70
2020-21	163.77	4.80
2021-22	168.68	4.50
2022-23	173.74	5.30
2023-24	178.96	6.50

36. Further, water charges allowed for the generating station for determination of tariff for the period 2019-24 are as under:

	Water pumping charges paid to IGNP	Power Consumption value	Total ***(Rs. in lakh)***
2019-20	46.81	188.07	234.88
2020-21	46.81	188.07	234.88
2021-22	46.81	188.07	234.88
2022-23	46.81	188.07	234.88
2023-24	46.81	188.07	234.88
TOTAL			**1174.40**

37. The water charges allowed above are subject to the Petitioner furnishing all the details on actuals during truing up of tariff. The Petitioner at the time of truing up shall also furnish the following details.

(a) Actual water consumption (in cubic meters), rate (Rs/Cubic meter) and power charges separately.

(b) Whether the cost of Power consumption is included in the Normative O&M expenses allowed to the generating station or is a part of O&M expenses of Barsingsar mines.

(d) As regards the details of spares cost & others, details clarifying the bifurcation of spares & others and as to how it forms part of water charges.

Security Expenses

38. The projected security expenses claimed by the Petitioner is as under:

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
799.29	823.27	847.97	873.41	899.61

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

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

(Rs. in lakh)

		2019-20	2020-21	2021-22	2022-23	2023-24
Installed Capacity (MW) (A)		250.00	250.00	250.00	250.00	250.00
O&M Expenses under Reg.35(1) in Rs lakh / MW (B)	Claimed	31.15	32.24	33.37	34.54	35.76
	Allowed	31.15	32.24	33.37	34.54	35.76
Total O&M Expenses (in Rs lakh) (C) = (A)*(B)	Claimed	7787.50	8060.00	8342.50	8635.00	8940.00
	Allowed	7787.50	8060.00	8342.50	8635.00	8940.00
Water Charges (in Rs lakh) (D)	Claimed	486.02	495.26	504.46	515.15	526.62
	Allowed	234.88	234.88	234.88	234.88	234.88
Security Expenses (in Rs lakh) (E)	Claimed	799.29	823.27	847.97	873.41	899.61
	Allowed	799.29	823.27	847.97	873.41	899.61
Total O&M Expenses as allowed (including Water Charges and Capital Spares Consumed) (F) = (C+D+E)	Claimed	**9072.81**	**9378.53**	**9694.94**	**10023.56**	**10366.23**
	Allowed	**8821.67**	**9118.15**	**9425.35**	**9743.29**	**10074.49**

Operational Norms

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

Normative Annual Plant Availability Factor (NAPAF) (%)	80 ~~85~~
Heat Rate (kCal/kwh)	2547.80
Auxiliary Power Consumption (%)	12.50
Specific Oil Consumption (ml/kwh)	1.00

Normative Annual Plant Availability Factor

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

> *"**(A) Normative Annual Plant Availability Factor (NAPAF)***
>
> *(e) For Lignite fired Generating Stations using Circulatory Fluidized Bed Combustion (CFBC) Technology and Generating stations based on coal rejects:*
>
> *1. First Three years from the date of commercial operation – 75%*
>
> *2. For next year after completion of three years of the date of commercial operation – 80%*

43. Since the Petitioner has considered NAPAF of 80% in terms of Regulation 49(A)(e) of the 2019 Tariff Regulations, the same is allowed.

Gross Station Heat Rate (kCal/kWh)

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

> *"(i) For Coal-based and lignite-fired Thermal Generating Stations:*
> *1.05 X Design Heat Rate (kCal/kWh)*
> *Where the Design Heat Rate of a generating unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure Provided that the design heat rate shall not exceed the following maximum design unit heat rates depending upon the pressure and temperature ratings of the units:*

Pressure Rating (Kg/cm2)	150	170	170
SHT/RHT (^{0}C)	535/535	537/537	537/565
Type of BFP	Electrical Driven	Turbine Driven	Turbine Driven
Max Turbine Heat Rate (kCal/kWh)	1955	1950	1935
Min. Boiler Efficiency			
Sub-Bituminous Indian Coal	0.86	0.86	0.86
Bituminous Imported Coal	0.89	0.89	0.89
Max. Design Heat Rate (kCal/kWh)			
Sub-Bituminous Indian Coal	2273	2267	2250
Bituminous Imported Coal	2197	2191	2174

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

xxx

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

45. The COD of the generating station is 20.1.2012. Regulation49(C)(b)(i) of the 2019 Tariff Regulations provides for Gross Station Heat Rate of 1.05 x design heat rate for the thermal generating stations achieving COD on or after 1.4.2009. The Petitioner has submitted the Guaranteed Turbine Cycle heat rate of 1994.60 kCal/kWh and Boiler Efficiency of 81.81%. Accordingly, the design heat rate of the generating station is 2438.09 kCal/kWh. Further, the first proviso to the above Regulation, provides that the design heat rate shall not exceed the maximum design unit heat rate depending upon the pressure and temperature rating of the units. The Petitioner, in Form-2 of the petition has provided the main steam/reheater temperature as 535/535 with pressure as 126 kg/cm^2. As per the second proviso of the said regulation, in case pressure and temperature of a unit are different from the above ratings, the maximum design heat rate of the unit of the nearest class shall be taken. Accordingly, the maximum design heat rate is considered as 2273 kCal/kWh. Further, the seventh proviso to the above mentioned Regulation provides for increasing the maximum design heat rate using the factor for moisture content given in Regulation 49(C)(a)(iv) of the 2019 Tariff Regulations in case of lignite-fired generating stations (including stations based on CFBC technology). As the Petitioner has not provided details of the moisture content, the moisture is provisionally considered as 40% in terms of Regulation 49(C)(a)(iv) of the 2019 Tariff Regulations, for the purpose of determination of the tariff. However, the Petitioner is directed to provide details of the actual moisture content at the time of truing of tariff for the period 2019-24. Accordingly, the adjusted maximum design heat rate is considered as 2432.11 kCal/kWh. Further, the Gross Station Heat Rate of the

generating station is 1.05 X Design Heat Rate (kCal/kWh). Accordingly, the Gross Station Heat Rate considered is 2553.72 kCal/kWh as follows:

	Claimed	Approved
Guaranteed Design Gross Turbine Cycle Heat Rate (kCal/kWh)3	1994.60	1955.00
Design / Guaranteed Boiler Efficiency (%)	81.81%	86%
Design Heat Rate (kCal/kWh)	2438.09	2273.00
Moisture Correction For lignite having 40% moisture	-	1.07
Adjusted Design Heat Rate (kCal/kWh)	2438.09	2432.11
Multiplying Factor	1.045	1.05
Gross Station Heat Rate (kCal/kWh)	2547.80	2553.72

Secondary Fuel Oil Consumption

46. Regulation 49(D)(b) of 2019 Tariff Regulations provides as under:

"(i) For Lignite-fired generating stations except TPS-I: 1.0 ml/kWh

47. Since the Petitioner has considered the secondary fuel oil consumption of 1.00 ml/kWh, in terms of Regulation 49(D)(b) of the 2019 Tariff Regulations, the same is allowed.

Auxiliary Power Consumption

48. Regulation 49(E)(d) of 2019 Tariff Regulations provides as under:

"(d) For Lignite-fired thermal generating stations:
xxx
(ii) For Barsingsar Generating station of NLC using CFBC technology: 12.50%

49. Since the Petitioner has considered the auxiliary energy consumption of 12.50%, in terms of Regulation 49(E)(d)(iii) of the 2019 Tariff Regulations, the same is allowed.

Cost of Limestone for Working Capital

50. Regulation 49(F)(d) of the 2019 Tariff Regulations provides as under:

(d) For CFBC Technology (furnace injection) based generating station: The specific limestone consumption for CFBC based generating station (furnace injection) shall be computed with the following formula:
[62.9 x S x SHR /CVPF] x [85/ LP]

51. The Petitioner has claimed specific limestone consumption of 0.056 kg/kWh with weighted average price of Rs 1099. Accordingly, the same has been considered.

However, the Petitioner at the time of truing up of tariff shall furnish all the details regarding limestone as per the Regulation 49(F)(d) of the 2019 Tariff Regulations.

Interest on Working Capital

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

> *"34. **Interest on Working Capital**: (1) The working capital shall cover:*
> *(a) For Coal-based/lignite-fired thermal generating stations:*
> *(i) Cost of coal or lignite and limestone towards stock if applicable for 10 days for pit-head generating stations and 20 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;*
> *(ii) Advance payment for 30 days towards cost of coal or lignite and limestone for generation corresponding to the normative annual plant availability factor;*
> *(iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor and in case of use of more than one secondary fuel oil cost of fuel oil stock for the main secondary fuel oil;*
> *(iv) Maintenance spares @ 20% of operation and maintenance expenses including water charges and security expenses;*
> *(v) Receivables equivalent to 45 days of capacity charge and energy charge for sale of electricity calculated on the normative annual plant availability factor; and*
> *(vi) Operation and maintenance expenses including water charges and security expenses for one month.*
> *(b) xxxx*
> *(c) xxxx*
> *(2) The cost of fuel in cases covered under sub-clauses (a) and (b) of clause (1) of this Regulation shall be based on the landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) by the generating station and gross calorific value of the fuel as per actual weighted average for the third quarter of preceding financial year in case of each financial year for which tariff is to be determined:*
> *Provided that in case of new generating station the cost of fuel for the first financial year shall be considered based on landed fuel cost (taking into account normative transit and handling losses in terms of Regulation 39 of these regulations) and gross calorific value of the fuel as per actual weighted average for three months as used for infirm power preceding date of commercial operation for which tariff is to be determined.*
> *(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2019 or as on 1st April of the year during the tariff period 2019-24 in which the generating station or a unit thereof or the transmission system including communication system or element thereof as the case may be is declared under commercial operation whichever is later.*
> *Provided that in case of truing-up the rate of interest on working capital shall be considered at bank rate as on 1st April of each of the financial year during the tariff period 2019-24.*
> *(4) Interest on working capital shall be payable on normative basis notwithstanding that the generating company or the transmission licensee has not taken loan for working capital from any outside agency."*

53. Regulation 36 of 2019 Tariff Regulations regarding input price for coal and lignite from integrated mines provides as under:

> *(3) The generating company shall, after the Date of Commercial Operation of the integrated mines, till the input price of lignite is determined by the Commission under these regulations, fix the input price of lignite for the generating station at the last available pooled lignite price as determined by the Commission for transfer price of lignite or the estimated price available in the investment approval, whichever is lower;*
>
> *Provided that the difference between the input price of lignite determined under these regulations and the input price of lignite so fixed prior to such determination, for the quantity of lignite billed, shall be adjusted in accordance with Clause (4) of this Regulation.*
>
> *(4) In case of excess or short recovery of input price under Clause (2) or Clause (3) of this Regulation, the generating company shall refund the excess amount or recover the short amount, as the case may be, with simple rate of interest, equal to the bank rate prevailing as on 1st April of the respective year of the tariff period, in six equal monthly instalments.*
>
> *36A. Input Price of coal or Lignite: (1) Input price of coal or lignite from integrated mine shall be computed based on the following components:*
>
> *(I) Run of Mine (ROM) Cost; and*
> *(II) Additional charges:*
> *(III) crushing charges;*
>
> *a. transportation charge within the mine up to the washery end or coal handling plant associated with the integrated mine, as the case may be;*
> *b. handling charges at mine end;*
> *c. washing charges; and*
> *d. transportation charges beyond the washery end or coal handling plant, as the case may be, and up to the Loading Point:*
>
> *Provided that one or more components of additional charges may be applicable on case-to-case basis, based on the scope and nature of the mining activities.*
>
> *Provided further that the input price of lignite shall be computed based on Run of Mine (ROM) Cost based on the technology such as bucket excavator-conveyor belt-spreader or its combination and handling charges, if any.*
>
> *Statutory Charges, as applicable, shall be allowed.*

Fuel Cost and Energy Charges in working capital

54. The Petitioner has claimed the following cost for fuel components:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Cost of lignite towards stock - 10 or 20 days (pit or non-pit) (A)	327.26	327.26	327.26	327.26	327.26
Cost of lignite towards generation 30 days (B)	981.77	981.77	981.77	981.77	981.77
Cost of Limestone towards stock	59.08	59.08	59.08	59.08	59.08
Cost of Limestone towards Generation	88.62	88.62	88.62	88.62	88.62
Cost of Secondary fuel- 2 Months (C)	171.15	170.68	170.68	170.68	171.15

55. Regulation 34(2) of the 2019 Tariff Regulations provides for computation of the cost of fuel as a part of IWC, to be based on the landed price and gross calorific value of the fuel as per actuals, for the third quarter of preceding financial year in case of each financial year for which tariff is to be determined. The Petitioner in Form-15 has not furnished the details of quantity of lignite for third quarter of preceding financial year. However, it has furnished the weighted average cost and GCV of lignite for the same.

56. As regards lignite transfer price for the period 2009-14, the Petitioner had filed appeal before APTEL bearing Appeal No. 185 of 2017 and vide judgement dated 25.7.2023, the same has been remanded to this Commission and the same is pending. The Petitioner in the present petition, has adopted the lignite transfer price of Rs. 769.419/Tonne for the purpose of computation of Interest on working capital, considering the base lignite transfer price of Rs 704.00/ton for the period 2018-19. However, the Commission vide order dated 28.9.2023 in Petition No. 30/RP/2022 in Petition No. 173/MP/2020 had allowed the base lignite transfer price of Rs 703.39/ton for the year 2018-19. Accordingly, the lignite transfer price (including taxes & duties and GST) is calculated as 769.13/ton. Considering the fact that the lignite transfer for the period will be revised for the period 2009-14 and 2014-19 periods subsequent to the judgment of APTEL judgment dated 25.7.2023 in the pending IA No 62 of 2023 (in Petition No.17/RP/2022) filed by the Petitioner, we have considered the weighted average lignite transfer price of Rs 769.13/ton and the GCV of lignite and Secondary fuel oil and price as furnished by the Petitioner in the petition. Accordingly, the cost of fuel components in working capital is worked out and allowed as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Cost of Lignite towards stock - 10 days corresponding to NAPAF	327.88	327.88	327.88	327.88	327.88
Cost of Lignite towards Generation -	983.655	983.655	983.655	983.655	983.655

	2019-20	2020-21	2021-22	2022-23	2023-24
30 days corresponding to NAPAF					
Cost of Limestone towards stock	29.54	29.54	29.54	29.54	29.54
Cost of Limestone towards Generation	88.62	88.62	88.62	88.62	88.62
Cost of Secondary fuel- 2 Months (C)	171.15	170.68	170.68	170.68	171.15

Lignite Transfer Price and Energy Charges

57. The Petitioner has submitted that it has filed Petition No. 173/MP/2020 for truing-up of lignite transfer price of NLC mines for the period 2014-19. It is noted that the Commission vide its order dated 10.6.2022 had determined the lignite transfer price of Barsingsar mines, in Petition No 173/MP/2020, as under:

	2014-15	2015-16	2016-17	2017-18	2018-19
(Rs. /Tonne)	740.25	579.49	667.39	720.17	703.27

58. The base lignite price, as determined above, does not include Royalty charges, DMF, NMET and GST. Hence, to work out the landed price of fuel, we have considered the Royalty charges at 6%, DMF @ 30%, NMET @ 2% and GST @ 18%, in line with the Petitioner's claim. Further, Commission in its order dated 28.9.2023 in Petition No. 30/RP/2022 (in Petition No. 173/MP/2020) had revised the lignite transfer price of the Barsingsar mines as under:'

	2014-15	2015-16	2016-17	2017-18	2018-19
Pooled price of Lignite after truing up (Rs. /Tonne)	740.36	579.62	667.41	720.24	703.39

59. The Petitioner has claimed two types of secondary fuel oil i.e. HFO and LDO. However, in terms of Regulation 34(1)(a)(iii) of the 2019 Tariff Regulations, the working capital shall cover the cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor, and in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary fuel oil. Therefore, in terms of Regulation 34(1)(a)(iii) of the 2019 Tariff Regulations, we have considered the main secondary fuel oil as HFO. Further, the Petitioner has claimed the

landed cost including the cost of opening stock which is not as per the 2019 Tariff Regulations and therefore the opening stock and price has not been considered. The Petitioner has also not provided the details in Form-15 towards Lignite. Accordingly, the allowable ECR based on the operational norms as specified under the 2019 Tariff Regulations and price and GCV of lignite, limestone and the secondary fuel oil as adopted for the computation of lignite cost, secondary oil and 2-month energy charges in working capital are as under:

(Rs. in lakh)

	2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
Capacity (MW)	250	250	250	250	250
Gross Station Heat Rate kCal/kWh	2553.72	2553.72	2553.72	2553.72	2553.72
Auxiliary Energy Consumption (%)	12.50	12.50	12.50	12.50	12.50
Weighted average price of lignite (Rs/MT)	769.126	769.126	769.126	769.126	769.126
Weighted average GCV of lignite (kCal/Kg)	2865.67	2865.67	2865.67	2865.67	2865.67
Weighted average price of oil (Rs. /KL)	58451.50	58451.50	58451.50	58451.50	58451.50
Weighted average GCV of oil (kCal/l)	8534.67	8534.67	8534.67	8534.67	8534.67
Specific Limestone Consumption (kg/kwh)	0.056	0.056	0.056	0.056	0.056
Wt. Av. Price of Limestone for working capital (Rs./T)	1099.00	1099.00	1099.00	1099.00	1099.00
Rate of energy charge ex-bus (Paise/kWh)	84.760	84.760	84.760	84.760	84.760

60. The Petitioner is directed to furnish the details as per the relevant tariff filing formats under the 2019 Tariff Regulations at the time of truing up of tariff for the period 2019-24.

Working Capital for Maintenance Spares

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

(Rs. in lakh)

2019-20	**2020-21**	**2021-22**	**2022-23**	**2023-24**
1814.56	1875.71	1938.99	2004.71	2073.25

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

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
1764.33	1823.63	1885.07	1948.66	2014.90

Working Capital for Receivables

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

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Variable Charges - for 45 days	1734.67	1734.67	1734.67	1734.67	1734.67
Fixed Charges - for 45 days	4129.98	4082.16	4017.41	3949.21	3871.02
Total	**5864.66**	**5816.83**	**5752.08**	**5683.88**	**5605.70**

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

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

Working Capital for O&M Expenses for 1 month

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

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
756.07	781.54	807.91	835.30	863.85

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

(Rs. in lakh)

2019-20	2020-21	2021-22	2022-23	2023-24
735.14	759.85	785.45	811.94	839.54

Rate of Interest on working Capital

68. In line with Regulation 34(3) of the 2019 Tariff Regulations, the rate of interest on working capital is considered as 12.05% (i.e. 1 year SBI MCLR of 8.55% as on 1.4.2019 + 350 bps) for the year 2019-20, 11.25% (i.e. 1 year SBI MCLR of 7.75% as on 1.4.2020 + 350 bps) for the year 2020-21,10.50% (i.e. 1 year SBI MCLR of 7.00% as on 1.4.2021 + 350 bps) for the year 2021-22 and 10.50% (i.e. 1 year SBI MCLR of 7.00% as on 1.4.2022 + 350 bps) for the period 2022-24. Accordingly, Interest on working capital has been computed as under:

(Rs. in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of Lignite towards Stock - (10 days stock corresponding to NAPAF)	327.88	327.88	327.88	327.88	327.88
Cost of Lignite towards Generation - (30 days stock corresponding to NAPAF)	983.65	983.65	983.65	983.65	983.65
Cost of Limestone towards Stock - (10 days stock corresponding to NAPAF)	29.54	29.54	29.54	29.54	29.54

	2019-20	2020-21	2021-22	2022-23	2023-24
Cost of Limestone towards Generation - (30 days stock corresponding to NAPAF)	88.62	88.62	88.62	88.62	88.62
Cost of Secondary fuel oil - (2 months stock corresponding to NAPAF)	171.15	170.68	170.68	170.68	171.15
Maintenance Spares @ 20% of O&M expenses	1764.33	1823.63	1885.07	1948.66	2014.90
Receivables - 45 days of capacity charges and energy charges	5864.66	5816.83	5752.08	5683.88	5605.70
O&M expenses - 1 month	735.14	759.85	785.45	811.94	839.54
Total Working Capital	**9964.98**	**10000.69**	**10022.98**	**10044.86**	**10060.99**
Rate of Interest	12.05%	11.25%	10.50%	10.50%	10.50%
Interest on Working Capital	**1200.78**	**1125.08**	**1052.41**	**1054.71**	**1056.40**

Annual Fixed Charges for the period 2019-24

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

(Rs in lakh)

	2019-20	2020-21	2021-22	2022-23	2023-24
Depreciation	8819.87	8878.80	8918.33	8926.48	8933.38
Interest on Loan	5062.00	4246.26	3403.52	2513.02	1617.49
Return on Equity	9686.20	9742.56	9786.01	9794.97	9802.56
Interest on Working Capital	1200.78	1125.08	1052.41	1054.71	1056.40
O&M Expenses	8821.67	9118.15	9425.35	9743.29	10074.49
Total annual fixed charges	**33590.53**	**33110.85**	**32585.62**	**32032.48**	**31484.33**

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

70. The cost of arbitration for Rs 53.75 lakh in 2019-20 shall be recovered separately in terms of paragraph 14 of this order.

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

Application Fee and Publication expenses

72. The Petitioner has sought the reimbursement of fees paid by it for filing the petition for the period 2019-24 and for publication expenses. The Petitioner shall be entitled for reimbursement of the filing fees and publication expenses in connection with the present petition, directly from the beneficiaries on pro-rata basis in accordance with Regulation

70(1) of the 2019 Tariff Regulations.

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

74. Petition No. 386/GT/2020 is disposed of in terms of the above.

Sd/-	***Sd/-***	***Sd/-***
(Pravas Kumar Singh)	**(Arun Goyal)**	**(I.S Jha)**
Member	**Member**	**Member**