

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 295/GT/2020

Coram:

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

Date of Order: 15th April, 2023

In the matter of:

Petition for revision of tariff of Auraiya Gas Power Station (663.36 MW) for the period from 1.4.2014 to 31.3.2019 after truing-up exercise.

And

In the matter of:

NTPC Limited,
NTPC Bhawan,
Core-7, Scope Complex,
7, Institutional Area, Lodhi Road,
New Delhi – 110 003

...Petitioner

Vs

1. Uttar Pradesh Power Corporation Ltd.,
Shakti Bhawan, 14, Ashok Marg,
Lucknow – 226 001
2. Rajasthan Urja Vikas Nigam Ltd.,
(on behalf of Discoms of Rajasthan),
Vidyut Bhawan, Janpath,
Jaipur – 302 005
3. Tata Power Delhi Distribution Ltd.,
Grid Substation, Hudson Road,
Kingsway Camp, Delhi – 110 009
4. BSES Rajdhani Power Ltd.,
BSES Bhawan, Nehru Place,
New Delhi – 110 019
5. BSES Yamuna Power Ltd.,
Shakti Kiran Building,
Karkardooma, Delhi – 110 092
6. Haryana Power Purchase Centre,
Shakti Bhawan, Sector - VI,



Panchkula, Haryana – 134 109

7. Punjab State Power Corporation Ltd.,
The Mall, Patiala – 147 001

8. Himachal Pradesh State Electricity Board Ltd.,
Kumar Housing Complex Building – II,
Vidyut Bhawan, Shimla – 171 004

9. Power Development Department,
Govt. of J&K, Civil Secretariat
Srinagar.

10. Electricity Department of Chandigarh,
Union Territory of Chandigarh,
Addl. Office Building, Sector – 9D,
Chandigarh

11. Uttarakhand Power Corporation Ltd.,
Urja Bhavan, Kanwali road,
Dehradun – 248 001.

...Respondents

Parties Present:

Shri Venkatesh, Advocate, NTPC
Shri Siddharth Joshi, Advocate, NTPC
Shri Abhishek Nangia, Advocate, NTPC
Ms. Simran Saluja, Advocate, NTPC
Shri Punyam Bhutani, Advocate, NTPC
Shri Buddy Ranganathan, Advocate, BRPL/BYPL
Shri Aditya Ajay, Advocate, BRPL/BYPL
Shri Rahul Kinra, Advocate, BRPL/BYPL
Shri Aashwyn Singh, Advocate, BRPL/BYPL
Shri Abhishek Srivastava, BYPL
Shri Sameer Singh, BYPL
Ms. Megha Bajpeyi, BRPL
Shri Anand Shrivastava, Advocate, TPDDL
Ms. Ishita Jain, Advocate, TPDDL

ORDER

This petition has been filed by the Petitioner, NTPC limited, for truing-up of tariff of Auraiya Gas Power Station (in short ‘the generating station’) for the period 2014-19 in terms of Regulation 8 (1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (in short ‘the 2014 Tariff Regulations”).



2. The generating station with a capacity of 663.36 MW comprises of four Gas Turbine Units of 111.19 MW each and two Steam Turbine Units of 109.30 MW. The dates of commercial operation of the units of the generating station are as under:

	Capacity (MW)	Actual COD
GT Unit – I	111.19	1.10.1990
GT Unit – II	111.19	1.10.1990
ST Unit – I	109.30	1.11.1990
GT Unit – III	111.19	1.11.1990
GT Unit – IV	111.19	1.11.1990
ST Unit - II	109.30	1.12.1990

2. The Commission vide its order dated 18.4.2017 in Petition No. 285/GT/2014, had approved the capital cost and annual fixed charges of the generating station for the period 2014-19 as under:

Capital Cost allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	74395.79	96873.44	98878.51	99092.51	99176.51
Add: Projected Additional Capital Expenditure allowed	22477.65	2005.07	214.00	84.00	0.00
Closing Capital Cost	96873.44	98878.51	99092.51	99176.51	99176.51
Average Capital cost	85634.62	97875.98	98985.51	99134.51	99176.51

Annual Fixed Charges allowed

(Rs.in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	6678.56	1402.46	1506.81	1522.45	1527.45
Interest on Loan	190.68	344.44	328.55	286.68	240.11
Return on Equity	7939.77	8701.88	8767.47	8776.28	8778.77
O&M Expenses	9835.15	10445.44	11095.54	11785.43	12521.76
Interest on Working Capital	7736.02	7694.21	7734.94	7786.94	7841.97
Annual Fixed Charges	32380.19	28588.44	29433.30	30157.79	30910.05

3. Regulation 8(1) of the 2014 Tariff Regulations provides as under:

“8. Truing up

(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2019, as admitted by the Commission after prudence check at the time of truing up:

Provided that the generating company or the transmission licensee shall make an application for interim truing up of capital expenditure including additional capital expenditure in FY 2016-17.”



4. Accordingly, the capital cost and annual fixed charges claimed by the Petitioner, in the present petition, are as under::

Capital cost claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	74395.79	125775.02	131214.88	132221.85	133106.65
Add: Addition during the year / period	52430.30	334.32	297.79	736.36	0.00
Less: Decapitalisation during the year /period	1101.67	31.17	1.10	0.00	0.00
Less: Reversal during the year / period	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year /period	50.60	5136.72	710.28	148.44	66.18
Closing Capital Cost	125775.02	131214.88	132221.85	133106.65	133172.83
Average Capital Cost	100085.41	128494.95	131718.37	132664.25	133139.74

Annual Fixed Charges claimed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	21643.06	3588.76	3892.01	3986.93	4041.88
Interest on Loan	323.06	564.04	533.08	462.09	590.85
Return on Equity	8790.36	10512.46	10703.02	10758.94	10815.51
Interest on Working Capital	8187.45	7798.74	7946.77	8022.34	8104.38
O&M Expenses	10945.72	10489.31	11265.00	11874.24	12587.83
Total	49889.66	32953.62	34340.63	35109.76	36147.86
Additional O&M expenses					
Impact of Pay Revision	0.00	55.25	1249.83	1540.61	1799.97
Impact of GST	0.00	0.00	0.00	69.68	104.26
Total Annual Fixed Charges	49889.66	33008.87	35590.46	36720.05	38052.09

5. The Respondent , UPPCL has filed its reply vide affidavits dated 27.5.2020 and 17.7.2021 and the Respondent TPDDL has filed its reply vide affidavits dated 30.6.2021 and 17.10.2022. Also, the Respondent, BRPL and Respondent BYPL have filed their replies, vide affidavits dated 27.9.2022 and 23.7.2021 respectively. The Petitioner vide its affidavits dated 12.1.2021 and 30.11.2021, has filed its rejoinders to



the replies of Respondent UPPCL. Similarly, in response to the replies of Respondent TPDDL, the Petitioner has filed its rejoinders vide affidavit dated 15.7.2021 and 31.10.2022. Further, the Petitioner vide affidavits dated 27.9.2021 and 31.10.2022 has filed its rejoinders to the replies of the Respondents BYPL and BRPL. The Petitioner vide affidavit dated 30.6.2021 and 12.7.2021 has filed certain additional information and has served copies to the Respondents. The Commission after hearing the matter, had, vide Record of Proceeding (ROP) of the hearing dated 28.7.2022 and 6.9.2022, directed the Petitioner to submit certain additional information and reserved its order in the matter on 6.9.2022. In response, the Petitioner has filed the additional submissions vide affidavits dated 16.8.2022 and 30.9.2022 respectively, after serving copies to the Respondents. Based on the submissions of the parties and the documents available on record and on prudence check, we proceed to true-up the tariff of the generating station for the period 2014-19, as stated in the subsequent paragraphs.

Capital Cost

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

“9. Capital Cost:

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

(a) the capital cost admitted by the Commission prior to 1.4.2014 duly true up by excluding liability, if any, as on 1.4.2014.

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

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

7. The Commission vide its order dated 18.4.2017 In Petition No.285/GT/2014, had approved the opening capital cost of Rs. 74395.79 lakh. The Petitioner, in this present Petition, has considered the opening capital cost of Rs. 74395.79 lakh, as on 1.4.2014. Accordingly, in terms of Regulation 9(3) of the 2014 Tariff Regulations, the capital cost of Rs. 74395.79 lakh, has been considered as the opening capital cost as



on 1.4.2014, for the purpose of truing-up of tariff.

Additional Capital Expenditure

8. Clause (3) of Regulation 7 of the 2014 Tariff Regulations provides that the application for determination of tariff shall be based on admitted capital cost including any additional capital expenditure already admitted up to 31.3.2014 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the period 2014-19. Regulations 14(3) of the 2014 Tariff Regulations provides as under:

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

(i) Undischarged liabilities recognized to be payable at a future date.

(ii) Works deferred for execution.

(iii) Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13.

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

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

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

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

(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law.

(ii) Change in law or compliance of any existing law;:

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

(iv) Any liability for works executed prior to the cut-off date, after prudence check of the details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.

(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

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



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

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

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

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



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

Projected additional capital expenditure allowed vide order dated 18.4.2017 in Petition No. 285/GT/2014.

9. The details of the projected additional capital expenditure allowed vide order dated 18.4.2017 in Petition No. 285/GT/2014 is summarised below:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Phasing out of Halon Firefighting system	15.00	20.00	0.00	0.00	0.00
Effluent Disposal Monitoring system & uses of STP water	10.00	36.00	0.00	0.00	0.00
Online Environmental Monitoring	0.00	80.50	0.00	0.00	0.00
Boundary Wall (Phaphund Road)	28.00	28.00	0.00	0.00	0.00
Car Shed in plant area shifting	0.00	20.00	0.00	0.00	0.00
Patrolling road along boundary wall	0.00	82.00	84.00	84.00	0.00
Boundary wall in acquired land	0.00	20.00	60.00	0.00	0.00
Outer boundary wall height increases near reservoir	0.00	24.00	70.00	0.00	0.00
Lighting Mast	0.00	16.22	0.00	0.00	0.00
Replacement of Hot Gas Path Components including C&I package	22424.65	1678.35	0.00	0.00	0.00
Disturbance recorder/line protection	0.00	0.00	0.00	0.00	0.00
Total Additional Capital expenditure allowed	22477.65	2005.07	214.00	84.00	0.00

10. The Petitioner, in Form- 9A of the petition, has claimed the actual capital expenditure incurred for the period 2014-19, on accrual basis, as well as on cash basis. The additional capital expenditure claimed by the Petitioner (on cash basis) for the period 2014-19 is as under:

<i>(Rs. in lakh)</i>						
Sr. No	Head of Work/ Equipment	2014-15	2015-16	2016-17	2017-18	2018-19
A	Works allowed in previous order					
1	Replacement of Hot Gas Path Components including C&I package	62541.07	0.00	0.00	80.36	0.00
2	Boundary wall in acquired land	3.12	42.25	10.52	0.00	0.00
3	CC TV system integration with existing system	0.00	0.00	0.00	0.00	0.00
4	Boundary Wall (Phaphund	0.00	58.36	0.00	0.00	0.00



Sr. No	Head of Work/ Equipment	2014-15	2015-16	2016-17	2017-18	2018-19
	Road)					
5	Outer boundary wall height increase	0.00	51.50	16.20	0.00	0.00
6	Car shed in Plant Area shifting	0.00	13.72	0.00	0.00	0.00
7	Lighting Mast	0.00	13.44	0.00	0.00	0.00
8	Online environmental monitoring	0.00	49.41	3.39	0.00	0.00
9	Effluent Disposal Monitoring system & uses of STP water	0.00	58.33	0.00	0.00	0.00
10	Phasing out of Halon firefighting system	0.00	10.10	0.00	0.00	0.00
11	Patrolling road along boundary wall	0.00	0.00	234.42	27.97	0.00
12	Subtotal-A	62544.20	297.11	264.53	108.33	0.00
13	New Claims					
14	Retrofitting of 400kV ABCB with SF6 CBs	149.62	0.00	0.00	158.91	0.00
15	Supply & Erection of Numerical Generation Protection Relay	75.71	0.00	0.00	0.00	0.00
16	Air (Compressed Air) System	112.36	7.27	0.00	0.00	0.00
17	Land Compensation as per High Court Order	0.00	0.00	0.00	0.00	0.00
18	Self-Propelled Articulating Boom Lift	47.00	0.00	0.00	0.00	0.00
19	SEQUENCE OF EVENTS LOGGER	13.37	0.00	0.00	0.00	0.00
20	Solar Water Heating System	4.01	0.00	0.00	0.00	0.00
21	Energy Efficient Pumps	0.00	21.94	0.00	0.00	0.00
22	Solar system 10 KW	0.00	8.00	0.00	0.00	0.00
23	Solar System 2 x 30 KW	0.00	0.00	0.98	5.22	0.00
24	Supply cum Erection of 220V & 50V DC Chargers & Batteries for Switchyard	0.00	0.00	20.60	0.00	0.00
26	Alloy Analyzer Comp Assy	0.00	0.00	18.31	0.00	0.00
27	216 KV,10KA Gapless Type Lightning Arrester (LA)	0.00	0.00	0.00	2.67	0.00
28	Gas Chromatograph: Comp Assy	0.00	0.00	0.00	24.08	0.00
29	Supply of generator transformer 148 MVA	0.00	0.00	0.00	350.84	0.00
30	Bio digesters & piping network system	0.00	0.00	0.00	52.83	0.00
31	Installation of LED based light & fittings	0.00	0.00	0.00	33.49	0.00
32	Sub-total-B	402.07	37.21	39.89	628.04	0.00
33	Total Additional Capitalization	62946.26	334.32	304.42	736.36	0.00
34	Less: Decapitalization of Replacement of Hot Gas Path Components including C&I package	(-) 10346.06	0.00	0.00	0.00	0.00
35	Less: Decapitalization of AIR	(-)169.90	0.00	0.00	0.00	0.00



Sr. No	Head of Work/ Equipment	2014-15	2015-16	2016-17	2017-18	2018-19
	(Compressed Air) System					
36	Less: Decapitalization of Supply cum Erection of 220V & 50V DC Chargers & Batteries for Switchyard	0.00	0.00	-6.63	0.00	0.00
37	Less: Decapitalization of Spares	(-) 1101.67	(-) 31.17	(-) 1.10	0.00	0.00
41	Add: Discharge of liability of allowed items	50.60	5136.72	710.28	148.44	66.18
42	Total additional capitalization claimed (1-9) including discharge of liability	51379.23	5439.86	1006.97	884.81	66.18

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

A. Additional capital expenditure towards allowed works

12. The Petitioner has claimed total additional capital expenditure of Rs. 63214.16 lakh (i.e., Rs. 62544.20 lakh in 2014-15, Rs. 297.11 lakh in 2015-16, Rs. 264.53 lakh in 2016-17 and Rs. 108.33 lakh in 2017-18) towards works which were allowed by the Commission vide order dated 18.4.2017 in Petition No. 285/GT/2014. The Petitioner has claimed the works under Regulations 14(3)(ii), 14(3)(iii) and 14(3)(vii) of the 2014 Tariff Regulations.

B. Additional capital expenditure towards New claims

13. The Petitioner has claimed the total additional capital expenditure of Rs. 1107.21 lakh (i.e., Rs. 402.07 lakh in 2014-15, Rs. 37.21 lakh in 2015-16, Rs. 39.89 lakh in 2016-17 and Rs. 628.04 lakh in 2017-18) towards new claims, under Regulation 14(3)(ii), 14(3)(iii) and 14(3)(vii) of the 2014 Tariff Regulations.

14. The Respondent UPPCL has submitted that the new claims of the Petitioner may be examined by the Commission on the principle laid down in Petition 285/GT/2014. The Petitioner has clarified that it has incurred the additional capital expenditure of Rs. 930.68 lakh for new works, which are covered under 'change in law' or for safety of the plant or which has become necessary for the efficient operating of the generating



station for another 10 years. It has also submitted that these expenses are in line with Regulation 14(3) (ii), 14(3)(iii) and 14(3)(vii) of the 2014 Tariff Regulations and hence may be allowed.

22. The Respondents BYPL, BRPL and TPDDL have submitted as under:

- (a) *Retro fitment of 400KV ABCB with SF6 CBs*: The Petitioner has claimed the additional capital expenditure as replacement of the old assets due to obsolescence as the same is necessary for its generating station. However, it has not submitted any document or any technical report etc. substantiating the need for replacement of the asset. Further, the Petitioner has also not provided any decapitalization details of ABCB in order to arrive at the appropriate figure and what is the final additional expenditure incurred by NTPC.
- (b) *Air Compressed Air System, Energy Efficient Pumps and Self-Propelled Articulating Boom Lift*: The Petitioner has not substantiated its claim and has not provided any document, technical report, verification report, etc. highlighting that such expenditure was incurred. The Petitioner has neither provided reasons establishing the need for replacement of such components and has also failed to provide the decapitalization amount of the components replaced.
- (c) *Charger and Batteries for Switch yard*: The Commission vide its order in Petition No. 408/GT/2020 observed that the Petitioner therein, had failed to submit the OEM certificate and decapitalization cost, and therefore this Commission only allowed the cost in-principle. Considering that the Petitioner has failed to justify the expenditure incurred and the non-submission of relevant documents as per Regulation 14(3)(vii) of the 2014 Tariff Regulations, the claim of the Petitioner for Charger and Batteries for switch yard may be rejected.
- (d) *Numerical Generator protection Relay*: As per Regulation 14(3)(vii) of the 2014 Tariff Regulations, the claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level. The Petitioner has not provided the relevant and necessary document in support of this claim and therefore the claim may not be allowed.
- (e) *Bio Digester and Piping system*: The Petitioner has not substantiated its claim for the installation of biogas digester and why the same qualifies as an event of change in law. Under the notification dated 8.4.2016 issued by Ministry of Environment, Forest and Climate Change (MoEF&CC), the installation of



biogas digester is not mandatory and merely recommendatory in nature. Further, the benefits on account of production of biogas shall be adjusted in the capital cost. The Petitioner has made no submissions pertaining to the sharing of profits and benefits arising out of such additional expenditure. Further, such expenditure against the installation of biogas digester leads to additional burden on the consumer and therefore cannot be allowed by this Commission. Further, any benefit arisen out of the same, should also be shared with the beneficiaries in the overall interest of the consumers.

- (f) *Solar PV installation:* The installation of Solar PV is an additional expenditure which creates burden on the consumer and therefore should not be allowed by the Commission. In case the same is being allowed by this Commission, the benefits arising out the installation of Solar PV shall be shared by the Petitioner and further share the commercial proposal.
- (g) *LED Electrification:* The Petitioner has claimed additional expenditure on account of LED electrification and replacement of LED bulb which is revenue expenditure and therefore cannot be allowed. The same must be recovered from the O&M cost and should not bear any additional burden on consumers. Pertinently, energy efficiency is a regular practice in the electricity sector and the Petitioner should have taken *suo-moto* cognizance of such regular changes. Further, such expenditures should be recovered from their approved O&M cost.

23. In response to the above, the Petitioner has clarified as under:

(a) *Land Compensation:* In the present case, the Petitioner after acquiring the land and accepting the compensation awarded by Land Acquisition Officer, certain land losers approached district Court of Etawah seeking an increase in the market value of land from Rs. 100 per acre to Rs. 200 per acre. Aggrieved by the Order passed by the District Court, the Petitioner filed an appeal whereby the Hon'ble High Court of Allahabad dismissed the said Appeal and remanded the matter back to the District Court in which the final order is yet to be pronounced. Therefore, the interest liability was capitalized during the period 2014-19. As the current capitalization corresponds to the activity of land acquisition completed before the cutoff date, this Commission may be pleased to allow capitalization of the same under Regulation 14 (3) (i) and 14 (3) (v) of the 2014 Tariff Regulations.

(b) *LED Lighting:* Any directions of the Government of India is required to be implemented. Therefore, in order to comply with the directions issued by the Hon'ble Prime Minister and the Government, the Petitioner had initiated the work of replacing the old inefficient lights with energy efficient LED lighting in the premises of the station compound/ building owned and operated by NTPC. Hence, the Commission may be pleased to allow the said capitalization under



change in law as per Regulation 14 (3) (ii) read with Regulation 3.1 (9) read with Regulation 3.1. (31) of the 2014 Tariff Regulations.

(c) *Self-Propelled articulation boom lift*: The Self-Propelled Articulating Boom Lift has been procured for safe and fast working on height in 220KV and 400KV SIY. Since, Compensation Allowance and Special Allowance are not admissible for gas stations, this Commission may be pleased to allow the same.

(d) *Solar Water Heating System*: The Petitioner while claiming the expenditure towards the installation of solar water heating system at the instant station had submitted that, the said installation would reduce greenhouse gases and thereby reduce emissions. In view of this, it is respectfully submitted that the claims of the Petitioner should be allowed.

(e) *Charger and Batteries for switch yard, Numerical Generator Protection relay, Bio Digester and Piping System*: The Petitioner has submitted the justification along with the relevant documents vide additional submissions dated 27.7.2022 and 16.8.2022.

15. We have examined the matter. The Petitioner has claimed total additional capital expenditure of Rs. 64321.36 lakh towards works pertaining to Replacement of Hot Gas Path Components including C&I package, Boundary Wall (Phaphund Road), Outer boundary wall height increase, Car Shed in plant area shifting, Lighting Mast, Online environmental monitoring, Effluent Disposal Monitoring system & uses of STP water, Phasing out of Halon firefighting system and Supply cum Erection of 220V & 50V DC Chargers & Batteries for Switchyard. The detailed justification of the works allowed and disallowed is provided as under:

Replacement of Hot Gas Path Components including C&I package

16. The Petitioner has submitted that the Initial Budgetary Offer of Rs. 810 crore in Japanese Yen was received from OEM M/s MHI in September, 2007 (excluding taxes & duties, spares & C&I package) for R&M of GTs, where the exchange rate was 0.35 Rs/yen (i.e., September 2007). Further, based on the CEA's approval for R&M vide letter dated 11.12.2007, the Petitioner had explored around 10-12 vendors for the



R&M of its generating station for adequate competition during the bidding process. However, except for the OEM referred above, other parties had expressed their inability to take up the job. Subsequently after bidding process and detailed negotiation, the package was finally awarded to OEM viz. M/s MHI in Oct 2012 with an award value of Rs. 794 crore, in Japanese Yen (excluding taxes & duties, spares & C&I package) against Budgetary Offer of Rs. 810 crore in Japanese Yen. However, due to the then prevailing exchange rate of 0.69 Rs/yen (in October 2012), the contract value had increased by Rs 267 crore in Indian rupees. Therefore, the change in contract value was due to Foreign Exchange Rate Variation (FERV), which was beyond the control of the Petitioner.

17. The Petitioner has further submitted that, even if contract had been awarded in December, 2007 after CEA's approval, based on initial budgetary offer, with 29 months completion period, from the date of award, the work would have been completed/ capitalized during May, 2010. The exchange rate prevailing during May, 2010 was 0.52 Rs./yen. The Petitioner has stated that the impact of such change in FERV after capitalization is recoverable through tariff as per the Tariff Regulations. Thus, at the time of actual capitalization of R&M work during March 2015, the exchange rate was 0.56 Rs/yen with the difference of only 0.04 Rs/yen, as compared to the rate prevailing in May 2010.

18. The Commission has separately allowed the expenditure towards the Replacement of obsolete DDC and MIS system. The Petitioner, in this present petition, has included R&M of C&I package also in the scope of work of the awarded contract which is around Rs 81 crore. In view of the above, the Petitioner has prayed



to allow the total additional capital expenditure of R&M of GTs i.e., 'Replacement of Hot Gas Path Components including C&I package'.

19. The Respondent, UPPCL has submitted that the Commission vide its order dated 18.4.2017 in Petition No. 285/GT/2014, had directed the Petitioner, to undertake selective R&M activities only, which are essential to run the plant for another 10 years. It has accordingly submitted that the additional capital expenditure towards 'Replacement of Hot Gas Path Components including C&I Package' may be restricted to Rs. 24103 lakh. The Respondent BRPL has submitted that the amount claimed by the Petitioner for Replacement of Hot Gas Path Components including C&I package, is not in line with the amount allowed by order dated 18.4.2017 in Petition No. 285/GT/2014 and therefore, the Petitioner cannot claim any amount without providing any supporting documents/reports/invoices substantiating its claim. The Respondent TPDDL has made the following submissions:

(a) Replacement of Hot Gas Path Component including C&I package: As per Regulation 14(3)(vii) of 2014 Tariff Regulations, the claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level. The Petitioner has not provided the relevant and necessary document in support of this claim and therefore the instant claim cannot be allowed. It is further submitted that as per Regulation 14 of the 2014 Tariff Regulations, this Commission must conduct a prudence check prior to allowing the claims of the Petitioner under the head of 'additional expenditure'.

20. In response to the above, the Petitioner has clarified as under:

(a) The Initial budgetary offer of Rs. 810 crores in Japanese Yen was received from OEM, (M/s Mitsubishi Heavy Industries Ltd. in September, 2007 (excluding taxes & duties, spares & C&I package) for R&M of GTs. At that time (i.e., Sept 2007) the exchange rate was 0.35 Rs/yen. After seeking approval from CEA for R&M vide letter dated 11.12.2007, the Petitioner had explored around 10-12 vendors for R&M of the generating station so that there would be



adequate competition during the bidding process.

- (b) It may be noted that other than OEM, other parties also expressed their inability to take up the job. Subsequently, after bidding process and detailed negotiation, the package was finally awarded to OEM M/s MHI in October 2012 with award value of Rs. 794 crore in Japanese Yen (excluding taxes & duties, spares & C&I package) against Budgetary Offer of Rs. 810 Crore in Japanese Yen.
- (c) However, due to the prevailing exchange rate (in October 2012) of 0.69 Rs/yen the contract value has increased by around Rs 267 crore in Indian Rupees. Therefore, the change in contract value is because of FERV, which was beyond the control of the Petitioner.
- (d) Even if contract had been awarded in December 2007, after CEA approval, based on initial budgetary offer with 29 months completion period, from the award, the work would have been completed and capitalized in May, 2010. During the month of May 2010, the exchange rate was 0.52 Rs/yen. The impact of such change in ERV after capitalisation is recoverable through tariff as per the 2014 Tariff Regulations.
- (e) At the time of actual capitalisation of R&M work in March 2015, the exchange rate was 0.56 Rs/yen, with the difference of only 0.04 Rs/yen, with respect to, that in May, 2010. In addition to the expenditure already allowed by the Commission, the Petitioner had included R&M of C&I package also, in the scope of work of the awarded contract, which is around Rs 81 crore. In view of this, the Commission may allow the total additional capital expenditure towards the R&M of GTs.

21. The matter has been considered. It is observed that the claim towards the 'Replacement of Hot Gas Path Components including C&I package' was first considered in order dated 23.5.2012 in Petition No. 270/2009, wherein, the Petitioner had sought its claim, based on the CEA's approved cost of Rs. 35367.00 lakh, as against the initial budgetary offer of Rs. 41323.00 lakh from M/s Mitsubishi Heavy Industries Ltd. (MHI). The summary of Petitioner's claim toward R&M of GTs and those considered in the various tariff orders issued by the Commission is tabulated below:



270/2009	Claimed	Rs. 35367 lakh (Rs. 8842.00 lakh during 2012-13 + Rs. 26525.00 lakh during 2013-14) as against the initial budgetary offer of Rs. 41324 lakh (inclusive of Taxes & Duties) to OEM M/s MHI Ltd.
	Allowed	Rs. 24103 lakh (Rs. 35367 lakh - Rs. 5930.40 lakh towards Capital Spares - Rs. 5334 lakh towards decapitalization estimated by the Petitioner)
28/GT/2012	Claimed	Petitioner has not claimed any additional Capitalization during 2012-13 and 2013-14 towards such works as approved in Petition No. 270/2009
	Allowed	No Additional Capitalization was allowed due to zero claims by the Petitioner
285/GT/2014	Claimed	The Petitioner has claimed additional capital expenditure of Rs 55032.00 lakh (Rs 51200.00 lakh in 2014-15 and Rs 3832.00 lakh in 2015-16) as against the projected additional capital expenditure for `35367.00 lakh (Rs 8842.00 lakh during 2012-13 and Rs 26525.00 lakh in 2013- 14) allowed vide order dated 23.5.2012 in Petition No. 270/2009.
	Allowed	Restricted to Rs. 24103 lakh (Rs. 35367 lakh - Rs. 5930.40 lakh towards Capital Spares - Rs. 5334 lakh towards decapitalization estimated by the Petitioner), where the pro-rata additional capital expenditure of Rs. 22424.65 lakh (51200/55032x24103) in 2014-15 and Rs 1678.35 lakh (3832/55032x24103) in 2015-16 was allowed, as the increase is on account of escalation in price of components of the gas station due to inability of the Petitioner to complete R&M activities within 2009-14 and addition in scope of works. Accordingly, the Petitioner was directed to undertake the selective R&M activities which are essential to run the generating station for another 10 year to keep the increase in per unit cost of power to bare minimum. Further, the Petitioner was also directed to furnish the asset-wise detailed break-up of the additional capital expenditure incurred for R&M of GTs with proper justification at the time of truing-up of tariff and the same shall be considered in accordance with law.
295/GT/2020 (Present Petition)	Claimed	Based on above direction, the Petitioner has claimed additional capital expenditure of Rs. 62621.43 lakh (Rs. 62541.07 lakh in 2014-15 + Rs. 80.36 lakh in 2017-18) exclusive of actual decapitalization of Rs. 10346.36 lakh claimed during 2014-15.

22. The Commission vide ROP of the hearing dated 6.9.2022, had directed the Petitioner to furnish the following additional information:

- (i) *“In line with directions of the Commission in its order dated 18.4.2017 in Petition No. 285/GT/2014, the Petitioner shall submit the asset-wise detailed break-up for the additional capital expenditure claimed towards ‘Replacement of Hot Gas Path Components including C&I package’ duly certified by the Auditor.”*

23. In compliance to the above, the Petitioner has submitted the following:

- a. The Contract for “Replacement of Hot Gas Path Components including C&I Package” was awarded to OEM M/s MHI. The scope of contract consists of contract for Design, Engineering, Manufacture, Transportation, Erection, Commissioning and Testing related with R&M of Gas Turbines and their Control & Instrumentation (C&I).
- b. The R&M of Gas Turbine covered the following section of Gas Turbine:
- Inlet Section of Compressor
 - Compressor Section
 - Combustor Section
 - Turbine Section
 - Rotor Section
 - Exhaust Section



c. The C&I Package R&M covered mainly following:

- Replacement of DDCMIS/GTC hardware and Software
- Replacement of HMIPIS(OPS/OPC/LVS)
- ITP and Fat Procedures
- TSI & Vibration Monitor replacement of GT and ST
- Replacement of Vibration Monitor for Auxiliaries & Speed Sensor of GT
- Flame Scanner Replacement
- Control Desk, Unit Control Panel (UCP) and Back Up Panel Replacement
- Replacement of UPS, DC Power Supply, Aux Relays, Junction boxes
- Master Slave Clock Replacement

24. Also, the details of R&M work taken under 'Replacement of Hot Gas Path Component including C&I package' along with the Auditor Certificate has been submitted by the Petitioner. Further, the Petitioner has also submitted the break-up of variation of awarded value of R&M contract and the initial budgetary offer against actual capitalization of work. It is observed from the above that there is difference of Rs. 267 crores, due to FERV between the initial budgetary offer in 2007 and the awarded value in 2012. While, the difference between the initial budgetary offer and the capitalization of work in 2015 is Rs. 160 crore, the overall increase of Rs. 348 crore, is mainly due to FERV impact and the corresponding applicable taxes and duties and due to inclusion of change of scope (C&I and other). The Petitioner has also claimed Rs. 81 crore, which includes R&M of C&I package of Rs. 42 crore and change in the scope of work of the awarded contract which is around Rs 39 crore, due to change in freight charges and taxes. As regards the amount of Rs. 42 crore for C&I package, the Petitioner has submitted that it has included the same at later stage, since, the amount was not part of projected claim allowed in order dated 18.4.2017.

25. After verification of the details submitted by the Petitioner, we notice that the claim of the Petitioner towards 'Replacement of Hot Gas Path Components including C&I Package' is in order. It is also pertinent to note that the additional capital expenditure approved in the previous order was based on the 2007 estimated figures,



and hence cannot be compared with the actual additional capital expenditure incurred during the years 2014-15 and 2017-18, as arrived through competitive bidding. Thus, keeping in view that the Petitioner has furnished the details of the asset wise break-up towards the R&M of GT including C&I package, cost with bifurcation and Auditor certificate for the said works and the fact that cost has been discovered through a transparent process of bidding, we allow the additional capital expenditure claimed by the Petitioner, along with corresponding actual de-capitalization value furnished by the Petitioner.

26. As regards capital spares of Rs. 5930.40 lakh, which was adjusted by the Commission, based on the CEA's approved cost of Rs. 35367.00 lakh vide order dated 23.5.2012 in Petition No. 270/2009, the Commission vide its order dated 19.2.2019 in Review Petition No. 32/RP/2017 in Petition No. 325/GT/2014, had decided that the deduction of capital spares was based on the provisions of the 2009 Tariff Regulations. It was also observed that as per the 2014 Tariff Regulations, the expenditure on capital spares is allowed separately in terms of the Regulation 29(2) of the 2014 Tariff Regulations, based on the details submitted by the Petitioner. The Commission also decided that since capital spares do not form part of the normative O&M expenses during the period 2014-19, the Petitioner may claim such expenditure towards capital spares along with the documentary evidence and justification at the time of truing-up of tariff. The relevant portion of the order is extracted below:

"22. We have examined the submissions of the parties and perused the documents on record. It is observed that the Commission in order dated 30.12.2011 in Petition No. 226/2009 (approval of tariff of the generating station for 2009-14) had, based on a conscious decision, deducted `5877 lakh pertaining to capital spares which was included in the normative O&M expenses granted to the generating station. The *relevant portion of the said order is extracted hereunder:*

"40. The proposed expenditure on R&M of Gas Turbines involves the replacement of Hot Gas Path (HGP) components of Gas Turbines. The estimated expenditure during the different years is based on the revised R&M budget on 13.2.2007. It is observed that the petitioner intends to purchase one set each of HGP for all the turbines rows rotor blades, on the turbine vane rows, vane carriers, hot gas casings, exhaust casing, heat shield rows for rotor and stator etc. It is also noticed that the petitioner is procuring turbine rotor blades for rows 1, 2, 4 and 5 for GT-1 once again during 2011-



12. Thus, it is evident that that the purchase of HGP components as proposed by petitioner, also includes certain capital spares which are to be used in future. Since the R&M on GTs would be in the nature of major overhaul, suitable adjustment of capital spares included in the normative Operation & Maintenance expense is required. The expenditure on capital spares included in O&M corresponding to major overhaul is to the tune of Rs. 5877.00 lakh. This capital expenditure, other than the expenditure on refurbishing of Gas Turbine rotors is covered under O&M expenses, which includes at least one major overhaul, for each Gas Turbine during the period 2009-14. In view of this, the expenditure for Rs. 5877.00 lakh is deducted from the additional capital expenditure allowed during 2009-14."

23. Further, in the Statement of Reasons for the 2009 Tariff Regulations, the Commission had stated the following:

"20.3 The Operation & Maintenance cost for the purpose of tariff covers expenditure incurred on the employees including gratuity, CPF medical, education allowances etc, repair and maintenance expenses including stores and consumables, consumption of capital spares not part of capital cost, security expenses, administrative expenses etc. of the generating stations, corporate expenses apportioned to each generating stations etc. but exclude the expenditure on fuel i.e. primary fuel as well as secondary and alternate fuels."

24. Thus the deduction of said expense amounting to `3912 lakh was based on the provisions of the 2009 Tariff Regulations. However, under the 2014 Tariff Regulations, the expenditure on capital spares is allowed separately in terms of Regulation 29(2) based on the details furnished by the Petitioner.

25. Since, the Capital spares are no more part of normative O&M expenses during the period 2014-19 and the Petitioner has the opportunity to approach the Commission through the final truing up petition, we are of the view that the Petitioner may claim the expenditure on Capital spares, along with documentary evidence and justification at the time of final truing up."

27. In this background, the Commission has not considered any deduction of the capital spares towards the 'Replacement of Hot Gas Path Components including C&I Package', since there is no separate claim by the Petitioner during the period 2014-19. Accordingly, we allow the additional capital expenditure of Rs. 62621.43 lakh (Rs. 62541.07 lakh in 2014-15 + Rs. 80.36 lakh in 2017-18) towards 'Replacement of Hot Gas Path Components including C&I Package' as claimed by the Petitioner during period 2014-19. It is noticed that the decapitalization value of Rs. 5334.00 lakh has been considered for old replaced assets in order dated 18.4.2017. However, the Petitioner, in the present petition, has claimed decapitalization for Rs.10346.06 lakh, for old replaced assets and the same has been considered under 'decapitalization'. Further, the detailed justification for the additional capitalization for assets, other than for 'Replacement of Hot Gas Path Components including C&I package' is tabulated below:



Additional Capital Expenditure :: the detailed justification for the additional capitalization other than 'Replacement of Hot Gas Path Components including C&I package' is provided in the table below.

(Rs in lakh)

Sr. No.	Assets/Works	Regulations	Claimed	Allowed	Justification for admissibility
2014-15					
Additions against the Works already approved by the Commission					
1	Replacement of Hot Gas Path Components including C&I package	14 (3) (vii)	62541.07	62541.07	As discussed in paragraphs 21 to 27 above.
2	Boundary wall in acquired land	14 (3) (iii)	3.12	0.00	The Petitioner has claimed additional capitalization based on the recommendations of IB in its report as enclosed vide affidavit dated 16.8.2022. Since no specific recommendations have been made by IB in the said report, we are not inclined to allow the claimed additional capitalization. Moreover, the Petitioner has also not provided any substantial justification along with supporting documentary evidence, in compliance to the directions of the Commission vide order dated 18.4.2017 in Petition No. 285/GT/2014. In view of this, the claim of the Petitioner is not allowed .
New Claims					
3	Retrofitting of 400kV ABCB with SF6 CBs	14 (3) (vii)	149.62	149.62	The Petitioner has submitted that the existing Air Blast Circuit Breakers (ABCBs) were in service for more than 25 yrs. The Petitioner has also submitted that due to obsolescence of technology and non-availability of spares, the same was needed to be replaced. It has stated



					<p>that presently, SF6 Gas type CB is most reliable CB.</p> <p>Keeping in view the submissions of the Petitioner and since the expenditure incurred is on account of replacement of the asset /work due to obsolescence of technology, the claim of the Petitioner is allowed under Regulation 14 (3) (vii) of the 2014 Tariff Regulations. The corresponding de-capitalization of old asset has been considered under 'Assumed Deletions'</p>
4	Supply & Erection of Numerical Generation Protection Relay	14 (3) (vii)	75.71	75.71	<p>The Petitioner has submitted that the existing Electrostatic Relays for Generator protection system were in service for more than 25 yrs. Due to obsolescence of technology and non-availability of spares, it was needed to be replaced. Presently, Numerical Relay is most reliable than any other type of Relays. Therefore, old Electrostatic Relays for Generator protection system have been replaced with Numerical Relays due to obsolescence of technology & non-availability of spares as well as to enhance the reliability of protection system.</p> <p>Keeping in view the submissions of the Petitioner and since the expenditure incurred is on account of replacement of the asset /work due to obsolescence of technology, the claim of</p>



					the Petitioner is allowed under Regulation 14 (3) (vii) of the 2014 Tariff Regulations. The corresponding de-capitalization of old asset has been considered under 'Assumed Deletions'
5	AIR (COMPRESSED AIR) SYSTEM	14 (3) (vii)	112.36	112.36	<p>The Petitioner has submitted that, the existing reciprocating type of Air Compressors were in service for more than 25 yrs. Due to obsolesce of technology and non-availability of spares, it was needed to be replaced. Presently, Screw type Air Compressors is more energy efficient than Reciprocating type Air Compressors. Therefore, old Reciprocating type Air Compressors were replaced with new technology Screw type Air Compressor due to obsolesce of technology & non-availability of spares as well as for better efficiency, low maintenance and improved reliability.</p> <p>Keeping in view the submissions of the Petitioner and since the expenditure incurred is on account of replacement of the asset /work due to obsolescence of technology, the claim of the Petitioner is allowed under Regulation 14 (3) (vii) of the 2014 Tariff Regulations. The corresponding de-capitalization of old asset has been considered as submitted by the Petitioner.</p>



6	Land Compensation as per High Court Order	14 (3) (i) & 14(3)(v)	0.00*	0.00*	The Petitioner has claimed the Land Compensation based as additional capital expenditure based on the recommendations of the ICAI Committee Report, where the interest paid due to enhancement of land compensation by court form part of land cost and should be capitalized in the books of accounts. The Petitioner has claimed the same on accruals basis. Since the matter is sub-judice before the District Court, the additional capital expenditure towards the land compensation shall be considered only after the final decision of the District Court.
7	SELF PROPELLED ARTICULAING BOOM LIFT	14 (3) (iii)	47.00	0.00	The Petitioner has submitted that the asset has been procured for safe and fast working on height in 220 KV and 400 KV S/Y. The Petitioner has claimed the additional capital expenditure under Regulation 14(3)(iii) of the 2014 Tariff Regulations, which provides the allowance of the additional capital expenditure for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security. Considering the nature of the asset, the same is not allowed
8	SEQUENCE OF EVENTS LOGGER	14 (3) (vii)	13.37	13.37	The Petitioner has submitted that in order to increase the reliability of



					<p>power supply, the root cause of each unit tripping must be analyzed so that the same could be avoided in future by taking corrective action. Thus, for fault finding and root cause analysis, Sequence of Event (SoE) Logger has been installed.</p> <p>It is observed that, the claim of the Petitioner towards the capitalization of the sequence of event logger was for increasing the reliability of power supply and for the analysis of the root cause of generator tripping's, which is essential for running the generating station efficiently in order to take corrective actions based on the past events logs. Since, the expenditure will facilitate the efficient operation of the plant, same is allowed under Regulation 14(3)(vii) of the 2014 Tariff Regulations.</p>
9	Solar water heating system	14 (3) (ii)	4.01	0.00	<p>The Petitioner has submitted that the installation of Solar Water Heating System (SWHS) is an initiate towards Energy Conservation measures and to reduce greenhouse gases. The Petitioner has claimed the additional capital expenditure under Regulation 14(3)(ii) of the 2014 Tariff Regulations, which provides the allowance of the additional capital expenditure under 'change in law' event. However, it is observed that the Petitioner has</p>



					claimed the additional expenditure based on the recommendations of GOI, which is not mandatory. Thus, the Petitioner has failed to demonstrate that the claim is on account of a 'change in law' event. In view of this, the claim for additional expenditure is not allowed in terms of the first proviso of Regulation 14(3) of the 2014 Tariff Regulations.
	Total amount Claimed		6294 6.26		
	Total amount allowed				62892.13

*Note=On accrual basis hence zero claim by the Petitioner

2015-16

(Rs in lakh)

Sr. No.	Assets/Works	Regulations	Claimed	Allowed	Justification for admissibility
Additions against the Works already approved					
1	Boundary wall in acquired land	14 (3) (iii)	42.25	0.00	The Petitioner has claimed additional capitalization based on the recommendations of IB in its report as enclosed vide affidavit dated 16.8.2022. Since no specific recommendations have been made by IB in the said report, we are not inclined to allow the claimed additional capitalization. Moreover, the Petitioner has also not provided any substantial justification along with supporting documentary evidence, in compliance to the directions of the Commission vide order dated 18.4.2017 in Petition No. 285/GT/2014. In view of this, the claim of the Petitioner is not allowed .
2	Boundary Wall (Phaphund Road)	14 (3) (iii)	58.36	58.36	The Petitioner has claimed additional capitalization based on the recommendations of IB in
3	Outer boundary wall height increase		51.50	51.50	
4	Car Shed in plant area shifting		13.72	13.72	



5	Lighting Mast		13.44	13.44	its report as enclosed vide affidavit dated 16.8.2022. It is observed that, the additional capitalization claimed by the Petitioner is in terms of the recommendations of IB and in line with Regulation 14(iii) of the 2014 Tariff Regulations and is also in compliance to the directions of the Commission vide order dated 18.4.2017 in Petition No. 285/GT/2014. In view of the above, the additional capitalization claimed for the respective works, is allowed.
6	Online Environmental monitoring	14 (3) (ii)	49.41	49.41	The Petitioner has claimed additional capital expenditure on these assets, as part of the compliance to the directions contained in the letter dated 16.4.2014 of the Uttar Pradesh Pollution Control Board (UPPCB) read with Section 33A of Water (Prevention & Control of Pollution) Act, 1981. The details of the same was enclosed by the Petitioner as part of the original petition. It is observed from the letter dated 16.4.2014 of UPPCB that the Petitioner has been directed to install Continuous Stack Emission Monitoring System and Effluent Disposal Monitoring System by March, 2015 and the same is necessary to maintain the environmental norms. Since the expenditure incurred is in terms of the statutory guidelines, we allow the additional capital expenditure claimed for the said assets/ items.
7	Effluent Disposal Monitoring system & uses of STP water	14 (3) (ii)	58.33	58.33	
8	Phasing out of Halon firefighting system	14 (3) (ii)	10.10	10.10	The claim of the Petitioner is towards the replacement of the Halon System for



					protection of Ozone Layer. The Commission vide its order dated 6.8.2013 in Petition No. 28/GT/2013 had allowed the additional capitalization on the ground that the asset is required for statutory compliance in terms of the National Fire Protection Association Standard on Clean Agent Fire Extinguishing system (NFPA-2001). In view of this, the claim of the Petitioner is allowed .
New Claims					
9	AIR (COMPRESSED AIR) SYSTEM	14 (3) (vii)	7.27	7.27	The Petitioner has submitted that the existing reciprocating type of Air Compressors were in service for more than 25 yrs. It has also submitted that due to obsolesce of technology and non-availability of spares, it was needed to be replaced. The Petitioner has stated that presently, screw type Air Compressors is more energy efficient than the reciprocating type Air Compressors and therefore, old reciprocating type Air Compressors were replaced with new technology Screw type Air Compressor due to obsolesce of technology & non-availability of spares as well as for better efficiency, low maintenance and improved reliability. Keeping in view the submissions of the Petitioner and since the expenditure incurred is on account of replacement of asset /work due to obsolescence of technology, the claim of the Petitioner is allowed under Regulation 14 (3) (vii) of the 2014 Tariff



					Regulations.
10	Land Compensation as per High Court Order	14 (3) (vii)	0.00	0.00	The Petitioner has claimed the Land Compensation based as additional capital expenditure based on the recommendations of the ICAI Committee Report, where the interest paid due to enhancement of land compensation by court form part of land cost and should be capitalized in the books of accounts. The Petitioner has claimed the same on accruals basis. Since the matter is sub-judice before the District Court, the additional capital expenditure towards the land compensation shall be considered only after the final decision of the District Court.
11	ENERGY EFFICIENT PUMPS FOR AUGPS	14 (3) (vii)	21.94	21.94	The Petitioner has submitted that, in each Gas



					<p>Turbines (GTs), there are two (2) nos of Cooling Water Circulating Pumps (CWCPs) which has outlived its useful life and became obsolete, and spares were not available. These pumps were replaced with energy efficient pumps.</p> <p>Keeping in view that the expenditure is on account of replacement of asset /work due to obsolescence of technology, the claim of the Petitioner is allowed under Regulation 14 (3) (vii) of the 2014 Tariff Regulations.</p> <p>Corresponding de-capitalization of old asset has been considered under 'Assumed Deletions'</p>
12	Solar system 10 KW	14 (3) (vii)	8.00	0.00	<p>The Petitioner submitted that, the Installation of 10 KW Rooftop Solar PV was an initiative towards Environment and Energy Conservation measures to reduce Guest House Gases (GHG) and to save electricity. Since Compensation Allowance and Special Allowance are not admissible for gas stations, the Commission may be pleased to allow the same.</p> <p>It is observed that, the Petitioner has referred to Regulation 14(3) (vii) of the 2014 Tariff Regulations, which provides specifically for the allowance of the additional capitalization, which has become necessary for efficient operation of generating station duly supported by technical justifications and documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an</p>



					independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level. However, the Petitioner has not submitted any of the supporting documents to support its claim. In this background, the Petitioner's claim is not allowed .
	Total amount claimed		334.32		
	Total amount allowed				284.06

2016-17

(Rs in lakh)

Sr. No.	Assets/Works	Regulations	Claimed	Allowed	Justification for admissibility
Additions against the Works already approved					
1	Boundary wall in acquired land	14 (3) (iii)	10.52	0.00	The Petitioner has claimed additional capitalization based on the recommendations of IB in its report as enclosed vide affidavit dated 16.8.2022. Since no specific recommendations have been made by IB in the said report, we are not inclined to allow the claimed additional capitalization. Moreover, the Petitioner has also not provided any substantial justification along with supporting documentary evidence, in compliance to the directions of the Commission vide order dated 18.4.2017 in Petition No. 285/GT/2014. In view of this, the claim of the Petitioner is not allowed .
2	Outer boundary wall height increase	14 (3) (iii)	16.20	16.20	The Petitioner has claimed additional capital expenditure as part of the compliance to the directions contained in the letter dated 16.4.2014 of the Uttar Pradesh Pollution Control Board (UPPCB) read with Section 33A of Water (Prevention & Control of Pollution) Act, 1981. The details of the same was enclosed by the Petitioner as part of the original petition. It is observed from the letter dated 16.4.2014 of UPPCB that, the Petitioner has been directed to install Continuous Stack Emission Monitoring System and Effluent Disposal Monitoring System by March 2015 and the same is
3	Online environmental monitoring	14 (3) (iii)	3.39	3.39	



Sr. No.	Assets/Works	Regulations	Claimed	Allowed	Justification for admissibility
Additions against the Works already approved					
					necessary to maintain the environmental norms. Since the expenditure incurred is based on the statutory guidelines, we allow the projected additional capital expenditure claimed by the Petitioner.
4	Patrolling road along boundary wall	14(3) (ii)	234.42	234.42	The Petitioner has claimed additional capitalization based on the recommendations of IB in its report as enclosed vide affidavit dated 16.8.2022. It is observed that, the additional capitalization claimed by the Petitioner is in terms of the recommendations of IB and in line with Regulation 14(iii) of the 2014 Tariff Regulations and is also in compliance to the directions of the Commission vide order dated 18.4.2017 in Petition No. 285/GT/2014. In view of the above, the additional capitalization claimed for the respective works, is allowed
New Claims					
5	Solar System 2 x 30 KW	14(3) (ii)	0.98	0.00	The Petitioner has claimed the additional capital expenditure under Regulation 14(3)(ii) of the 2014 Tariff Regulations, which provides the allowance of the additional capital expenditure under the event of 'change in law'. The Petitioner in justification of the same has submitted that, to achieve the target of 175 GW proposed by GOI, it is taking lot of initiatives towards installation of Renewable Energy. In this regard, it has submitted that 2 x 30 kW Rooftop Solar PV were installed at the generating station. It is observed that the Petitioner has claimed the additional expenditure based on the recommendations of GOI, which is not mandatory. Thus, the Petitioner has failed to demonstrate that the present claim is based on a 'change in law' event. Also, the claim towards additional expenditure has not relevance in increasing the efficiency of the generating station and thus the allowance of the same would result in additional burden on the beneficiaries. In view of the same, the additional capital expenditure claimed is not allowed .



Sr. No.	Assets/Works	Regulations	Claimed	Allowed	Justification for admissibility
Additions against the Works already approved					
6	Supply cum Erection of 220V & 50V DC Chargers & Batteries for Switchyard	14(3) (vii)	20.60	20.60	The Petitioner has submitted that, the existing 220 V DC and 50 V DC system consisting of Battery Chargers and Batteries was in service for more than 25 years and became obsolete. It has also submitted that due to obsolescence of technology & non-availability of spares, the same was needed to be replaced which will enhance the reliability of PLCC system. Keeping in view that the expenditure is on account of replacement of asset /work due to obsolescence of technology, the claim of the Petitioner is allowed under Regulation 14 (3) (vii) of the 2014 Tariff Regulations. The corresponding de-capitalization of old asset has been considered under 'Assumed Deletions'
7	ALLOY ANALYZER COMP ASSY	14(3) (vii)	18.31	0.00	The Petitioner has submitted that, to check and ensure proper quality and composition of the material being supplied as per the specifications mentioned in the purchase order, an alloy analyzer was required to be procured at the generating station. The claim for additional expenditure is not allowed in terms of the first proviso of Regulation 3 of the 2014 Tariff Regulations.
	Total amount claimed		304.42		
	Total amount allowed				274.61

2017-18

(Rs in lakh)

Sr. No.	Assets/Works	Regulations	Claimed	Allowed	Justification for admissibility
Additions against the Works already approved					
1	Replacement of Hot Gas Path Components including C&I package	14(3) (vii)	80.36	80.36	As discussed in paragraphs 21 to 27 above.



2	Patrolling road along boundary wall	14 (3) (iii)	27.97	27.97	The Petitioner has claimed additional capitalization based on the recommendations of IB in its report as enclosed vide affidavit dated 16.8.2022. It is observed that, the additional capitalization claimed by the Petitioner is in terms of the recommendations of IB and in line with Regulation 14(iii) of the 2014 Tariff Regulations and is also in compliance to the directions of the Commission vide order dated 18.4.2017 in Petition No. 285/GT/2014. In view of the above, the additional capitalization claimed for the respective works is allowed
New Claims					
3	Retrofitting of 400kV ABCB with SF6 CBs	14(3) (ii)	158.91	158.91	The Petitioner has submitted that the existing Air Blast Circuit Breakers (ABCBs) were in service for more than 25 yrs. The Petitioner has also submitted that due to obsolescence of technology and non-availability of spares, the same was needed to be replaced. It has stated that presently, SF6 Gas type CB is most reliable CB. Keeping in view the submissions of the Petitioner and since the expenditure incurred is on account of replacement of the asset /work due to obsolescence of technology, the claim of the Petitioner is allowed under Regulation 14 (3) (vii) of the 2014 Tariff Regulations. The corresponding de-capitalization of old asset has been considered under 'Assumed Deletions'



4	Solar System 2 x 30 KW	14(3) (vii)	5.22	0.00	<p>The Petitioner has claimed the additional capital expenditure under Regulation 14(3)(ii) of the 2014 Tariff Regulations, which provides the allowance of the additional capital expenditure under the event of 'change in law'. The Petitioner in justification of the same has submitted that, to achieve the target of 175 GW proposed by GoI, it is taking lot of initiatives towards installation of Renewable Energy. In this regard, it has submitted that 2 x 30 kW Rooftop Solar PV were installed at the generating station.</p> <p>It is observed that, the Petitioner has claimed the additional expenditure based on the recommendations of GOI, which is not mandatory. Thus, the Petitioner has failed to demonstrate that the present claim is based on a 'change in law' event. Also, the claim towards additional expenditure has not relevance in increasing the efficiency of the generating station and thus the allowance of the same would result in additional burden on the beneficiaries. In view of the same, the additional capital expenditure claimed is not allowed.</p>
5	216KV,10KA gapless type Lightning Arrester (LA)	14(3) (vii)	2.67	0.00	<p>The Petitioner has referred to Regulation 14(3)(vii) of the 2014 Tariff Regulations, which specifically provides that the allowance of the additional capital expenditure which has become necessary for efficient operation of the generating station, shall be substantiated with the technical justifications duly supported by the documentary evidence carried out by the independent agency. However, the claim for such additional expenditure is not allowed in terms of the first proviso of Regulation 14(3) of the 2014 Tariff Regulations.</p>



6	Gas Chromatograph: Comp Assy	14(3) (vii)	24.08	0.00	<p>The Petitioner has submitted that, the existing Transformers at the generating station are in service for more than 25 yrs. which have lived their useful life and are prone to faults. In the event of electrical fault inside a transformer, a variety of gases evolve in transformers depending on the nature of fault. Previously, oil samples having fault gases were being sent to testing facilities, which is time consuming. Thus, for faster analysis of these dissolved gases on site for locating the type of fault in the transformer, one Gas Chromatograph was required.</p> <p>It is observed that the Petitioner has claimed the asset under Regulation 14(3)(vii) of the 2014 Tariff Regulations, which provides for the allowance of the additional capital expenditure, on assets, which has become necessary for efficient operation of the generating station, and shall be substantiated with the technical justifications duly supported by the documentary evidence carried out by the independent agency. However, it is observed that the Petitioner has not furnished any justification or any supporting documentary evidence in support of its claim. Moreover, the additional capital expenditure claimed by the Petitioner is in the nature of O&M expenses. In view of this, the claim of the Petitioner, is not allowed.</p>
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7	Supply of generator transformer 148 MVA	14(3) (vii)	350.84	0.00	<p>The Petitioner has submitted that all the six (6) generator transformers of the generating stations have outlived its useful life and are prone to fault. It has stated that at present there are no spare generator transformers available with the generating station, since COD. The Petitioner has therefore submitted that at least one spare generator transformer is requirement to meet the requirement in the event of fault. It is observed that the expenditure claimed is in the nature of capital spares. Since capital spares after the cut-off date of the generating station is not admissible in terms of the 2014 Tariff Regulations, the additional capital expenditure claimed by the Petitioner is not allowed.</p>
8	Bio digesters & piping network system	14(3) (vii)	52.83	0.00	<p>The Petitioner has referred to Regulation 14(3)(vii) of the 2014 Tariff Regulations, which specifically provides that the allowance of the additional capital expenditure which has become necessary for efficient operation of the generating station, shall be substantiated with the technical justifications duly supported by the documentary evidence carried out by the independent agency. However, the Petitioner has not provided any justifications or any supporting documentary evidence in support of its claim. Also, the nature of work claimed by the Petitioner has no relevance in improving the generating station's performance or efficiency. In addition to it, the Petitioner has also not been able to demonstrate the benefits that are being passed on to its beneficiaries. In view of the above, the additional capital expenditure claimed is not allowed.</p>



9	Installation of LED based light & fittings	14(3) (ii)	33.49	0.00	<p>The Petitioner in justification of the claim, has referred to the National level schemes such as UJALA & National LED Programme for the reduction of energy consumption by using energy efficient lights. The Petitioner has also referred to the MoP, GoI vide letter dated 2.8.2017 wherein, the Petitioner was requested to replace all old bulbs with LED bulbs in all Petitioner buildings including compound/ street lighting occupied by the Petitioner.</p> <p>It is noticed that the Petitioner has not demonstrated the energy saving benefits for its beneficiaries. In our view, the letter of the MOP, GoI, is recommendatory in nature and cannot be construed as a "change in law" event or for compliance to an existing law, to consider the additional capital expenditure claim of the Petitioner. Moreover, the benefits of replacement of existing lighting system with LED lighting system, accrues to the Petitioner. In view of this, the additional capital expenditure claimed on account of installation of LED lighting is not allowed.</p>
	Total amount claimed		736.36		
	Total amount allowed				267.24
	Total Additional Capitalization claimed		64321.36		
	Total additional capitalization allowed				63718.04

Decapitalization

28. The Petitioner has claimed total de-capitalisation of Rs. 11656.54 lakh, during the period 2014-19, under Regulation 14(4) of the 2014 Tariff Regulations, wherein, Rs. 1133.94 lakh corresponds to de-capitalisation of spares (i.e., Rs. 1101.67 lakh in 2014-15, Rs. 31.17 lakh in 2015-16, Rs. 1.10 lakh in 2016-17), Rs. 169.90 lakh in 2014-15 towards decapitalization of Air (Compressed Air) system, Rs. 6.63 lakh in



2017-18 towards decapitalisation of 'Supply cum Erection of 220V & 50V DC Chargers & Batteries for Switchyard' and Rs.10346.06 lakh in 2014-15, towards decapitalization of 'Replacement of Hot Gas Path Components including C&I package. The Petitioner has further submitted that the notional decapitalisation value of Rs. 19.05 lakh claimed towards Retrofitting of 400kV ABCB with SF6 CBs, Rs. 18.84 lakh claimed towards Supply & Erection of Numerical Generation Protection Relay and 2.45 lakh towards Energy Efficient Pumps for the generating station.

29. The matter has been considered. Regulation 14(4) of the 2014 Tariff Regulations, provides that the original value of de-capitalised assets shall be deducted from the capital cost allowed to the generating station. In view of this, Rs. 1133.94 lakh (i.e., Rs. 1101.67 lakh in 2014-15, Rs. 31.17 lakh in 2015-16, Rs. 1.10 lakh in 2016-17) is allowed as the total decapitalization of capital spares during the period 2014-19. As regards the notional decapitalisation values submitted by the Petitioner towards Retrofitting of 400kV ABCB with SF6 CBs, Supply & Erection of Numerical Generation Protection Relay and Energy Efficient Pumps for the generating station, the Petitioner has not submitted any corresponding workings for computing such decapitalisation value. Thus, such notional decapitalisation submitted by the Petitioner has not been considered. However, the decapitalised value has been worked out, for the assets which have been allowed as replacement of assets under Regulation 14(3)(vii) of the 2014 Tariff Regulations above, under 'Assumed Deletions', as discussed in the subsequent paragraphs.

30. The decapitalisation of works related to 'Replacement of Hot Gas Path Component including C&I package', for Rs.10346.06 lakh and decapitalisation of Rs. 169.90 lakh towards the Air (Compressed Air) system, as claimed by the



Petitioner in 2014-15 are allowed, based on the decision of the Commission, while dealing with the additional capitalisation claims of the Petitioner, as above.

Assumed Deletions

31. As per the 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 capitalisation of the said asset, is followed by the decapitalisation of the gross value of the old asset. However, in certain cases, where the de-capitalisation is proposed to be affected during the future year of capitalisation 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 decapitalization which is not a book entry in the year of capitalization is termed as 'Assumed Deletion'. Therefore, the methodology of arriving at the fair value of the decapitalised asset, i.e., escalation rate of 5% per annum from the COD has been considered in order to arrive at the gross value of the old asset under consideration as on COD as 100% and escalated it @5% per annum, till the year, during which additional capital expenditure is claimed against the replacement of the same. The amount claimed for the additional capital expenditure against the asset is multiplied by the derived ratio from above values i.e., value in year of COD divided by the value in the capitalized year.

32. The Petitioner, in this petition, has claimed Retrofitting of 400kV ABCB with SF6 CBs, Supply & Erection of Numerical Generation Protection Relay, Sequence of events Logger, Energy Efficient Pumps, on replacement basis, but has not furnished the decapitalized value of the old assets. Accordingly, the decapitalized value of the assets/works has been calculated in terms of the above-mentioned methodology. Accordingly, the 'Assumed Deletions' allowed for the purpose of tariff is as under:



(Rs. In lakh)

Year of Claim	Head	Additional Capital Expenditure allowed	Assumed Deletion
2014-15	Retrofitting of 400kV ABCB with SF6 CBs	151.62	47.01
2014-15	Supply & Erection of Numerical Generation Protection Relay	107.48	33.33
2014-15	Sequence of events Logger	13.37	4.15
2015-16	Energy Efficient Pumps for AUGPS	21.94	6.48
2017-18	Retrofitting of 400 kV ABCB with SF6 CBs	194.30	52.04

Un-discharged liabilities and Discharge of liabilities

33. The discharge of un-discharge liabilities claimed by the Petitioner are as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
50.60	5136.72	710.28	148.44	66.18

34. It has been observed that in 2017-18, the Petitioner has claimed discharge of liabilities for Rs. 148.44 lakh, which is inclusive of a payment of Rs. 89.39 lakh towards Land compensation as per Hon'ble High Court Order. However, the Petitioner has not furnished any documentary evidence containing the direction of the Court . Therefore, the discharge of Rs. 89.39 lakh in 2017-18 is not allowed. However, liberty is granted to the Petitioner to furnish the relevant details upon finalisation of the said Court case. Accordingly, out of the discharge of liabilities claimed by the Petitioner, discharges amounting to Rs. 7.93 lakh in 2015-16, Rs. 12.36 lakh in 2016-17, 127.56 lakh in 2017-18 and Rs. 26.59 lakh in 2018-19, corresponding to the assets disallowed and payment for land compensation in 2017-18 is not being considered for the purpose of tariff. However, the discharge of liabilities of Rs. 50.60 lakh in 2014-15, Rs. 5128.94 lakh in 2015-16, Rs. 697.92 lakh in 2016-17, Rs. 20.88 lakh in 2017-18 and 39.59 lakh in 2018-19 is allowed for the purpose of tariff. Accordingly, the closing undischarged liabilities works out as Rs. 199.97 lakh, as on 31.3.2019.



Exclusions

35. The summary of exclusions from books of accounts under different heads for the purpose of tariff are as under:

<i>(Rs. in lakh)</i>						
Sr. No.	Head of Works	2014-15	2015-16	2016-17	2017-18	2018-19
1	Items not claimed	2.08	0.00	0.00	0.00	0.65
2	Disallowed Items	4.65	0.00	0.00	0.00	0.00
3	Capitalization of Capital Spares	1458.26	5103.38	544.44	1027.08	160.91
4	Capitalization of MBOA	73.19	57.63	38.34	29.14	306.52
5	Decapitalization of MBOAs: Part of Capital Cost	-8.98	-9.11	0.00	-158.71	-9.77
6	Decapitalization of MBOAs: Not Part of Capital Cost	-1.80	-7.00	-3.25	-61.45	-28.25
7	Decapitalization of Capital Spares-Not part of Capital Cost	0.00	0.00	-157.21	-75.03	-57.91
8	ERV	236.21	-8.86	-625.68	1819.68	1267.81
9	Inter Unit Transfer	0.35	5552.80	-15.34	9.07	-31.33
10	Total Exclusions Claimed	1763.97	10688.85	-218.70	2589.78	1608.63

Exclusion claimed for Items not claimed

36. The Petitioner has sought the exclusion on the disallowed additional capital expenditure as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
2.08	0.00	0.00	0.00	0.65

37. The Petitioner has submitted that there is no applicable regulations for claiming works towards 'Transportation of LP rotor', 'Breaker Analyser' and 'Electric Vehicle Charging Station of 230V AC, 16A' defined under 'capitalisation not allowed'. In view of this, the claim for exclusion is allowed.

Exclusions claimed for the disallowed additional capital expenditure items

38. The Petitioner has sought exclusion on the disallowed additional capital expenditure as under:



<i>(Rs. in lakh)</i>						
Sr No.	Head of Work /Equipment	2014-15	2015-16	2016-17	2017-18	2018-19
1	Disallowed Additional Capital Expenditure Items	4.65	0.00	0.00	0.00	0.00

39. The Petitioner has submitted that the Commission vide its order dated 28.6.2016 in Petition No. 335/GT/2014 had disallowed the additional capital expenditure of Rs. 4.65 lakh claimed towards 'Chlorine Leak absorption system'. Since, the Petitioner has not claimed any actual additional capital expenditure towards 'Chlorine Leak absorption system', the actual decapitalisation for the respective assets as capitalised in the books claimed under exclusion is allowed.

Inter-Unit transfer

40. The Petitioner has claimed inter-unit transfer as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
0.35	5552.80	-15.34	9.07	-31.33

41. In justification of the same, the Petitioner has submitted that the Commission has not been considering the inter-unit transfers, as part of the tariff and hence, kept under exclusions. We are of the considered view that both positive and negative entries arising out of inter-unit transfers of temporary nature shall be ignored for the purpose of tariff. In view of above, the exclusion of inter-unit transfer as claimed by the Petitioner is allowed.

Capitalization of Capital Spares

42. The Petitioner has procured capital spares as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
1458.26	5103.38	544.44	1027.08	160.91

43. In justification of the same, the Petitioner has submitted that since the capital spares capitalised after the cut-off date, are not allowed in terms of 2014 Tariff Regulations, the same has been kept under exclusions. Since the capitalisation of spares over and above initial spares procured after the cut-off date of the generating



station, are not allowed for the purpose of tariff, as they form part of the O&M expenses, as and when consumed, the Petitioner has excluded the said amount. In view of this, the exclusion of the said amount, under this head, is in order and is allowed.

Capitalization of Miscellaneous Bought out Assets (MBOA) Items

44. The Petitioner has capitalised MBOA items as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
73.19	57.63	38.34	29.14	306.52

45. The Petitioner has submitted that since MBOA items capitalized after the cut-off date are not allowed as per the 2014 Tariff Regulations, the same has been kept under exclusion. The exclusion of the above-said amounts are in order and is, therefore, allowed.

De-capitalization of MBOA forming part of capital cost

46. The Petitioner has de-capitalized the MBOA items forming part of capital cost as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
-8.98	-9.11	0.00	-158.71	-9.77

47. In justification of the same, the Petitioner has submitted that, as per 2014 Tariff Regulations, MBOAs are not allowed in tariff after the cut-off date and therefore, the de-capitalisation of the same have been kept under exclusion. After examining the exclusions sought on de-capitalisation of MBOA items, it is observed that MBOA items on which de-capitalization is claimed, were capitalised as part of the capital cost of the generating station. Thus, the exclusions claimed for the said amounts are not allowed.

De-capitalisation of capital spares (Not part of the capital cost)

48. The Petitioner has excluded de-capitalized spares, not forming part of the capital cost as under:



(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	-157.21	-75.03	-57.91

49. The Petitioner, in justification of the same, has submitted that capitalization of these spares does not pertain to the part of capital cost and hence claimed under exclusions. It is observed that the Petitioner has provided the break-up of spares to be de-capitalised along with the justifications under Form 9Bi, of the respective years. Thus, the exclusion of the above-said amounts is in order and is, therefore, allowed.

De-capitalization of the MBOA items (Not part of the capital cost)

50. The Petitioner has de-capitalized the MBOA items, which do not form part of the capital cost as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
-1.80	-7.00	-3.25	-61.45	-28.25

51. In justification of the same, the Petitioner has submitted that these assets are not part of the capital cost, and hence, the decapitalization of the same is kept under exclusion. It is observed that the exclusion of the above-said amounts is in order and is, therefore, allowed.

Loan ERV

52. The Petitioner claimed Loan ERV under exclusions during the 2014-19 tariff period as under:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
236.21	-8.86	-625.68	1819.68	1267.81

53. In justification of the same, the Petitioner has submitted that it is required to bill the loan ERV directly on the beneficiaries as per the 2014 Tariff Regulations and hence, loan ERV has been considered as exclusion for the purpose of tariff. The exclusion of the said amount under this head is in order and is allowed.

54. Based on the above discussion, the summary of exclusions allowed/ not



allowed for the purpose of tariff is as under:

	<i>(Rs in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Exclusions Claimed (A)	1772.95	10697.96	-218.70	2748.50	1618.40
Exclusions Allowed (B)	1,763.97	10,688.85	-218.70	2,589.78	1,608.63
Exclusion not allowed (A-B)	-8.98	-9.11	0.00	-158.71	-9.77

55. Accordingly, the additional capital expenditure allowed, on cash basis, for the period 2014-19, is summarised below:

<i>(Rs. in lakh)</i>						
Sr. No.	Head of Work /Equipment's	2014-15	2015-16	2016-17	2017-18	2018-19
A	Works allowed in Previous Order					
1	Replacement of Hot Gas Path Components including C&I package	62541.07	0.00	0.00	80.36	0.00
2	Boundry wall in acquired land	0.00	0.00	0.00	0.00	0.00
3	CC TV system integration with existing system	0.00	0.00	0.00	0.00	0.00
4	Boundary Wall (Phaphund Road)	0.00	58.36	0.00	0.00	0.00
5	Outer boundary wall height increase	0.00	51.50	16.20	0.00	0.00
6	Car Shed in plant area shifting	0.00	13.72	0.00	0.00	0.00
7	Lighting Mast	0.00	13.44	0.00	0.00	0.00
8	On line environmental monitoring	0.00	49.41	3.39	0.00	0.00
9	Effluent Disposal Monitoring system & uses of STP water	0.00	58.33	0.00	0.00	0.00
10	Phasing out of Halon firefighting system	0.00	10.10	0.00	0.00	0.00
11	Patrolling road along boundary wall	0.00	0.00	234.42	27.97	0.00
12	Subtotal-A	62541.07	254.85	254.01	108.33	0.00
B	New Claims					
13	Retrofitting of 400kV ABCB with SF6 CBs	149.62	0.00	0.00	158.91	0.00
14	Supply & Erection of Numerical Generation Protection Relay	75.71	0.00	0.00	0.00	0.00
15	Air (Compressed Air) System	112.36	7.27	0.00	0.00	0.00
16	Land Compensation as per High Court Order	0.00	0.00	0.00	0.00	0.00
17	Self-Propelled Articulating Boom Lift	0.00	0.00	0.00	0.00	0.00
18	Sequence Of Events Logger	13.37	0.00	0.00	0.00	0.00
19	Solar Water Heating System	0.00	0.00	0.00	0.00	0.00
20	Energy Efficient Pumps	0.00	21.94	0.00	0.00	0.00
21	Solar system 10 KW	0.00	0.00	0.00	0.00	0.00
22	Solar System 2 x 30 KW	0.00	0.00	0.00	0.00	0.00
23	Supply cum Erection of 220V & 50V DC Chargers & Batteries for Switchyard	0.00	0.00	20.60	0.00	0.00
25	Alloy Analyzer Comp Assy	0.00	0.00	0.00	0.00	0.00
26	216KV,10KA Gapless Type Lightning Arrester (LA)	0.00	0.00	0.00	0.00	0.00
27	Gas Chromatograph: Comp Assy	0.00	0.00	0.00	0.00	0.00
28	Supply of generator transformer 148	0.00	0.00	0.00	0.00	0.00



Sr. No.	Head of Work /Equipment's	2014-15	2015-16	2016-17	2017-18	2018-19
	MVA					
29	Bio digesters & Piping Network System	0.00	0.00	0.00	0.00	0.00
30	Installation of LED based light & fittings	0.00	0.00	0.00	0.00	0.00
31	Subtotal-B	351.05	29.21	20.60	158.91	0.00
C	Total Additional Capitalisation (C = A+B)	62892.13	284.06	274.61	267.24	0.00
32	Less: Decapitalisation of Replacement of Hot Gas Path Components including C&I package	-10346.06	0.00	0.00	0.00	0.00
33	Less: Decapitalisation of AIR (Compressed Air) System	-169.90	0.00	0.00	0.00	0.00
34	Less: Decapitalisation of Supply cum Erection of 220V & 50V DC Chargers & Batteries for Switchyard	0.00	0.00	-6.63	0.00	0.00
35	Less: Decapitalisation of Spares	-1101.67	-31.17	-1.10	0.00	0.00
36	Assumed Deletion	-84.49	-6.48	0.00	-52.04	0.00
D	Less: Total Decapitalisation allowed	-11702.12	-37.65	-7.73	-52.04	0.00
E	Add: Discharge of liability of allowed items	50.60	5128.78	697.92	20.88	39.59
F	Exclusions not allowed (G)	-8.98	-9.11	0.00	-158.71	-9.77
G	Total additional capitalisation claimed including discharge of liability (F = C+D-E)	51231.63	5366.09	964.80	77.36	29.82

Capital cost allowed for the period 2014-19

56. Accordingly, the capital cost allowed for the purpose of tariff is as follows:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	74395.79	125627.42	130993.51	131958.31	132035.67
Add: Additional Capital Expenditure allowed	51231.63	5366.09	964.80	77.36	29.82
Closing Capital Cost	125627.42	130993.51	131958.31	132035.67	132065.49
Average Capital Cost	100011.61	128310.46	131475.91	131996.99	132050.58

Debt-Equity Ratio

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

“19.(1) For a project declared under commercial operation on or after 1.4.2014 the debt equity ratio would be considered as 70:30 as on COD. If the equity actually deployed is more than 30% of the capital cost equity in excess of 30% shall be treated as normative loan:

Provided that:

(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 shall submit the resolution of the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund from internal resources in support of the utilisation made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014 debt equity ratio allowed by the Commission for determination of tariff for the period ending 31.3.2014 shall be considered

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

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

58. The gross loan and equity of Rs. 37279.05 lakh and Rs. 37116.74 lakh, respectively as on 31.3.2014 as allowed in order dated 18.4.2017 in Petition No. 285/GT/2014 has been considered as on 1.4.2014. The Petitioner has claimed debt-equity ratio of 70:30 for additional capital expenditure during the 2014-19 tariff period. Accordingly, in terms of Regulation 19(5) of the 2014 Tariff Regulations, the debt-equity ratio of 70:30 has been considered for additional capital expenditure. Further, for assets de-capitalised during the period 2014-19, the debt-equity ratio of 50:50 has been considered, since these assets were originally allocated to debt and equity in the ratio of 50:50 in the respective tariff orders. Accordingly, the details of debt-equity ratio



in respect of the generating station as on 1.4.2014 and as on 31.3.2019 are as follows:

	Capital cost as on 1.4.2014 (Rs. in lakh)	(%)	Additional capital expenditure (Rs. in lakh)	(%)	Decapitalization (Rs. in lakh)	(%)	Capital cost as on 31.3.2019 (Rs. in lakh)	(%)
Debt	37279.05	50.11%	48759.07	70.00%	-5993.06	50.00%	80045.07	60.61%
Equity	37116.74	49.89%	20896.75	30.00%	-5993.06	50.00%	52020.43	39.39%
Total	74395.79	100.00%	69655.82	100.00%	-11986.12	100.00%	132065.49	100.00%

Return on Equity

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

“24. Return on Equity:

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

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

(i) in case of projects commissioned on or after 1st April 2014 an additional return of 0.50% shall be allowed if such projects are completed within the timeline specified in Appendix-I:

(ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:

(iii) additional ROE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee / National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:

(iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission if the generating station or transmission system is found to be declared under commercial operation without commissioning any of the Restricted Governor Mode Operation (RGMO) / Free Governor Mode Operation (FGMO) data telemetry communication system up to load dispatch centre or protection system:

(v) as and when any of the above requirement are found lacking in a generating station based on the report submitted by the respective RLDC ROE shall be reduced by 1% for the period for which the deficiency continues: (vi) additional ROE shall not be admissible for transmission line having length of less than 50 kilometres.”

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

“25. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee as the case may be. The actual tax income on other income stream (i.e. income of non-generation or



non-transmission business as the case may be) shall not be considered for the calculation of "effective tax rate".

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

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

Illustration.

(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess: Rate of return on equity = $15.50/(1-0.2096) = 19.610\%$

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

(a) Estimated Gross Income from generation or transmission business for FY 2014-15 is Rs 1000 crore.

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

(c) Effective Tax Rate for the year 2014-15 = Rs 240 Crore/Rs 1000 Crore = 24%

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

(3) The generating company or the transmission licensee as the case may be shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty if any arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over recovery of grossed up rate on return on equity after truing up shall be recovered or refunded to beneficiaries or the long-term transmission customers/DICs as the case may be on year to year basis."

61. The Respondent BYPL has submitted that the beneficiaries are being subject to an amount of tax component which is more than what is payable by the Petitioner for its deferred tax liabilities for the period prior to 2009. It has also submitted that the beneficiaries were paying income tax without getting benefits allowed under the Income Tax Act and there was no grossing up of the equity and the income tax was being paid on actuals in terms of the 2004 Tariff Regulations. Accordingly, the Respondent has submitted that the Petitioner may be directed to return the extra amount as the same cannot be used for its own use and needs to be passed for the benefit of consumers in terms of Regulation 49 of the 2014 Tariff Regulations. In



response, the Petitioner has submitted that deferred tax liability signifies that a company may in future pay more income tax because of a transaction in the present and hence, the deferred tax liability for the period up to 31.3.2009 is tax liability on the items generated before 31.3.2009 but not paid to the income tax authorities. The Petition has stated that since the same was not paid to the income tax authorities, the same was not recovered from the beneficiaries, thereby leading to lower outflow on account of tax expense for the beneficiaries. Referring to Regulation 67 of 2019 Tariff Regulations, which provides for recovery of the deferred tax liability up to 31.03.2009 from the beneficiaries, the Petitioner has submitted that accordingly, the deferred tax liability up to 31.3.2009, is being recovered from the beneficiaries, as and when paid to the income tax department. It has stated that since the lower tax was paid to the authorities, this led to a lower outflow on account of tax expense for the beneficiaries. The Petitioner has added that the Commission had vide its order dated 7.2.2021 in Petition No. 294/MP/2019 had considered this issue and upheld the same. It has submitted that the Respondent BYPL is seeking retrospective amendment to the Regulations, which is impermissible in law.

62. The Respondent TPDDL has submitted that for the purpose of computation of Return on Equity (ROE), the base rate has been for the period 2014-19. It has also pointed out that the averments of the Petitioner is merely a bald statement and is not backed by any data, documents, or evidence and hence, the Petitioner should be put to strict proof of the calculation of the effective tax rate. In response, the Petitioner has clarified that the calculation is in line with Regulation 25 of the 2014 Tariff Regulations. The Petitioner has stated that it is paying Minimum Alternate Tax (MAT) for the period 2014-19 and the same has been considered for grossing up of ROE in line with



Regulation 25(2) of the 2014 Tariff Regulations. The MAT rate applicable for the respective financial years as per the IT Act as submitted by the Petitioner, is as under:

Sr. No.	Financial Year	Basic Rate (%)	Surcharge	Cess	MAT Rate (%)
1	2014-15	18.50	10	3	20.961
2	2015-16	18.50	12	3	21.342
3	2016-17	18.50	12	3	21.342
4	2017-18	18.50	12	3	21.342
5	2018-19	18.50	12	4	21.549

63. The matter has been considered. Based on the prudence check of the information submitted by the Petitioner, it is observed that the Petitioner has claimed ROE for the period 2014-19, after grossing up the base rate of 15.50% with effective tax rates (based on MAT rate) for the respective years in terms of Regulation 24 and Regulation 25 of the 2014 Tariff Regulations and hence the same has been considered. Accordingly, ROE has been worked out as follows:

		<i>(Rs. in lakh)</i>				
		2014-15	2015-16	2016-17	2017-18	2018-19
Normative Equity-Opening	A	37116.74	50144.01	51744.48	52032.38	52013.44
Addition of Equity due to additional capital expenditure	B	13027.27	1600.47	287.89	-18.94	6.99
Normative Equity-Closing	C=A+B	50144.01	51744.48	52032.38	52013.44	52020.43
Average Normative Equity	D=Average (A,C)	43630.37	50944.25	51888.43	52022.91	52016.93
Return on Equity (Base Rate)	E	15.50%	15.50%	15.50%	15.50%	15.50%
Effective Tax Rate	F	20.96%	21.34%	21.34%	21.34%	21.55%
Rate of Return on Equity (Pre Tax)	G=E/(1-F)	19.61%	19.71%	19.71%	19.71%	19.76%
Return on Equity (Pre-Tax) annualized	H=D*G	8555.92	10038.56	10224.62	10251.11	10277.51

Interest on Loan

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

“26. Interest on loan capital:

(1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.



(2) *The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.*

(3) *The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalization of such asset.*

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

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

Provided that if there is no actual loan for a particular year but normative loan is still outstanding the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system as the case may be does not have actual loan then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

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

(7) *The generating company or the transmission licensee as the case may be shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee as the case may be in the ratio of 2:1.*

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

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

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

65. Interest on loan has been computed as under:

(i) Gross normative loan amounting to Rs. 37279.05 lakh as considered in order dated 18.4.2017 in Petition No.285/GT/2014 has been considered as on 1.4.2014.

(ii) Cumulative repayment amounting to Rs. 36063.57 lakh, as considered in order dated 18.4.2017 in Petition No.285/GT/2014 has been considered as on 1.4.2014.

(iii) Accordingly, the net normative opening loan as on 1.4.2014 is Rs. 1215.48 lakh.



- (iv) Addition to normative loan on account of additional capital expenditure approved above has been considered.
- (v) The repayment for the respective years of the 2014-19 tariff period has been considered equal to the depreciation allowed for that year. Further, repayments have been adjusted for de-capitalization of assets considered for the purpose of tariff;
- (vi) The weighted average rate of interest on loan (WAROI) is based on the details of actual loan portfolio and rate of interest furnished by the Petitioner.

66. Interest on loan has been worked out as follows:

(Rs. in lakh)

		2014-15	2015-16	2016-17	2017-18	2018-19
Gross opening loan	A	37279.05	75483.41	79249.02	79925.93	80022.24
Cumulative repayment of loan upto previous year	B	36063.57	45128.17	49395.51	53984.45	58527.42
Net Loan Opening	C=A-B	1215.48	30355.24	29853.52	25941.48	21494.82
Addition due to additional capital expenditure	D	38204.36	3765.61	676.91	96.31	22.83
Repayment of loan during the year	E	14920.15	4290.72	4592.81	4648.34	4679.54
Less: Repayment adjustment on account of de-capitalization	F	5855.55	23.38	3.87	105.38	4.89
Net Repayment of loan during the year	G=E-F	9064.60	4267.34	4588.95	4542.97	4674.66
Net Loan Closing	H=C+D-G	30355.24	29853.52	25941.48	21494.82	16842.99
Average Loan	I=Average (C,H)	15785.36	30104.38	27897.50	23718.15	19168.90
Weighted Average Rate of Interest of loan	J	2.60%	2.37%	2.39%	2.43%	3.85%
Interest on Loan	K=I*J	409.75	713.87	666.92	576.26	738.91

Depreciation

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

“27. Depreciation:

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

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

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or



multiple elements of transmission system weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year depreciation shall be charged on pro rata basis.

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

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

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

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

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

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

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

(6) In case of the existing projects the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.

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

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

68. Cumulative depreciation amounting to Rs. 65746.33 lakh as on 1.4.2014, as considered in the order dated 18.4.2017 in Petition No. 285/GT/2014 has been retained for the purpose of tariff. Further, the value of freehold land included in the average capital cost has been adjusted while calculating the depreciable value for the purpose of tariff.



Useful Life of Plant

69. The Respondent BYPL has submitted that the generating station has completed its useful life in December 2015, i.e., 25 years from its COD of 1.12.1990 and therefore, the tariff determination of the generating station must be restricted up to 25 years of the plant and any extension of useful life must be with the consent of the beneficiaries. The Respondent TPDDL has submitted that in terms of Regulation 2(73) of the 2019 Tariff Regulations, the useful life of a power plant is 25 years. Accordingly, the Respondent has submitted that since the date of COD of the generating station is 1.10.1990, the useful life of 25 years had been completed on 31.10.2015 and the same was extended till 31.3.2025, vide Commission order dated 18.4.2017 in Petition No. 285/GT/2014. The Respondent has added that high power availability and less PLF is resulting into underutilization of the power plant, even after payment of fixed costs. It has stated that Regulation 17(1) of the 2019 Tariff Regulations- provides for a special tariff arrangement to be mutually agreed between generator and beneficiary in the event, where thermal generating station has completed 25 years from COD and Regulation 17(2) of the 2019 Tariff Regulation confers upon the beneficiary first right of refusal to any such special arrangement so offered by the generator. The Respondent has further submitted that the MOP, GOI vide letter dated 22.3.2021 has issued guidelines for exit of the distribution companies from PPAs with such power plants, which have lived their useful life i.e., 25 years from COD. The Respondent has stated that since the plant has already lived its useful life in terms of Regulation 3(73) of the 2019 Tariff Regulations, the Respondent is not liable to schedule any power from the generating station.

70. In response, to the above, the Petitioner has submitted that the Respondent has erroneously interpreted the provision of the Regulation 17 of the 2019 Tariff



Regulations. It has stated that in case the beneficiary and generating company agree or disagree on an alternative arrangement under Regulation 17, still the tariff determination is imperative and therefore, the objection of the Respondent against the tariff determination after 25 years, is absurd and is liable to be rejected. As regards the extension of the useful life of the generating station by the Commission, the Petitioner has submitted that this Commission has the power under Regulation 3(67) of the 2014 Tariff Regulations to determine the useful life of the Projects/Thermal Power Plants, on a case-to-case basis. It has also stated that the R&M works of the generating station was carried out during 2014-15 and post R&M works, and the generating station is a well-maintained power producing plant and the technical aspect and the machinery installed at the generating station are functioning efficiently. The Petitioner has added that the beneficiaries can continue to draw power from the generating station even after the completion of the useful life of the power plant, until the shares of the beneficiary have been de-allocated by the Ministry of Power.

71. The matter has been considered. The balance useful life of the generating station as on 1.4.2014 is 1.57 years in 2014-15. The Commission vide its order dated 18.4.2014 in Petition No. 285/GT/2014, had already allowed extension of useful life by 10 years from 1.4.2015. Accordingly, the balance useful life has been considered as 10.57 years as on 1.4.2015, by the Commission vide order dated 18.4.2017 in Petition No. 285/GT/2014. Accordingly, depreciation has been computed by spreading over the balance depreciable value over the balance useful life of the assets. Necessary calculations in support of depreciation are as shown below:

		<i>(Rs. in lakh)</i>				
		2014-15	2015-16	2016-17	2017-18	2018-19
Average Capital Cost	A	100011.61	128310.46	131475.91	131996.99	132050.58
Value of freehold land	B	932.76	0.00	0.00	0.00	0.00
Aggregated Depreciable Value	C=(A-B)*90%	89170.96	115479.42	118328.32	118797.29	118845.52
Remaining Aggregate	D=C-(Cumulative)	23424.63	45352.93	43953.19	39836.30	35424.14



		2014-15	2015-16	2016-17	2017-18	2018-19
Depreciable value at the beginning of the year	Depreciation of Previous year)					
Balance useful life at the beginning of the year	E	1.57	10.57	9.57	8.57	7.57
Depreciation (annualized)	F=D/E	14920.15	4290.72	4592.81	4648.34	4679.54
Less: Cumulative depreciation adjustment on account of de-capitalization	G	10539.99	42.09	6.94	187.95	8.79
Cumulative depreciation (at the end of the period)	H=(Cumulative Depreciation of Previous year) +F-G	70126.49	74375.12	78960.99	83421.38	88092.13

Operation & Maintenance Expenses

72. Regulation 29 (1) (c) of the 2014 Tariff Regulations provides the year-wise O&M expense norms for the generating station as under:

(Rs. in lakh/MW)

2014-15	2015-16	2016-17	2017-18	2018-19
14.67	15.59	16.57	17.61	18.72

73. Since the normative O&M expenses claimed by the Petitioner is in terms of the above Regulations, the same are allowed as under

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
9731.49	10341.78	10991.88	11681.77	12418.10

Water Charges

74. The first proviso to Regulation 29(2) of the 2014 Tariff Regulations provide as follows:

*“29 (2) The Water Charges and capital spares for thermal generating stations shall be allowed separately:
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:*

75. The Petitioner has claimed the actual water charges (inclusive of maintenance charges) in terms of Regulation 29 (2) of the 2014 Tariff Regulations, for the generating station as under:



(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
112.56	116.35	114.81	117.44	111.82

76. The Petitioner has submitted the details of the actual water charges in lines with the rates notified by the Uttar Pradesh Irrigation Department. The Petitioner has also submitted Form 3B duly certified by the auditor. Accordingly, after prudence check of the details submitted by the Petitioner, the actual water charges claimed in terms of Regulation 29(2) of the 2014 Tariff Regulations, are allowed for the generating station.

Capital spares

77. Regulation 29(2) of the 2014 Tariff Regulations provides as under:

“29(2) The Water Charges and capital spares for thermal generating stations shall be allowed separately:

xxxx

Provided 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 or special allowance or claimed as a part of additional capitalization or consumption of stores and spares and renovation and modernization.”

78. As per the second proviso to Regulation 29(2) of the 2014 Tariff Regulations, capital spares are admissible separately. The Petitioner has claimed total actual capital spares of Rs. 1424.10 lakh during the period 2014-19 (i.e., Rs. 1101.67 lakh in 2014-15, Rs. 31.17 lakh in 2015-16, Rs. 158.31 lakh in 2016-17, Rs. 75.03 lakh in 2017-18 and Rs. 57.91 lakh in 2018-19). The Petitioner has submitted that in order to meet the customers demand and to maintain high machine availability at all times by the generating station, units/ equipment's are taken under overhaul/ maintenance and inspected regularly for wear and tear. It has submitted that during such works, spares parts of equipment which became damaged/ unserviceable are replaced/ consumed so that the machine continue to perform at expected efficiency on sustained basis.



The Petitioner has submitted the year-wise details of the capital spares consumed by the generating station in terms of the last proviso to Regulation 29(2) of 2014 Tariff Regulations, under Form 17. The Petitioner vide its affidavit dated 12.7.2021 has submitted the auditor certificate in support of the capital spares consumed. The details of the capital spares submitted by the Petitioner in Form 9Bi is as under

(Rs. in lakh)

Year	Capital Spares (Part of capital cost) (A)	Capital Spares (Not part of capital cost) (B)	Total Capital Spares consumed (A) + (B)
2014-15	1,101.67	0.00	1,101.67
2015-16	31.17	0.00	31.17
2016-17	1.10	157.21	158.31
2017-18	0.00	75.03	75.03
2018-19	0.00	57.91	57.91

79. We have examined the list of the capital spares consumed by the Petitioner. The capital spares comprise of (i) spares which form part of the capital cost and (ii) spares which do not form part of the capital cost of the project. In respect of capital spares which form part of the capital cost of the project, the Petitioner has been recovering tariff since their procurement and, therefore, the same cannot be allowed as part of the additional O&M expenses. Accordingly, only those capital spares, which do not form part of the capital cost of the project, are being considered. It is pertinent to mention that the term 'capital spares' has not been defined in the 2014 Tariff Regulations. The term capital spares, in our view, is a piece of equipment, or a spare part, of significant cost that is maintained in inventory for use if a similar piece of critical equipment fails or must be rebuilt. Keeping in view, the principle of materiality and to ensure standardised practices in respect of earmarking and treatment of capital spares, the value of capital spares exceeding Rs. 1 (one) lakh, on prudence check of the details furnished by the Petitioner in Form-17 of the petition, has been considered for the purpose of tariff. The Commission is also of the view that spares



of value less than Rs. one lakh would normally form part of normal repair and maintenance expenses. Based on this, the details of the allowed capital spares considered for 2014-19 tariff period is summarized as under:

	<i>(Rs in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Capital spares not part of capital cost claimed	0.00	0.00	157.21	75.03	57.91
Value of spares Rs 1(one) lakh and below are disallowed on individual basis	0.00	0.00	1.29	0.37	2.83
Net total value of capital spares considered	0.00	0.00	155.92	74.66	55.09

80. Further, we are of the view that spares do have a salvage value. Accordingly, in line with the practice of considering the salvage value, presumed to be recovered by the Petitioner on sale of other capital assets, on becoming unserviceable, the salvage value of 10% has been deducted from the cost of capital spares considered above, for the 2014-19 tariff period. Therefore, on prudence check of the information furnished by the Petitioner in Form-17 and on applying the said ceiling limit along with deduction of the salvage value @10%, the net capital spares allowed in terms of Regulation 29(2) of 2014 Tariff Regulations is as under:

	<i>(Rs. In lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Net total value of capital spares considered	0.00	0.00	155.92	74.66	55.09
Less: Salvage value @ 10%	0.00	0.00	15.59	7.47	5.51
Net Capital spares allowed	0.00	0.00	140.33	67.19	49.58

81. Based on the above, the total annualised O&M expenses allowed for 2014-19 tariff period in respect of the generating station, is summarized as under:

	<i>(Rs. In lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses as per Regulation 29(1)	9731.49	10341.78	10991.88	11681.77	12418.10
Additional O&M Expenses under Regulation 29(2)					
Capital Spares	-	-	140.33	67.19	55.09
Water Charges	112.56	116.35	114.81	117.44	111.82
Total O&M Expenses allowed	9844.05	10458.13	11247.01	11866.40	12585.00



Impact of wage revision

82. The Petitioner has submitted that wage revision of employees was due from 1.1.2017 and it has incurred additional O&M expenses due to increase in employee cost on account of wage revision of its employees, Central Industrial Security Force (“CISF”) and Kendriya Vidyalaya (KV) from 1.1.2016 to 31.3.2019. The Petitioner has claimed an amount of Rs. 4645.66 lakh during 2015-19 (Rs. 55.25 lakh in 2015-16, Rs. 1249.83 lakh 2016-17, Rs. 1540.61 lakh in 2017-18 and Rs. 1799.97 lakh during 2018-19) and, therefore, it may be allowed to recover the impact of wage revision, as additional O&M expense from Respondents as one-time in exercise of the power under provisions of Regulations 54 and 55 of the 2014 Tariff Regulations.

The Respondents, UPPCL and TPDDL have submitted that the Petitioner has not placed any fact/numbers to substantiate the claim that the O&M expense norms provided in the 2014 Tariff Regulations, are in-adequate, after factoring in the impact of pay revision. They have pointed out that the Petitioner has claimed the incremental impact of Rs. 4645 lakh and not the ‘balance amount’ as stated in Statement of Objects and Reasons (SOR) to the 2014 Tariff Regulations and hence, the claim is not maintainable. The Respondent, UPPCL has submitted that the shortfall in O&M expenses is on account of 7th Pay Commission and the residual amount of Rs. 4794 lakh is on account of other factors. However, it has prayed that considering the SOR to the 2014 Tariff Regulations, the claim towards other factors may be dismissed. While pointing out the Petitioner has also claimed the impact of gratuity and salary increase for corporate office employee, allowances during 1.1.2017 to 31.3.2017, the Respondent has submitted that the Petitioner may be directed to submit the terms of pay revision, to assess whether this increase is on account of pay revision or for some



other reasons. The Respondent BYPL has submitted that in terms of Regulation 29 of the 2014 Tariff Regulations, the O&M expenses are normative and are controllable in nature and accordingly, the same cannot be trued up on actuals, on account of any loss or gain. It has also stated that the expenses towards maintenance of KV schools are a part of employee welfare cost which comes under the ambit of Normative O&M expenses and the Petitioner has also failed to clarify as to whether the benefit of additional expenses is being given to children of staff of the generating station or to all students. It has also stated that the expenditure on account of employee pay revision is to be borne by the Petitioner as passing of the same to the consumers, would be against the OM dated 3.8.2017 and Section 61(d) of the Electricity Act, 2003. In view of the same, the Respondent has submitted that the invocation of power to relax as sought by the Petitioner may not be allowed, as the Petitioner has failed to provide sufficient reasons for such relaxation.

83. In response to the above, the Petitioner has clarified as under:

(a) The impact of employee pay revision on account of 7th Pay Commission, OM dated 3.8.2017 and 3rd Pay Revision Committee for CPSUs were not in existence and/or incorporated while the 2014 Tariff Regulations were being specified by this Commission. The same ought to be allowed the under/over recovery of O&M by the generating company.

(b) Correlating the grant of relief on account of 7th Pay revision to the actual O&M expenses of the Petitioner would amount to inefficiency in managing the O&M expenses. Such dispensation would be contrary to the object and purport of Section 61 of the Electricity Act, 2003.

(c) The impact thereof ought to be made pass through in terms of Regulation 54 and 55 of the 2014 Tariff Regulations, since the expenditure was notified post issuance of the applicable 2014 Tariff Regulations, where the Commission while framing the 2014 Tariff Regulations could not factor the impact of such increase in the employee cost in the normative O&M specified in Regulation 29 of the 2014 Tariff Regulations.

(d) The revision in the salary and wages for employees and the staff of CISF w.e.f. 1.1.2017 and 1.1.2016, respectively is a necessary expenditure, where the



Petitioner is entitled to claim employee cost as part of the O&M expenses under the cost-plus regime. Further, the generating station is in a very remote location and has safety issues. In view of the same, the CISF provides the security cover, in and around the plant. Hence, it is essential to provide them salaries as per their pay revision.

(e) This Commission has allowed the impact of pay revision in its previous orders viz. order dated 12.10.2013 passed in Petition No. 35/MP/2011, order dated 11.12.2012 passed in Petition No. 201/MP/2012 and order dated 1.1.2013 passed in Petition No. 101/MP/2010.

(f) In view of the above, the Petitioner is entitled to claim the impact of employee pay revision in the O&M expenses. Thus, the observations made by the Respondent UPPCL are devoid of merits and liable to be rejected by the Commission.

(g) The Petitioner vide affidavit dated 12.1.2021 has submitted the detailed break-up of actual O&M expenses of Corporate Office/other office and wage revision impact on employee cost for the 2014-19 period as part of the additional submission under Annexure B and Annexure C.

(h) As regards the claims towards gratuity, the ceiling of gratuity amount under the Payment of Gratuity Act, 1972 has been raised from time to time keeping in view over-all economic condition and employers' capacity to pay and the salaries of the employees, which have been increased in private sector and in PSUs. The latest such enhancement of ceiling of gratuity was made vide GOI Notification dated 29.3.2018, under which the gratuity amount ceiling has been increased from Rs.10 lakhs to 20 lakhs w.e.f. 29.3.2018. In addition, the Petitioner has submitted the Auditor Certificate for 'Impact of Pay Revision' as part of the original petition. Thus, the observations made by the Respondent UPPCL are devoid of merits and liable to be rejected by the Commission.

84. The actual O&M expenses (excluding water expenses) incurred by the Petitioner is as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
10644.30	10039.88	10214.10	9762.49	9710.58

85. The Commission, while specifying the O&M expense norms under the 2014 Tariff Regulations, had considered the actual O&M expense data for the period from 2008-09 to 2012-13. However, considering the submissions of the stakeholders, the Commission in the SOR to the 2014 Tariff Regulations had observed that the increase



in employees cost due to impact of pay revision impact will be examined on a case-to-case basis balancing the interest of generating stations and the consumers. The relevant extract of SOR is extracted as follows:

*"29.26 Some of the generating stations have suggested that the impact of pay revision should be allowed on the basis of actual share of pay revision instead of normative 40% and one generating company suggested that the same should be considered as 60%. In the draft Regulations, the Commission had provided for a normative percentage of employee cost to total O&M expenses for different type of generating stations with an intention to provide a ceiling limit so that it does not lead to any exorbitant increase in the O&M expenses resulting in spike in tariff. The Commission would however, like to review the same considering the macroeconomics involved as these norms are also applicable for private generating stations. In order to ensure that such increase in employee expenses on account of pay revision in case of central generating stations and private generating stations are considered appropriately, **the Commission is of the view that it shall be examined on case-to-case basis, balancing the interest of generating stations and consumers.***

*33.2 The draft Regulations provided for a normative percentage of employee cost to total O&M expenses for generating stations and transmission system with an intention to provide a ceiling limit so that the same should not lead to any exorbitant increase in the O&M expenses resulting in spike in tariff. The Commission shall examine the increase in employee expenses on case to case basis and shall consider the same if found appropriate, to ensure that overall impact at the macro level is sustainable and thoroughly justified. Accordingly, clause 29(4) proposed in the draft Regulations has been deleted. **The impact of wage revision shall only be given after seeing impact of one full year and if it is found that O&M norms provided under Regulations are inadequate/insufficient to cover all justifiable O&M expenses for the particular year including employee expenses, then balance amount may be considered for reimbursement.***

86. It is observed that the above methodology, as indicated in SOR suggests the comparison of normative O&M expenses with the actual O&M expenses on year-to-year basis. However, in this respect, the following facts need consideration:

- a) The norms are framed based on the averaging of the actual O&M expenses of past five years to capture the year-on-year variations in sub-heads of O&M expenses.
- b) Certain cyclic expenditure may occur with a gap of one year or two years and as such adopting a longer duration i.e., five years for framing of norms also captures such expenditure which is not incurred on year-to-year basis.
- c) When generators find that their actual expenditure has gone beyond the normative O&M in a particular year, they put departmental restrictions and try to bring the expenditure for the next year below the norms.

87. In consideration of the above facts, the Commission finds it appropriate to compare the normative O&M expenses with the actual O&M expenses for a longer



duration, so as to capture the variation in the sub-heads. Accordingly, it is decided that for ascertaining that whether the O&M expense norms provided under the 2014 Tariff Regulations are inadequate/ insufficient to cover all justifiable O&M expenses, including employee expenses, after wage revision. The comparison of the normative O&M expenses and the actual O&M expenses shall be made for three years i.e., 2015-19, on combined basis, which is commensurate with the wage revision claim being spread over the four years.

88. In view of the above, the following is the comparison of the normative O&M expenses allowed to the generating station for the period 2015-19 versus the actual O&M expenses incurred after considering the impact of wage revision:

	<i>(Rs. in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Actual O&M expenses(a)	10664.30	9449.22	9688.17	9012.98	8834.66	36985.03
Normative O&M Expenses (b)	N/A	9731.49	10341.78	10991.88	11681.77	42746.92
Difference between the normative and actual O&M expenses (b)-(a)	N/A	282.27	653.61	1978.90	2847.11	5761.89
Wage revision impact claimed	N/A	220.98	1084.10	1540.62	1799.97	4645.68

89. It is observed from the table above that for the years of wage revision impact i.e., 2015-16 to 2018-19, the normative O&M expenses allowed on a combined basis, are in excess of the actual expenses incurred by the Petitioner. Therefore, the Commission is not allowing any recovery of impact of wage revision through additional O&M expenses, since the normative O&M expenses allowed to the generating station in terms of the Regulations, is sufficient to cater to the requirement of the impact towards wage revision.

Impact of Goods and Service Tax (GST)

90. The Petitioner has claimed the impact of GST as change in law under Regulation 3(9) read with Regulation 14(3) of the 2014 Tariff Regulations. The



Petitioner has stated that the impact of increase in rate of indirect tax from 15% to 18% has been calculated on taxable services and being claimed for the period 1.7.2017 to 31.3.2019. The Petitioner has also claimed the impact of GST for Rs. 69.68 lakh in 2017-18 and Rs. 104.26 lakh in 2018-19.

91. The Respondent UPPCL and Respondent TPDDL have submitted that the Petitioner has not finished any auditor certificate to establish the impact of Rs. 173.94 lakh towards GST. The Respondent BYPL has submitted that the Petitioner is claiming the impact of GST without showing any monetary impact/financial burden of the same. It has also stated that the O&M expenses provided to the Petitioner for its generating station are norm based and any proposal which has a bearing on the norms can be granted/accepted only if the Petitioner demonstrates that such norms are inadequate.

92. In response to the above, the Petitioner has submitted that it is settled position of law that promulgation of GST is a change in law event. The Petitioner has referred to this Commission order dated 14.3.2018 in Petition No. 13/SM/2017 and the Hon'ble APTEL's judgement dated 14.8.2018 in Appeal No. 111 of 2017, where the position was upheld in both the referred cases. Thus, the Petitioner has stated that the claim towards the impact of GST squarely falls within the purview of Regulation 14(3) of the 2014 Tariff Regulations.

93. The Petitioner vide affidavit dated 30.6.2021 has submitted that the O&M expenses comprises of employee wages and generation administration and other expenses (renamed as "Other expenses" in the books of the Company after introduction of IND-AS). These inter alia include repair and maintenance and other overheads of the station. The Petitioner has bifurcated the general administration and



other expenses into material consumed, taxable services and exempt services. The amount claimed by the Petitioner is only on account of differential in rate of tax for taxable services (i.e., under erstwhile Service Tax 15% and in GST 18%) as under:

Nature		2017-18 Post GST claimable (Rs. in lakh)	Q2-Q4 period 2018-19 GST claimable (Rs. in lakh)
Material	A	183.85	245.69
Services-Taxable	B	2740.94	4100.72
Services-Exempt	C	3899.20	4843.65
Total General Administration Expenses	D = A+B+C	6823.99	9190.06
Impact of 3% additional tax on Taxable Services due to GST	E=B*0.03/1.18	69.68	104.26

94. The matter has been considered. While framing the 2014 Tariff Regulations, the variation in taxes and duties have been captured in the normative O&M expenses allowed and any change in taxes is not admissible separately. Further, the 2014 Tariff Regulations has not specifically mentioned any consideration for allowing taxes separately. The escalation rates considered in the normative O&M expenses is only after consideration of the variations during last five years, which also takes care of variation in taxes also. It may be noted that in case of reduction of taxes or duties, the Petitioner is not required to reimburse any taxes in tariff. Therefore, for any increase in taxes and duties, the Petitioner is not entitled to claim any additional expenses. As such, additional O&M expenses on account of GST are not admissible separately.

Operational Norms

(a) Normative Annual Plant Availability Factor

95. The Normative Annual Plant Availability Factor (NAPAF) of 85% for 2014-15 to 2018-19, is in accordance with the provisions of Regulation 36 (A) of the 2014 Tariff



Regulations and as approved by order dated 18.4.2017 in Petition No. 285/GT/2014.
Hence, the same is allowed.

(b) Auxiliary Energy Consumption:

96. The Normative Auxiliary Energy Consumption of 2.50% as claimed by the Petitioner is in accordance with the provisions of Regulation 36(E)(c) of the 2014 Tariff Regulations and hence, the same has been allowed.

(c) Station Heat Rate

97. The Gross Station Heat Rate of 2100 kCal/ kWh is in accordance with the provisions of Regulation 36(C)(a)(vi) of the 2014 Tariff Regulations and hence, the same is allowed.

Interest on Working Capital

98. Sub-section (b) of clause (1) of Regulation 28 of the 2014 Tariff Regulations provides as follows:

“28. Interest on Working Capital:

(1) The working capital shall cover

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

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

(ii) Maintenance spares @ 30% of operation and maintenance expense specified in regulation 29; and

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

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

(v) Operation and maintenance expenses for one month.”

(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 cost incurred (taking into account normative transit and handling losses) by the generating company and gross calorific value of the fuel as per actual for the three months preceding the first month for which tariff is to be determined and no fuel price escalation shall be provided during the tariff period.

(3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 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.

(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.”

(a) Fuel Cost and Energy Charges for Working Capital

99. The Fuel cost for 30 days and Energy charges for two months have been calculated based on the Gross Calorific Value (GCV) and Price of gas, as considered in order dated 18.4.2017 in Petition No. 285/GT/2014. The Petitioner has also considered same in its, while computing its Energy Charges as part of its submissions.

100. The Commission vide its order dated 18.4.2017 in Petition No. 285/GT/2014 had allowed the Liquid Fuel stock of Rs. 4.09 lakh for 15 days for the 2014-19 tariff period based on the observation that, the Petitioner has not supported its claim for the submission by working out the cost for the liquid fuel stock. Since the claim of the Petitioner is similar to the approach adopted by the Commission in the aforesaid order, the same is considered in this order. Accordingly, the fuel cost for 30 days, Liquid Fuel stock for 15 days and Energy Charges allowed in this order are as follows:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Primary Fuel (APM & LNG) cost for 30 days	15897.11	15897.11	15897.11	15897.11	15897.11
Liquid Fuel (Naptha) stock for 15 days	4.09	4.09	4.09	4.09	4.09
Energy charges for two months corresponding to NAPAF	32235.80	32324.12	32235.80	32235.80	32235.80

(b) Working Capital for Maintenance Spares

101. The Petitioner in Form-13B has claimed maintenance spares for working capital as follows:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
3283.72	3163.37	3754.45	4045.36	4347.62

102. Regulation 28(1)(b) (iii) of the 2014 Tariff Regulations provide for maintenance



spares @ 30% of the O & M expenses. In terms of Regulation 29(2) of the 2014 Tariff Regulations, the cost of maintenance spares @30% of the O&M expenses including water charges and cost of capital spares consumed, are allowed as follows:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
2953.21	3137.44	3374.10	3559.92	3775.50

(c) Working Capital for Receivables

103. Regulation 28(1)(b)(iv) of the 2014 Tariff Regulations provides for Receivables for two months. Accordingly, the Receivable component for working capital is allowed as follows:

<i>(Rs. in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19
Variable Charges - for two months corresponding to NAPAF (A)	32235.80	32324.12	32235.80	32235.80	32235.80
Fixed Charges – for two months (B)	6945.91	5550.37	5765.03	5874.63	6041.04
Total (C) = (A+B)	39181.71	37874.48	38000.82	38110.43	38276.84

(d) Working Capital for O & M Expenses

104. O&M expenses for 1 month as claimed by the Petitioner in Form-13B for the purpose of working capital is as follows:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
912.14	878.71	1042.90	1123.71	1207.67

105. Regulation 28(1)(b)(v) of the 2014 Tariff Regulations provides for Operation & Maintenance expenses for one month as a part of the working capital. The O&M expenses, for one month, as allowed is as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
820.34	871.51	937.25	988.87	1048.75

(e) Rate of interest on working capital

106. In terms of clause (3) of Regulation 28 of the 2014 Tariff Regulations, the rate of interest on working capital has been considered as 13.50% (Bank rate of 10.00% + 350 bps). Accordingly, Interest on working capital has been computed as follows:



(Rs. in lakh)

		2014-15	2015-16	2016-17	2017-18	2018-19
Working capital for Fuel cost for 30 days	A	15897.11	15897.11	15897.11	15897.11	15897.11
Working capital for Liquid Fuel cost for 15 days	B	4.09	4.09	4.09	4.09	4.09
O & M expenses for 1 month	C	820.34	871.51	937.25	988.87	1048.75
Working capital for Maintenance Spares @ 30% of O&M expenses	D	2953.21	3137.44	3374.10	3559.92	3775.50
Working capital for Receivables corresponding to NAPAF (2 months)	E	39181.71	37874.48	38000.82	38110.43	38276.84
Total Working Capital	F=A+B+C+D+E	58856.46	57784.63	58213.37	58560.41	59002.29
Rate of Interest	G	13.5000%	13.5000%	13.5000%	13.5000%	13.5000%
Total Interest on Working capital	H=F*G	7945.62	7800.93	7858.81	7905.66	7965.31

Annual Fixed Charges

107. Based on the above, the annual fixed charges approved for the generating station for the period 2014-19 are summarised as follows:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	14920.15	4290.72	4592.81	4648.34	4679.54
Interest on Loan	409.75	713.87	666.92	576.26	738.91
Return on Equity	8555.92	10038.56	10224.62	10251.11	10277.51
O&M Expenses	9844.05	10458.13	11247.01	11866.40	12585.00
Interest on Working Capital	7945.62	7800.93	7858.81	7905.66	7965.31
Total annual fixed charges approved	41675.48	33302.22	34590.16	35247.78	36246.27
Total annual fixed charges approved in order dated 18.4.2017 in Petition No. 285/GT/2014	32380.19	28588.44	29433.30	30157.79	30910.05



108. The difference between the annual fixed charges already recovered by the Petitioner and the annual fixed charges determined by this order shall be adjusted in terms of Regulation 8 (13) of the 2014 Tariff Regulations.

109. Petition No. 295/GT/2020 is disposed of in terms of the above.

Sd/-
(Pravas Kumar Singh)
Member

Sd/-
(Arun Goyal)
Member

Sd/-
(I. S. Jha)
Member

