

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 299/GT/2020

Coram:

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

Date of Order: 7th December, 2022

In the matter of:

Petition for revision of tariff of Faridabad Gas Power Station (431.586 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

Haryana Power Purchase Centre,
Shakti Bhawan, Sector-IV,
Panchkula, Haryana – 134 109

...Respondent

Parties Present:

Ms. Swapna Seshadari, Advocate, NTPC
Shri Anand K. Ganesan, Advocate, NTPC
Ms. Ritu Apurva, Advocate, NTPC
Shri Deepak Thakur, Advocate, NTPC
Shri Samir Malik, Advocate, HPPC
Ms. Nikita Choukse, Advocate, HPPC

ORDER

This petition has been filed by the Petitioner, NTPC limited for truing up of tariff of Faridabad Gas Power Station (in short 'the generating station') for the 2014-19 tariff period, in terms of Regulation 8 (1) of the Central Electricity Regulatory Commission



(Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as “the 2014 Tariff Regulations”). The generating station with a capacity of 431.586 MW, comprises of two Gas Turbine Units of 140.827 MW each, and one Steam Turbine Unit of 149.932 MW. The dates of commercial operation of the units of the generating station are as under:

	Capacity (MW)	Actual COD
GT Unit-I	140.827	1.9.1999
GT Unit-II	140.827	1.1.2000
ST Unit-III/Generating Station	149.932	1.1.2001

2. The Commission vide its order dated 31.5.2016 in Petition No.286/GT/2014 had approved the capital cost and the annual fixed charges of the generating station for the 2014-19 tariff period as under:

Capital Cost allowed

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	97804.38	97861.91	97881.91	97881.91	97881.91
Add: Projected Additional Capital Expenditure allowed	57.53	20.00	0.00	0.00	0.00
Closing Capital Cost	97861.91	97881.91	97881.91	97881.91	97881.91
Average Capital cost	97833.15	97871.91	97881.91	97881.91	97881.91

Annual Fixed Charges allowed

(Rs.in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2415.80	2419.29	2,420.29	2,420.29	2,420.29
Interest on Loan	527.48	296.44	90.24	0.00	0.00
Return on Equity	9,210.36	9,257.27	9,257.86	9,257.86	9,257.86
Interest on Working Capital	3,760.20	3,791.69	3,813.62	3845.64	3,882.03
O&M Expenses	6,442.97	6,840.03	7,262.98	7,711.83	8,190.89
Annual Fixed Charges	22,356.81	22,604.72	22,844.99	23,235.62	23,751.07

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, as the case may be, shall make an application for interim truing up of capital expenditure including additional capital expenditure in FY 2016-17.”



4. The Petitioner in the present petition, has claimed the capital cost and annual fixed charges as follows:

Capital cost claimed

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	97804.38	100935.42	100971.44	100985.47	100779.23
Add: Addition during the year / period	3123.65	51.60	36.62	129.17	68.71
Less: Decapitalisation during the year /period	0.84	19.60	23.61	337.50	125.80
Less: Reversal during the year / period	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year /period	8.23	4.02	1.02	2.10	31.91
Closing Capital Cost	100935.42	100971.44	100985.47	100779.23	100754.06
Average Capital Cost	99369.90	100953.43	100978.45	100882.35	100766.64

Annual Fixed Charges claimed

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2415.61	2421.06	2425.31	2443.16	2440.64
Interest on Loan	631.03	503.06	273.77	79.43	0.00
Return on Equity	9301.24	9439.92	9441.40	9435.71	9453.75
Interest on Working Capital	3801.51	3808.18	3881.33	3947.37	3994.58
O&M Expenses	6927.98	6906.04	7274.00	8005.70	8274.00
Total	23077.37	23078.25	23295.81	23911.37	24162.97
Additional O&M expenses					
Impact of Pay Revision	0.00	32.49	767.59	874.77	1229.98
Impact of GST	0.00	0.00	0.00	85.77	103.08
Total Annual Fixed Charges	23077.37	23110.74	24063.40	24871.91	25496.03

5. The Petitioner vide affidavit 30.6.2021 has filed certain additional information in this petition. The Respondent Haryana Power Purchase Centre (HPPC) has filed its reply vide affidavit dated 13.4.2022 (filed on 26.4.2022) and the Petitioner vide affidavit dated 18.8.2022 has filed its rejoinder to the said reply. The matter was heard on 23.8.2022 and the Commission, after directing the Petitioner to file certain additional information, reserved its order in the petition. The Petitioner has uploaded its note of written submissions (as per hearing on 23.8.2022) on 24.8.2022. Also, the Petitioner, in compliance of the ROP of the hearing dated 23.8.2022, has filed the additional



information on 9.9.2022, after serving copy on the Respondent. 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 2014-19 tariff period, 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 trued up by excluding liability, if any, as on 1.4.2014;*
- (b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and*
- (a) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15.”*

7. The Commission vide its order dated 31.5.2016 In Petition No.286/GT/2014 had allowed the opening capital cost of Rs. 97804.38 lakh. The Petitioner, in the present Petition has considered the opening capital cost of Rs. 97804.38 lakh, as on 1.4.2014. Accordingly, in terms of Regulation 9(3) of the 2014 Tariff Regulations, the capital cost of Rs. 97804.38 lakh, has been considered as the opening capital cost, as on 1.4.2014, for the purpose of truing-up of the 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 upto 31.3.2014 (either based on actual or projected additional capital expenditure) and estimated additional capital expenditure for the respective years of the tariff 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 stabilizers, 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 Modernization (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-capitalization 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 decapitalization 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 31.5.2016 in Petition No. 286/GT/2014.

9. The details of the projected additional capital expenditure allowed vide order dated 31.5.2016 in Petition No. 286/GT/2014 is summarised below:



(Rs. in lakh)

Head of Work / Equipment	2014-15	2015-16
Inert Gas Fire Extinguishing System	0.00	0.00
Replacement of GT Generator Cooler-Gas Turbine	57.53	0.00
Supply, Erection & Commissioning of Spare Transformer for Steam Turbine Generator - pooled with Anta GPS	0.00	0.00
Acoustic Enclosure for Black start DG set	0.00	20.00
Total projected additional capital expenditure allowed	57.53	20.00

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

(Rs. in lakh)

Head of Work/ Equipment	2014-15	2015-16	2016-17	2017-18	2018-19
Works allowed in Previous Order					
Replacement of GT Generator Cooler- Gas Turbine	51.66	0.00	0.00	0.00	0.00
Sub-total-A	51.66	0.00	0.00	0.00	0.00
New Claims					
Free hold Land - Plant	2527.44	0.00	0.00	0.00	0.00
Freehold Land Township	544.55	0.00	0.00	0.00	0.00
Effluent Quality Monitoring System	0.00	35.38	3.55	0.00	0.26
Construction of Rainwater Harvesting (RWH)	0.00	16.22	0.00	0.00	3.65
Installation of Energy efficient LED Lighting	0.00	0.00	33.06	37.17	0.45
Storage shed for Chlorine Gas Cylinder along with Leak detection system	0.00	0.00	0.00	39.98	0.00
Foam Fire Tender	0.00	0.00	0.00	46.25	0.00
De-staging of Boiler Feed Pump	0.00	0.00	0.00	5.77	0.00
Sewage Treatment Plant	0.00	0.00	0.00	0.00	64.35
Sub-total-B	3071.99	51.60	36.62	129.17	68.71
Total Additional Capital Expenditure -C	3123.65	51.60	36.62	129.17	68.71
Less: Decapitalization of Spares (Part of capital cost)-D	0.84	19.60	23.61	332.50	125.80
Less: Decapitalization corresponding to Energy Efficient Light Fitting-E	0.00	0.00	0.00	5.00	0.00
Add: Discharge of liability of allowed items-F	8.23	4.02	1.02	2.10	31.91
Total Additional Capital Expenditure claimed including discharge of liability G=C-D-E+F	3131.04	36.02	14.03	-206.23	-25.18



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. 51.66 lakh in 2014-15 towards the Replacement of GT Generator Cooler–Gas Turbine, stating that the same was approved in order dated 31.5.2016 in Petition No. 286/GT/2014. These assets/works are considered necessary which facilitates the efficient and successful operation of the generating station. Moreover, the claim of the Petitioner is within the projected cost of Rs. 57.53 lakh allowed vide order dated 31.5.2016. In this background, the additional capital expenditure claimed is **allowed** under this head. It is noticed that the Petitioner has not de-capitalized the corresponding old asset from the books of accounts and has also not claimed any decapitalization. In the absence of the actual decapitalization amount, the assumed deletion considered is Rs. 26.09 lakh in 2014-15.

B. Additional capital expenditure towards New Claims

13. The Petitioner has claimed the total additional capital expenditure of Rs. 3358.09 lakh towards the newly assets/works, for the 2014-19 tariff period, out of which Rs. 3241.65 lakh has been allowed towards the works pertaining to Freehold Land – Plant and Township, Effluent Monitoring System, Construction of Rain Water Harvesting, Installation of Energy efficient LED Lighting, Foam Fire Tender, De-staging of Boiler Feed Pump and Sewage Treatment Plant, as tabulated below:



Sr. No.	Assets/Works	Claimed	Allowed	Justification for admissibility
2014-15				
New Claims				
1	Free hold Land - Plant	2527.44	2527.44	The Petitioner has submitted that the disputes regarding land compensation were decided by the Hon'ble Supreme Court during the years 2009-10 and 2011-12. Accordingly, the liability created was discharged and allowed by the Commission vide its order dated 18.9.2015. Further, the liability discharged during the years 2009-10 and 2011-12 was corresponding to the principal amount only and the present capitalization is on account of the interest liability, which accrued due to pendency of disputes, before various courts including the Hon'ble Supreme Court. As per opinion of the Expert Advisory Committee of Institute of Chartered Accountants of India, the interest paid due to enhancement of land compensation by court forms part of land cost and accordingly it was capitalized in the books of accounts. Considering the fact that land acquisition activities, were prior to the cut-off date and keeping in view the opinion of the ICAI expert advisory, the interest capitalization towards land compensation is allowed .
2	Freehold Land Township	544.55	544.55	
	Total amount claimed	3123.65		
	Total amount allowed		3123.65	

Sr. No.	Assets/Works	Claimed	Allowed	Justification for admissibility
2015-16				
New Claims				
1	Effluent Quality Monitoring System	35.38	35.38	Since the additional capital expenditure incurred is for compliance to the directions/orders of the CPCB dated 5.2.2014, the claim of the Petitioner is allowed under Regulation 14(3)(ii) of the 2014 Tariff Regulations.



Sr. No.	Assets/Works	Claimed	Allowed	Justification for admissibility
				2015-16
New Claims				
2	Construction of Rainwater Harvesting (RWH)	16.22	16.22	<p>The Petitioner has submitted that the work of rainwater harvesting was carried out by the Petitioner, as per the directions of MOEF vide letter dated 17.11.2006. wherein, it had directed to install rainwater harvesting system in all buildings. It has been submitted that four shafts for rainwater harvesting were constructed in year 2008-09 and the same was allowed by the Commission vide order dated 11.1.2010 in Petition No 141/2009. And the construction of balance shafts was carried out in the year 2015-16.</p> <p>Since the additional capital expenditure claimed by the Petitioner had been allowed by order dated 11.1.2010 in Petition No. 141/2009, the claim of the Petitioner towards 'Construction of Rainwater Harvesting' is allowed.</p>
	Total amount claimed	51.60		
	Total amount allowed		51.60	

Sr. No.	Assets/Works	Claimed	Allowed	Justification for admissibility
				2016-17
New Claims				
1	Effluent Quality Monitoring System	3.55	3.55	<p>Since the additional capital expenditure incurred is for compliance to the directions/orders of the CPCB dated 5.2.2014, the claim of the Petitioner is allowed under Regulation 14(3)(ii) of the 2014 Tariff Regulations.</p>
2	Installation of Energy efficient LED Lighting	33.06	0.00	<p>The Petitioner has referred to the National level schemes such as UJALA & National LED Programme in support of its claim for reduction of energy consumption due to installation of energy efficient LED lights. The Petitioner has also referred to the Govt of Haryana gazette notification dated 29.6.2016, wherein, it has mandated the Central Govt establishments to use LED lights.</p> <p>In our view, the benefits of replacement of existing lighting system with LED lighting system, accrues to the Petitioner. Moreover, the Petitioner has not demonstrated the benefits which have been passed on to its beneficiaries, on this count. In view of this, the additional capital expenditure claimed is not allowed.</p>



Sr. No	Assets/Works	Claimed	Allowed	Justification for admissibility
				2016-17
	New Claims			
	Total amount claimed	36.62		
	Total amount allowed		3.55	

Sr. No.	Assets/Works	Claimed	Allowed	Justification for admissibility
				2017-18
	New Claims			
1	Installation of Energy efficient LED Lighting	37.17	0.00	<p>The Petitioner has referred to the National level schemes such as UJALA & National LED Programme in support of its claim for reduction of energy consumption due to installation of energy efficient LED lights. The Petitioner has also referred to the Govt of Haryana gazette notification dated 29.6.2016, wherein, it has mandated the Central Govt establishments to use LED lights.</p> <p>In our view, the benefits of replacement of existing lighting system with LED lighting system, accrues to the Petitioner. Moreover, the Petitioner has not demonstrated the benefits which have been passed on to its beneficiaries, on this count. In view of this, the additional capital expenditure claimed is not allowed.</p>
2	Storage shed for Chlorine Gas cylinder along with leak detection system	39.98	0.00	<p>The Petitioner has referred to Rule 21 (1) of Gas Cylinder Rules, 2016 of Government of India, Ministry of Commerce and Industry (Department of Industrial Policy and Promotion), published vide Gazette Notification No. GSR. 1081(E), dated 22.11.2016, wherein it mandates that the cylinders are required to be stored in a cool, dry, well-ventilated place under cover.</p> <p>It is observed that the expenditure claimed by the Petitioner are in the nature of O&M expenses. In view of this, the additional capital expenditure is not allowed.</p>
3	Foam Fire Tender	46.25	46.25	<p>The Petitioner has submitted that the Foam Fire Tender was procured at Faridabad in March 1999 and CISF had directed to replace the Foam Fire tender, in view of the fact that Fire Tender has completed its stipulated life of 10 years.</p> <p>Considering the fact that foam fire tender, which is required to maintain the safety of the generating station, had completed its useful life and has been replaced as per directions of CISF, the claim of the Petitioner is allowed.</p>



Sr. No.	Assets/Works	Claimed	Allowed	Justification for admissibility
				2017-18
New Claims				
4	De-staging of Boiler Feed Pump	5.77	0.00	Though the Petitioner has claimed the requirement of this item under Regulation 14(3)(vii) of the 2014 Tariff Regulations, it has not furnished any documentary evidence from the independent agency in support of the same. In view of this, the claim of the Petitioner is not allowed .
	Total amount claimed	129.17		
	Total amount allowed		46.25	

Sr. No.	Assets/Works	Claimed	Allowed	Justification for admissibility
				2018-19
New Claims				
1	Effluent Quality Monitoring System	0.26	0.26	Since the additional capital expenditure incurred is for compliance to the directions/orders of the CPCB dated 5.2.2014, the claim of the Petitioner is allowed under Regulation 14(3)(ii) of the 2014 Tariff Regulations.
2	Construction of Rainwater Harvesting (RWH)	3.65	3.65	The Petitioner has submitted that the work of rainwater harvesting was carried out by the Petitioner, as per the directions of MOEF vide letter dated 17.11.2006. wherein, it had directed to install rainwater harvesting system in all buildings. It has been submitted that four shafts for rainwater harvesting were constructed in year 2008-09 and the same was allowed by the Commission vide order dated 11.1.2010 in Petition No 141/2009, and the construction of balance shafts was carried out in the year 2015-16. Since the additional capital expenditure claimed by the Petitioner had been allowed by order dated 11.1.2010 in Petition No. 141/2009, the claim of the Petitioner towards 'Construction of Rainwater Harvesting' is allowed .
3	Installation of Energy efficient LED Lighting	0.45	0.00	The Petitioner has referred to the National level schemes such as UJALA & National LED Programme in support of its claim for reduction of energy consumption due to installation of energy efficient LED lights. The Petitioner has also referred to the Govt of Haryana gazette notification dated 29.6.2016, wherein, it has mandated the Central Govt establishments to use LED lights.



Sr. No.	Assets/Works	Claimed	Allowed	Justification for admissibility
				2018-19
New Claims				
				In our view, the benefits of replacement of existing lighting system with LED lighting system, accrues to the Petitioner. Moreover, the Petitioner has not demonstrated the benefits which have been passed on to its beneficiaries, on this count. In view of this, the additional capital expenditure claimed is not allowed .
4	Sewage Treatment Plant	64.35	64.35	The Petitioner has submitted that the Construction of Sewage Treatment Plant at the generating station, has been carried out in terms of the order dated 13.1.2015 of the National Green Tribunal (NGT). Keeping in view that the judgement of the NGT, fall within the scope of change in law event, the claim of the Petitioner is allowed .
	Total amount claimed	68.71		
	Total amount allowed		68.26	

Assumed Deletions

14. 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 gas 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 ration from above values i.e., value in year of COD divided by value in capitalized year.

15. The Petitioner, in this petition, has claimed the 'Replacement of GT Generator Cooler–Gas Turbine' asset on replacement basis, but has not furnished the decapitalized value of the old asset. Accordingly, the decapitalized value of the assets/works has been calculated in terms of the above-mentioned methodology. Accordingly, the 'Assumed Deletions' allowed of the purpose of tariff is as under:

Year of Claim	Head	Additional Capital Expenditure allowed	Assumed Deletion
2014-15	Replacement of GT Generator Cooler- Gas Turbine	51.66 lakh	(-) 26.09 lakh

Decapitalization

16. The Petitioner has claimed total de-capitalisation of Rs. 507.35 lakh during the period 2014-19 under Regulation 14(4) of the 2014 Tariff Regulations, wherein, an amount of Rs. 502.35 lakh corresponds to the de-capitalisation of spares (i.e. Rs. 0.84 lakh in 2014-15, Rs. 19.60 lakh in 2015-16, Rs. 23.61 lakh in 2016-17, Rs. 332.50 lakh in 2017-18 and Rs. 125.80 lakh in 2018-19) and Rs. 5.00 lakh towards the de-capitalization of 'energy efficient light fitting' in 2017-18. Regulation 14(4) of the 2014 Tariff Regulations, provides that original value of de-capitalised assets shall be deducted from the capital cost allowed to the generating station. Accordingly, the de-capitalisation of the assets pertaining to spares of Rs. 502.35 lakh, as claimed by the Petitioner, is allowed. However, the decapitalisation of Rs. 5.00 lakh towards 'energy efficient light fitting', as claimed by the Petitioner in 2017-18 is not allowed, as the additional capital expenditure towards Energy Efficient Light Fitting has not been allowed for the reasons stated under the head additional capital expenditure, above.



Un-discharged and Discharge of liabilities

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

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
8.23	4.02	1.02	2.10	31.91

18. Out of the total discharge of Rs. 31.91 lakh as claimed by the Petitioner in 2018-19, the discharge of Rs. 26.61 lakh correspond to assets, which have been disallowed and therefore, the same has not been considered for the purpose of tariff. Accordingly, the discharge of liabilities of Rs. 8.23 lakh in 2014-15, Rs. 4.02 lakh in 2015-16, Rs. 1.02 lakh in 2016-17, Rs. 2.10 lakh in 2017-18 and Rs. 5.30 lakh is allowed for the purpose of tariff.

19. Accordingly, on prudence check, the discharge of liabilities allowed as part of additional capital expenditure, corresponding to the allowed assets, are as under:

<i>(Rs. in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19
Un-discharged liabilities as on 1.4.2014-A	8.23	4.02	6.69	7.77	5.30
Addition during the period 2014-19 (corresponding to allowed assets)- B	4.02	6.69	2.10	0.00	40.50
Discharges during the period 2014-19 (corresponding to allowed assets)-C	8.23	4.02	1.02	2.10	5.30
Reversal of liabilities out of liabilities added during 2014-19 (corresponding to allowed assets)-D	0.00	0.00	0.00	0.37	0.00
Closing un-discharged liabilities E=(A+B-C-D)	4.02	6.69	7.77	5.30	40.50

Exclusions

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

<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	546.41	0.00	0.00	0.00	2.32
a	<i>Inert gas fire extinguishing system</i>	3.03	0.00	0.00	0.00	2.32



Sr No.	Head of Work /Equipment	2014-15	2015-16	2016-17	2017-18	2018-19
b	Generator Transformer-STG	543.38	0.00	0.00	0.00	0.00
2	Schemes not claimed: Takeover of Sachdeva School Building	0.00	213.81	0.00	0.00	0.00
3	Liability Reversals	0.00	0.00	-0.49	-0.58	0.00
4	Inter Unit Transfer	-26.93	-0.46	-5.36	1.24	37.48
5	Capitalization of Spares	2020.02	2614.89	1440.83	345.41	449.61
6	Capitalization of MBOA	72.94	63.87	66.09	89.63	114.37
7	Decapitalization of MBOAs: Part of Capital Cost	-51.38	-2.81	-5.06	-64.92	-105.76
8	Decapitalization of Capital Spares-Not part of Capital Cost	-486.02	-81.85	-28.79	-13.31	0.00
9	Decapitalization of MBOAs: Not Part of Capital Cost	-28.50	-6.44	-19.40	-55.62	-93.11
10	Overhauling	0.00	0.00	0.00	0.00	0.00
11	Total Exclusions Claimed	2046.54	2801.01	1447.82	301.84	404.90

a) Exclusions claimed for disallowed additional capital expenditure items

21. The Petitioner has sought exclusion on the disallowed additional capital expenditures as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
546.41	0.00	0.00	0.00	2.32

22. The Petitioner has submitted that the Commission vide its order dated 31.5.2016 in Petition No. 286/GT/2014 had disallowed the additional capital expenditure of Rs. 5.35 lakh (Rs. 3.03 lakh in 2014-15 and Rs. 2.32 lakh in 2018-19) claimed towards 'Inert gas fire extinguishing system' and Rs. 543.38 lakh claimed towards 'Generator Transformer- STG'. However, with regards to the disallowed claim towards the additional capital expenditure towards 'Generator Transformer – STG', the Petitioner in the said order was granted liberty to approach the Commission for the allowance of the same post utilisation of the asset. Since, the Petitioner has not claimed any actual additional capital expenditure towards 'Inert gas fire extinguishing system' and 'Generator Transformer-STG' in the present petition, the actual decapitalisation for the respective assets as capitalised in the books claimed under exclusion is allowed.



b) Schemes/Items not claimed

23. The Petitioner has sought the exclusion of capitalization of Rs.213.81 lakh in 2015-16. The Petitioner, in justification of the same, has submitted that the capitalisation of the same is not admissible under the provisions of the 2014 Tariff Regulations and therefore, kept under exclusion. In view of this, the exclusion for the 'Schemes not claimed', as claimed by the Petitioner is allowed.

c) Reversal of Liability

24. The Petitioner has claimed exclusion of reversal of liabilities as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
0.00	0.00	(-) 0.49	(-) 0.58	0.00

25. In justification for the same, the Petitioner has submitted that as tariff is determined on cash basis, the liability reversal has been kept under exclusion. In view of this, the exclusion of the said amounts is allowed.

d) Overhauling (Ind-AS Adjustment)

26. As regards the expenditure on Overhauling (Ind-AS adjustment), the reconciliation statement, as submitted by the Petitioner, indicates an expenditure of Rs.1193.44 lakh in 2017-18 towards Overhauling, with corresponding negative of same amount as IND-AS adjustment. As such, after adjustment, the net claim against reclassification of asset class reduces to zero as per IGAPP. Considering the fact that the expenditure is an accounting adjustment leading to zero expenditure, the same is in order and does not impact the claim made by the Petitioner and therefore allowed.

e) Inter-Unit transfer

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

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
(-) 26.93	(-) 0.46	(-) 5.36	1.24	37.48



28. 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.

f) Capitalization of Capital Spares

29. The Petitioner has procured capital spares as under:

<i>(Rs in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
2020.02	2614.89	1440.83	345.41	449.61

30. In justification for the same, the Petitioner has submitted that since the capital spares capitalised after the cut-off date, are not allowed in terms of the 2014 Tariff Regulations, the same has been kept under exclusion. 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.

g) Capitalization of Miscellaneous Bought out Assets (MBOA) Items

31. The Petitioner has capitalised MBOA items as under:

<i>(Rs in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
72.94	63.87	66.09	89.63	114.37

32. 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 is in order and is, therefore, allowed.



h) De-capitalization of MBOA forming part of capital cost

33. 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
(-) 51.38	(-) 2.81	(-) 5.06	(-) 64.92	(-) 105.76

34. In justification of the same, the Petitioner has submitted that as per the provisions of the 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.

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

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

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
(-) 486.02	(-) 81.85	(-) 28.79	(-) 13.31	0.00

36. The Petitioner, in justification for the same, has submitted that the capitalization of these spares does not pertain to the part of capital cost and hence claimed under exclusion. 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, on prudence check, the exclusion of the above-said amounts is in order and is, therefore, allowed.

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

37. The Petitioner has de-capitalized the MBOA items, which are not forming part of the capital cost as under:



<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
(-) 28.50	(-) 6.44	(-) 19.40	(-) 55.62	(-) 93.11

38. In justification for the same, the Petitioner has submitted that these assets are not part of the capital cost and therefore, 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.

39. 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)	2046.54	2801.01	1447.82	301.84	404.90
Exclusions Allowed (B)	2097.91	2803.82	1452.88	366.77	510.66
Exclusion not allowed (A-B)	(-) 51.38	(-) 2.81	(-) 5.06	(-) 64.92	(-) 105.76

40. Accordingly, the additional capital expenditure allowed, on cash basis, for the 2014-19 tariff period, is summarised as follows:

<i>(Rs. in lakh)</i>					
Head of Work /Equipment	2014-15	2015-16	2016-17	2017-18	2018-19
Works allowed in previous order					
Replacement of GT Generator Cooler- Gas Turbine	51.66	0.00	0.00	0.00	0.00
Sub-total-A	51.66	0.00	0.00	0.00	0.00
New Claims					
Free hold Land - Plant	2527.44	0.00	0.00	0.00	0.00
Freehold Land Township	544.55	0.00	0.00	0.00	0.00
Effluent Quality Monitoring System	0.00	35.38	3.55	0.00	0.26
Construction of Rainwater Harvesting (RWH)	0.00	16.22	0.00	0.00	3.65
Installation of Energy efficient LED Lighting	0.00	0.00	0.00	0.00	0.00
Storage shed for Chlorine Gas Cylinder along with Leak detection system	0.00	0.00	0.00	0.00	0.00
Foam Fire Tender	0.00	0.00	0.00	46.25	0.00
De-staging of Boiler Feed Pump	0.00	0.00	0.00	0.00	0.00
Sewage Treatment Plant	0.00	0.00	0.00	0.00	64.35
Subtotal-B	3071.99	51.60	3.55	46.25	68.26
Total Additional Capitalization (C = A+B)	3123.65	51.60	3.55	46.25	68.26
Decapitalization of Spares (D)	0.84	19.60	23.61	332.50	125.80



Decapitalization corresponding to Energy Efficient Light Fitting (E)	0.00	0.00	0.00	0.00	0.00
Decapitalization corresponding to 'Replacement of GT Generator Cooler - Gas Turbine' (F)	26.09	0.00	0.00	0.00	0.00
Discharge of liability of allowed items (F)	8.23	4.02	1.02	2.10	5.30
Exclusions not allowed (G)	51.38	2.81	5.06	64.92	105.76
Total additional capitalization claimed including discharge of liability (H = C-D-E+F-G)	3053.57	33.21	(-) 24.10	(-) 349.08	(-) 158.00

Capital cost allowed for the 2014-19 tariff period

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

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	97804.38	100857.95	100891.16	100867.07	100517.99
Add: Additional Capital Expenditure allowed	3053.57	33.21	(-) 24.10	(-) 349.08	(-) 158.00
Closing Capital Cost	100857.95	100891.16	100867.07	100517.99	100359.99
Average Capital Cost	99331.17	100874.56	100879.11	100692.53	100438.99

Debt-Equity Ratio

42. 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.”

43. The Commission vide its order dated 31.5.2016 in Petition No. 286/GT/2014 had considered the gross loan and equity of Rs. 50845.33 lakh and Rs. 46959.05 lakh, respectively as on 31.3.2014. Accordingly, the same debt-equity has been considered as on 1.4.2014 as provided under Regulation 19(3) of the 2014 Tariff Regulations. 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 2014-19 tariff period, 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:

Funding	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	50845.33	51.99%	2319.79	70.00%	-379.18	50.00%	52785.94	52.60%
Equity	46959.05	48.01%	994.19	30.00%	-379.18	50.00%	47574.06	47.40%
Total	97804.38	100.00%	3313.98	100.00%	-758.37	100.00%	100359.99	100.00%

Return on Equity

44. 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.”

45. 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.”

46. The Petitioner has claimed Return on Equity (ROE) for the 2014-19 tariff period, after grossing up the base rate of 15.50% with effective tax rates (based on MAT rates) for the respective years. We have considered the submission of the Petitioner. ROE has been trued-up on the basis of the MAT rate applicable in the respective years and is allowed as under:

(Rs. in lakh)

			2014-15	2015-16	2016-17	2017-18	2018-19
Normative Equity-Opening	A		46959.05	47859.46	47864.94	47851.98	47667.77
Addition of Equity due to additional capital expenditure	B		900.41	5.48	(-) 12.96	(-) 184.21	(-) 93.71
Normative Equity-Closing	C=A+B		47859.46	47864.94	47851.98	47667.77	47574.06
Average Normative Equity	D=Average (A, C)		47409.26	47862.20	47858.46	47759.87	47620.92
Return on Equity (Base Rate)	E		15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate	F		20.961%	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (Pre-Tax)	G=E/(1-F)		19.610%	19.705%	19.705%	19.705%	19.758%
Return on Equity (Pre-Tax) annualized	H=D*G		9296.96	9431.25	9430.51	9411.08	9408.94

Interest on Loan

47. 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."

48. Interest on loan has been computed as under:

- (i) Gross normative loan amounting to Rs. 50845.33 lakh as considered in order dated 31.5.2016 in Petition No.286/GT/2014 has been considered as on 1.4.2014.
- (ii) Cumulative repayment amounting to Rs. 44180.63 lakh, as considered in order dated 31.5.2016 in Petition No. 286/GT/2014 has been considered as on 1.4.2014.



- (iii) Accordingly, the net normative opening loan as on 1.4.2014 is Rs. 6664.70 lakh.
- (iv) Addition to normative loan on account of additional capital expenditure approved as 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, proportionate adjustment has been made to the repayments corresponding to discharges and reversals of the liabilities considered during the respective years on account of cumulative repayment adjusted as on 1.4.2009. Also, repayments have been adjusted for de-capitalization of assets considered for the purpose of tariff;
- (vi) In line with the provision of the regulations stated above, the weighted average rate of interest has been calculated by applying the actual loan portfolio existing as on 1.4.2014, along with subsequent additions during the 2014-19 tariff period, if any, for the generating station. In case of loans carrying floating rate of interest, the details of rate of interest, as provided by the Petitioner, has been considered for the purpose of tariff.

49. 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	50845.33	52998.49	53026.22	53015.09	52850.22
Cumulative repayment of loan upto previous year	B	44180.63	46556.53	48962.73	51367.75	52850.22
Net Loan Opening	C=A-B	6664.70	6441.97	4063.49	1647.34	0.00
Addition due to additional capital expenditure	D	2153.16	27.73	(-) 11.13	(-) 164.87	(-) 64.28
Repayment of loan during the year	E	2412.99	2417.41	2419.35	1681.18	51.50
Less: Repayment adjustment on account of de-capitalization	F	39.15	11.21	14.33	198.71	115.78
Add: Repayment adjustment on a/c of discharges / reversals corresponding to undischarged liabilities deducted as on 01.04.2009	F1	2.06	0.00	0.00	0.00	0.00
Net Repayment of loan during the year	G=(E-F+F1)	2375.90	2406.20	2405.02	1482.47	-64.28
Net Loan Closing	H=C+D-G	6441.97	4063.49	1647.34	0.00	0.00
Average Loan	I=Average (C,H)	6553.33	5252.73	2855.42	823.67	0.00
Weighted Average Rate of Interest of loan	J	9.6310%	9.5851%	9.5800%	9.5800%	0.0000%
Interest on Loan	K=I*J	631.15	503.48	273.55	78.91	0.00



Depreciation

50. 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 licensee 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.”

51. Cumulative depreciation amounting to Rs. 54670.45 lakh as on 1.4.2014, as considered in order dated 31.5.2016 in Petition No. 286/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. Since as on 1.4.2014, the used life of the generating station is more than 12 years from the effective station COD of 28.3.2000, the 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 under:

		<i>(Rs. in lakh)</i>				
		2014-15	2015-16	2016-17	2017-18	2018-19
Average Capital Cost	A	99331.17	100874.56	100879.11	100692.53	100438.99
Value of freehold land	B	9124.65	10660.64	10660.64	10660.64	10660.64
Aggregated Depreciable Value	C=(A-B)*90%	81185.87	81192.53	81196.63	81028.70	80800.52
Remaining Aggregate Depreciable value at the beginning of the year	D=C-(Cumulative Depreciation of Previous year)	26515.42	24146.60	21746.68	19178.91	16822.07
Balance useful life at the beginning of the year	E	10.99	9.99	8.99	7.99	6.99
Depreciation (annualized)	F=D/E	2412.99	2417.41	2419.35	2400.78	2407.06
Add: Cumulative Depreciation adjustment of discharges / reversals corresponding to undischarged liabilities deducted as on 01.04.2009	G	3.16	0.00	0.00	0.00	0.00
Less: Cumulative depreciation adjustment on	H	40.68	13.38	19.51	272.12	155.75



		2014-15	2015-16	2016-17	2017-18	2018-19
account of de-capitalization						
Cumulative depreciation (at the end of the period)	I= (Cumulative Depreciation of Previous year) +F+G-H	57045.92	59449.95	61849.79	63978.44	66229.42

Operation & Maintenance Expenses

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

<i>(Rs. in lakh/MW)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
14.67	15.59	16.57	17.61	18.72

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

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
6331.37	6728.43	7151.38	7600.23	8079.29

Water Charges

54. 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:*

55. The Petitioner has claimed actual water charges in terms of Regulation 29 (2) of the 2014 Tariff Regulations, as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
109.76	76.16	70.22	59.66	68.91

56. The Petitioner, had in its petition, furnished the applicable rates of water charges notified under the Haryana Canal and Drainage Rules, 1976 and its amendments thereof, along with the actual water consumption for the respective years. However, the



Petitioner in its additional information vide affidavit dated 30.6.2021, has submitted Form 3B duly certified by the auditor, wherein the actual water charges claimed by the Petitioner is as under:

ITEM	Units	2014-15	2015-16	2016-17	2017-18	1.4.2018 to 31.8.2018	1.9.2018 to 31.3.2019*
Type of Cooling Tower	-	Induced Draft Cooling Tower					
Type of Cooling Water System	-	Closed Cycle					
Actual water Consumption	Cubic feet	90,000,000	62,000,000	57,000,000	48,200,000	17,200,000	16,400,000
Rate of Water Charges	Rs / Cubic feet	0.12	0.12	0.12	0.12	0.12	0.28
Canal Maintenance charges	Rs. Lakhs	1.76	1.76	1.82	1.82	1.82	
Total water Charges Paid	Rs. Lakhs	109.76	76.16	70.22	59.66	68.91	

* Rates revised w.e.f. 1.9.2018

57. Accordingly, on prudence check, the actual water charges claimed in terms of Regulation 29 (2) of the 2014 Tariff Regulations, is allowed as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
109.76	76.16	70.22	59.66	68.91

Capital spares

58. 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.”

59. 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. 1112.32 lakh during the period 2014-19 (i.e., Rs. 486.86 lakh in 2014-15, Rs. 101.46 lakh in 2015-16, Rs. 52.40 lakh in 2016-17, Rs. 345.81 lakh in 2017-18 and Rs. 125.80 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 also 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 further submitted that capital spares consumed are not funded through compensatory allowance or special allowance or claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization. The Petitioner has furnished 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, in Form 17. The Petitioner vide affidavit dated 30.6.2021 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:

<i>(Rs. in lakh)</i>			
Year	Capital Spares (Part of capital cost) (A)	Capital Spares (Not part of capital cost) (B)	Total Capital Spares consumed (A) + (B)
2014-15	0.84	486.02	486.86
2015-16	19.60	81.85	101.46
2016-17	23.61	28.79	52.40
2017-18	332.50	13.31	345.81
2018-19	125.80	0.00	125.80

60. 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 in the event that 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	486.02	81.85	28.79	13.31	0.00
Value of spares Rs 1(one) lakh and below are disallowed on individual basis	6.96	6.06	3.09	2.81	0.00
Net total value of capital spares considered	479.06	75.80	25.71	10.50	0.00

61. 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	479.06	75.80	25.71	10.50	0.00
Less: Salvage value @ 10%	47.91	7.58	2.57	1.05	0.00
Net Capital spares allowed	431.15	68.22	23.14	9.45	0.00



62. Based on the above, the total annualised O&M expenses allowed 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)	6331.37	6728.43	7151.38	7600.23	8079.29
Additional O&M Expenses under Regulation 29(2)					
Water Charges	431.15	68.22	23.14	9.45	-
Capital Spares	109.76	76.16	70.22	59.66	68.91
Total O&M Expenses allowed	6872.28	6872.80	7244.74	7669.34	8148.20

Impact of Pay revision

63. The Petitioner has claimed total amount of Rs. 2904.83 lakh during the period 2015-19 (Rs. 32.49 lakh in 2015-16, Rs. 767.59 lakh 2016-17, Rs. 874.77 lakh in 2017-18 and 1229.98 lakh during 2018-19) towards impact of pay/wage revision, in respect of employees of CISF from 1.1.2016 and the employees of the Petitioner, posted at the generating station, with effect from 1.1.2017. The Petitioner has therefore requested to allow the recovery with respect to the impact of wage revision, as additional O&M expense from Respondent as one-time payment in exercise of the power under provisions of Regulations 54 and 55 of the 2014 Tariff Regulations.

64. It is however noticed that the claim of the Petitioner, as above, includes the impact on account of the payment of ex-gratia to its employee's consequent upon wage revision. As such, as per consistent methodology adopted by the Commission, the additional ex-gratia paid as a result of wage revision impact, has been excluded from the wage revision impact claimed by the Petitioner in the present case. Accordingly, the claim of the Petitioner in respect of wage revision impact stands reduced to Rs. 2826.30 lakh with the following year-wise break-up:



(Rs. in lakh)

	2015-16	2016-17	2017-18	2018-19	Total
Wage revision impact claimed excluding PRP/ex-gratia	32.49	767.60	859.90	1166.31	2826.30

65. The Petitioner vide affidavit dated 30.6.2021 has furnished the actual O&M expenses of the generating station for the 2014-19 tariff period, along with the wage revision impact (excluding ex-gratia) for the generating station as shown below:

(Rs. in lakh)

Year	Actual O&M expenses claimed (excluding water charges & Capital Spares)	Wage Revision impact claimed excluding PRP/Ex-gratia
2014-15	7899.38	0.00
2015-16	7242.17	32.49
2016-17	7809.50	767.60
2017-18	9011.94	859.90
2018-19	8598.80	1166.31
Total	40561.79	2826.30

66. The Petitioner has submitted that the impact of employee pay revision on account of 7th Pay Commission for CISF and the 3rd Pay Revision Committee for Central Public Sector Undertakings were not in existence and/ or incorporated, while the 2014 Tariff Regulations were being specified by the Commission. Therefore, the same ought to be allowed in line with tariff principles enshrined under Section 61 (d) of the Electricity Act, 2003.

67. The matter has been considered. 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 Statement of Object and Reasons (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."**

68. 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.

69. In consideration of 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.

70. The Petitioner has furnished the detailed break-up of the actual O&M expenses incurred during the 2014-19 tariff period. It is noticed that the total O&M expenses incurred is more than the normative O&M expenses recovered during each year of the 2014-19 tariff period. The impact of the wage revision could not be factored by the Commission, while framing the O&M expenses norms under the 2014 Tariff Regulations, since the pay/wage revision came into effect from 1.1.2016 (CISF employees) and 1.1.2017 (employees of the Petitioner), respectively. As such, in terms of relevant provisions of the SOR of the 2014 Tariff Regulations, the approach followed for arriving at the allowable impact of pay revision is given in the subsequent paragraphs.

71. First step is to compare the normative O&M expenses with the actual O&M expenses for the period from 2015-16 to 2018-19, commensurate to the period for which wage revision impact has been claimed. For like to like comparison, the components of O&M expenses like productivity linked incentive, water charges, filing fees, ex-gratia, loss of provisions, prior period expenses, community development, store expenses, RLDC fees and charges and others (without breakup/ details) which were not considered while framing the O&M expenses norms for the 2014-19 period 2015-19 are higher than actual O&M expenses (normalised) for the same period, the impact of wage revision (excluding PRP and ex-gratia) as claimed for the period is not admissible/ allowed as the impact of pay revision gets accommodated within the normative O&M expenses. However, if the normative O&M expenses for the period is less than the actual O&M expenses (normalised) for the same period, the wage revision impact



(excluding PRP and ex-gratia) to the extent of under-recovery or wage revision impact (excluding PRP and ex-gratia), whichever is lower, is required to be allowed as wage revision impact for the period 2015-19.

72. In this regard, the details as furnished by the Petitioner for the actual O&M expenses of the generating station and the wage revision impact (excluding PRP and ex-gratia) are as follows:

	<i>(Rs. in lakh)</i>				
	2015-16	2016-17	2017-18	2018-19	Total
Actual O&M expenditure (normalized) (a)	6760.07	7304.07	8210.59	7755.65	30030.38
Normative O&M Expenses (b)	6331.37	6728.43	7151.38	7600.23	27811.40
Under-recovery (a)-(b)	428.70	575.64	1059.21	155.42	2218.98
Wage revision impact claimed excluding PRP/ex-gratia	32.49	767.60	859.90	1166.31	2826.30

73. As stated, for like-to-like comparison of the actual O&M expenses and the normative O&M expenses, the expenditure against O&M expenses sub-heads as discussed above, has been excluded from the actual O&M expenses to arrive at the actual O&M expenses (normalized) of the generating station. Accordingly, the following table shows the comparison of the normative O&M expenses versus the actual O&M expenses (normalised) along with the wage revision impact claimed by the Petitioner for the generating station for the period 2015-19 commensurate with the wage revision claim being spread over these four years:

	<i>(Rs. in lakh)</i>				
	2015-16	2016-17	2017-18	2018-19	Total
Actual O&M expenditure (normalized) (a)	6760.07	7304.07	8210.59	7755.65	30030.38
Normative O&M Expenses (b)	6331.37	6728.43	7151.38	7600.23	27811.40
Under-recovery (a)-(b)	428.70	575.64	1059.21	155.42	2218.98
Wage revision impact claimed excluding PRP/ex-gratia	32.49	767.60	859.90	1166.31	2826.30
Wage revision impact claimed excluding PRP/ex-gratia allowed	32.49	767.60	859.90	558.99	2218.98

74. It is observed that for the period 2015-19, the normative O&M expenses is lesser than the actual O&M expenses (normalised) incurred and the under recovery is to the



tune of Rs. 2218.98 lakh, which also includes the under recovery of Rs. 2826.30 lakh due to wage revision impact. As such, in terms of methodology as discussed above, the wage revision impact (excluding PRP/incentive) of Rs. 2218.98 lakh is allowable for the generating station. Accordingly, we, in exercise of the Power under Regulation 54 of the 2015 Tariff Regulations, relax Regulation 29(1) of the 2014 Tariff Regulations and allow the reimbursement of the wage revision impact amounting to Rs. 2218.98 lakh, as additional O&M expenses, for the period 2015-19. The arrear payments on account of wage revision impact payable by the beneficiaries in twelve equal monthly instalments during 2022-23. Keeping in view the consumer interest, we as a special case, direct that no interest shall be charges by the Petitioner on the arrear payments on the wage revision impact allowed in this order. This arrangement, in our view, will balance the interest of both the Petitioner and the Respondent. Also, considering the fact that the impact of wage revision is being allowed in exercise of the power to relax, the expenses allowed are not made part of O&M expenses and the consequent annual fixed charges determined in this order.

Impact of Goods and Service Tax (GST)

75. The Petitioner has claimed the impact of GST for Rs. 86.77 lakh during 2017-18 and Rs. 103.09 lakh during 2018-19. The Petitioner vide affidavit dated 30.6.2021 has submitted that 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 generation 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 table services (i.e., under erstwhile Service Tax 15% and in GST 18%) as under:

Nature		2017-18 Q2-Q4 Post GST period claimable (Rs in lakh)	2018-19 GST claimable (Rs. in lakh)
Material	A	280.45	316.87
Services-Taxable	B	3373.72	4054.29
Services-Exempt	C	2628.68	3604.41
Total General Administration Expenses	D = A+B+C	6282.85	7975.56
Impact of 3% additional tax on Taxable Services due to GST	E=B*0.03/1.18	86.77	103.08

76. 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

77. The Normative Annual Plant Availability Factor of 85% for the period from 2014-15 to 2018-19, is in accordance with the provisions of Regulation 36 (A) of the 2014 Tariff Regulations and is therefore allowed.



(b) Auxiliary Energy Consumption

78. The Normative Auxiliary Energy Consumption of 2.50% claimed by the Petitioner is in accordance with the provisions of Regulation 36(E)(c) of the 2014 Tariff Regulations and is therefore allowed.

(c) Station Heat Rate

79. The Gross Station Heat Rate of 2040 kCal/ kWh is in accordance with the provisions of Regulation 36(C)(a) of the 2014 Tariff Regulations and therefore, the same has been allowed.

Interest on Working Capital

80. 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

81. 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 31.5.2016 in Petition No. 286/GT/2016. The Petitioner has also considered same, in its computation of Energy Charges. It is noticed that the Commission vide its order dated 31.5.2015 in Petition No. 286/GT/2014 had not allowed Liquid Fuel stock, on the ground that the Petitioner had not used any liquid fuel in 2013-14 i.e., during the preceding three months from January 2014 to March 2014 and from 1.4.2014. Therefore, the Petitioner was not entitled for liquid fuel stock in the working capital. Since the claim of the Petitioner is similar to the approach adopted by the Commission in the said order, the same is followed in the present case. Accordingly, the fuel cost for 30 days, Liquid Fuel stock for 15 days and Energy Charges allowed in this order are as follows:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Fuel cost for 30 days	7152.91	7152.91	7152.91	7152.91	7152.91
Liquid Fuel stock for 15 days	0.00	0.00	0.00	0.00	0.00
Energy charges for two months	14504.50	14544.24	14504.50	14504.50	14504.50

(b) Working Capital for Maintenance Spares

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

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
2078.39	2081.56	2412.48	2689.87	2882.12

83. Regulation 28(1)(b)(ii) 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:



(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
2061.68	2061.84	2173.42	2300.80	2444.46

(c) Working Capital for Receivables

84. 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:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Variable Charges - for two months (A)	14504.50	14544.24	14504.50	14504.50	14504.50
Fixed Charges – for two months (B)	3835.08	3837.97	3864.76	3901.24	3974.36
Total (C) = (A+B)	18339.59	18382.22	18369.26	18405.74	18478.86

(d) Working Capital for O & M Expenses

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

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
577.33	578.21	670.13	747.19	800.59

86. 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:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
572.69	572.73	603.73	639.11	679.02

(e) Rate of interest on working capital

87. 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	7152.91	7152.91	7152.91	7152.91	7152.91
O & M expenses for 1 month	B	572.69	572.73	603.73	639.11	679.02



		2014-15	2015-16	2016-17	2017-18	2018-19
Working capital for Maintenance Spares @ 30% of O&M expenses	C	2061.68	2061.84	2173.42	2300.80	2444.46
Working capital for Receivables (2 months)	D	18339.59	18382.22	18369.26	18405.74	18478.86
Total Working Capital	E=A+B+C+D	28126.87	28169.70	28299.32	28498.56	28755.16
Rate of Interest	F	13.50%	13.50%	13.50%	13.50%	13.50%
Total Interest on Working capital	G=E*F	3797.13	3802.91	3820.41	3847.31	3881.96

Annual Fixed Charges for 2014-19 tariff period

88. Based on the above, the annual fixed charges approved for the generating station for the 2014-19 tariff period (after truing -up) are summarised as follows:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	2412.99	2417.41	2419.35	2400.78	2407.06
Interest on Loan	631.15	503.48	273.55	78.91	0.00
Return on Equity	9296.96	9431.25	9430.51	9411.08	9408.94
O&M Expenses	6872.28	6872.80	7244.74	7669.34	8148.20
Interest on Working Capital	3797.13	3802.91	3820.41	3847.31	3881.96
Total annual fixed charges approved	23010.50	23027.85	23188.56	23407.41	23846.16
Total annual fixed charges approved in order dated 31.5.2016 in Petition No. 286/GT/2014	22356.81	22604.72	22844.99	23235.62	23751.07
<i>Note: All figures are on annualized basis. All figures under each head have been rounded. The figure in total column in each year is also rounded. As such, the sum of individual items may not be equal to the arithmetic total of the column</i>					

Summary

89. The total expenses allowed in respect of the generating station for the 2014-19 tariff period after truing-up is summarized below:

	<i>(Rs in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Annual Fixed Charges	23010.50	23027.85	23188.56	23407.41	23846.16
Pay revision impact claimed excluding PRP/ ex-gratia allowed	32.49	767.60	859.90	558.99	2218.98

90. The difference between the annual fixed charges already recovered by the Petitioner vide order dated 31.5.2016 in Petition No.286/GT/2014 and the annual fixed



charges determined by this order, shall be adjusted in terms of Regulation 8(13) of the 2014 Tariff Regulations.

91. Petition No. 299/GT/2020 is disposed of in terms of the above.

Sd/-
(Pravas Kumar Singh)
Member

Sd/-
(Arun Goyal)
Member

Sd/-
(I. S. Jha)
Member

