CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 270/GT/2019

Coram:
Shri P.K. Pujari, Chairperson
Shri I.S. Jha, Member

Date of Order: 13th July, 2020

In the matter of

Petition for revision of tariff of SUGEN Power Plant (1147.5 MW) for the period from 1.4.2014 to 31.3.2019 after truing-up exercise

AND

In the matter of

Torrent Power Ltd
Torrent House, Off Ashram Road,
Near Income Tax Circle,
Ahmedabad – 380009 **…Petitioner**

Vs

1. Torrent Power Ltd (Ahmedabad Distribution)
Electricity House, Lal Darwaja,
Ahmedabad – 380001

2. Torrent Power Ltd (Surat Distribution)
Torrent House, Station Road,
Surat – 395003

3. PTC India Ltd.
2nd floor, NBCC Tower,
Bhikhaji Cama Place,
New Delhi – 110066

4. Madhya Pradesh Power Management Co. Ltd.
Shakti Bhavan, Vidyut Nagar,
Jabalpur – 482008 **…Respondents**

Parties Present:

Ms. Swapna Seshadri, Advocate, TPL
Ms. Deepa Chawan, Advocate, TPL
Shri Damodar Solanki, Advocate, TPL
Shri Lalit Vashisth, TPL
Shri Vihar Patel, TPL
Shri N.K. Joshi, TPL
Shri Ravi Kishore, Advocate, PTC
Shri Ravindra Khare, MPPMCL

ORDER

The Petitioner, Torrent Power Ltd has filed this petition for revision of tariff of SUGEN Mega Power Plant (1147.5 MW) ('hereinafter called 'the generating station') for the period from 1.4.2014 to 31.3.2019, after truing-up exercise in accordance with Regulation 8(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 ('referred to as 'the 2014 Tariff Regulations').

2. The generating station consist of 3 units/blocks of 382.5 MW each, the modules having advance class gas turbine (Siemens make) along with associated Waste Heat Recovery Boilers (WHRB) generator with single shaft configuration. The date of commercial operation of the different units/blocks of the generating station is as under:

Units	COD
Block- 10	19.7.2009
Block- 20	28.7.2009
Block- 30	15.8.2009

3. Petition No.109/2009 was filed by the Petitioner for approval of tariff of the generating station for the period from the date of commercial operation of Block-10 (first unit) i.e. from 19.7.2009 to 31.3.2014 and the Commission vide its order dated 11.1.2010 had approved the tariff for the generating station for the said period. Thereafter, Petition No. 221/GT/2013 was filed by the Petitioner for revision of annual fixed charges of the generating station for the period from COD to 31.3.2014 due to impact on account of variation in additional capital expenditure during the years 2009-10 and 2010-11 (allowed on provisional basis vide order dated 11.1.2010 in Petition No. 109/2009) in terms of the proviso to Regulation 6(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 and the Commission by order dated

1.10.2014 revised the annual fixed charges. Subsequently, the annual fixed charges for the generating station was trued up by the Commission vide order dated 25.6.2015 in Petition No. 523/GT/2014. The Petitioner had filed Petition No.186/GT/2014 for approval of tariff of the generating station for the period from 1.4.2014 to 31.3.2019 and the Commission by its order dated 6.10.2015 had approved the annual fixed charges as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	15198.69	15207.83	15207.83	15207.83	15207.83
Interest on Loan	15289.84	13531.05	11757.72	9985.94	8219.39
Return on Equity	17575.90	17586.47	17586.47	17586.47	17586.47
Interest on Working Capital	21554.40	21716.34	21822.22	21974.07	22140.42
O&M Expenses	31888.38	34111.86	36478.68	39014.61	41739.92
Total	**101507.21**	**102153.55**	**102852.91**	**103768.91**	**104894.03**

4. This petition has been filed by the Petitioner for truing-up of tariff in terms of Regulation 8(1) of the 2014 Tariff Regulations, which provides as under:

> *"8(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".*

5. The capital cost and the annual fixed charges claimed by the Petitioner for the period 2014-19 are summarised as under:

Capital cost

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	298577.80	298732.88	298910.34	299063.81	299150.77
Additional Capital Expenditure	155.08	177.46	153.47	86.96	15.47
Closing Capital Cost	**298732.88**	**298910.34**	**299063.81**	**299150.77**	**299166.24**
Average Capital Cost	298655.34	298821.61	298987.08	299107.29	299158.50

Annual Fixed Charges

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	15190.13	15201.61	15213.06	15210.32	15207.01
Interest on Loan	15090.08	13038.52	11358.33	7324.04	6085.03
Return on Equity	17569.89	17664.84	17674.62	17681.73	17732.32
Interest on Working Capital	21549.47	21706.66	21815.18	24891.80	25071.38
O&M Expenses*	31888.38	34111.86	36478.68	39,014.61	41,739.92
Total	**101287.94**	**101723.49**	**102539.88**	**104122.49**	**105835.65**

**inclusive of Water charges*

6. The Commission vide ROP (record of proceedings) of the hearing dated 31.10.2019 had directed the Petitioner to submit certain additional information. Subsequently, based on letter dated 4.11.2019 of the Objector, User Welfare Association (UWA), the afore-stated ROP was modified by granting time to UWA to file its submissions in the matter. Thereafter, the Petition was heard on 27.2.2020 and the Commission after directing the Petitioner to file certain additional information, reserved its order in the Petition. In response, the Petitioner has filed the additional information sought vide ROP and has served copies on the respondents, including the Objector. Reply has been filed by the Respondent MPPMCL vide affidavit dated 6.11.2019 and the Petitioner vide affidavit dated 27.11.2019 has filed its Rejoinder to the same. The Objector has, however, not submitted any response to this petition. Taking into consideration the submissions of the parties and the documents available on record, we proceed to true-up the tariff of the generating station, on prudence check, as stated in the subsequent paragraphs.

Capital Cost

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

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

8. The Petitioner has claimed annual fixed charges based on opening capital cost of ₹298577.80 lakh as on 1.4.2014 (after removal of un-discharged liabilities of ₹359.26 lakh) as approved by the Commission as on 31.3.2014, vide its order dated

25.6.2015 in Petition No. 523/GT/2014. Further, the Petitioner has furnished the value of capital cost and liabilities as on 1.4.2014 as per books in Form-9E. The details of the liabilities and capital cost have been reconciled with the records available with the Commission as under:

(₹ in lakh)

	As per Form-9E	As per records available in Commission	Difference
Capital cost as on 1.4.2014 as per books	298735.17	298735.17	0.00
Liabilities included above	359.26	359.26	0.00

9. Thus, in terms of the above, there is no variation in the capital cost and the liabilities as on 1.4.2014 as per books and the record available with Commission. Further, the entire liability of ₹359.26 lakh corresponds to the approved capital cost of ₹298577.80 lakh (on cash basis) as on 31.3.2014. Accordingly, the capital cost as on 1.4.2014, after removal of un-discharged liabilities of ₹359.26 works out to ₹298577.80 lakh, on cash basis.

10. Further, out of un-discharged liabilities amounting to ₹359.26 lakh deducted as on 1.4.2014, the Petitioner has discharged an amount of ₹278.82 lakh during 2014-15 and ₹32.00 lakh during 2017-18. These discharges along with discharges corresponding to assets admitted on cash basis during the tariff period 2014-19 has been allowed as additional capital expenditure during the respective years.

Actual Additional Capital Expenditure for 2014-19 period

11. Regulation 14(3) of the 2014 Tariff Regulations provides as under:

"14(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 un-discharged 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 obsolesce 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 capitalization for determination of tariff w.e.f. 1.4.2014:

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

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

12. The Petitioner has furnished the year-wise Gross Block, Addition, Deletion and the Closing Gross Block for the period 2014-19, duly certified by Auditor, as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block	298735.17	298611.43	298788.89	298942.36	298997.34
Closing Gross Block	298611.43	298788.89	298942.36	298997.34	299012.82
Net Addition	**(-) 123.74**	**177.46**	**153.47**	**54.98**	**15.48**
Addition	52.41	215.27	235.09	70.17	72.48
Deletion	(-) 176.15	(-) 37.81	(-) 81.62	(-) 15.21	(-) 57.01

13. The Petitioner has also submitted the year-wise details of the 'Additions' claimed for the period 2014-19 as under:

(₹ in lakh)

		2014-15	2015-16	2016-17	2017-18	2018-19	Total
I	**Tangible Assets**						
1	Freehold Land	8.33	-	-	-	-	8.33
2	Buildings	14.59	4.01	106.51	0.31	-	125.42
3	Plant and Machinery	29.04	86.87	45.11	10.23	9.28	180.54
4	Electrical Fittings and Apparatus	-	32.20	6.10	-	-	38.30
5	Furniture and Fixtures	0.14	1.04	5.16	8.50	15.92	30.76
6	Office Equipment	0.31	10.50	27.21	14.96	46.82	99.79
7	Vehicles	-	80.66	25.09	25.55	-	131.30
		52.41	**215.27**	**215.19**	**59.54**	**72.02**	**614.44**
II	**Intangible Assets**						
1	Software (Acquired)	-	-	19.90	10.63	0.45	30.98
		-	**-**	**19.90**	**10.63**	**0.45**	**30.98**
	Grand Total	**52.41**	**215.27**	**235.09**	**70.17**	**72.48**	**645.42**

14. The Commission in its order dated 6.10.2015 in Petition No. 186/GT/2014 had not permitted the additional capitalisation of ₹500 lakh claimed for the period 2014-19 towards 'Routine Capital Expenditure' for want of details and/or justification by the Petitioner. However, the Petitioner in compliance with the directions of the Commission vide ROP of the hearing dated 27.2.2020 has, vide affidavit dated 13.3.2020, furnished the details of the additional capital expenditure claimed for the period 2014-19. It is observed from the submissions of the Petitioner that the additional capital expenditure claimed is mainly under the head 'Routine Expenditure' and in terms of sub-clauses (i) & (vii) of Clause (3) of Regulation 14 of the 2014 Tariff Regulations.

15. The Respondent MPPMCL vide its reply affidavit dated 6.11.2019 has submitted that the un-discharged liabilities after COD and up to the cut-off date may be admissible for the purpose of tariff. It has, however, submitted that out of total un-discharged liabilities of ₹359.26 lakh as on 31.3.2014, the Petitioner has not provided details of asset-wise/ work-wise expenditure etc., for discharged liabilities of ₹278.82 lakh for 2014-15 and ₹32.00 lakh for 2017-18. The Respondent has stated that mere submission of Auditor's Certificate would not qualify the claim for un-discharged liability and the same may not be allowed. The Respondent has also submitted that though the Petitioner has claimed deletion of Gross-block as per Auditor's Certificate for the period 2014-19, it has not furnished any details of de-capitalization of such assets. The Respondent has further submitted that the Commission may take up prudence check of the assets de-capitalized and capitalized, and accordingly the amount of capitalized assets may be reduced to the extent of de-capitalized assets (whose useful life is not completed). It has also stated that the balance additional capitalized assets may be disallowed as the Petitioner has not provided the assets details and its usefulness in the plant for reduction in the operating cost as mandated under the proviso to Regulation 14(3) of the 2014 Tariff Regulations. The Petitioner has added that the additional capital expenditure claimed towards building, furniture, office equipment, vehicle etc. for the period 2014-19 may not be allowed in terms of the above proviso. The Respondent has stated that the Petitioner has failed to submit the details of the intangible assets claimed for capitalization after COD including the technical justification duly supported by documentary evidence and, therefore, the same may not be allowed for additional capitalization in terms of Regulations 14(3) of the 2014 Tariff Regulations. In response, the Petitioner vide its rejoinder affidavit dated 27.11.2019 has clarified that the details of de-

capitalization of assets during the period 2014-19 has been submitted in Form 9Bi of the petition. It has also stated that Auditor's Certificates certifying the 'Additions' and 'Deletions' to Gross Block have also been furnished under Annexure B1 to B5 of the petition. The Petitioner has further stated that the details of the additional capital expenditure incurred during the period 2014-19 duly certified by Auditor along with justification for additional capitalisation of major items claimed has been submitted. Based on the submissions above, we examine the year-wise claims of the Petitioner on prudence check, as stated in the subsequent paragraphs.

2014-15

16. The Petitioner has claimed total additional capital expenditure of Rs 52.41 lakh during 2014-15 along with justification as under:

		Regulation	Amount *(Rs in lakh)*	**Remarks**
1	Freehold Land	Routine Capital Expenditure	8.33	Green Belt Development
2	Buildings	-do-	14.59	Miscellaneous Civil Work
3	Furniture and Fixtures	-do-	0.14	-
4	Office Equipment	-do-	0.31	-
5	Plant & Machineries	14 (3) (vii)	29.04	Includes erection of Compact Sub-station for Rs. 26.19 lakh, which was required to meet the reliable and additional power requirement of housing colony
	Total		**52.41**	

17. It is noticed that the Petitioner has claimed total additional capital expenditure of Rs 23.37 lakh towards Green Belt Development/ Miscellaneous Civil Work under 'Routine Capital Expenditure' and Rs 29.04 lakh towards 'Plant and Machinery' under Regulation 14(3)(vii) of the 2014 Tariff Regulations. Since Regulation 14(3) of the 2014 Tariff Regulations do not provide for capitalization of

expenditure under 'Routine Capital Expenditure', the claim of the Petitioner for additional capitalisation of Rs 23.37 lakh is not allowed. Further, the Petitioner has not furnished any technical details or justification with supporting documents as regards the claim for additional capitalisation of Rs 29.04 lakh towards 'Plant & Machinery'. In absence of any details/ justification, the claim of the Petitioner for Rs 29.04 lakh under this head is not allowed. Accordingly, the total additional capital expenditure of Rs 52.41 lakh (Rs. 23.37 lakh plus Rs. 29.04 lakh) claimed in 2014-15 is not allowed for capitalization.

2015-16

18. The Petitioner has claimed additional capital expenditure of Rs 215.27 lakh during 2015-16 along with justification as under:

		Regulation	Amount *(Rs in lakh)*	**Remarks**
1	Buildings	Routine Capital Expenditure	4.01	Miscellaneous Civil Work
2	Electrical Fittings and Apparatus	-do-	32.20	
3	Furniture & Fixtures	-do-	1.04	
4	Office Equipment	-do-	10.50	
5	Vehicle	14 (3) (vii)	80.66	Replacement of old vehicles due to obsolescence
6	Plant & Machineries	14 (3) (i) & 14 (3) (vii)	86.87	(i) Solar Power Roof Top System for Rs.35 lakh which has resulted into reduction of auxiliary consumption and benefits to beneficiaries in terms of sharing of ECR gain. (ii) PSA Nitrogen Gas Plant for Rs.22.44 lakh. The preservation of plant requires handling of Nitrogen Cylinder. Handling of Nitrogen Cylinder involves risk of transportation, handling and monitoring, timely delivery, etc. For safety, better management, economic and efficient management of Nitrogen, PSA Nitrogen Gas Plant was installed. (iii)To meet the regulatory requirement of Gujarat Pollution Control Board, TOC Analyser was

				installed at a cost of Rs.17.28 lakh. (iv) To protect the servers and data network, an automated fire-fighting system was installed at a cost of Rs.5.41 lakh.
	Total		**215.27**	

19. It is noticed that the Petitioner has claimed additional capital expenditure of Rs.4.01 lakh on Miscellaneous Civil Works (Buildings) claimed under 'Routine Capital Expenditure'. Since Regulation 14(3) of the 2014 Tariff Regulations do not provide for capitalization of expenditure under 'Routine Capital Expenditure', the claim of the Petitioner for additional capitalisation of Rs 4.01 lakh is not allowed.

20. The Petitioner has also claimed additional capital expenditure of Rs.32.20 lakh towards Electrical Fittings & Apparatus, Rs.1.04 lakh towards Furniture & Fixtures and Rs.10.50 lakh for Office Equipment under 'Routine Capital Expenditure'. The cut-off date of the generating station is 31.3.2011. It is pertinent to mention that the proviso to Regulation 14(3) of the 2014 Tariff Regulations do not provide for capitalisation of minor assets including assets like furniture, office equipment etc., after the cut-of date of the generating station. Accordingly, the expenditure of Rs.32.20 lakh towards Electrical Fittings & Apparatus, Rs.1.04 lakh towards Furniture & Fixtures and Rs.10.50 lakh towards Office Equipment as claimed by the Petitioner in 2015-16 is not allowed to be capitalized for the purpose of tariff.

21. As regards the claim for additional capitalization of Rs.80.66 lakh towards Replacement of Vehicles, it is observed that the Petitioner has also de-capitalized an amount of Rs.37.81 lakh in 2015-16 towards 'Old Vehicles' taken out of service. It is further observed that for the period 2014-19, the Petitioner has de-capitalized Vehicles amounting to Rs.257 lakh as against the capitalization of Rs.131 lakh towards 'new Vehicles'. Accordingly, the need-based additional capitalization of

Rs.80.66 lakh towards the procurement of 'new vehicles' is allowed for the purpose of tariff as the same was necessary due to obsolescence of the old vehicles taken out from service. The de-capitalization of the amount towards 'old vehicles' has been dealt with under the head 'Deletions'.

22. The Petitioner has claimed additional capitalization of Rs.86.87 lakh towards 'Plant and Machinery' under Regulation 14(3)(i) read with Regulation 14(3)(vii) of the 2014 Tariff Regulations. The assets claimed under these regulations have been categorized as 'Solar Power Roof Top System', 'PSA Nitrogen Gas Plant' and 'Automated Fire Fighting System'.

23. As regards the claim for additional capitalisation of Rs.35 lakh towards installation of 'Solar Power Roof Top System', the Petitioner has submitted as follows:

> *"Solar Power Roof Top System for Rs.35 lacs which has resulted into reduction of auxiliary consumption and benefits to beneficiaries in terms of sharing of ECR gain"*

It is pertinent to mention that the energy generated from Solar Power Roof Top System installed at the generating station would meet some of the auxiliary energy requirements of the generating station and to that extent, the ex-bus energy available to the beneficiaries would increase. Considering the resolve of the Central Government to promote renewable energy and in terms of Regulation 8(6) of the 2014 Tariff Regulations which provide for sharing of gains in respect of variation of Auxiliary Energy consumption (by way of lower ECR because of lower auxiliary consumption in comparison to normative auxiliary consumption), we allow the additional capital expenditure of Rs.35 lakh incurred by the Petitioner towards the installation of Solar Power Roof Top System.

24. As regards the additional capitalization of Rs.22.44 lakh on ‘PSA Nitrogen Plant’, the Petitioner has submitted that the preservation of plant requires handling of nitrogen cylinder and handling of nitrogen cylinder involves risk of transportation, handling and monitoring, timely delivery, etc. It has stated that for safety, better management, economic and efficient management of nitrogen, PSA Nitrogen Gas Plant was installed and that this plant produces nitrogen required for preservation of the plant. The preservation of the plant is a necessary feature in case the plant decides to go under Reserve Shut Down (RSD) due to continuous non-scheduling of the plant above the technical minimum. However, for the period of RSD, the generating station gets its normative O&M expenses as part of the fixed charges and the same is recovered in full. As such, during this period, the generator saves the expenditure towards ‘Spares and Consumables consumption’ recovered as part of the normative O&M expenses as there is no ‘actual expenditure’ under this head. In this background, we are of the considered view that the Petitioner shall meet the expenditure on preservation of the plant from the normative O&M expenses recovered during the period of RSD. Accordingly, the claim of the Petitioner for additional capitalization of Rs.22.44 lakh for ‘PSA Nitrogen Plant’ is not allowed.

25. As regards the additional capitalization of Rs.5.41 lakh for ‘Automated Fire Fighting System’, the Petitioner has submitted as follows:

> *“To protect the servers and data network, an automated fire-fighting system was installed at a cost of Rs.5.41 lacs.”*

The Petitioner has claimed the said expenditure under Regulation 14(3)(vii) of the 2014 Tariff Regulations which provides for capitalization of expenditure which are necessary for the efficient operation of the plant. It is observed that the Petitioner has neither identified/ indicated the location where the firefighting system has been installed nor justified the installation of new firefighting system, thereby leading to the conclusion that the firefighting system at the current location was not envisaged. Accordingly, in absence of relevant details, the claim for capitalization of an expenditure of Rs. 5.41 lakh towards 'firefighting system' is not allowed.

26. As regards capitalization of Rs.17.28 lakh towards 'TOC Analyser', the Petitioner has submitted the following:

> *'To meet the regulatory requirement of Gujarat Pollution Control Board, TOC Analyser was installed at a cost of Rs.17.28 lacs'*

It is noticed that the expenditure incurred towards installation of 'TOC Analyzer' is in order to meet the statutory requirement imposed by the Gujarat Pollution Control Board vide its letter dated 27.3.2015, which is an instrumentality of the State Government. In view of this, the additional capitalization of Rs.17.28 lakh is allowed under Regulation 14(3)(ii) of the 2014 Tariff Regulations.

27. Accordingly, the total additional capital expenditure of only Rs 132.94 lakh (Rs. 80.66 lakh plus Rs. 35 lakh plus Rs. 17.28 lakh) out of claimed amount of Rs. 215.27 lakh is allowed to be capitalized for the year 2015-16.

2016-17

28. The Petitioner has claimed additional capital expenditure of Rs 235.09 lakh during 2016-17 along with justification as under:

Sl. No		Regulation	Amount *(Rs in lakh)*	Remarks
1	Electrical Fittings & Apparatus	Routine Capital Expenditure	6.10	
2	Furniture & Fixtures	-do-	5.16	
3	Buildings	14 (3) (vii)	106.51	It was not envisaged during project phase. However, later on based on requirement, a road has been constructed.
4	Plant &	-do-	45.11	For efficient utilisation of Gas Transportation

	Machineries			Capacity and to ensure reliable availability of Generating Station, an interconnection between the Gas conditioning stations was conceived and implemented at a cost of Rs.15.39 lakh. Balance routine capex
5	Office Equipment	-do-	27.21	To monitor the continuous operation of plant and reduction in auxiliary consumption, LED TV was installed at Control Room for Rs.17.06 lakh
6	Vehicle	-do-	25.09	Replacement of old vehicles due to obsolescence
7	Software (acquired)	-do-	19.90	To meet the legal requirements and obsolescence of technology, Windows Server Device CALs with SA and Microsoft Exchange CAL was procured at cost of Rs.17.31 lakh.
	Total		**235.09**	

29. The Petitioner has claimed additional capital expenditure of Rs.6.10 lakh towards Electrical Fittings & Apparatus and 5.16 lakh towards Furniture & Fixtures under 'Routine Capital Expenditure' in 2016-17. As stated earlier, the proviso to Regulation 14(3) of the 2014 Tariff Regulations do not provide for capitalisation of minor assets including assets like furniture, office equipment etc., after the cut-of date of the generating station. Accordingly, the expenditure of Rs.6.10 lakh towards Electrical Fittings & Apparatus and Rs.5.16 lakh towards Furniture & Fixtures as claimed by the Petitioner in 2016-17 is not allowed to be capitalized.

30. The Petitioner has also claimed additional capital expenditure of Rs 106.51 lakh for Buildings, Rs 45.11 lakh for Plant & Machineries, Rs 27.21 lakh for Office Equipment, Rs 25.09 lakh for Vehicle and Rs 19.90 lakh for Software in 2016-17. As regards the claim for additional capitalization of Rs 106.51 lakh towards Buildings, the Petitioner has submitted that the same was not envisaged during the project phase, but later on, based on requirement, a road was constructed. The Petitioner has, however, not furnished any proper justification and/or details regarding the location of the road, the difficulties faced by the Project in the absence of road etc. In the absence of any details/ justification, no expenditure can be permitted

on the ground of efficient operation of the generating station. In view of this, the additional capitalization of Rs 106.51 lakh for Buildings is not allowed under Regulation 14(3)(vii) of the 2014 Tariff Regulations.

31. As regards the additional capitalization of Rs 45.11 lakh towards Plant & Machineries claimed under Regulation 14(3)(vii) of the 2014 Tariff Regulations, the Petitioner has submitted the following justification:

> *"For efficient utilisation of Gas Transportation Capacity and to ensure reliable availability of Generating Station, an interconnection between the Gas conditioning stations was conceived and implemented at a cost of Rs.15.39 lacs. Balance routine capex"*

Though the Petitioner has submitted that the out of said expenditure of Rs. 45.11 lakh, an amount of Rs. 15.39 lakh was incurred for conceiving and implementing an interconnection between the gas conditioning stations, it has not justified with details as to how the interconnection between gas conditioning stations helped in ensuring reliable availability leading to efficient operation of the generating station. Moreover, the Petitioner has also not indicated the difficulties faced by it in the absence of such interconnection, thereby necessitating such expenditure of Rs. 15.39 lakh. Further, in respect of the balance expenditure of Rs. 29.72 lakh towards Routine capital expenditure, the Petitioner has not furnished any details and/or justification in support of the said expenditure. Even otherwise, there is no provision for considering such routine expenditure under Regulation 14(3) of the 2014 Tariff Regulations. In this background and in the absence of proper justification with details, the claimed additional expenditure of Rs.45.11 lakh claimed under Regulation 14(3)(vii) of the 2014 Tariff Regulations in 2016-17 is not allowed to be capitalized for the purpose of tariff.

32. The Petitioner has claimed additional capitalization of Rs.27.21 lakh under 'Office Equipment' towards installation of LED TV at Control Room for Rs 17.06

lakh to monitor the continuous operation of plant and reduction in auxiliary consumption. It has also claimed additional capitalization of Rs 19.90 lakh towards acquisition of 'Software' namely Windows Server Device CALs with SA and Microsoft Exchange CAL, for Rs 17.31 lakh in order to meet the legal requirements and obsolescence of technology. No details of the balance amounts have been furnished by the Petitioner. Since the capitalisation of expenditure on minor assets after the cut-off date is not permissible in terms of the proviso to Regulation 14(3) of the 2014 Tariff Regulations, the expenditure incurred towards 'Office Equipment' and 'Software' is not allowed to be capitalised for the purpose of tariff.

33. With regard to claim for additional capitalization of Rs.25.09 lakh for Vehicles, the Petitioner has submitted that the same is towards the 'Replacement of old vehicles due to obsolescence'. It is observed that the Petitioner has de-capitalized an amount of Rs.81.40 lakh during the year 2016-17 towards 'old vehicles' which were taken out of service. It is also observed that for the entire 2014-19 tariff period, the Petitioner has de-capitalized Vehicles amounting to Rs.257 lakh as against the capitalization of Rs.131 lakh for 'new Vehicles'. Accordingly, the need based additional capitalization of Rs.25.09 lakh towards procurement of 'new Vehicles' is allowed for the purpose of tariff as the same was necessary due to obsolescence of the old vehicles taken out from service. The de-capitalization of amount towards 'old vehicles' has been dealt with under the head 'Deletions'.

34. Based on the above discussions, the additional capitalization of only Rs.25.09 lakh is allowed as against claim of Rs. 235.09 lakh for the purpose of tariff in 2016-17.

2017-18

35. The Petitioner has claimed additional capital expenditure of Rs 70.17 lakh during 2017-18 along with justification as under:

Sl. No		Regulation	Amount (Rs in lakh)	Remarks
1	Buildings	Routine Capital Expenditure	0.31	Miscellaneous Civil Work
2	Furniture and Fixtures	-do-	8.50	
3	Plant & Machineries	14 (3) (i) & 14 (3) (vii)	10.23	As per directive of SLDC, Installation of ABT Meters with wireless communication capability at a cost of Rs.7.44 lacs
4	Office Equipment	14 (3) (vii)	14.96	Installation of Human Machine Interface (HMI) or Thin Client used in Distributed Control System (DCS) of SUGEN has Windows XP as its Operating System (OS). Microsoft has discontinued this OS and also ended the support & extended-support since April 2014. We have procured Thin Client operating on Windows 7 OS, as replacement components at a cost of Rs.6.75 lacs.
5	Software (acquired)	-do-	10.63	Procurement of SAP HANA Licensee at the cost of Rs.10.63 lacs
6	Vehicle	-do-	25.55	Replacement of old vehicles due to obsolescence
	Total		**70.17**	

36. The Petitioner has claimed additional capitalization of Rs.0.31 lakh under 'Buildings' for routine miscellaneous civil work. Since Regulation 14(3) of the 2014 Tariff Regulations do not provide for capitalization of expenditure under 'Routine Capital Expenditure', the claim of the Petitioner for additional capitalisation of Rs 0.31 lakh is not allowed.

37. Further, the Petitioner has claimed additional capitalisation of Rs 8.50 lakh towards 'Furniture and Fixtures', Rs.14.96 lakh for Installation of Human Machine

Interface (HMI) or Thin Client used in Distributed Control System (DCS) of the plant (including an amount of Rs.6.75 lakh for procurement of 'Thin Client operating on Windows 7 OS' as replacement) under 'Office Equipment' and Rs.10.63 lakh under 'Software' for procurement of SAP HANA licensee. As stated earlier, the capitalisation of expenditure on minor assets after the cut-off date is not permissible in terms of the proviso to Regulation 14(3) of the 2014 Tariff Regulations. Hence, the expenditure incurred towards Furniture & Fixtures, Office Equipment and Software are not allowed to be capitalised.

38. The Petitioner has also claimed additional capitalization of Rs.10.23 lakh towards Plant & Machineries and has submitted that it has incurred the said expenditure for installation of ABT meters with wireless communication capability at a cost of Rs 7.44 lakh. Since the expenditure is based on statutory compliance of the directions of SLDC, we allow the capitalization of Rs 7.44 lakh (as against the expenditure of Rs 10.23 lakh claimed) for the purpose of tariff.

39. As regards the claim for additional capitalization of Rs.25.55 lakh for vehicles, the Petitioner has submitted that the same is towards the 'Replacement of old vehicles due to obsolescence'. It is observed that the Petitioner has also de-capitalized an amount of Rs.15.21 lakh during the year 2017-18 towards 'old vehicles' which were taken out of service. It is also observed that for the entire tariff period 2014-19, the Petitioner has de-capitalized vehicles amounting to Rs.257 lakh as against the capitalization of Rs.131 lakh for 'new Vehicles'. Accordingly, the need based additional capitalization of Rs.25.55 lakh towards the procurement of 'new Vehicles' is allowed for the purpose of tariff as the same was necessary due to obsolescence of the old vehicles taken out from service. The de-

capitalization of amount towards 'old vehicles' has been dealt with under the head 'Deletions'.

40. Based on the above discussions, a total additional capitalization of Rs.32.99 lakh (Rs.7.44 lakh plus Rs. 25.55 lakh) against the claim of Rs. 70.17 lakh is allowed for the purpose of tariff in 2017-18.

2018-19

41. The Petitioner has claimed additional capital expenditure of Rs 72.48 lakh during 2018-19 along with justification as under:

Sl. No		Regulation	Amount *(Rs in lakh)*	Remarks
1	Plant & Machineries	Routine Capital Expenditure	9.28	
2	Furniture and Fixtures	-do-	15.92	
3	Software (Acquired)	-do-	0.45	
4	Office Equipment	14 (3)(vii)	46.82	Includes up-gradation of existing SAP server at Rs.43.09 lacs
	Total		**72.48**	

42. The Petitioner has claimed additional capitalization of Rs.9.28 lakh, Rs. 15.92 lakh and Rs. 0.45 lakh under 'Routine Capital Expenditure' and has not submitted any justification for the same. Since Regulation 14(3) of the 2014 Tariff Regulations does not provide for capitalization of expenditure under 'Routine Capital Expenditure', the claim of the Petitioner for additional capitalisation of Rs 25.65 lakh is not allowed.

43. The Petitioner has also claimed additional capitalization of Rs.46.82 lakh under 'Office Equipment' which includes an expenditure of Rs. 43.09 lakh towards up-gradation of SAP server. In our view, the up-gradation of SAP server would contribute to the efficient operation of the generating station as it introduces new areas of functionality. Accordingly, the additional capitalization of Rs. 43.09 lakh

is allowed for the purpose of tariff under Regulation 14(3)(vii) of the 2014 Tariff Regulations. However, the balance expenditure of Rs.3.73 lakh (Rs.46.82 lakh minus Rs. 43.09 lakh) under 'Office Equipment' is not allowed to be capitalized since minor assets after the cut-off date is not permissible in terms of the proviso to Regulation 14(3) of the 2014 Tariff Regulations.

44. In view of above discussions, additional capitalization of Rs.43.09 lakh against claim of Rs. 72.48 is allowed for the purpose of tariff in 2018-19.

45. Accordingly, the total additional capital expenditure claimed and allowed for the period 2014-19 is summarized as under:

(Rs in lakh)

Additional Capital Expenditure	**2014-15**	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Claimed	52.41	215.27	235.09	70.17	72.48
Allowed	**0.00**	**132.94**	**25.09**	**32.99**	**43.09**

Deletions/De-capitalization

46. As per audited statement, the Petitioner has indicated the head-wise deletions/ de-capitalization for the period 2014-19 as under:

(Rs in lakh)

		2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Total**
I	**Tangible Assets**						
1	Freehold Land	-	-	-	-	-	-
2	Buildings	10.10	-	-	-	6.60	16.71
3	Plant and Machinery	91.95	-	-	-	-	91.95
4	Electrical Fittings and Apparatus	-	-	-	-	-	-
5	Furniture and Fixtures	-	--	-	-	-	-
6	Office Equipment	0.59	-	0.22	-	0.65	1.46
7	Vehicles	73.51	37.81	81.40	15.21	49.75	257.67
	Total	**176.15**	**37.81**	**81.62**	**15.21**	**57.01**	**367.79**
II	**Intangible Assets**						
1	Software (Acquired)	-	-	-	-	-	-
	Grand Total	**176.15**	**37.81**	**81.62**	**15.21**	**57.01**	**367.79**

47. In view of the fact that the assets de-capitalized in the books of account by the Petitioner do not render any useful service in the operation of the plant, the corresponding de-capitalization shall also be effected for the purpose of tariff.

However, as a balanced approach, the de-capitalization of minor assets from books has been excluded for the purpose of tariff as capitalization of minor assets is not allowed after the cut-off date in terms of proviso to Regulation 14(3) of the 2014 Tariff Regulations. Accordingly, the year-wise deletions/ de-capitalization considered for the purpose of tariff is as under:

(Rs in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Total deletions as per books (a)	176.15	37.81	81.62	15.21	57.01	367.79
Deletions of office equipment (minor assets) ignored for the purpose of tariff (b)	0.59	-	0.22	-	0.65	1.46
Total deletions allowed for the purpose of tariff (c)=(a)-(b)	**175.56**	**37.81**	**81.40**	**15.21**	**56.36**	**366.34**

48. Thus, the net additional capital expenditure allowed for the purpose of tariff, before adjustment of un-discharged liabilities and discharge of liabilities, is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Additional Capital Expenditure allowed (a)	-	132.94	25.09	32.99	43.09
De-capitalization / deletions considered (b)	175.56	37.81	81.40	15.21	56.36
Net additional capital expenditure allowed for the purpose of tariff (c)=(a)-(b)	**(-) 175.56**	**95.13**	**(-) 56.31**	**17.78**	**(-) 13.27**

Un-discharged liabilities

49. The Petitioner has claimed the following un-discharged liabilities:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening un-discharged liability	359.26	80.44	80.44	80.44	48.44
Closing un-discharged liability	80.44	80.44	80.44	48.44	48.44
Liabilities Discharged	**278.82**	**-**	**-**	**32.00**	**-**

50. It is pertinent to mention that the un-discharged liabilities corresponding to the additional capital expenditure claimed by the Petitioner is 'nil'. Out of un-

discharged liabilities amounting to ₹359.26 lakh corresponding to the admitted capital cost as on 31.3.2014, the Petitioner has discharged amounts of ₹278.82 lakh in 2014-15 and ₹32.00 lakh in 2017-18. These amounts have been considered for the purpose of tariff.

51. In view of the above, the additional capital expenditure allowed for the purpose of tariff is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Additional capital expenditure allowed	0.00	132.94	25.09	32.99	43.09
Less: Decapitalization	175.56	37.81	81.40	15.21	56.36
Add: Liabilities Discharged	278.82	0.00	0.00	32.00	0.00
Total Additional capital expenditure allowed	**103.26**	**95.13**	**(-) 56.31**	**49.78**	**(-)13.27**

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

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	298577.80	298681.06	298776.19	298719.88	298769.66
Additional capital expenditure	103.26	95.13	(-) 56.31	49.78	(-) 13.27
Closing Capital Cost	**298681.06**	**298776.19**	**298719.88**	**298769.66**	**298756.39**
Average Capital Cost	298629.43	298728.63	298748.04	298744.77	298763.03

Debt-Equity Ratio

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

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

Provided that:

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 utilization made or proposed to be made to meet the capital expenditure of the generating station or the transmission system including communication system, as the case may be.

(3) In case of the generating station and the transmission system including communication system declared under commercial operation prior to 1.4.2014, 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 the 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.

54. Gross loan and equity amounting to ₹209004.46 lakh and ₹89573.34 lakh respectively as on 31.3.2014 as considered in order dated 25.6.2015 in Petition No. 523/GT/2014 has been considered as the gross loan and equity as on 1.4.2014. The Petitioner has not taken any fresh loan for funding of additional capital expenditure and hence the debt-equity ratio of 70:30 has been considered for additional capital expenditure for the period 2014-19.

Return on Equity

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

"(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 the 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 of 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 requirements 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 kilometer"

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

"(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 year 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."

57. In accordance with the above regulations, Return on Equity has been computed as follows:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Notional Equity-Opening	89573.34	89604.32	89632.86	89615.96	89630.90
Addition of Equity due to Additional Capital Expenditure	30.98	28.54	(-)16.89	14.93	(-) 3.98
Normative Equity - Closing	89604.32	89632.86	89615.96	89630.90	89626.92
Average Normative Equity	89588.83	89618.59	89624.41	89623.43	89628.91
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate for respective years (MAT Rate)	20.961%	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (Pre Tax)	19.610%	19.705%	19.705%	19.705%	19.758%
Return on Equity (Pre-Tax)-Annualized	**17568.37**	**17659.34**	**17660.49**	**17660.30**	**17708.88**

Interest on Loan

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

"(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 decapitalisation 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."

59. Interest on loan has been worked out as mentioned below:

i) As stated above gross normative loan amounting to ₹209004.46 lakh has been considered as on 1.4.2014;

ii) Cumulative repayment amounting to ₹70644.33 lakh as on 31.3.2014 as considered in order dated 25.6.2015 has been considered as on 1.4.2014;

iii) Accordingly, the net normative opening loan as on 1.4.2014 works out to ₹138360.14 lakh.

iv) Addition to normative loan on account of additional capital expenditure approved above has been considered.

v) Depreciation allowed has been considered as repayment of normative loan during the respective year of the tariff period 2014-19. Further, repayments have been adjusted for de-capitalisation of assets considered for the purpose of tariff.

vi) In line with the provisions of the above regulations, 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 period 2014-19, if any, for the generating station. In case of loans carrying floating rate of interest, the rate of interest as provided by the Petitioner has been considered for the purpose of tariff. During the period 2014-19, the Petitioner has restructured and refinanced various loans like UCO Bank loan, IDFC loan, PNB loan, Canara Bank loan, IDBI Bank loan and Kotak Mahindra Bank loan. As a result of such restructuring, the actual rate of interest in case of UCO Bank loan, Canara Bank loan and IDBI Bank loan has increased marginally from the last prevailing rate of interest (prior to restructuring) during the period 2015-17. Accordingly, the increased rate of interest on account of restructuring has been ignored in case of such loans.

60. Necessary calculation for interest on loan is as under:

(₹ in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Gross opening loan	209004.46	209076.74	209143.33	209103.92	209138.76
Cumulative repayment of loan upto previous year / period	70644.33	85999.61	101370.19	116729.14	132016.89
Net Loan Opening	138360.14	123077.13	107773.15	92374.78	77121.87
Addition due to Additional Capital Expenditure	72.28	66.59	(-)39.42	34.85	(-)9.29
Repayment of loan during the year	15372.66	15379.29	15381.98	15293.49	15207.39
Less: Repayment adjustment on account of de-capitalization of assets	17.37	8.71	23.03	5.74	14.55
Net Repayment of loan during the year	15355.28	15370.58	15358.95	15287.76	15192.84
Net Loan Closing	123077.13	107773.15	92374.78	77121.87	61919.74
Average Loan	130718.63	115425.14	100073.96	84748.32	69520.80
Weighted Average Rate of Interest on Loan	11.5324%	11.2469%	10.6401%	8.5508%	8.6311%
Interest on Loan	**15074.95**	**12981.74**	**10647.95**	**7246.69**	**6000.42**

Depreciation

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

> *"(1) Depreciation shall be computed from the date of commercial operation of a generating station or unit thereof or a transmission system including communication system or element thereof. In case of the tariff of all the units of a generating station or all elements of a transmission system including communication system for which a single tariff needs to be determined, the depreciation shall be computed from the effective date of commercial operation of the generating station or the transmission system taking into consideration the depreciation of individual units or elements thereof.*
>
> *Provided that effective date of commercial operation shall be worked out by considering the actual date of commercial operation and installed capacity of all the units of the generating station or capital cost of all elements of the transmission system, for which single tariff needs to be determined.*
>
> *(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system, weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the asset for part of the year, depreciation shall be charged on pro rata basis.*
>
> *(3) The salvage value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the capital cost of the asset:*
>
> *Provided that in case of hydro generating station, the salvage value shall be as provided in the agreement signed by the developers with the State Government for development of the Plant:*
>
> *Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciated value shall correspond to the percentage of sale of electricity under long-term power purchase agreement at regulated tariff:*
>
> *Provided also that any depreciation disallowed on account of lower availability of the generating station or generating unit or transmission system as the case may be, shall not be allowed to be recovered at a later stage during the useful life and the extended life.*
>
> *(4) Land other than the land held under lease and the land for reservoir in case of hydro generating station shall not be a depreciable asset and its cost shall be excluded from the capital cost while computing depreciable value of the asset.*
>
> *(5) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-II to these regulations for the assets of the generating station and transmission system:*
>
> *Provided that the remaining depreciable value as on 31st March of the year closing after a period of 12 years from the effective date of commercial operation of the station shall be spread over the balance useful life of the assets.*
>
> *(6) In case of the existing projects, the balance depreciable value as on 1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission upto 31.3.2014 from the gross depreciable value of the assets.*
>
> *(7) The generating company or the transmission license, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) alongwith 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."

62. Accordingly, the cumulative depreciation of ₹70644.33 lakh as on 31.3.2014 as considered in Commission's order dated 25.6.2015 in Petition No. 523/GT/2014 has been considered 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. Accordingly, the balance depreciable value (before providing depreciation) for the year 2014-15 works out to ₹196085.79 lakh. Since as on 1.4.2014, the used life of the generating station (i.e. 4.67 years) is less than 12 years from the Effective Station COD of 31.7.2009, the depreciation shall be calculated by applying the weighted average rate of depreciation. The Petitioner has claimed depreciation considering the Weighted Average Rate of Depreciation (WAROD) of 5.125% for 2014-15, 5.126% for 2015-16, 5.127% for 2016-17, 5.124% for 2017-18 and 5.122% for 2018-19. However, considering the details of assets as submitted in Form-11 vis-à-vis the rates of depreciation as specified in Appendix-II to the 2014 Tariff Regulations, the WAROD works out to 5.1477 %, 5.1482 %, 5.1488 %, 5.1192 % and 5.0901% for the year 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 respectively. These rates have been considered for the purpose of tariff. The necessary calculations in support of depreciation are as shown below:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Average Capital Cost	298629.43	298728.63	298748.04	298744.77	298763.03
Freehold land included above	2262.64	2262.64	2262.64	2262.64	2262.64
Depreciable value @ 90%	266730.11	266819.39	266836.86	266833.92	266850.35
Remaining useful life at the beginning of the year	20.33	19.33	18.33	17.33	16.33
Balance depreciable value	196085.79	180819.78	165466.67	150104.78	134833.45
Depreciation (annualized)	**15372.66**	**15379.29**	**15381.98**	**15293.49**	**15207.39**
Cumulative depreciation at	86016.98	101378.90	116752.16	132022.63	147224.29

the end					
Less: Depreciation adjustment on account of de-capitalization of assets	17.37	8.71	23.03	5.74	14.55
Net cumulative depreciation at the end of year	**85999.61**	**101370.19**	**116729.14**	**132016.89**	**147209.73**

O&M Expenses

63. Regulation 29(1)(c) of the 2014 Tariff Regulation provides the following O&M expense norms for this generating station:

(₹ in lakh/MW)

2014-15	2015-16	2016-17	2017-18	2018-19
26.55	28.36	30.29	32.35	34.56

64. The Commission vide order dated 6.10.2015 in Petition No. 186/GT/2014 has allowed total O&M expenses (including water charges) as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	30466.13	32543.10	34757.78	37121.63	39657.60
Water Charges	1422.25	1568.76	1720.9	1892.98	2082.32
Total O&M expenses	**31888.38**	**34111.86**	**36478.68**	**39014.61**	**41739.92**

65. The Petitioner in this petition has claimed O&M expenses as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	30466.13	32543.10	34757.78	37121.63	39657.60
Water Charges	1422.25	1568.76	1720.90	1892.98	2082.32
Total	**31888.38**	**34111.86**	**36478.68**	**39014.61**	**41739.92**

Based on the above norms, the O&M expenses claimed by the Petitioner are in order.

Water Charges

67. Regulation 29(2) of the 2014 Tariff Regulations provide as under:

"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: 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 capitalisation or consumption of stores and spares and renovation and modernization"

68. In compliance with the directions of the Commission vide ROP of the hearing dated 31.10.2019, the Petitioner vide affidavit dated 14.11.2019 has furnished the audited details of the water charges for the period 2014-19 as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
600.85	832.90	1170.96	1712.28	1835.82

69. Accordingly, the total O&M expenses, including the actual water charges incurred by the Petitioner is allowed as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
O&M Expenses	30466.13	32543.10	34757.78	37121.63	39657.60
Water charges	600.85	832.90	1170.96	1712.28	1835.82
Total O&M expenses	**31066.98**	**33376.00**	**35928.74**	**38833.91**	**41493.42**

Interest on Working Capital

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

" (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) 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;

(iii) Maintenance spares @ 30% of operation and maintenance expenses specified in Regulation 29;

(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; and

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

71. Regulation 28(2) of the 2014 Tariff Regulations provides as under:

"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."

<u>Fuel Components in working capital</u>

Liquid Fuel Stock (LNG)

72. The Petitioner has submitted that it had not considered Liquid Fuel Stock for approval of tariff of the generating station for the period 2014-19 in Petition No.186/GT/2014 as it had started the import of LNG from the year 2017. In this regard, the Petitioner has submitted that though Regulation 28(1)(b)(ii) of the 2014 Tariff Regulations permit 'Liquid fuel stock' for 15 days corresponding to the normative annual plant availability factor, there has been a shortfall of domestic gas availability in India since 2011-12. It has stated that due to such shortfall, the Petitioner Company was required to arrange fuel from alternate source i.e. direct import of LNG or procurement of LNG from marketing companies like GAIL, IOCL and BPCL etc. The Petitioner has submitted that it has started the direct import of LNG to meet the power off-take requirement of the beneficiaries at an economic price.

73. As regards the direct import of LNG, the Petitioner has submitted that the procurement process of LNG is divided into two broad categories namely, the (a) contractual process and (b) operational process. While the contractual process involves floating of RFP, bid evaluation and contract award and generally takes 15 days period, the operational process involves (for delivery) booking of loading port, LNG delivery ship and unloading port. The Petitioner has submitted that as per standard practice, such process requires 45 days to keep margin for unforeseen or force majeure events including the transportation time from loading port to unloading port (to ensure timely delivery) and hence it has become necessary to keep inventory of 60 days for Liquid Fuel (LNG). In the above background, the Petitioner has requested that the Commission may allow the liquid fuel stock (15

days) amounting to Rs 21553.84 lakh each for the years 2017-18 and 2018-19 in terms of Regulation 28(1)(b)(ii) of the 2014 Tariff Regulations.

74. The Commission vide ROP of the hearing dated 31.10.2019 directed the Petitioner to furnish details of the Liquid Fuel Stock actually maintained at the generating station as under:

> *"3(c) Copy of audited statements in respect of quantity and price of liquid fuel (LN Gas) stock actually maintained for the period 2017-19."*

75. In compliance with above directions, the Petitioner vide affidavit dated 14.11.2019 has furnished the audited statements in respect of the quantity and price of liquid fuel (LNG gas) stock actually maintained during the period 2017-19, as extracted hereunder:

Year	Average Monthly Inventory (MMBTU)	Average Price per MMBTU *(in Rs)*	LNG inventory *(Rs.in lakh)*
2017-18	1786054.37	396.60	7083.45
2018-19	3423991.31	551.84	18895.10

76. We have examined the matter. The following is evident from the submissions of the Petitioner:

(a) The scenario with regard to the availability of domestic natural gas has changed drastically from the year 2011 onwards;

(b) For availability declaration, gas-based stations started to rely on LNG from various sources, including imported LNG or procurement of LNG from marketing companies like GAIL, IOCL and BPCL etc.;

(c) The Petitioner had commenced the direct import of LNG from 2017-18 to meet power off-take requirement of the beneficiaries;

(d) Though import of LNG was an economic preposition, as claimed by the Petitioner, considering the lead time in procurement of imported LNG, the Petitioner is required to maintain the stock of LNG;

(e) As per Audited statement, the Petitioner has maintained the average inventory of LNG to the tune of Rs.7083.45 lakh in 2017-18 and Rs.18895.10 lakh in 2018-19 as against the claim of Rs.21553.84 lakh each for the years 2017-18 and 2018-19;

(f) The Petitioner claim for Liquid fuel stock (15 days) as part of working capital for Rs.21553.84 lakh each for the years 2017-18 and 2018-19 is half of the cost of fuel for 30 days as allowed by the Commission vide order dated 6.10.2015 in Petition No.186/GT/2014.

77. Under the 2014 Tariff Regulations, Interest on Working Capital (IWC) is worked out based on the landed price of fuel (gas and liquid fuel) and GCV of fuel for the preceding three months i.e. January, 2014 to March, 2014. There is no provision for truing-up of IWC either based on account of variation in price and GCV of fuel or on account of inclusion of any new fuel. However, before deciding as to whether IWC should be allowed for maintaining the stock of imported LNG, it is necessary to ascertain (i) the circumstances which prompted the Petitioner to import and maintain LNG stock; (ii) whether the import and maintenance of LNG stock by Petitioner has benefitted the Respondent/beneficiaries; and (iii) the new working capital requirements for the years 2017-18 and 2018-19. The Petitioner has submitted that with the drastic reduction in availability of domestic gas, the Petitioner was required to arrange fuel from alternate sources i.e. direct import of LNG or procurement of LNG from marketing companies like GAIL, IOCL and BPCL etc. The Petitioner has also submitted that it preferred the direct import of LNG to meet power off-take requirement of the beneficiaries at an economic price. In order to ascertain whether the direct import of LNG is cheaper than procurement of LNG from the marketing companies like GAIL, IOCL and BPCL, as stated by the Petitioner, the information available in public domain was verified and it was noticed that that in case of direct import of LNG, the custom duty exemption/ waiver (along with waiver of Swachh Bharat Cess on it) was available to power generating companies. On the contrary, no such benefit of customs duty waiver/ exemption was available in case of buying RLNG from marketing companies. This aspect can also be corroborated from the submissions of the Petitioner in Petition

No.259/GT/2019 (relating to approval of tariff of the generating station for the period 2019-24) wherein the Audited statement enclosed by the Petitioner with regard to the quantity and price of the gas procured from different sources indicated the following:

	October 2018 to December 2018		Weighted Average Landed rate (Rs/MMBTU)
	Quantity (MMBTU GHV)	Amount *(Rs.)*	
Details of consumption of Gas			
Domestic Gas			
GAIL India Limited (GAIL)	386447	180814973	467.89
Imported Gas			
Indian Oil Corporation Limited (IOCL)	2643457	2544892727	**962.71**
Other Parties*	6453269	4325992635	**670.36**
	9483173	**7051700335**	743.60
Transportation Charges			
Gujarat State Petroleum Limited (GSPL)	-	294845942	31.09
Total Quantity and Landed Cost of Gas	9483173	7346546277	774.69
Weighted average landed cost of Consumption of Gas for the period from October 2018 to December 2018	-	-	**774.69**

**Other parties Consumption cost as mentioned above includes the Regasification charges*

78. It is evident from the above that the price of procuring imported gas from IOCL is Rs.962.71/MMBTU whereas the direct import of LNG (other parties as referred in above table) along with regasification cost is Rs.670.36/MMBTU. However, the direct import of LNG requires regasification before the same can be used in the generating plant. It is observed that for regasification of LNG, the Petitioner has availed the regasification facility of M/s Petronet LNG Limited and has booked the storage capacity of LNG with M/s Petronet. Commensurate with the Petitioner's effort to procure imported LNG (whose rate is lower in comparison to the imported gas procured from marketing companies like IOCL, GAIL etc.), it is noticed that there has been an increase in the PLF of the generating station from 47% in 2016-17 to 65% in 2017-18 and 62% in 2018-19, while the PLF of all India gas

based power plants remained at 22.86% in 2017-18 and 22.88% and 2018-19. In other words, the effort taken by the Petitioner to import the comparatively cheaper LNG has resulted in more scheduling of the plant by the beneficiaries. Moreover, the Petitioner by way of investing in the storage capacity of LNG has ensured the availability of the plant for full recovery of the annual fixed charges. The mode of operation on liquid fuel (imported LNG) is 68.05% (6453269*100/9483173). Since the data relates to the three month period of the year 2018-19, the same has been considered as representative data for further analysis.

79. As per Commission's order dated 6.10.2015 in Petition No.186/GT/2014, the Energy Charge Rate (ECR) of the generating station in the beginning of the tariff period 2014-19 was 629.57 paisa/kWh, which translates into Rs 431.08 crore towards the cost of fuel for thirty days (domestic gas + RLNG from IOCL). With the import of LNG and based on the data submitted by the Petitioner in Petition No.259/GT/2019 as stated above, the ECR, based on fuel which is a mix of imported LNG arranged by the Petitioner, RLNG from IOCL and domestic gas from GAIL, works out to 583.27 paisa/kWh considering the price and GCV for the period October, 2018 to December, 2018. The calculation of ECR is as follows:

Landed Price of Gas as discovered from Table above (Rs/MMBTU)	774.69
Landed Price of gas (Rs/kCal)	0.003074
Normative Gross Station Heat Rate (kCal/kWh)	1,850
Normative Auxiliary Energy Consumption	2.50%
Energy Charge rate claimed in Form-1 (Paisa per kWh)	583.27

80. Based on the ECR worked out as above, the fuel cost for thirty days works out to be Rs.399.38 crore (431.08*583.27/629.57). Further, considering the mode of operation on liquid fuel (imported LNG) as 68.05%, the cost of liquid stock

(imported LNG) for 15 days works out to Rs.117.59 crore {(399.38*68.05%*670.36) / [2*774.69]}. Considering the fact that the computation of working capital also includes two months Energy Charges apart from fuel stock, a comparative statement of the working capital based on liquid fuel stock (imported LNG) as against those allowed in Commission's order dated 6.10.2015 is as under:

(Rs.in crore)

Components of Working Capital	As allowed in Commission's order dated 6.10.2015 in Petition No. 186/GT/2014	Cost of Liquid stock (15 days) as per imported LNG for the years 2017-18 and 2018-19
Cost of fuel for thirty days	431.08	399.38
Cost of liquid fuel -15 days based on mode of operation	0	117.59
Energy Charges for two months as receivables	874.13 {(431.08*2*365/[30*12]}	809.85 {(399.38*2*365)/[30*12]}
Total working capital in lieu of fuel	**1305.21**	**1326.82**

81. It is observed from the above that there is a difference of Rs.21.61 crore per annum (1326.82-1305.21). Considering the fact that the PLF of the generating station is around 65% during the years 2017-18 and 2018-19, the actual amount towards Receivables shall be Rs.619.30 crore (809.85*0.65/0.85) instead of Rs.809.85 crore (difference of Rs.190.55 crore). In totality, as against the total Working Capital of 1305.21 crore allowed towards Fuel and Receivables in Order dated 6.10.2015, the actual Working Capital requirement after using liquid stock is Rs.1136.27 crore (1326.82 crore-190.55 crore).

82. In view of above deliberations, we are of the view that the Petitioner has taken pro-active steps to reduce the Energy Charges by importing LNG which resulted in the Respondents scheduling from the generating station to the extent of 65% in 2017-18 and 62% in 2018-19. However, the Petitioner's claim for additional working capital of Rs.215.53 crore over and above those allowed in Order dated 6.10.2015 is not admissible in terms of the above analysis and

considering the fact that the 2014 Tariff Regulations do not permit the revision of IWC on truing-up exercise.

83. Accordingly, the fuel stock for 30 days and Liquid fuel stock for 15 days as considered in Commission's order dated 6.10.2015 in Petition No.186/GT/2014 for Working capital has been considered.

84. Maintenance spares @30% of O&M expenses as specified in Regulation 29 of the 2014 Tariff Regulations has been worked out and allowed as under:

(Rs in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
9320.09	10012.80	10778.62	11650.17	12448.03

85. Receivables equivalent to two months of capacity charge & energy charge has been worked out on the basis of two months of fixed and energy charges (duly taking into account mode of operation of station on gas fuel and liquid fuel) as shown below:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Variable Charges - for two months	87412.79	87652.28	87412.79	87412.79	87412.79
Fixed Charges – for two months	16762.31	16841.63	16896.63	16822.56	17080.59
Total	**104175.10**	**104493.91**	**104309.42**	**104235.35**	**104493.38**

86. O&M expenses for one month is allowed as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
2588.91	2781.33	2994.06	3236.16	3457.79

87. Regulation 28(3) of the 2014 Tariff Regulations provides as under:

"28 (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."

88. Accordingly, the rate of interest on working capital has been considered as 13.5%. Necessary computations in support of interest on working capital are as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of fuel – 30 days	43107.68	43107.68	43107.68	43107.68	43107.68
Liquid fuel stock – 15 days	0.00	0.00	0.00	0.00	0.00
Maintenance Spares @ 30% of O&M expenses	9320.09	10012.80	10778.62	11650.17	12448.03
Receivables – 2 months	104175.10	104493.91	104309.42	104235.35	104493.38
O&M Expenses -1 month	2588.91	2781.33	2994.06	3236.16	3457.79
Total Working Capital	**159191.78**	**160395.72**	**161189.77**	**162229.35**	**163506.87**
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	**21490.89**	**21653.42**	**21760.62**	**21900.96**	**22073.43**

Annual Fixed Charges

89. Based on the above, the annual fixed charges approved for the generating station for the period 2014-19 is summarised as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	15372.66	15379.29	15381.98	15293.49	15207.39
Interest on Loan	15074.95	12981.74	10647.95	7246.69	6000.42
Return on Equity	17568.37	17659.34	17660.49	17660.30	17708.88
Interest on Working Capital	21490.89	21653.42	21760.62	21900.96	22073.43
O&M Expenses	31066.98	33376.00	35928.74	38833.91	41493.42
Total	**100573.84**	**101049.79**	**101379.77**	**100935.35**	**102483.54**

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

90. The difference between the tariff determined by this order and the tariff recovered by the Petitioner in terms of the Commission's order dated 6.10.2015 in Petition No.186/GT/2014 shall be adjusted in accordance with Regulation 8(13) of the 2014 Tariff Regulations.

91. Petition No. 270/GT/2019 is disposed of in terms of the above.

Sd/-	***Sd/-***
(I.S.Jha)	**(P.K.Pujari)**
Member	**Chairperson**