CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 272/GT/2019

Coram:

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

Date of Order: 20th July, 2020

In the matter of

Revision of tariff of UNOSUGEN Power Plant (382.5 MW) for the period from 1.4.2014 to 31.3.2019- Truing-up of tariff determined by Commission's order dated 18.8.2016 in Petition No. 401/GT/2014

And

In the matter of

Torrent Power Limited
Samanvay, 600, Tapovan, Ambavadi,
Ahmedabad- 380015
Gujarat ……..**Petitioner**

Vs

1. Torrent Power Limited
Unit: Ahmedabad Distribution
Sola Road, Naranpura,
Ahmedabad- 380001

2. Torrent Power Limited
Unit: Surat Distribution,
Torrent house, Station Road,
Surat- 395003 ……**Respondents**

Parties present:

Ms. Swapna Seshadri, Advocate, TPL
Ms. Deepa Chawan, Advocate, TPL
Shri Damodar Solanki, Advocate, TPL
Shri Naresh Joshi, TPL
Shri Vihar Patel, TPL
Shri Lalit Vashisth, TPL

ORDER

This petition has been filed by the Petitioner, Torrent Power Limited for approval of tariff of UNOSUGEN Power Plant (382.5 MW) (hereinafter referred to as "the project/ generating station") for the period from 1.4.2014 to 31.3.2019 in accordance with the provisions of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (hereinafter referred to as "the 2014 Tariff Regulations").

Background

2. The Petitioner is a public limited company carrying on the business of generation, transmission and distribution of power in the States of Gujarat, Maharashtra and Uttar Pradesh. The thermal based generation capacity of the Petitioner company is 3152 MW (2730 MW of gas based and 422 MW of coal based plants) and SUGEN is one such power plant located near Surat in the State of Gujarat. The SUGEN combined cycle power plant, having an installed capacity of 1147.5 MW, comprises of 3 units of 382.5 MW each and has been awarded Mega Power Project status by the Government of India vide its letter dated 29.7.2010. Subsequently, the Petitioner added another unit, named UNOSUGEN (SUGEN 40) identical to the earlier three units of 382.5 MW capacity as brownfield expansion to the existing SUGEN plant of 1147.5 MW. The date of commercial operation of the UNOSUGEN (SUGEN 40) i.e. the generating station is 4.4.2013. The main fuel of the generating station is a mix of domestic natural gas and Re-gasified Liquefied Natural Gas (R-LNG).

3. The Commission vide its order dated 30.10.2015 in Petition No. 121/GT/2014 had determined the tariff of the generating station for the period 2009-14 based on the capital cost of Rs.173442.58 lakh as on 31.3.2014. Thereafter, Petition No. 401/GT/2014 was filed by the Petitioner for approval of tariff for the period 2014-19 and the Commission, after considering the capital cost of Rs.173443.85 lakh (on cash basis and after excluding the un-discharged liabilities of Rs.6295.34 lakh as on

1.4.2014) by order dated 18.8.2016 had determined the tariff of the generating station for the said period. Accordingly, the capital cost and the annual fixed charges determined by the said order dated 18.8.2016 are as under:

Capital Cost

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	173442.58	175932.50	179625.16	179625.16	179625.16
Add: Projected additional capital expenditure	2489.92	3692.66	0.00	0.00	0.00
Closing Capital Cost	**175932.50**	**179625.16**	**179625.16**	**179625.16**	**179625.16**
Average Capital Cost	174687.54	177778.83	179625.16	179625.16	179625.16

Annual fixed charges

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	8584.80	8747.09	8837.94	8837.94	8837.94
Interest on Loan	11092.25	11687.61	11049.44	10027.78	9006.11
Return on Equity	10276.87	10509.40	10618.54	10618.54	10618.54
Interest on Working Capital	4596.18	4716.92	4761.12	4801.81	4847.30
O&M Expenses	10155.38	11369.14	12159.56	13004.87	13913.31
Total	**44705.47**	**47030.15**	**47426.60**	**47290.94**	**47223.20**

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

> *"(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."*

5. In terms of the above, the Petitioner has filed this petition and has claimed the following annual fixed charges:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	8918.73	9085.57	9176.03	9183.02	9185.26
Interest on Loan	11566.67	11318.70	10711.18	7344.72	6650.22
Return on Equity	10292.05	10535.37	10640.28	10646.29	10681.72
Interest on Working Capital	4615.13	4716.81	4761.61	5266.43	5320.31
O&M Expenses *(Including water charges)*	10155.38	11369.14	12159.56	13004.88	13913.31
Total	**45547.95**	**47025.60**	**47448.66**	**45445.34**	**45750.83**

6. In compliance with the directions of the Commission vide ROP of hearing dated 27.2.2020, the Petitioner has filed the additional information. Notices were issued to Objectors namely, Gujarat Chamber of Commerce & Industries and Users Welfare Association (UWA) in terms of their letters dated 17.5.2019 and 27.4.2019 respectively. Since none of the Objectors appeared during the hearing on 31.10.2019, the Commission, after hearing the petitioner, reserved its order in the matter. However, the order in the Petition could not be issued prior to demitting office of one of the Members of this Commission, who formed part of the Coram, the Petition was heard on 27.2.2020 and the Commission reserved its order in the Petition after directing the Petitioner to submit certain additional information with copy to the Respondents and Objector (UWA). Earlier, the Objector, UWA vide affidavit dated 14.12.2019 has filed its objections and the Petitioner vide affidavit dated 18.12.2019 has filed its reply to the said objections.

Jurisdiction

7. Before proceeding to consider the issue of truing up of tariff, we deal with the objections raised by the Objector UWA as to the maintainability of the petition on the question of 'jurisdiction' of this Commission to determine the tariff of this generating station. The Objector, UWA has submitted that the petition is not maintainable and this Commission has no jurisdiction to determine the tariff of the generating station, as it is not an inter-State generating station and that no PPA has been approved by the State Electricity Regulatory Commission. In response, the Petitioner has clarified that UNOSUGEN (SUGEN 40) is a brownfield expansion project of the existing SUGEN Mega Power Project (SUGEN 10-30) which is an inter-State generating station. It has also stated that this Commission has been determining the tariff of both i.e. SUGEN 10-30 and SUGEN 40 (UNOSUGEN) since the

assets being used are common to both. The learned counsel for the Petitioner during the hearing of this petition on 27.2.2020 has clarified that the generating station is a brownfield expansion project of the existing SUGEN plant (SUGEN 10-30) and hence this Commission has the jurisdiction to determine the tariff of the generating station.

8. The matter has been examined. The Commission in paragraph 2 of its order dated 18.8.2016 in Petition No. 401/GT/2014 while approving the tariff of this generating station for the period from 1.4.2014 upto 31.3.2019 had observed as under:

> *"The petitioner has set up the generating station at the premises where the SUGEN power plant (1147.5 MW) of the petitioner is located….*

9. Thus, in the order dated 18.8.2016 itself, the Commission has taken note of the fact that this generating station has been set up on the same land where the SUGEN plant (SUGEN 10-30) exists and is the expansion project of the existing SUGEN plant. Being a brownfield expansion project of the existing SUGEN plant and sharing common assets, the termination of the PPA executed by the Petitioner with MPPMCL through PTC does not reduce the character of the generating station to an intra-State generating station. It is pertinent to mention that similar issue were raised by some of the parties, including the objector UWA, before the Gujarat Electricity Regulatory Commission in Petition No. 1322/2013 filed by the Petitioner seeking adoption of the tariff determined by this Commission in respect of this generating station for sourcing of 278 MW power at regulated tariff on long term basis for its Ahmedabad, Gandhinagar and Surat license areas. GERC by its order dated 19.6.2019 has held as under:

> *"16.4.3 As regards the land records, we observed that the ownership of the land is in the name of Torrent Power Limited. It is also observed that after setting up three units*

of SUGEN project the Petitioner has set up UNOSUGEN project on the surplus land and no additional land was acquired for setting up UNOSUGEN plant.

16.4.4. The Petitioner also submitted a layout plan of UNOSUGEN and SUGEN which had been submitted to the concerned government authorities prior to energization of the generating unit/plant. Both the plants have following common facilities:

Xxx

Further, Gujarat Pollution Control Board while allowing UNOSUGEN plant has also mentioned in its "Consent to Establish (NOC)" letter No. GPCB/CCA-SRT-1076/GPCB ID 32601/64048 dated 26th November, 2010 that it is expansion of the SUGEN plant

16.4.8. In view of the above, it is concluded that UNOSUGEN project is set up on the same land where SUGEN project exists UNOSUGEN is the expansion of the existing SUGEN plant….."

10. In the light of the above, we hold that this Commission has the jurisdiction to determine the tariff of the generating station, which is a brownfield expansion project of the existing SUGEN plant in terms of Section 79(1)(b) of the 2003 Act. The petition filed by the Petitioner before this Commission for truing-up of tariff in terms of the 2014 Tariff Regulations is, therefore, maintainable. Accordingly, we proceed to true-up the tariff of the generating station for the period 2014-19 based on the submission of the parties and the documents available on record.

Tariff for 2014-19

Capital cost

11. Clause (1) of Regulation 9 of the 2014 Tariff Regulations provides that the capital cost as determined by the Commission after prudence check, in accordance with this Regulation, shall form the basis of determination of tariff for existing and new projects. Clause (3) of Regulation 9 of the 2014 Tariff Regulations provides as under:

"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 modernization as admitted by this Commission in accordance with Regulation 15."

12. The annual fixed charges claimed by the Petitioner is based on the opening capital cost of Rs. ₹173442.58 lakh (*after removal of un-discharged liabilities of Rs. ₹6295.34 lakh as on 31.3.2014)* as approved by the Commission in its order dated 30.10.2015 in Petition No. 121/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 liabilities and capital cost have been reconciled with the information available on record with the Commission as under:

(₹ in lakh)

	As per Form-9E	**As per records of Commission**	**Difference**
Capital cost as on 1.4.2014 as per books	182681.27	182681.27	0.00
Liabilities included in the above	3856.19	6295.34	(-)2439.15

13. It is observed from the above that there is no variation in the capital cost. However, there is gap of (-) Rs.2439.15 lakh pertaining to liabilities as per Form-9E and the records available with Commission. This variation is on account of the non-consideration of un-discharged liabilities of Rs.112.76 lakh in Form-9E pertaining to project liabilities booked with SUGEN plant of the Petitioner and Rs.2326.39 lakh pertaining to FERV liabilities existing as on COD. However, these liabilities have been adjusted for the purpose of tariff. Further, the entire liability of Rs.6295.34 lakh corresponds to the approved capital cost of Rs.173442.58 lakh (on cash basis) as on 31.3.2014.

14. Accordingly, the capital cost as on 1.4.2014, after removal of un-discharged liabilities of Rs.6295.34 lakh works out to Rs.173442.58 lakh, on cash basis. Further, out of the un-discharged liabilities of Rs.6295.34 lakh deducted as on 1.4.2014, the Petitioner has discharged amounts of Rs.2489.92 lakh in 2014-15, Rs. 3528.36 lakh in 2015-16, Rs.3.03 lakh in 2016-17 and Rs.13.30 lakh in 2017-18. The discharges,

along with discharges corresponding to assets admitted on cash basis during the period 2014-19, is allowed as additional capital expenditure during the respective years. Also, there was reversal of liabilities amounting to Rs.27.43 lakh in the year 2017-18 and the same has been considered to arrive at the balance un-discharged liabilities corresponding to the admitted capital cost.

Additional Capital expenditure

15. 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 Modernization (R&M), repairs and maintenance under (O&M) expenses and Compensation Allowance, same expenditure cannot be claimed under this regulation."

16. The Petitioner has furnished the year-wise gross block, addition, deletion and the closing gross block for the period from 1.4.2014 to 31.3.2019, duly certified by Auditors, as under:

(₹ in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Closing Gross Block	184156.72	186260.87	186267.73	186448.07	186483.57
Less: Opening Gross Block	182681.27	184156.72	186260.87	186267.73	186448.07
Addition as per books	**1475.45**	**2104.15**	**6.86**	**180.33**	**35.50**
Less: FERV incurred after COD not claimed	959.28	2093.29	0.00	0.00	0.00
Add: Discharges of liabilities	2155.88	1536.01	3.03	13.30	0.00
Add: Payment of FERV (incurred up to COD)	334.04	1992.35	0.00	0.00	0.00
Net additional capital expenditure claimed *(on cash basis)*	**3006.09**	**3539.22**	**9.89**	**193.64**	**35.50**

17. It is noticed that the Board of the Petitioner Company had approved the project cost of Rs.1950 crore vide its Resolution dated 28.2.2010. The Commission in its order dated 18.8.2016 in Petition No. 401/GT/2014 had not allowed the additional capital expenditure of Rs.826.74 lakh. However, in the said order, liberty was given to the Petitioner to furnish details of the additional capital expenditure, with proper

justification, at the time of truing-up of tariff. The relevant extract of the said order is hereunder:

> *"11. The Petitioner vide ROP of hearing dated 29.2.2016 was directed to furnish the details of the projected additional capital expenditure for the period 2014-19 along with the relevant provision of the Regulations under which such claims have been made. In response, the petitioner has submitted that the expenditure claimed are in order to meet the routine capital expenditure, but has not furnished any details of the works which are claimed for capitalization along with justification. In the absence of any detailed break-up and justification for the additional capital expenditure claimed, no prudence check of the claim is possible. In view of this, we do not allow the total additional capital expenditure of Rs. 826.74 lakh claimed for the period 2014-19. However, the petitioner is granted liberty to submit the details of the claim for additional capital expenditure with proper justification, at the time of truing-up of tariff and the same will be considered in accordance with law.*
>
> *12. The discharge of liabilities of Rs. 3856.19 lakh during the years 2014-15 and 2015-16 and the payment of FERV of Rs. 2326.39 lakh (incurred up to the COD) which form part of the original scope of work of the project is allowed under Regulation 14(1)(i) of the 2014 Tariff Regulations.*
>
> *13. Based on the above, the additional capital expenditure claimed by the petitioner is allowed as under:*
>
> *Xxxxx"*

18. The Petitioner has submitted year-wise details of additional capital expenditure, along with Auditor certificate, 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	-	-	-	-	-	-
2	Buildings	114.74	-	-	149.98	12.85	277.57
3	Plant & Machinery	1360.71	2104.02	1.17	1.24	0.34	3467.48
4	Electrical Fittings and Apparatus	-	-	0.76	6.66	0.01	7.43
5	Furniture and Fixtures	-	-	4.93	15.06	5.15	25.14
6	Office Equipment	-	-	-	7.39	17.15	24.54
7	Vehicles	-	0.13	-	-	-	0.13
		1475.45	**2104.15**	**6.86**	**180.33**	**35.50**	**3802.29**
II	**Intangible Assets**						
1	Software (acquired)	-	-	-	-	-	-
	Grand Total	1475.45	2104.15	6.86	180.33	35.50	3802.29
	Less: Capitalisation of FERV after COD on accrual basis	(-) 959.28	(-) 2093.29				(-) 3052.57
	Additional Capital expenditure after COD	516.17	10.86	6.86	180.33	35.50	749.72

19. The COD of the generating station is 4.4.2013 and hence the cut-off date is 31.3.2016. The Petitioner has claimed total additional expenditure of Rs.3579.60 lakh during 2014-15 and 2015-16 i.e. upto the cut-off date and Rs. 222.69 lakh after the cut-off date and upto 31.3.2019 in terms of Regulation 14(1) of the 2014 Tariff Regulations. The prudence check of the additional capital expenditure claimed by the Petitioner is as under:

2014-15

20. The Petitioner has claimed additional capital expenditure of Rs. 1475.45 lakh in 2014-15, which includes an expenditure of Rs.1360.71 lakh under the head “Plant & Machinery” and Rs.114.74 lakh under the head “Buildings”. In justification of the same, the Petitioner has submitted that the expenditure forms part of the original scope of work of the project and is within the cut-off date of the project. Considering the fact that the expenditure incurred is within the cut-off date and is also within the limit of the project cost approved by the Board of the Petitioner Company, we allow the expenditure of Rs.1475.45 lakh in 2014-15 in terms of Regulation 14(1)(ii) of the 2014 Tariff Regulations.

2015-16

21. The Petitioner has claimed additional capital expenditure of Rs.2104.15 lakh in 2015-16 of which an amount of Rs.2104.02 lakh has been incurred under “Plant & Machinery” and Rs.0.13 lakh under the head “Vehicles”. In justification of the same, the Petitioner has furnished Auditor certificate and has submitted that the said expenditure forms part of the original scope of the project and is within the cut-off date. Considering the fact that the expenditure incurred is within the cut-off date, we allow the expenditure of Rs. 2104.15 lakh in 2015-16 in term of Regulation 14(1)(ii) of the 2014 Tariff Regulations.

2016-17

22. The Petitioner has claimed additional capital expenditure of Rs.6.86 lakh, which comprises of an expenditure of Rs.1.17 lakh on 'Plant & Machinery', Rs. 0.76 lakh on 'Electrical Fittings & Apparatus' and Rs.4.93 lakh on 'Furniture & Fixtures'. Since the Petitioner has not furnished any justification for the expenditure of Rs.1.17 lakh on 'Plant & Machinery' and Rs. 0.76 lakh on 'Electrical Fittings & Apparatus', the same are not allowed. Also, the expenditure of Rs. 4.93 lakh incurred on 'Furniture & Fixtures' is in the nature of minor assets, tool & tackles and the same are not permitted to be capitalized after the cut-off date in terms of the proviso to Regulation 14 of the 2014 Tariff Regulations. Accordingly, the additional capital expenditure of Rs. 4.93 lakh is not allowed.

2017-18

23. The Petitioner has claimed additional capital expenditure of Rs.180.33 lakh in 2017-18 under Regulation 14(2) of the 2014 Tariff Regulations. The Petitioner has submitted that the said amount is the balance of the additional capital expenditure of Rs.182 lakh allowed by the Commission in its order dated 6.12.2013 in Petition No 175/GT/2013 towards Corporate Social Responsibility (CSR) initiatives as per directives of the Ministry of Environment and Forest (MOE&F), GOI and is covered under Regulation 9(1) of the 2009 Tariff Regulations. Since the expenditure of Rs.180.33 lakh incurred by the Petitioner is towards CSR initiatives in compliance to the direction given by MoE&F, GOI as stated, the same is allowed under Regulation 14(3)(ii) of the 2014 Tariff Regulations.

2018-19

24. The Petitioner has claimed additional capital expenditure of Rs.35.50 lakh in 2018-19 which comprises of an amount of Rs.12.85 lakh on 'Buildings', Rs. 0.34 lakh

on ‘Plant & Machinery’, Rs.0.01 lakh on ‘Electrical fitting & Apparatus’, Rs. 5.15 lakh on ‘Furniture & Fixtures’ and Rs.17.15 lakh on ‘Office Equipments’. The Petitioner has however not furnished any justification for the said expenditure nor has confirmed whether these works are covered under the original scope of work of the project. In view of this, the expenditure of Rs. 12.85 lakh on ‘Buildings’, Rs. 0.34 lakh on ‘Plant & Machinery’ and Rs. 0.01 lakh on ‘Electrical fitting & Apparatus’ are not allowed. Similarly, the expenditure of Rs. 5.15 lakh on ‘Furniture & Fixtures’ and Rs. 17.15 lakh on ‘Office Equipment’ incurred by the Petitioner is in the nature of minor assets, tool & tackles and the same are not permitted to be capitalized after the cut-off date in terms of the proviso to Regulation 14 of the 2014 Tariff Regulations. Accordingly, the expenditure claimed is not allowed.

25. Based on the above discussion, the additional capital expenditure allowed for the period 2014-19 is summarized as under:

(₹in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19	Total
1475.45	2104.15	0.00	180.33	0.00	3759.93

26. Considering the details of un-discharged liabilities, discharges of liabilities and FERV (post COD), the net additional capital expenditure allowed for 2014-19 period is as under:

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Additional capital expenditure allowed	1475.45	2104.15	0.00	180.33	0.00
Less: FERV (post COD) excluded by Petitioner	959.28	2093.29	0.00	0.00	0.00
Less: Un-discharged liabilities corresponding to additional capital expenditure allowed as above	0.00	0.00	0.00	152.04	0.00
Add: Discharges of Liabilities	2489.92	3528.36	3.03	13.3	114.32
Net additional capital expenditure considered for the purpose of tariff	**3006.09**	**3539.22**	**3.03**	**41.59**	**114.32**

27. Accordingly, the capital cost allowed for the period 2014-19 is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	173442.58	176448.67	179987.89	179990.92	180032.51
Add: additional capital expenditure considered for purpose of tariff	3006.09	3539.22	3.03	41.59	114.32
Closing Capital Cost	**176448.67**	**179987.89**	**179990.92**	**180032.51**	**180146.83***
Average Capital Cost	174945.62	178218.28	179989.40	180011.71	180089.67

****Balance un-discharged liabilities corresponding to admitted capital cost as on 31.3.2019 is Rs 271.02 lakh***

Debt-Equity Ratio

28. 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 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.

29. Accordingly, the gross loan and equity amounting to Rs.121409.81 lakh and Rs.52032.77 lakh respectively as on 31.3.2014, as considered in Commission's order dated 30.10.2015 in Petition No. 121/GT/2014 has been considered as the gross loan and equity as on 1.4.2014. The Petitioner has not furnished the details of funding pattern in respect of additional capital expenditure in Form-10 of the petition. Also, on scrutiny of the details of loans, it is observed that out of loan additions during the period 2014-19, the loan additions during the period 2015-19 pertains to restructuring of loans. Accordingly, the loan addition of Rs.3734.15 lakh in 2014-15 must have been utilised by the Petitioner towards funding of expenditure incurred (including discharges) during 2014-15. Further, considering the details of debt and the corresponding expenditure incurred, the debt-equity ratio for the purpose of additional capital expenditure for 2014-15 is worked out as 94.17:5.83 and the debt-equity ratio of 70:30 for 2015-19 and accordingly these have been considered for the purpose of funding of additional capital expenditure.

Return on Equity

30. 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.

31. 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.

32. Accordingly, Return on equity has been worked out as under:

(₹ in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Notional equity- Opening	52032.77	52208.05	53269.82	53270.73	53283.21
Addition of equity due to additional capital expenditure	175.28	1061.77	0.91	12.48	34.30
Normative equity - Closing	52208.05	53269.82	53270.73	53283.21	53317.50
Average normative equity	52120.41	52738.94	53270.28	53276.97	53300.35
Return on equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Effective tax rate for respective years	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*	**10220.81**	**10392.21**	**10496.91**	**10498.23**	**10531.08**

Interest on loan

33. 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-capitalisation 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.

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

i) As stated above, the gross normative loan amounting to Rs.121409.81 lakh has been considered as on 1.4.2014;

ii) The cumulative repayment of Rs.8403.33 lakh as on 31.3.2014 as considered in Commission's order dated 30.10.2015 has been considered as on 1.4.2014;

iii) Accordingly, the net normative opening loan as on 1.4.2014 works out to Rs.113006.48 lakh;

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

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

vi) In line with the provisions 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 period 2014-19, 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.

35. Necessary calculations for the interest on loan are as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross opening loan	121409.81	124240.62	126718.07	126720.19	126749.30
Cumulative repayment of loan upto previous year / period	8403.33	17057.83	25881.72	34743.29	43605.40
Net loan opening	113006.48	107182.78	100836.35	91976.90	83143.91
Addition due to additional capital expenditure	2830.81	2477.45	2.12	29.11	80.02
Repayment of loan during the year	8654.50	8823.89	8861.56	8862.11	8865.08
Net loan closing	107182.78	100836.35	91976.90	83143.91	74358.85
Average loan	110094.63	104009.56	96406.62	87560.41	78751.38
Weighted average rate of interest on loan	10.1949%	10.7952%	9.9935%	7.5260%	8.6606%
Interest on Loan	**11224.09**	**11228.04**	**9634.40**	**6589.81**	**6820.35**

Depreciation

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

" 27. Depreciation:

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

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

(2) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission. In case of multiple units of a generating station or multiple elements of transmission system weighted average life for the generating station of the transmission system shall be applied. Depreciation shall be chargeable from the first year of commercial operation. In case of commercial operation of the

asset for part of the year depreciation shall be charged on pro rata basis.

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

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

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

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

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

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

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

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

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

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

37. Accordingly, the cumulative depreciation of Rs. 8403.33 lakh as on 31.3.2014, as allowed in Commission's order dated 30.10.2015 in Petition No. 121/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. The balance depreciable value (before providing depreciation) for the year 2014-15 works out to Rs.149047.73 lakh. Since as on 1.4.2014, the used life of the generating station is less than 12 years from the

effective station COD of 4.4.2013, the depreciation is to be calculated by applying the weighted average rate of depreciation. The Petitioner has claimed depreciation considering the weighted average rate of depreciation of 5.098% for the period 2014-17, 5.099% for 2017-18 and 5.097% for 2018-19. However, considering the details of assets as submitted in Form-11 of the petition vis-à-vis the rates of depreciation as specified in Appendix-II to the 2014 Tariff Regulations, the weighted average rate of depreciation works out to 4.9470%, 4.9512%, 4.9234%, 4.9231% and 4.9226% for the years 2014-15, 2015-16, 2016-17, 2017-18 and 2018-19 respectively. This has been considered for the purpose of tariff. Necessary calculations in support of depreciation are as under:

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Average capital cost	174945.62	178218.28	179989.40	180011.71	180089.67
Freehold land included above	0.00	0.00	0.00	0.00	0.00
Depreciable value @ 90%	157451.06	160396.45	161990.46	162010.54	162080.70
Remaining useful life at the beginning of the year	24.01	23.01	22.01	21.01	20.01
Balance depreciable value	149047.73	143338.62	136108.74	127267.26	118475.31
Depreciation (annualized)	8654.50	8823.89	8861.56	8862.11	8865.08
Cumulative depreciation at the end	17057.83	25881.72	34743.29	43605.40	52470.48

O&M Expenses

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

(₹in lakh/MW)

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

39. The Petitioner has claimed O&M expenses as under:

(₹in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
10155.38	10847.70	11585.93	12373.88	13219.20

40. The O&M expenses claimed by the Petitioner in terms of Regulation 29(1) were

allowed by Commission's order dated 18.8.2016 in Petition No. 401/GT/2014. Hence, the same is considered in this order.

41. 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:*
>
> *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 capitalization or consumption of stores and spares and renovation and modernization."*

42. The Commission in its order dated 18.8.2016 in Petition No. 401/GT/2014 had allowed Water charges as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
-	521.44	573.63	631.00	694.11

43. The Commission vide ROP of the hearing dated 31.10.2019 had directed the Petitioner to furnish, amongst others, the following:

> *"(a) Audited statements in respect of Water charges billed to the Petitioner and actual payment made in respective years;*
>
> *(b) Copies of two bills for water charges."*

44. In compliance with the above directions, the Petitioner vide affidavit dated 14.11.2019 has furnished the audited details of Water charges for the period 2014-19 as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
-	190.63	18.41	9.03	8.40

45. The actual audited water charges furnished by the Petitioner as above, is considered. Accordingly, the total O&M expenses, including water charges, allowed for the generating station is summarized as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
O&M expenses allowed	10155.38	10847.70	11585.93	12,373.88	13219.20	58182.09
Water charges allowed	-	190.63	18.41	9.03	8.40	226.47
Total O&M expenses allowed	**10155.38**	**11038.33**	**11604.34**	**12382.91**	**13227.6**	**58408.56**

Interest on Working Capital

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

"28. Interest on Working Capital:

(1) The working capital shall cover:

(a) Coal-based/lignite-fired thermal generating stations:

(i) Cost of coal or lignite and limestone towards stock if applicable for 15 days for pit-head generating stations and 30 days for non-pit-head generating stations for generation corresponding to the normative annual plant availability factor or the maximum coal/lignite stock storage capacity whichever is lower;

(ii) Cost of coal or lignite and limestone for 30 days for generation corresponding to the normative annual plant availability factor;

(iii) Cost of secondary fuel oil for two months for generation corresponding to the normative annual plant availability factor and in case of use of more than one secondary fuel oil cost of fuel oil stock for the main secondary fuel oil;

(iv) Maintenance spares @ 20% of operation and maintenance expenses specified in regulation 29;

(v) Receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the normative annual plant availability factor; and

(vi) Operation and maintenance expenses for one month.

(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.

(c) Hydro generating station including pumped storage hydroelectric generating station and transmission system including communication system:

(i) Receivables equivalent to two months of fixed cost;

(ii) Maintenance spares @ 15% of operation and maintenance expenses specified in regulation 29; and

(iii) 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.

Fuel cost

47. The fuel cost of Rs.7498.45 lakh as allowed in Commission's order dated 18.8.2016 has been considered for the purpose of tariff.

Liquid fuel stock for 15 days

48. The Petitioner has submitted that there was shortfall of domestic gas availability in the country since 2011-12 and, therefore, it had to arrange fuel from alternate sources i.e. direct import of LNG or procurement of LNG from companies like GAIL, IOCL and BPCL. The Petitioner has also submitted that it had not considered the liquid fuel stock at the time of approval of tariff order dated 18.8.2016 in the Petition No. 401/GT/2014 for the period 2014-19. It has stated that it started to import LNG from 2017. Accordingly, the Petitioner has claimed liquid fuel stock for 15 days corresponding to NAPAF as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
-	-	-	3749.23	3749.23

49. The Commission vide ROP of the hearing dated 31.10.2019 had directed the Petitioner to furnish copy of audited statements in respect of quantity and price of liquid fuel (LN Gas) stock actually maintained for the period 2017-19. In response, the Petitioner has submitted the following:

> *"The Petitioner states that there is no domestic gas allocation by GoI for Sugen 40 plant and till allotment of domestic gas Sugen 40 Plant needs to operate with usage of RLNG. During the period 2014-19, Sugen 40 Plant was not in operation except for the period 01.06.2015 to 31.03.2016, where in it was in operation under Scheme for utilization of Gas based power generation capacity (E-bid RLNG Scheme) of GoI."*

50. Accordingly, in absence of the requisite details/ documents, the claim of the Petitioner for liquid fuel stock has not been considered.

Receivables

51. Receivables equivalent to two months of capacity charge and energy charges, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel, has been worked out and allowed as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Variable Charges- for two months	15203.49	15245.14	15203.49	15203.49	15203.49
Fixed Charges- for two months	7475.72	7693.79	7546.89	7167.71	7364.60
Total	**22679.20**	**22938.93**	**22750.37**	**22371.20**	**22568.09**

O & M Expenses (1 month)

52. O&M expenses for one month has been worked out and allowed as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
846.28	947.43	1013.30	1083.74	1159.44

Rate of interest on working capital

53. 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%. Accordingly, Interest on working capital has been computed as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of fuel - 30 days	7498.45	7498.45	7498.45	7498.45	7498.45
Liquid fuel stock - 15 days	0.00	0.00	0.00	0.00	0.00
Maintenance Spares @ 30% of O&M expenses	3046.61	3410.74	3647.87	3901.46	4173.99
Receivables - Two months	22679.20	22938.93	22750.37	22371.20	22568.09
O&M expenses - One month	846.28	947.43	1013.30	1083.74	1159.44
Total Working Capital	**34070.55**	**34668.74**	**34697.15**	**34616.43**	**35137.12**
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	**4599.52**	**4680.28**	**4684.12**	**4673.22**	**4743.51**

Operational Norms

54. The operational norms as allowed in order dated 18.8.2016 in Petition No. 401/GT/2014 has been considered.

Annual Fixed Charges

55. Accordingly, the annual fixed charges approved for the generating station for the period 2014-19 is summarized as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	8654.50	8823.89	8861.56	8862.11	8865.08
Interest on Loan	11224.09	11228.04	9634.40	6589.81	6820.35
Return on Equity	10220.81	10392.21	10496.91	10498.23	10531.08
Interest on Working Capital	4599.52	4680.28	4684.12	4673.22	4743.51
O&M Expenses	10155.38	11038.33	11604.34	12382.91	13227.60
Total	**44854.31**	**46162.74**	**45281.32**	**43006.27**	**44187.63**

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

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

57. This order disposes of Petition No. 272/GT/2019.

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