CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 328/GT/2014

Coram:
ShriGireesh B. Pradhan, Chairperson
Shri A.K. Singhal, Member
Shri A.S. Bakshi, Member
Dr. M.K. Iyer, Member

Date of Order: 1.2.2017

In the matter of

Determination of tariff for Mauda Super Thermal Power Station Stage-I (1000 MW) for the period from 1.4.2014 to 31.3.2019.

And

In the matter of

NTPC Limited,
NTPC Bhawan,
Core-7, SCOPE Complex,
7, Institutional Area, Lodhi Road,
New Delhi-110003 …**Petitioner**

Vs

1. Madhya Pradesh Power Management Company Limited,
Shakti Bhawan, Vidyut Nagar,
Jabalpur 482 008

2. Maharashtra State Electricity Distribution Company,
Prakashgad, Bandra (East),
Mumbai 400 051

3. Gujarat UrjaVikas Nigam Limited
VidyutBhavan, Race Course,
Vadodara-390 007

4. Chattisgarh State Electricity Distribution Company,
P.O. Sundar Nagar,
Danganiya, Raipur- 492 03

5. Electricity Department,
VidyutBhawan,Panaji,
Goa

6. Electricity Department,
Administration of Daman & Diu,
Daman-396 210

7. Electricity Department,
Administration of Dadra & Nagar Haveli,
Silvasa ....**Respondents**

Parties Present:

For Petitioner:	Shri Ajay Dua, NTPC Shri.Nishant Gupta, NTPC Shri.T.Vinod Kumar, NTPC Shri Bhupinder Kumar, NTPC Shri Rajeev Choudhary, NTPC Ms.Suchitra Maggon, NTPC Shri Manish Jain, NTPC Shri Sachin Jain, NTPC Shri Parimal Piyush, NTPC
For Respondents:	Shri Rishabh Singh, Advocate, MPPMCL

ORDER

The petitioner, NTPC has filed this petition for approval of tariff of Mauda Super Thermal Power Station, Stage-I (2x500 MW) ('the 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").

2. The project is being implemented by the petitioner in two stages, with Stage-I comprising of two units of 500 MW each and Stage-II comprising of two units of 660 MW each. The investment approval of Stage-I (1000 MW) was accorded on 26.11.2007 by the Board of the petitioner company at a project cost of ₹5459.28 crore, including IDC & FC of ₹526.342 crore at a price level of 4th quarter of 2007. The petitioner has entered into Power Purchase Agreement (PPA) with the respondents and the power generated from the generating station shall be supplied to the respondents in terms of the allocation made by the Ministry of Power, Government of India vide letter dated 18.8.2010

3. The generating station comprises of two units of 500 MW each and the date of commercial operation (COD) of Units-I and II are 13.3.2013 and 30.3.2014 respectively. Petition No. 69/GT/2013 was filed by the petitioner for determination of tariff from the anticipated date of the units of the generating station till 31.3.2014 and the Commission by order dated 21.9.2015 determined the capital cost and the annual fixed charges of the generating station for the said period based on the actual capital cost as on COD of the generating station and additional capital expenditure from COD till 31.3.2014 as under:

Capital Cost

(₹in lakh)

	2012-13	2013-14	
	13.3.2013 to 31.3.2013	1.4.2013 to 29.3.2014	30.3.2014 to 31.3.2014
Opening Capital Cost	289739.45	299457.11	552914.18
Add: Additional capital expenditure	9717.66	55147.22	443.67
Closing Capital Cost	299457.11	354604.32	553357.85
Average Capital Cost	294598.28	327030.71	553136.01

Annual Fixed Charges

(₹in lakh)

	2012-13	2013-14	
	13.3.2013 to 31.3.2013	1.4.2013 to 29.3.2014	30.3.2014 to 31.3.2014
Depreciation	15045.71	16708.89	28591.77
Interest on Loan	16580.72	17922.68	30043.62
Return on Equity	20277.79	23037.02	38610.93
Interest on Working Capital	4834.35	4994.38	17090.80
O&M Expenses	7680.00	8120.00	16240.00
Cost of Secondary Fuel Oil	2387.71	2387.71	5291.08
Total	**66806.28**	**73170.68**	**135868.20**

4. The petitioner has filed this petition for determination of tariff of the generating station for the period 2014-19 and the capital cost and annual fixed charges claimed by the petitioner for the said period are as under:

Capital Cost

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	552138.48	611592.19	655480.76	669653.76	670153.76
Add: Addition during the year/period	59453.71	43888.57	14173.00	500.00	500.00
Closing Capital Cost	**611592.19**	**655480.76**	**669653.76**	**670153.76**	**670653.76**
Average Capital Cost	**581865.34**	**633536.48**	**662567.26**	**669903.76**	**670403.76**

Annual Fixed Charges

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	30578.77	33294.24	34819.90	35205.45	35231.73
Interest on Loan	30185.83	30086.27	29249.12	28072.19	25499.88
Return on Equity	35572.61	38731.54	40506.36	40954.88	40985.44
Interest on Working Capital	12919.18	13142.39	13240.06	13304.11	13322.56
O&M Expenses	16243.49	17268.95	18355.40	19512.88	20741.48
Total	**125499.88**	**132523.41**	**136170.83**	**137049.51**	**135781.09**

5. The petitioner has filed the additional information in compliance of the directions of the Commission and has served copies on the respondents. Replies have been filed by the respondents, MPPMCL, MSEDCL and CSPDCL and the petitioner has filed its rejoinder to the same. We now proceed to examine the claim of the petitioner on prudence check, based on the submissions and the documents available on record, as stated in the subsequent paragraphs.

Capital Cost as on 1.4.2014

6. 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."*

7. The Commission by order dated 21.9.2015 in Petition No.69/GT/2013 had admitted the closing capital cost of ₹553357.85 lakh as on 31.3.2014. The petitioner in the petition has claimed opening capital cost of ₹552138.48 lakh as on 1.4.2014 based on the provisional tariff granted vide order dated 2.7.2014 and the same is lesser than the closing capital cost admitted by the Commission as on 31.3.2014. Hence, in accordance with the regulation, the capital cost of ₹553357.85 lakh as on 31.3.2014 admitted vide order dated 21.9.2015 has been considered as on 1.4.2014 for the purpose of tariff.

8. The petitioner has furnished the value of capital cost and liabilities as on 1.4.2014 as per books of accounts 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 details available with Commission**	**Difference**
Capital cost as on 1.4.2014 as per books	588014.95	588014.95	0.00
Liabilities included in the above	35534.49	35534.49	0.00

9. As stated above, there is no variance in the capital cost and the un-discharged liabilities position as on 1.4.2014. Further, the total liabilities of ₹35534.49 lakh as on 1.4.2014 corresponds to the approved capital cost of ₹553357.85 lakh (on cash basis) as on 31.3.2014.Accordingly, the capital cost considered as on 1.4.2014, after removal of un-discharged liabilities works out to ₹553357.85 lakh, on cash basis

Additional Capital Expenditure for 2014-19

10. Clauses (1) and (3) of Regulation14 of the 2014 Tariff Regulations provides as under:

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

(i) Un-discharged liabilities recognized to be payable at a future date;

(ii) Works deferred for execution;

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

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

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

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

"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 or 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."

11. The details of projected additional capital expenditure claimed during 2014-19 is detailed as under:

(₹in lakh)

Sl. No.	Head of Work /Equipment	Regulations	2014-15	2015-16	2016-17	2017-18	2018-19	Total
1	Land	14(1)(i)	1000.00	1000.00	900.00	0.00	0.00	2900.00
2	Main Plant Civil	14(1)(i), (ii)	7022.53	4659.78	3500.00	0.00	0.00	15182.30
3	Site Leveling & other infra	14(1)(i), (ii)	400.21	0.00	0.00	0.00	0.00	400.21
4	Chimney	14(1)(i), (ii)	59.02		0.00	0.00	0.00	59.02
5	Steam Generator	14(1)(i), (ii)	16499.45	7230.00	0.00	0.00	0.00	23729.45
6	Turbine Generator	14(1)(i), (ii)	2217.00	6950.98	0.00	0.00	0.00	9167.98
7	Condensate Polishing Unit	14(1)(i), (ii)	165.81	0.00	0.00	0.00	0.00	165.81
8	Station C&I	14(1)(i), (ii)	685.70	108.00	0.00	0.00	0.00	793.70
9	Instrumentation Cables	14(1)(i)	33.41	0.00	0.00	0.00	0.00	33.41
10	Coal Handling Plant	14(1)(i), (ii)	2955.46	2850.00	0.00	0.00	0.00	5805.46
11	Railway Siding	14(1)(i)	5500.00	5540.00	3500.00	0.00	0.00	14540.00
12	De mineralized Plant	14(1)(i), (ii)	199.47	0.00	0.00	0.00	0.00	199.47
13	Pre Treatment Plant	14(1)(i), (ii)	423.31	0.00	0.00	0.00	0.00	423.31
14	Cooling Water- Civil	14(1)(i)	431.16	0.00	0.00	0.00	0.00	431.16
15	Cooling Water- Equipment	14(1)(i), (ii)	272.85	0.00	0.00	0.00	0.00	272.85
16	Cooling Tower	14(1)(i), (ii)	679.86	760.00	0.00	0.00	0.00	1439.86
17	Make up Water system	14(1)(i)	10.70	0.00	0.00	0.00	0.00	10.70

18	Ash Handling system	14(1)(i), (ii)	3333.41	991.78	0.00	0.00	0.00	4325.19
19	Ash Dyke	14(1)(i), 14(2)(iii)	50.49	0.00	0.00	500.00	500.00	1050.49
20	Ash Water Recirculation System	14(1)(i), (ii)	45.02	179.98	0.00	0.00	0.00	225.00
21	Station Piping	14(1)(i), (ii)	572.63	56.62	0.00	0.00	0.00	629.25
22	Fire Protection System	14(1)(i), (ii)	360.97	140.00	0.00	0.00	0.00	500.97
23	AC Ventilation	14(1)(i), (ii)	601.60	355.25	114.00	0.00	0.00	1070.85
24	LT Switch Gear & Bus Duct	14(1)(i), (ii)	274.96	240.56	0.00	0.00	0.00	515.52
25	M V Switch gear	14(1)(i), (ii)	265.00	0.00	0.00	0.00	0.00	265.00
26	Outdoor Transformer	14(1)(i), (ii)	157.50	161.82	0.00	0.00	0.00	319.32
27	Bus Duct	14(1)(i), (ii)	69.34		0.00	0.00	0.00	69.34
28	Electrical Equipment Package	14(1)(i), (ii)	1455.78	555.45	0.00	0.00	0.00	2011.23
29	Power Transformers	14(1)(i), (ii)	292.78	0.00	0.00	0.00	0.00	292.78
30	Switch Yard	14(1)(i), (ii)	599.00	0.00	0.00	0.00	0.00	599.00
31	Roads	14(1)(i), (ii)	226.62	0.00	0.00	0.00	0.00	226.62
32	Boundary wall	14(1)(i), (ii)	983.91	0.00	0.00	0.00	0.00	983.91
33	Town ship	14(1)(i), (ii)	5839.23	6866.35	4159.00	0.00	0.00	16864.58
34	Misc. Civil Packages	14(1)(i), (ii)	764.79	0.00	0.00	0.00	0.00	764.79
35	MBOA	14(1)(i), (ii)	330.43	100.00				430.43
	Sub total		**54448.96**	**38646.57**	**12173.00**	**500.00**	**500.00**	**106268.53**
36	Spares	14(1)(iii)	4674.32	5142.00	2000.00	0.00	0.00	11816.32
	Total		**59453.71**	**43888.57**	**14173.00**	**500.00**	**500.00**	**118515.28**

12. The COD of the generating station is 30.3.2014 and hence the cut-off date in terms of the 2009 Tariff Regulations is 31.3.2017. The petitioner has claimed additional capital expenditure of Rs 118515.28 lakh during 2014-19 which includes Rs 117515.28 lakh upto 31.3.2017 (i.e. upto cut off date) and Rs 1000.00 lakh during 2017-19 (i.e. after cut -off date) towards Ash handling system.

13. The respondent, MPPMCL has submitted that petitioner has claimed capitalization of ₹118515.28 lakh for the period 2014-15 to 2018-19. The respondent has submitted that COD of the generating station is 30.3.2014 and the additional capital expenditure being a huge amount is required to be considered upto the cut-off date i.e. 31.3.2017 in accordance with the provisions of Regulation 14 (1) of the 2014 Tariff Regulations and the expenditure claimed for additional capitalization for the period 31.3.2017 to 31.3.2019 in accordance with the provisions of Regulation 14(3) of the 2014 Tariff Regulations. It has also stated that the petitioner may be directed to submit details in terms of Regulation 14(1) of 2014 Tariff Regulations for examining the claim of the petitioner. The respondent, CSPDCL has submitted that in terms of 2014 Tariff Regulations, the Commission may allow additional capitalization subject to prudence check. It has also submitted the petitioner may be directed to furnish the actual additional capital expenditure for the years

2014-15 and 2015-16 respectively and allow the same for tariff purpose after prudence check. In response, the petitioner has submitted that the present petition filed by the petitioner before the Commission relating to the generating station contains all the details of works for the period 1.4.2014 to 31.3.2019 within the original scope. As regards the cost of the township, the petitioner has stated that the initially envisaged low rise buildings plan in township was changed to the multi-storied building plan keeping in mind the optimum use of the land. It has further submitted that the original cost of construction was based on the estimates only at the price level of 3rd quarter of 2007, which has been further revised to the actual award values of the packages based on competitive bidding. The petitioner has also prayed that on view of the above, the capitalization may be allowed in accordance with the Regulation 14 (1) (i) & (ii) of the 2014 Tariff Regulations.

14. The matter has been examined. It is observed from the above table that the petitioner has claimed total additional capital expenditure of ₹ 117515.30 lakh during the period 2014-17 (i.e upto cut-off date) including initial spares of Rs 16864.58 lakh. Accordingly, the claim of the petitioner is Rs 105268.53 lakh (₹54448.96 lakh in 2014-15, ₹38646.57 lakh in 2015-16 and ₹12173.00 lakh in 2016-17 (excluding initial spares of ₹11816.32 lakh) under Regulation 14 1(i) & (ii) of the 2014 Tariff Regulations and the petitioner has submitted that all the works are part of the original scope of work and are within the cut-off date of the generating station. From the justification submitted by the petitioner, it is evident that the projected additional capital expenditure claimed for the years 2014-15 2015-16 and 2016-17 are in respect of un-discharged liabilities, balance works under different packages which are within the original scope of work and within the cut-off date of the generating station. (31.3.2017). Hence, the projected additional capital expenditure of Rs 105268.53 lakh claimed for the period 2014-17 is allowed on prudence check under Regulation 14(1) (i) of the 2014 Regulations. This is subject to truing-up based on actual capital expenditure incurred, duly reconciled with the gross block of books of accounts.

Works relating to Ash dyke and Ash handling system within the original scope of work after cut-off date under the provision of Regulation 14(2)(iii)

15. The petitioner has claimed total additional capital expenditure of ₹1000.00 lakh (₹500.00 lakh each during the years 2017-18 and 2018-19 respectively) for works related to 1st raising of Ash dyke for enhancement of dyke capacity. In justification of the same, the petitioner has

submitted that the said work is under original scope of work and the existing capacity of ash dyke shall be filled by 2017-18. It has further submitted that being an ongoing work, 1st raising is required after 2014-15 as the existing dyke will not be available for further use. Considering the fact that the expenditure for deferred works relating to ash pond or ash handling system form part of the original scope of work for the existing project, the expenditure claimed is allowed under Regulation 14(3)(iv) of the 2014 Tariff Regulations

Procurement of initial capital spares within the original scope of work in accordance with 14(1)(iii)

16. The petitioner has claimed initial spares amounting to ₹11816.32 lakh during the period 2014-17 under Regulation 14(1) (iii) of the 2014 Tariff Regulations. The petitioner has submitted that the capital cost as on COD of generating station includes initial spares of ₹2623.48 lakh allowed by the Commission vide order dated 21.9.2015 in Petition No 69/GT/2013.

17. The respondent, MPPMCL has submitted that as per original estimate, the total plant and equipment is considered as ₹372700.50 lakh. It has submitted that Regulation 13 provides that initial spares may be capitalized @ 4% of plant and machinery cost and accordingly the total allowable spares are of ₹14908 lakh against which the petitioner has already claimed initial spares of ₹2920 lakh upto 30.3.2014 (COD) and ₹338.00 lakh from COD to 31.3.2014. Accordingly, it has submitted that the claim of the petitioner for additional capitalization of ₹11816.32 lakh during the period 2014-19, thereby comprising of a total amount of ₹15074 lakh is in excess of the permissible ceiling limit of the original cost estimate and hence may be disallowed.

18. The generating station was declared under commercial operation on 30.3.2014 and hence in terms of the 2009 Tariff Regulations, the ceiling limit of capital spares for the generating station shall be governed by Regulation 8 of the 2009 Tariff Regulations, according to which initial spares to be capitalized as a percentage of original project cost is 2.5% for coal based/lignite fired thermal generating stations. The projected capital cost as on cut-off date (31.3.2017) of the generating station is ₹656002.90 lakh (excluding initial spares). Considering the initial spares at 2.5% of the project cost, the capital cost is increased to ₹672823.48 lakh project cost as on cut-off date of the generating station. Taking into consideration the initial capital cost as the base capital cost as on the cut-off date of generating station, the ceiling limit for initial capital spares works out as

₹16820.59 lakh. As the total claim of capital spares up to the cut-off date of the generating station is ₹14439.80 lakh (₹2623.57 lakh up to COD plus ₹11816.32 lakh from COD to cut-off date) which constitutes 2.14 % of the capital cost as on the cut-off date and is within the ceiling limit of 2.5% specified under Regulation 8 of the 2009 Tariff Regulations, we are inclined to allow the claim for initial spares amounting to ₹11816.32 lakh for the period 2014-17.

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

(₹in lakh)

Sr. No.	Head of Work/Equipment	Projected additional capital expenditure allowed					Total
		2014-15	2015-16	2016-17	2017-18	2018-19	
1	Land	1000.00	1000.00	900.00	0.00	0.00	2900.00
2	Main Plant Civil	7022.53	4659.78	3500.00	0.00	0.00	15182.30
3	Site Leveling & other infra	400.21	0.00	0.00	0.00	0.00	400.21
4	Chimney	59.02	0.00	0.00	0.00	0.00	59.02
5	Steam Generator	16499.45	7230.00	0.00	0.00	0.00	23729.45
6	Turbine Generator	2217.00	6950.98	0.00	0.00	0.00	9167.98
7	Condensate Polishing Unit	165.81	0.00	0.00	0.00	0.00	165.81
8	Station C&I	685.70	108.00	0.00	0.00	0.00	793.70
9	Instrumentation cables	33.41	0.00	0.00	0.00	0.00	33.41
10	Coal Handling Plant	2955.46	2850.00	0.00	0.00	0.00	5805.46
11	Railway Siding	5500.00	5540.00	3500.00	0.00	0.00	14540.00
12	De-mineralized Plant	199.47	0.00	0.00	0.00	0.00	199.47
13	Pre Treatment Plant	423.31	0.00	0.00	0.00	0.00	423.31
14	Cooling Water- Civil	431.16	0.00	0.00	0.00	0.00	431.16
15	Cooling Water- Equipment	272.85	0.00	0.00	0.00	0.00	272.85
16	Cooling Tower	679.86	760.00	0.00	0.00	0.00	1439.86
17	Make up Water system	10.70	0.00	0.00	0.00	0.00	10.70
18	Ash Handling system	3333.41	991.78	0.00	0.00	0.00	4325.19
19	Ash Dyke	50.49	0.00	0.00	500.00	500.00	1050.49
20	Ash Water Recirculation System	45.02	179.98	0.00	0.00	0.00	225.00
21	Station Piping	572.63	56.62	0.00	0.00	0.00	629.25
22	Fire Protection System	360.97	140.00	0.00	0.00	0.00	500.97
23	AC Ventilation	601.60	355.25	114.00	0.00	0.00	1070.85
24	LT Switch Gear & Bus Duct	274.96	240.56	0.00	0.00	0.00	515.52
25	M V Switch gear	265.00	0.00	0.00	0.00	0.00	265.00
26	Outdoor Transformer	157.50	161.82	0.00	0.00	0.00	319.32
27	Bus Duct	69.34	0.00	0.00	0.00	0.00	69.34
28	Electrical Equipment Package	1455.78	555.45	0.00	0.00	0.00	2011.23
29	Power Transformers	292.78	0.00	0.00	0.00	0.00	292.78
30	Switch Yard	599.00	0.00	0.00	0.00	0.00	599.00

31	Roads	226.62	0.00	0.00	0.00	0.00	226.62
32	Boundary wall	983.91	0.00	0.00	0.00	0.00	983.91
33	Town ship	5839.23	6866.35	4159.00	0.00	0.00	16864.58
34	Misc. civil Packages	764.79	0.00	0.00	0.00	0.00	764.79
35	MBOA	330.43	100.00	0.00	0.00	0.00	430.43
36	Spares	4674.32	5142.00	2000.00	0.00	0.00	11816.32
	Total	**59453.71**	**43888.57**	**14173.00**	**500.00**	**500.00**	**118515.28**

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

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital cost	553357.85	612811.56	656700.13	670873.13	671373.13
Additional capital expenditure allowed	59453.71	43888.57	14173.00	500.00	500.00
Closing capital cost	**612811.56**	**656700.13**	**670873.13**	**671373.13**	**671873.13**

<u>Reasonableness of capital cost as on Cut-off date (31.3.2017)</u>

21. It is observed from the above that the closing capital cost as on 31.3.2017 has been worked out as ₹670873.13 lakh.The Commission videorder dated 21.9.2015 in Petition No. 69/GT/2013 had observed as under:

> *"42. The petitioner has not furnished the details of balance /deferred work along with the estimated expenditure as on COD of the station to be executed within the cut-off date of the station i.e. 31.3.2017. In view of this, the reasonableness of capital cost has been assessed based on capital expenditure as on COD of the generating station and up to 31.3.2014. The reasonableness of the capital cost along with additional capital expenditure up to cut-off date shall however be re-examined after submission of such details of balance work by the petitioner during the next tariff period."*

22. The Commission vide letter dated 28.6.2016 had directed the petitioner to justify the increase in hard cost of the project, and in response, the petitioner vide affidavit dated 24.8.2016 has submitted that due to additional time taken in the declaration of commercial operation of generating station, there is an increase of ₹1081.23 crore in the revised completed cost (as approved by the Board of the Petitioner's Company) as against the cost approved in the original investment approval.

23. The respondent, MPPMCL has pointed out that the closing capital cost claimed by the petitioner as on 31.3.2019 is ₹670653.76 lakh and the additional capital expenditure of ₹118515.28 lakh has been claimed for the period 2014-19 which is about 21.5% of the opening capital cost as on 1.4.2014. The respondent has further submitted that the COD of the generating station is 30.3.2014 and hence the cut-off date of the generating station is 31.3.2017. Accordingly, it has prayed that the claim of the petitioner may be considered after prudence check.

24. The respondent, CSPDCL has submitted that the Commission vide order dated 21.9.2015 in Petition No. 69/GT/2013 had observed that the reasonableness of capital cost will be assessed based on capital expenditure as on COD of the generating station and upto 31.3.2014.The respondent has further stated that the Commission as on the date of COD had considered the total capital cost of the generating station as ₹4824.36 crore (₹4.82 crore/MW) comparable with the benchmark capital cost of ₹4.71 crore/MW. The respondent has further submitted that the petitioner has claimed additional capital cost of ₹ 1175.00 crore up to cut-off date due to which the capital cost of the project has been revised to ₹5999.36 crore (₹5.99 crore/MW). It has stated that the same is not comparable to bench mark capital cost of ₹4.71 crore/MW and that the capital cost is inclusive of capitalization of initial spares up to the date of COD of Unit-II i.e. 30.3.2014. In addition, the respondent has submitted that after procurement of initial spares (as submitted by the petitioner) the capital cost would further increase by 4%. Accordingly, the respondent has prayed that the prudency of the capital cost be re-examined and any cost found unjustified may be disallowed. In response, the petitioner has submitted that additional capital expenditure claimed upto the cut-off date pertain to packages under the original scope of work and works related to ash dyke beyond cut off date. Accordingly, the capital cost of ₹6706.50 crore is claimed with IDC up to the cut-off date and the hard cost of the generating station works out to ₹4751.59 crore which is ₹4.75 crore/MW and the same is within the bench mark capital cost of ₹4.71 crore for 1000 MW green field project taking present indices for calculation, as specified by the Commission.

25. We have examined the matter. The total capital cost (hard cost) of the generating station as on the cut-off date excluding IDC, FERV & FC is₹1049.11 crore which works out as ₹5659.62 crore (₹5.66 crore /MW). It therefore, appears that the capital cost of Phase-I (Unit-I & Unit-II) of the generating station as on the cut-off date is higher than the benchmark capital cost of ₹4.71 crore/MW, based on December 2011 Price level, specified by the Commission. However, the hard cost of the project also includes ₹255.50 crore towards MGR system, ₹272.66 crore towards land and R&R cost and ₹144.33 crore towards Pre-commissioning expenses, which are not included in the bench mark cost specified by the Commission. Thus, after excluding the amount of ₹672.49 crore(255.50+272.66+144.33), the hard cost works out to ₹4987.13 crore (5659.62– 672.49 = ₹4.99 crore/MW). The generating station was commissioned during the year 2013-14 and the

bench mark cost was specified based on December 2011 price index. Accordingly, there has been increase of 10% (approx.) in the cost of the project and if the same is considered against the bench mark hard cost, the hard cost works out to ₹5.18 crore/MW (₹4.71+10%*4.71). In this background, we are of the view that the hard cost of ₹4.99 crore/MW is comparable to the bench mark cost and is considered reasonable. Accordingly, the per MW capital cost (hard cost) based on the investment approval and capital cost allowed as on COD (31.3.2014) of the generating station and as on the cut-off date (31.3.2017) is as under:

(₹ in crore)

	Completed capital cost as per original Investment approval	**Revised Cost Estimate as approved by Board**	**As on 31.3.2014 (as per order dated 21.9.2015)**	**As on cut-off date of station i.e. 31.3.2017**
Capital Cost including IDC, FERV & FC	6010.19	6846.23	5533.579	6708.73
IDC, FC and FERV	559.69	1193.18	1049.11	1055.54
Hard Cost	5450.50	5653.05	4484.47	5659.62
Hard Cost (₹ /MW)	5.45	5.65	4.48	5.66
Benchmark capital cost (December 2011) as per Commission's order dated 4.6.2012			4.71	

Debt-Equity Ratio

26. 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.*

(1) 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.

(2) 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.

(3) 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.

(4) 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."

27. Accordingly, gross loan and equity of ₹388857.07 lakh and ₹164500.78 lakh respectively as on 31.3.2014 as allowed in order dated 21.9.2015 in Petition No. 69/GT/2013 has been considered as on 1.4.2014. Further, the admitted actual/projected additional expenditure has been allocated between debt and equity in the ratio of 70:30.

Return on Equity

28. 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 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) additionalRoE of 0.50% has been 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) additionalRoE shall not be admissible for transmission line having length of less than 50 kilometers.

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

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.

(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.

30. The petitioner has claimed return on equity considering the base rate of 15.5% and effective tax rate of 23.939%. However, in line with the directions of the Commission in order dated 27.6.2016 in Petition No. 270/GT/2014 (pertaining to Simhadri STPS, Stage-I of the petitioner company), it is noticed that the effective tax rate (MAT) of 20.961% has been considered for year 2014-15 and 21.342% for 2015-16 onwards up to the year 2018-19 for the purpose of grossing up of base rate of 15.5%. Based on the above, the rate of ROE works out to 19.610% for 2014-15 and 19.705% for 2015-16 and onwards. This is subject to truing up in terms of Regulation 8 of the 2014 Tariff Regulations. Accordingly, Return on Equity has been worked out as under:

(₹ In lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Normative Equity- Opening	164500.78	182336.89	195503.46	199755.36	199905.36
Addition to Equity on account of additional capitalization	17836.11	13166.57	4251.90	150.00	150.00
Normative Equity - Closing	182336.89	195503.46	199755.36	199905.36	200055.36
Average Normative Equity	173418.83	188920.18	197629.41	199830.36	199980.36
Rate of Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate	20.961%	21.342%	21.342%	21.342%	21.342%
Rate of Return on Equity (Pre Tax)	19.610%	19.705%	19.705%	19.705%	19.705%
Return on Equity (Pre Tax)- annualised	**34007.43**	**37226.72**	**38942.88**	**39376.57**	**39406.13**

Interest on loan

31. 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 Decapitalization 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 up to the date of de-capitalization of such asset.*
>
> *(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee, as the case may be, the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.*
>
> *(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:*
> *Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered:*
>
> *Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.*
>
> *(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.*
>
> *(7) The generating company or the transmission licensee, as the case may be, shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee, as the case may be, in the ratio of 2:1.*
>
> *(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.*
>
> *(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute:*
>
> *Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.*

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

(i) As stated above gross normative loan amounting to ₹388857.07 lakh has been considered as on 1.4.2014.

(ii) Cumulative repayment of ₹17557.20 lakh as on 31.3.2014 as considered in order dated 21.9.2015 is considered as on 1.4.2014.

(iii) Accordingly, the net normative opening loan as on 1.4.2014 works out to ₹371299.87 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 years of the tariff period 2014-19.

(vi) In line with the provisions of the 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 rate of interest as provided by the petitioner has been considered for the purpose of tariff.

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

(₹ In lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Gross Normative Loan – Opening	388857.07	430474.67	461196.67	471117.77	471467.77
Cumulative repayment of loan upto previous year / period	17557.20	47697.03	80507.76	114819.10	149509.67
Net Normative Loan – Opening	371299.87	382777.63	380688.90	356298.66	321958.10
Addition to Normative Loan on account of additional capitalization	41617.60	30722.00	9921.10	350.00	350.00
Repayment of loan during the year	30139.83	32810.73	34311.34	34690.56	34716.41
Net Loan Closing	382777.63	380688.90	356298.66	321958.10	287591.69
Average Loan	377038.75	381733.27	368493.78	339128.38	304774.89
Weighted Average Rate of Interest on Loan	8.0650%	7.9485%	8.0183%	8.3822%	8.4990%
Interest on Loan	**30408.22**	**30342.10**	**29546.84**	**28426.33**	**25902.69**

Depreciation

34. 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 on1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 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."

35. The petitioner in Form-11 of the petition has claimed depreciation considering the weighted average rate of depreciation of 5.26% for the period 2014-19. The respondent, MPPMCL has submitted that the petitioner has claimed depreciation on land and right of use and that the claim towards depreciation under the head 'land lease holding' amounting to ₹26763 lakh is on higher side and the same is required to be examined.

36. We have considered the matter. The cumulative depreciation as on 31.3.2014 allowed vide order dated 21.9.2015 in Petition No.69/GT/2013 is ₹17557.20 lakh. Further, the value of freehold land included in the average capital cost has been adjusted while calculating depreciable value for the purpose of tariff. The balance depreciable value (before providing depreciation) for the year 2014-15 works out to ₹507219.03 lakh. Since as on 1.4.2014, the used life of the generating station (0.53 years) is less than 12 years from the effective station COD of 20.9.2013, the depreciation has been calculated by applying the weighted average rate of depreciation for the period 2014-19. The petitioner has claimed depreciation considering the weighted average rate of depreciation of 5.2553% for the period 2014-19. However, considering the rates of depreciation as specified in Appendix-II of the 2014 Tariff Regulations, the weighted average rate of depreciation

for the year 2014-15 works out to 5.1690%. Necessary calculations in support of depreciation are as under:

(₹ In lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Average Capital Cost	583084.70	634755.84	663786.63	671123.13	671623.13
Freehold land included above	0.00	0.00	0.00	0.00	0.00
Depreciable value @ 90%	524776.23	571280.26	597407.96	604010.81	604460.81
Remaining useful life at the beginning of the year	24.47	23.47	22.47	21.47	20.47
Balance depreciable value	507219.03	523583.22	516900.20	489191.71	454951.15
Depreciation (annualized)	30139.83	32810.73	34311.34	34690.56	34716.41
Cumulative depreciation at the end of the year	**47697.03**	**80507.76**	**114819.10**	**149509.67**	**184226.08**

O&M Expenses

37. Regulation 29(1) (a) of the 2014 Tariff Regulations provides the following O&M expense norms for coal based generating stations of 500MW capacity:

(₹ in lakh/MW)

2014-15	2015-16	2016-17	2017-18	2018-19
16.00	17.01	18.08	19.22	20.43

38. Accordingly, the petitioner has claimed O&M expenses for 2014-19 as under:

(₹ In lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
16000.00	17010.00	18080.00	19220.00	20430.00

39. The normative O&M expenses claimed by the petitioner are in terms of the 2014 Tariff Regulations and hence allowed.

Water Charges

40. 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 capitalization or consumption of stores and spares and renovation and modernization."*

41. In terms of the above regulation, water charges are to be allowed based on water consumption depending upon type of plant, type of cooling water system etc. subject to prudence check of the details furnished by the petitioner.

42. The petitioner has claimed water charges for the period 2014-19 as under:

(₹in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
243.49	258.95	275.40	292.88	311.48

43. The details in respect of water charges such as type of cooling water system, water consumption, rate of water charges as applicable for the year 2013-14 as submitted by the petitioner is as under:

Description	Remarks
Type of Plant	Coal
Type of cooling water system	Closed circuit cooling system
Consumption of Water	6.343 MCM
Rate of water charges	₹ 3.84 /M^3
Total water charges	₹ 243.49 lakh

44. In response to the directions of the Commission, the petitioner vide affidavit dated 24.8.2016 has submitted the details of the actual water consumption by the generating station along with relevant documents in support of claim as follows:

	Water Allocation /year Stage-I & II (MCM)	Actual Water Drawn (MCM)	Water Charges (₹ in lakh)	Remark
2011-12	100	0.1	3.84	Billed & paid as per actual drawal
2012-13	100	1.36	52.36	Billed & paid as per actual drawal
2013-14	100	6.26	240.21	Billed & paid as per actual drawal

45. The petitioner has submitted that the generating station is wholly dependent upon Goshikhurd dam for the water requirement of the generating station for which an agreement was entered into on 22.08.2011 with Vidarbha Irrigation Development Corporation (VIDC), Nagpur, Government of Maharashtra Undertaking, for supply of non-irrigation water @ ₹ 32 per 10000 liter for drawl of 100 MCM of water per year for the generation station Stage – I & II (2320 MW) and the validity of the said aagreement is for 6 years with effective implementation of the same after two years from the date of its signing. In terms of the said agreement, in case the actual drawl is less than the contracted quantity, the minimum payment of water charges is to be made based on allocation equivalent to 90% of the specified contracted quantity, and that if the actual drawl exceeds 10% of the contracted quantity, the water charges are payable @ 1.25 times of the applicable rate of water charges.

46. The petitioner has further submitted that the said agreement became effective after 2013-14 and the billing for water consumption by the generating station during the period 2012-14 was done as per the actual consumption of water. It has further submitted that COD of Units - I &II (500 MW each) of the generating station was achieved on 13.3.2013 and 30.3.2014 respectively and the water consumption in 2012-13 was limited to pre-commissioning/commissioning activity of Unit I and other small construction activities. It has also submitted that in 2013-14, the water consumption was less on account of partial loading of the station due to low schedule of the beneficiaries and pre-commissioning/commissioning activities of Unit-II. The petitioner has submitted that as per the said agreement, the supply of non-irrigation water to the generating station from Gosikhurd Dam is 100 MCM and the water charges payable is ₹32/10000 litres and billing is done on monthly or bi-monthly basis in accordance with the actual consumption. The petitioner has further submitted that a Sub-agreement was entered into by the petitioner with Goshikhurd Dam for the projected quantity of water from the generating station and charges to be paid are as under:

(i) Charges for yearly agreed quantity.

(ii) Royalty at 5% of water charges for difference of quantity to the original demand of 100 MCM and yearly agreed quantity.

47. We have examined the matter. It is observed from the supplementary agreement dated 11.4.2016 (for yearly supply of non- irrigation water) that the demand of the generating station for the year 2016-17 is 16 MCM. It has also been observed that the petitioner has separate supplementary agreements for the years 2014-15 and 2015-16 towards supply of non- irrigation water with projected demand of 30 MCM. The demand pattern has also been examined. In line with the report of CEA, for minimization of consumption of water for 500 MW coal based thermal power units, we find that the allocation of 100 MCM water requirement for 2320 MW power (i.e. Stage- I 1000 MW + Stage- II 1320 MW) is on higher side,. The CEA norm provides for $3m^3$/hr/MW and accordingly, the consumptive water for the generating station works out to 61 MCM (3 x 2320 x 8760).

48. Considering the fact that the petitioner has not furnished any justification for abnormally higher allocation of water than the actual/projected demand, we do not find sufficient reason to

consider 5% royalty on the difference of water allocation and the actual water consumption for allowing water charges.

49. It is observed that the water charges claimed by the petitioner for the period 2014-19 are based on the actual water charges paid in the year 2013-14. The water charges paid in the year 2013-14 are for the period from COD of Unit-I (13.3.2013) and Unit-II(30.3.2014) wherein Unit-I was under operation for full year with partial load and Unit –II was operated only for 2 days after COD. Accordingly, the water charges paid for the year 2013-14 does not depict a realistic projection of water charges for the year 2014-15 and for the subsequent years. In order to keep the adjustment in water charges at a bare minimum at the time of truing up of tariff, the water charges based on latest projected demand of 16 MCM for the year 2016-17 is proposed to be considered for allowing water charges for the period 2014-19, as the same is found to be below the consumptive water requirement of 100 MCM in terms of the CEA norms and less than 30 MCM as earlier projected for the years 2014-15 and 2015-16 respectively. The rate of water charges as per agreement is ₹32 per 10000 litre which works out to ₹3.20/m^3. Accordingly, the water charge rate is considered as ₹3.20/m^3based on the projected water consumption of 16 MCM/year as follows:

	Projected Qty. (M^3)	**Rate (₹/M^3)**	**Water Charges** ***(₹ in lakh)***
2014-15	16000	3.20	512.0
2015-16	16000	3.20	512.0
2016-17 (projected)	16000	3.20	512.0
2017-18 (projected)	16000	3.20	512.0
2018-19 (projected)	16000	3.20	512.0

50. Based on the above discussions, the total O&M expenses, including water charges, allowed for the period 2014-19 is as under:

(₹ in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
O&M Expenses allowed	16000.00	17010.00	18080.00	19220.00	20430.00
Water Charges allowed	512.00	512.00	512.00	512.00	512.00
Total O&M Expenses allowed	16512	17522	18592	19732	20942

51. The water charges allowed as above are subject to truing-up at the end of the tariff period for which the petitioner is directed to furnish all the actual expenses incurred towards water charges.

Capital spares

52. The petitioner has not claimed capital spares on projection basis during the period 2014-19. Accordingly, the same has not been considered in this order. The claim of the petitioner, if any, shall be considered on merits, at the time of truing-up of tariff, after prudence check.

Operational Norms

53. The operational norms in respect of the generating station considered by the petitioner are as under:

Target Availability (%)	83
Heat Rate (kcal/kwh)	2400.64
Auxiliary Power Consumption (%)	5.75
Specific Oil Consumption (ml/kwh)	0.50

54. The operational norms claimed by the petitioner are discussed as under:

Normative Annual Plant Availability Factor

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

> *(a) All Thermal generating stations, except those covered under clauses (b) (c) (d) &(e)- 85%.*
>
> *Provided that in view of the shortage of coal and uncertainty of assured coal supply on sustained basis experienced by the generating stations, the NAPAF for recovery of fixed charges shall be 83% till the same is reviewed.*
>
> *The above provision shall be reviewed based on actual feedback after 3 years from 01.04.2014.*

56. The petitioner has considered the Target Availability of 83% for the period 2017-19. The respondent, MPPMCL has submitted the claim of the petitioner is not in accordance with the 2014 Tariff Regulations. It has further submitted that the proviso to Regulation 36 (A) (a), inter-alia, provides that in view of shortage of coal and uncertainty of assured coal supply on sustained basis experienced by the generating stations, the NAPAF for recovery of fixed charges shall be 83% till the same is reviewed after 3 years from 1.4.2014. It has also submitted that the arrangement of raw material for the generating plant is the sole responsibility of the petitioner and the beneficiaries cannot be made responsible for the incapability of the petitioner to procure sufficient quantity of coal for its plant. It has argued that after making a huge investment of more than ₹6700 crore in establishing a plant of 1000 MW capacity, the petitioner cannot be allowed to take advantage of its inefficiency in the procurement of coal. It has further stated that from the cumulative availability of the plant for the past 2 years, it is observed that the generating station has achieved cumulative

availability of 97.42%. Accordingly, the respondent has prayed that the claim of the petitioner may not be allowed. Similar submissions have been made by the respondent, CSPDCL.

57. We have examined the matter. The Commission due to shortage of domestic coal supply has relaxed the Target Availability norm to 83% for first three years from 1.4.2014 and same shall be reviewed after three years. Accordingly, the Target Availability of 83% is allowed for the period 2014-15 to 201617 and 85% for the remaining 2 years i.e 2017-18 and 2018-19 in terms of Regulation 36(A) (a) of the 2014 Tariff Regulations.

Heat Rate (kcal/kwh)

58. Regulation 36 (C) (c) of the 2014 Tariff Regulations provides, Station Heat Rate for the thermal generating station having COD on or after 1.4.2009 till 31.3.2014 as under:

> *(c) Thermal Generating Station having COD on or after 1.4.2009 till 31.03.2014*
>
> *(i) Coal-based and lignite-fired Thermal Generating Stations*
>
> *= 1.045 X Design Heat Rate (kCal/kWh)*
>
> *Where the Design Heat Rate of a generating unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure.*
>
> *Provided that the heat rate norms computed as per above shall be limited to the heat rate norms approved during FY 2009-10 to FY 2013-14.*

59. As stated, the petitioner has considered the Station Heat Rate (SHR) of 2400.64 kcal/kWh.The respondent, MPPMCL has submitted that the claim of the petitioner for SHR of 2400 kcal/Kwh is against the provisions of the 2014 Tariff Regulations. It has also submitted that the Regulation 36 (C) (a) provides for Gross Station Heat Rate (GSHR) of existing thermal generating station of 500 MW sets as 2375 kcal/Kwh and since the project has been declared under commercial operation on a date prior to 1.4.2014, the present generating station should be covered under Regulation 36 (C) (a) for which GSHR of 2375 kcal/Kwh has been specified. Accordingly, it has prayed that the same may be considered for the generating station.Similar submissions have been made by the respondent, CSPDCL.

60. We have examined the matter. The COD of the generating station is 30.3.2014 and therefore the Gross Station Heat rate as per Regulation 36 (C) (c) of the 2014 Tariff Regulations provides as under:

"Thermal generating station having COD on or after 1.4.2009 till 31.3.2014-

(i)Coal – based and lignite fired thermal generating station = 1.045 x design Heat Rate

Where the design heat rate of generating unit means the unit heat- rate generated by the supplier at condition of 100% MCR, zero percent make up, design coal and design cooling water temp/ board pressure.

Provided that the heat- rate norms computed as per above shall be limited to the heat rate norms approved during the period 2009-10 to 2013-14."

61. The design gross station heat rate claimed by the petitioner during the period 2009-14 was 2297.27 kcal/ Kwh based on the guaranteed turbine cycle heat- rate of 1932 Kcal/Kwh and boiler efficiency of 84.10%However, the design heat rate allowed by the Commission was 2276 Kcal/Kwh. Accordingly, the design gross station heat rate considered by the petitioner was restricted to 2276.47 Kcal/Kwh (1935/0.85) as per norms specified by the Commission. Based on the design heat- rate of 2276.47 Kcal/ Kwh, the gross station heat- rate of 2424.44 Kcal/Kwh (2276.47 x 1.065) was allowed during the period 2009-14.

62. The petitioner during the period 2014-19 has considered the guaranteed design heat rate of 2297.27 Kcal/Kwh based on guaranteed turbine cycle heat- rate of 1932 Kcal/Kwh and boiler efficiency of 84.10 Kcal/Kwh. The turbine cycle heat rate and boiler efficiency considered by the petitioner during the period 2014-19 is similar to the claim made by the petitioner during the period 2009-14. The gross station heat rate based on the 2014 Tariff Regulations works out to 2400.64 Kcal/Kwh (2297.27 x 1.045) which is less than the gross station heat rate of 2424.44 Kcal/Kwh allowed for the period 2009-14 and the same is considered for the purpose of tariff and accordingly, the gross station heat rate of 2400.64 Kcal/Kwh is considered for the purpose of tariff.

Auxiliary Power Consumption

63. Regulation 36 (E) (a) of the 2014 Tariff Regulations provides Auxiliary Power Consumption of 5.75% for the coal based generating stations of 500 MW sets with natural Draft cooling tower or without cooling tower with steam driven BFP. Accordingly, the Auxiliary Energy Consumption of 5.75% considered by the petitioner is in order and is allowed.

Specific Oil Consumption

64. Regulation 36 (D) (a) of the 2014 Tariff Regulations, provides secondary fuel oil consumption of 0.50 ml/kWh for coal-based generating station. Accordingly, the secondary fuel oil cconsumption considered by the petitioner is in order and is allowed.

Interest on Working Capital

65. Sub-section (b) of clause (1) of 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.*

Fuel Components and Energy Charges in working capital

66. The petitioner has claimed cost for fuel components in working capital based on 'as fired' GCV of coal procured and burnt for the preceding three months of January, 2014, February, 2014 and March, 2014 and secondary fuel oil for the preceding three months of January, 2014, February, 2014 and March, 2014, as under:

(₹ in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Cost of Coal for stock -30 days	17329.0	17376.48	17329.0	17329.0	17329.0
Cost of Coal for generation -30 days	17329.0	17376.48	17329.0	17329.0	17329.0
Cost of Main Secondary Fuel Oil for 2 months	431.35	432.53	431.35	431.35	431.35

67. The Commission vide ROP of the hearing dated 28.6.2016 directed the petitioner to submit the GCV of coal on 'as received' basis. In response, the petitioner vide affidavit dated 24.8.2016

has submitted that from August, 2014 onwards GCV of coal on 'as received' basis is being done from secondary crusher.

68. The issue of 'as received' GCV for computation of energy charges was challenged by NTPC and other generating companies through writ petition in the Hon'ble High Court of Delhi. The writ petition was heard on 7.9.2015 and Hon'ble High Court of Delhi had directed that the Commission shall decide the place from where the sample of coal should be taken for measurement of GCV of coal on as received basis within 1 month on the request of petitioners.

69. As per the directions of the Hon'ble High Court, the Commission vide order dated 25.1.2016 in Petition No. 283/GT/2014 has decided as under:

> *"58. In view of the above discussion, the issues referred by the Hon'ble High Court of Delhi are decided as under:*
>
> *(a) There is no basis in the Indian Standards and other documents relied upon by NTPC etc. to support their claim that GCV of coal on as received basis should be measured by taking samples after the crusher set up inside the generating station, in terms of Regulation 30(6) of the 2014 Tariff regulations.*
>
> *(b) The samples for the purpose of measurement of coal on as received basis should be collected from the loaded wagons at the generating stations either manually or through the Hydraulic Auger in accordance with provisions of IS 436(Part1/Section1)-1964 before the coal is unloaded. While collecting the samples, the safety of personnel and equipment as discussed in this order should be ensured. After collection of samples, the sample preparation and testing shall be carried out in the laboratory in accordance with the procedure prescribed in IS 436(Part1/Section1)-1964 which has been elaborated in the CPRI Report to PSERC."*

70. Further, the petitioner has claimed Energy Charge Rate (ECR) of 307.230 paise/kWh based on the weighted average price, GCV of coal (as fired basis) and oil procured and burnt for the preceding three months. It is observed that the petitioner has provided the GCV of coal on "as fired" basis. As per 2014 tariff Regulations, GCV of coal should be "as received" basis. In compliance with the direction of the Hon'ble Delhi High Court , the Commission in its order dated 25.1.2016 in Petition No. 283/GT/2014 has clarified that the measurement of GCV of coal on 'as received' basis shall be taken from the loaded wagons at the unloading point either manually or through the Hydraulic Augur. The petitioner has not submitted the required data regarding measurement of GCV of coal in compliance with the directions contained in the said order dated 25.1.2016. The present petition cannot be kept pending till the petitioner submits the required information. Hence, the Commission has decided to compute fuel components and the energy

charges in the working capital by provisionally taking the GCV of coal on as 'billed basis' and allowing an adjustment for total moisture as per the formula given as under:

$$\frac{GCV \times (1-TM)}{(1-IM)}$$

Where: GCV=Gross Calorific value of coal
TM=Total moisture
IM= Inherent moisture

71. In view of the above, the cost for fuel components in working capital have been computed at 83% NAPAF for the years 2014-15, 2015-16 and 2016-17 and at 85% NAPAF for the years 2017-18 and 2018-19 and based on 'as billed' GCV of coal and price of coal procured and secondary fuel oil for the preceding three months from January 2014 to March 2014 and allowed as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Coal for stock -30 days	11908.87	11908.87	11908.87	12195.83	12195.83
Cost of Coal for generation -30 days	11908.87	11908.87	11908.87	12195.83	12195.83
Cost of Secondary fuel oil 2 months	431.35	432.53	431.35	441.74	441.74

72. Similarly, the Energy Charge Rate (ECR) based on operational norms specified under the 2014 Regulations and on 'as billed' GCV of coal for preceding 3 months i.e. January to March 2014 is worked out as under:

Sl. No.	Description	Unit	2014-19
1.	Capacity	MW	2 x 500
2.	Weighted average Gross Station Heat Rate	Kcal/kWh	2400.64
3.	Weighted average Auxiliary Energy Consumption	%	5.75
4.	Weighted average GCV of oil	Kcal/lit	9500
5.	Weighted average GCV of Coal (As billed)	Kcal/kg	5394.08
6	Adjustment on account of coal received at the generating station for equilibrated basis (Air dried) in the billed GCV of coal India		*
6.	Weighted average price of oil	Rs /KL	71191.36
7.	Weighted average price of Coal	Rs/MT	4486.53
8.	Rate of energy charge ex-bus	Rs /kWh	2.152**

** to be calculate by the petitioner based on the adjustment formula*
*** to be revised as per figure at Sr. no. 6*

73. The GCV of coal as computed above shall be adjusted in the light of the GCV of coal on 'as received basis' computed by the petitioner as per our directions in order dated 25.1.2016 in Petition No. 283/GT/2014.

74. Energy charges for two months on the basis of billed GCV of coal for the purpose of Interest on working capital have been worked out as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
24578.45	24645.79	24578.45	25170.71	25170.71

Maintenance Spares

75. The petitioner has claimed maintenance spares in the working capital as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
3248.70	3453.79	3671.08	3902.58	4148.30

76. Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provides for maintenance spares @ 20% of the operation and maintenance expenses. As specified in Regulation 29 (2) of the 2014 Tariff Regulations, maintenance spares @ 20% of the operation andmaintenance expenses, including water charges, is allowed as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
3302.40	3504.40	3718.40	3946.40	4188.40

Receivables

77. Receivables equivalent to two months of capacity charge and energy charges 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	24578.45	24645.79	24578.45	25170.71	25170.71
Fixed Charges – for two months	20168.93	21342.32	21943.04	22119.48	21912.84
	44747.39	**45988.12**	**46521.49**	**47290.19**	**47083.55**

O & M Expenses (1 month)

78. O&M expenses for 1 month claimed by the petitioner for the purpose of working capital are as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
1353.62	1439.08	1529.62	1626.07	1728.46

79. Based on the O&M expense norms specified under the 2014 Tariff Regulations, by the Commission the O&M expenses for 1 month is allowed as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
1376.00	1460.17	1549.33	1644.33	1745.17

Rate of interest on working capital

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

"Interest on working Capital: (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."

81. In terms of the above regulations, SBI PLR of 13.50% (Bank rate 10.00 + 350 bps) has been considered for the purpose of calculating interest on working capital. Interest on working capital has been computed as under:

(₹ In lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Cost of coal toward stock – 30 days	11908.87	11908.87	11908.87	12195.83	12195.83
Cost of coal towards generation - 30 days	11908.87	11908.87	11908.87	12195.83	12195.83
Cost of secondary fuel oil - 2 months	431.35	432.53	431.35	441.74	441.74
Maintenance Spares	3302.40	3504.40	3718.40	3946.40	4188.40
Receivables	44747.39	45988.12	46521.49	47290.19	47083.55
O&M expenses - 1 month	1376.00	1460.17	1549.33	1644.33	1745.17
Total Working Capital	**73674.88**	**75202.96**	**76038.32**	**77714.33**	**77850.53**
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working capital	**9946.11**	**10152.40**	**10265.17**	**10491.43**	**10509.82**

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

(₹ In lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Depreciation	30139.83	32810.73	34311.34	34690.56	34716.41
Interest on Loan	30408.22	30342.10	29546.84	28426.33	25902.69
Return on Equity	34007.43	37226.72	38942.88	39376.57	39406.13
Interest on Working Capital	9946.11	10152.40	10265.17	10491.43	10509.82
O&M Expenses	16512.00	17522.00	18592.00	19732.00	20942.00
Total	121013.60	128053.95	131658.23	132716.90	131477.06

***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.*

Month to Month Energy Charges

83. The petitioner shall compute and claim the energy charges on month to month basis from the beneficiaries based on the formulae given under Regulation 30(6)(a) of the 2014 Tariff Regulations read with Commission's order dated 25.1.2016 in Petition No. 283/GT/2014.

84. The petitioner has been directed by the Commission in its order dated 19.2.2016 in Petition No. 33/MP/2014 to introduce help desk to attend to the queries of the beneficiaries with regard to

the Energy Charges. Accordingly, contentious issues, if any, which arise regarding the Energy Charges, should be sorted out with the beneficiaries at the Senior Management level.

Application filing fee and Publication Expenses

85. The petitioner has sought reimbursement of filing fee and also the expenses incurred towards publication of notices for application of tariff for the period 2014-19. The petitioner has deposited the filing fees of ₹4412100/- for the year 2014-15 in terms of the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012. The petitioner vide affidavit dated 24.3.2015 has submitted that it has incurred ₹231983/- as charges towards publication of the said tariff petition in the newspapers. Accordingly, in terms of Regulation 52 of the 2014 Tariff Regulations and in line with the decision in Commission's order dated 5.1.2016 in Petition No. 232/GT/2014, we direct that the petitioner shall be entitled to recover pro rata, the filing fees for the period 2014-15 and the expenses incurred on publication of notices directly from the respondents, on production of documentary proof. The filing fees for the remaining years of the tariff period 2016-19 shall be recovered pro rata after deposit of the same and production of documentary proof.

86. The annual fixed charges approved for the period 2014-19 as above are subject to truing-up in terms of Regulation 8 of the 2014 Tariff Regulations.

87. Petition No. 328/GT/2014 is disposed of in terms of the above.

Sd/-	Sd/-	Sd/-	Sd/-
(Dr. M.K.Iyer)	**(A. S. Bakshi)**	**(A. K. Singhal)**	**(Gireesh B. Pradhan)**
Member	**Member**	**Member**	**Chairperson**