# CENTRAL ELECTRICITY REGULATORY COMMISSION

#### NEW DELHI

## Petition No. 391/GT/2020

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

Date of Order: 11<sup>th</sup> January, 2024

#### In the matter of:

Petition for truing up of tariff of Farakka Super Thermal Power Station, Stage-III (500 MW) for the period from 1.4.2014 to 31.3.2019, after truing up exercise.

## And

#### In the matter of:

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

## Vs

- West Bengal State Electricity Distribution Company Limited Vidyut Bhawan, Block-DJ, Sector-II, Salt Lake City, Kolkata – 700 091
- Bihar State Power Holding Company Limited (erstwhile Bihar State Electricity Board) Vidyut Bhawan, Bailey Road, Patna – 800 001
- Jharkhand Bijli Vitran Nigam Limited (JBVNL) Engineering Building, HEC Township, Dhurwa, Ranchi – 834004
- GRIDCO Limited
   24, Janpath, Bhubaneswar 751007
- 5. Damodar Valley Corporation DVC Towers, VIP Road, Kolkata- 700054

#### ...Respondents

## Parties present:

Ms. Swapna Seshadri, Advocate, NTPC Ms. Ritu Apurva, Advocate, NTPC Ms. Ashabari Thakur, Advocate, NTPC Ms. Surbhi Gupta, Advocate, NTPC Shri Prashant Chaturvedi, NTPC Shri Raj Kumar Mehta, Advocate, GRIDCO Ms. Himanshi Andley, Advocate, GRIDCO



## <u>ORDER</u>

This petition has been filed by the Petitioner, NTPC limited, for truing-up of tariff of Farakka Super Thermal Power Station, Stage-III (500 MW) (in short 'the generating station') for the period 2014-19 in terms of Regulation 8 (1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (in short "the 2014 Tariff Regulations"). The generating station comprises one unit of 500 MW and the COD of the said unit is 4.4.2012.

2. The Commission vide its order dated 3.3.2017 in Petition No. 280/GT/2014, had determined and allowed the capital cost and annual fixed charges of the generating station for the period 2014-19, as under:

## Capital Cost allowed

					(Rs. in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	237698.86	257710.78	258690.29	260047.29	261047.29
Add: Projected	20011.92	979.50	1357.00	1000.00	0.00
Additional Capital					
Expenditure allowed					
Closing Capital Cost	257710.78	258690.29	260047.29	261047.29	261047.29

#### Annual Fixed Charges allowed

				(Rs.in lakh)					
	2014-15	2015-16	2016-17	2017-18	2018-19				
Depreciation	12499.51	13029.14	13088.09	13147.56	13172.79				
Interest on Loan	14272.14	13703.01	12451.38	11194.27	9847.29				
Return on Equity	14572.47	15263.52	15332.59	15402.25	15431.81				
Interest on Working Capital	4566.75	4614.40	4614.05	4696.00	4700.10				
O&M Expenses	7398.19	7852.69	8334.19	8847.19	9391.69				
Total	53309.07	54462.76	53820.30	53287.28	52543.68				

## Present Petition

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

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

Provided that the generating company or the transmission licensee, as the case may be, shall make an application for interim truing up of capital expenditure including additional capital expenditure in FY 2016-17."

4. The capital cost and annual fixed charges claimed by the Petitioner for the period

2014-19 (after truing-up) is as under:

#### Capital cost claimed

					(Rs. in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	237698.86	257725.12	262244.83	263833.36	267958.48
Add: Additional Capital	19132.48	3435.74	1289.07	3672.78	1224.96
Expenditure during the					
year					
Less: Decapitalisation	217.07	149.90	61.71	79.88	189.77
during the year					
Add: Discharges during	1110.85	1233.88	361.16	532.22	637.76
the year					
Closing Capital Cost	257725.12	262244.83	263833.36	267958.48	269631.42
Average Capital cost	247711.99	259984.97	263039.09	265895.92	268794.95

## Annual Fixed Charges claimed

					(Rs. in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	12691.14	13872.64	14071.54	14287.48	14558.29
Interest on Loan	14183.23	13202.47	11947.56	10171.18	8690.35
Return on Equity	14573.32	15369.45	15550.00	15718.88	15932.15
Interest on Working Capital	5315.79	5373.88	5429.23	5538.65	5596.14
O&M Expenses	7566.07	7998.39	8422.35	8939.11	10003.39
Additional O&M					
Impact of Pay Revision	-	35.54	923.96	1053.71	1241.55
Impact of GST	-	-	-	120.74	162.77
Total Annual Fixed	54329.56	55852.37	56344.64	55829.76	56184.64
Charges					

5. It is observed that subsequent to filing of original petition, the Petitioner vide affidavit dated 28.6.2021 made some additional submissions along with the audited forms. The Respondent, BSPHCL, has filed its reply vide affidavit dated 23.7.2021 and the Respondent, GRIDCO, has filed its reply vide affidavits dated 22.7.2021 and 8.9.2021. Thereafter, the Petitioner vide affidavit dated 19.10.2021 has revised annual fixed charges claimed earlier, stating that the O & M expenses allowed vide Commission's order dated 3.3.2017 in Petition No. 280/GT/2014 has been challenged before APTEL in Appeal no. 178/2017 and since the unit has been commissioned prior to 1.4.2014, the proviso to Regulation 29(1)(a) of 2014 Tariff Regulations, with regard to the O&M expenses, will not be applicable. Accordingly, the revised annual fixed

charges claimed are as under:

				(Rs. in	lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	12691.14	13872.64	14071.54	14287.48	14558.29
Interest on Loan	14183.23	13202.47	11947.56	10171.18	8690.35
Return on Equity	14573.32	15369.45	15550.00	15718.88	15932.15
Interest on Working	5365.51	5426.74	5485.41	5598.38	5659.62
Capital					
O&M Expenses	8366.07	8848.89	9326.35	9900.11	11024.89
Total	55179.28	56720.19	56380.86	55676.04	55865.31
Additional O&M					
Impact of Pay Revision	0.00	35.54	923.96	1053.71	1241.55
Impact of GST	0.00	0.00	0.00	120.74	162.77
Total Annual Fixed Charges	55179.28	56755.73	57304.82	56850.49	57269.63

6. The Respondent, GRIDCO, vide its affidavit dated 26.10.2021 has filed its reply to the aforesaid affidavit dated 19.10.2021. The Petitioner vide separate affidavits dated 29.9.2021 has filed its rejoinders to the reply filed by Respondents BSPHCL and GRIDCO dated 22.7.2021 and 23.7.2021 respectively. Further, the Petitioner vide affidavit dated 8.11.2021 has filed its rejoinder to the reply of GRIDCO dated 26.10.2021. In addition, the Petitioner vide affidavit dated 18.8.2022 has furnished additional submissions. The matter was heard the case on 6.10.2022 and the Commission had directed the Petitioner to submit certain additional information and reserved its order. The Petitioner has filed its written submissions and the Respondent, GRIDCO has filed the note of arguments of the hearing dated 6.10.2022. Subsequently, the Petitioner vide affidavit dated 2.11.2022 has furnished the additional information as sought by the Commission, after serving copies on the Respondents. Taking into consideration of the submissions of parties and the documents available on record, we proceed to examine the claims of the Petitioner, in this petition, on prudence check, as stated in the subsequent paragraphs.

## **Capital Cost**

- 7. Regulation 9 (3) of the 2014 Tariff Regulations provides as under:
  - *"9. Capital Cost:*

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

- (a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014;
- (b) additional capitalisation and de-capitalisation for the respective year of tariff as determined in accordance with Regulation 14; and
- (a) expenditure on account of renovation and modernisation as admitted by this Commission in accordance with Regulation 15."

8. The Commission vide its order dated 24.8.2016 in Petition No. 282/GT/2014 read

with corrigendum dated 26.10.2016 (for the period 2012-14) had allowed the closing

capital cost of Rs.237698.86 lakh, as on 31.3.2014. The same was considered as the

opening capital cost as on 1.4.2014, for the purpose of truing-up of tariff for the period

2014-19 in order dated 3.3.2017 in Petition No. 280/GT/2014. Accordingly, the same is

considered as the opening capital cost for the period 2014-19, for truing up of tariff for

the period 2014-19, in accordance with Regulation 9(3) of the 2014 Tariff Regulations.

#### Additional Capital Expenditure

9. Regulations 14 of the 2014 Tariff Regulations provides as under:

#### "14. Additional Capitalisation and De-capitalisation

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

- *i.* Undischarged liabilities recognized to be payable at a future date;
- *ii.* Works deferred for execution;
- *iii.* Procurement of initial capital spares within the original scope of work, in accordance with the provisions of Regulation 13;
- iv. Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law; and
- v. Change in law or compliance of any existing law

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

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

- *i.* Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
- ii. Change in law or compliance of any existing law;
- iii. Deferred works relating to ash pond or ash handling system in the original scope of work; and
- iv. Any liability for works executed prior to the cut-off date, after prudence check of the



details of such undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc

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

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;
- (ii) Change in law or compliance of any existing law;
- (iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies 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 undischarged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;
- (vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;
- (vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal / lignite based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of deterioration of assets, report 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 nonmaterialisation of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:

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

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

Provided also that if any expenditure has been claimed under Renovation and

А,

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

10. The Petitioner, in Form-9A, has claimed the additional capital expenditure (on cash

basis), as under:

SI.	Head of Work /	۵d	ditional Cap	italization	claimed (o		. <i>in lakh)</i> is)
No.	Equipment	2014-15	2015-16	2016-17	2017-18	2018-19	Total
1	Malancha Ash Dyke	135.47		-	-	-	135.47
2	Coal Handling Package	0.05	-	-	-	-	0.05
3	Main Plant Civil Works	2616.77	-	-	-	-	2616.77
4	Chimney	24.24	-	-	-	-	24.24
5	Workshop & Lab	28.37	-	-	-	-	28.37
	equipment's						
6	Ash Handling & AWRS	8288.00	20.54	4.40	1.57	68.63	8383.15
7		113.99	8.35	0.06	0.69	-	123.09
8	CPU (Condensate Polishing Unit)	1.58	0.26		0.01	-	1.86
9	Cooling Tower	4.67	8.18	0.47	-	-	13.32
10	FDPS & Station Piping	94.47	0.12	46.34			140.92
11	Fire Fighting Tender & Equipment's		-	-	-	-	
12	Water Pre-Treatment System PKG	36.58	11.68	-	-	-	48.26
13	DM Plant & CW Treatment system	2.99	3.96	-	-	-	6.94
14	Electrical System	71.25	43.36	-	-	-	114.61
15	Switchyard	14.48	1.19	-	-	-	15.67
16	Approach roads	1585.42	1.08				1586.50
17	Stores Civil & Electrification	47.02	4.05	-	-	-	51.07
18	Main Plant Turnkey (SG) & (TG)	3054.59	121.24	18.94	2.23	-	3197.01
19	Air Conditioning & Ventilation	8.74	-	9.65	2.64	-	21.03
20	CW and Offsite civil works	788.78	67.83	-	0.11	-	856.72
21	Administrative & Service building	197.30	37.89	-		-	235.19
22	LT (outdoor) Transformer	-		5.63	-	-	5.63
23	Service Building	-	-	4.50	-	-	4.50
24	C&I Package	68.45	11.38	0.01	0.91	-	80.74
25	Drainage System	-	156.57	-		-	156.57
26	CW System-Equipment	194.79	222.77	2.51	7.99	-	428.06
27	Construction Tools / T&P	33.24	95.81	16.21	98.88		244.15
28	Township and Colony	1171.28	1209.74	413.64	938.56	13.35	3746.56
29	MGR & Track Signalling	-	175.75	-	1.46	-	177.21
30	Furniture's and Fixtures	11.37	4.03	8.39	49.96	78.14	151.89
31	IT & Satellite Communication System	32.14	59.67	162.59	137.61	325.54	717.56
32	Electrical Installations	27.12	4.88	0.20		40.54	72.73
33	Hospital Equipment's	45.48	42.93	20.41	23.95	25.62	158.39
34	Vehicles	3.28	0.00				3.28
35	Office Equipment's	30.35	103.30	13.10	57.76	56.62	261.12
36	Capitalisation of spares	386.16	1017.73	562.02	2344.19	598.75	4908.86

A.

SI.	Head of Work /	Ade	ditional Cap	italization	claimed (o	n cash bas	is)
No.	Equipment	2014-15	2015-16	2016-17	2017-18	2018-19	Total
	Subtotal Additional	19118.41	3434.28	1289.07	3668.54	1207.19	28717.50
	Capitalization						
37	Decapitalisation of Spares	(-)153.19	(-)148.66	(-)55.80	(-)73.94	(-)136.74	(-)568.32
38	Decapitalisation of MBOA	(-)6.69	(-)1.19	(-)5.90	(-)5.94	(-)53.03	(-)72.75
39	Reversal of IDC in various packages	(-)56.71	-	-	-	-	(-)56.71
40	Adjustments Under various Packages / Assets	(-)0.49	(-)0.05	-	-	-	(-)0.54
	Subtotal	(-)217.07	(-)149.90	(-)61.71	(-)79.88	(-)189.77	(-)698.33
	Decapitalization	.,					. ,
	Total Additional Capitalization	18901.33	3284.28	1227.36	3588.67	1017.43	28019.17
41	Add. Discharge of Liabilities pertaining to allowed works for prior period	1110.85	1233.88	361.16	532.22	637.76	3875.86
42	Add: 50% of LD and Risk & Cost Recovery as per Hon'ble CERC order dated 21.01.2014	14.07	1.46	-	4.24	17.76	37.53
	Total Additional Capital claimed	20026.26	4519.72	1588.52	4125.13	1672.94	31932.56

11. The Respondent, BSPHCL has submitted that the Commission vide its order dated 3.3.2017 in Petition No. 280/GT/2014, had disallowed expenditure towards township facilities / works claimed by Petitioner and had directed to share the benefits accrued through recovery of LD and Risk & Cost recovered, and also disallowed the exclusion of 50% of LD recovered and Risk & Cost recovered. However, the same has been claimed from 2013-14 to 2018-19 under additional capital expenditure. It has also submitted that the Petitioner had sufficient time (3 years) till the cut-off date for execution of works and therefore, the claim for additional capitalisation in 2015-16 to 2018-19 is liable to be rejected, except for the deferred works relating to ash pond or ash handling system in the original scope of works.

12. The Respondent, GRIDCO has submitted the following:

a. Additional capitalisation towards 'Drain and Drainage System', 'Misc. Civil Works – M. Plant', 'Off-site Civil Package', 'Township Facilities / Works', 'Main Plant Turnkey', 'Condensate Polishing Plant', 'Control & Instrumentation', 'DM Plant & CW Treatment System', 'Station Piping Package & FDPS', 'Electrical Equipment Supply & Erection' and 'Switchyard', the Commission vide order dated 3.3.2017 in Petition No. 280/GT/2014 has observed that the Petitioner

had sufficient time period of three years from COD to cut-off date for execution of these works, however, the Petitioner has not submitted any reasons / justifications for the delay in completion of the said works and the steps taken by the Petitioner to mitigate the delay in the execution. Accordingly, in our view, there is no reason for us to consider the claim in exercise of the power to relax and allow the capitalization. However, the Petitioner has claimed these in the instant petition and has not given any cogent reasons or justifications for the delay in execution of the above works with documentary proof. Therefore, the claims are liable to be rejected.

- b. The Petitioner has not complied with direction issued by the Commission in Order dated 3.3.2017 w.r.t. Ash Dyke works, Ash Handling and Ash Water Recycling system i.e. to submit on affidavit the details of work done under this head along with proper details / justification for the actual capital expenditure incurred during the period 2014-19 in terms of Regulation 8 of the Tariff Regulations, 2014. Therefore, the claim is liable to be rejected.
- c. Finishing works for MGR & Track Signalling are pending, for which the payment has been withheld by the Petitioner. As such there is no provision in regulations for such claim and such works don't warrant for Power relax, the claim is liable to be rejected.
- d. The Regulation 14(1)(iii) read with Regulation 13 of 2014, Tariff Regulations, stipulates for capitalisation of initial spares, within original scope of works, upto cut off date subjected to ceiling limit of 2.5 % of Plant & Machinery cost as on cut-off date.
- 13. In response to the above replies, the Petitioner vide its rejoinder has submitted the

## following:

(a) That most of the capitalisation permitted by Commission in its order dated 3.3.2017 has been capitalised and few works have been deferred due to reasons beyond its control. These works were delayed and got spilled over despite regular monitoring and follow-up by it. Therefore, the Commission in exercise of the power under Regulation 54 of the 2014 Tariff Regulations, may condone the delay and accept the capitalisation beyond the cut-off date. The disallowances made in order 3.3.2017 has been challenged through Appeal No. 178/2017 before the APTEL.

(b) Regulation 11 (A) is applicable for IDC till COD of the Unit / Station and is not applicable for additional capitalization. The Commission in its order dated 3.3.2017 had sought detailed reasons for delay in certain works, but not disallowed and these reasons have been detailed in the present petition along with possible documentary proof. The delay in the construction of township, colony and drainage system has been already explained in Form 9A and majority of these works were completed before the cut-off date and majority of the balance works for township and drainage system are within the original scope of works.

(c) The delay in the execution township and drainage system is due to the heavy monsoon in the year 2014-15 and waterlogging thereof. In addition, certain township work packages were delayed due to abandoning of work by one of the contractors and award of the same to another agency and capitalization thereof beyond cut-off date. In regards to MGR and Track Signalling, certain amount was released in 2017-18 for the works already completed before cut-off date. As regards capitalization of ash pond and ash handling system, justification has been provided in Form 9A.

14. Subsequently, the Petitioner vide additional affidavit dated 18.8.2022 has

submitted the following:

(a) Majority of the works of Township and Colony Works were completed before cut-off date, however, expenditure for certain balance works, which are part of original scope of works, got spilled over beyond cut-off date on account of various reasons beyond control of Petitioner. Further, in 2012, M/s B P Constructions had abandoned Township Works (Quarters construction) due to financial implications arising out of change in service tax. Subsequently, in July, 2014, the contract was terminated and re-awarded the balance works to different agencies. However, due to heavy rainfall in 2015 and water logging thereof, the progress of works got hampered.

(b)CPU (Central polishing Unit), Cooling Tower, FDPS & Station Piping, Water Pre-Treatment System Pkg, DM Plant & CW Treatment System, Electrical System, Switchyard, Approach Roads, Store Civil & Electrification, Main Plant Turnkey (SG) & (TG), CW and Offsite Civil Works, Administrative & Service building and C&I Package etc, are required to be completed for declaration of COD i.e. 4.4.2012 and it is apposite to mention that without completing these works, COD of the station could not have been achieved. These works are form part of original scope of works and completed much before cut-off date. However, due to contract closing process in progress, the expenses claimed are balance payment. Accordingly, the same may be allowed under Regulation 14(2)(iv) along with Regulation 54.

(c)The work for MGR completed within cutoff date and the generating station was receiving coal through this system. However, only some minor finishing balance works related track safety got completed in 2015-16 and the amount was withheld for the same. Accordingly, the same may be allowed under Regulation 14(1)(ii) read with Regulation 54 of the 2014 Tariff Regulations.

(d)Construction Tools / T & P, Drainage System and CW System Equipment are part of original scope of works and majority of the works completed before the cut-off date. Further, the expenditure for certain balance works got spilled over beyond cut-off date for reasons beyond control of Petitioner. Accordingly, may condone the delay and allow the additional capitalization under Regulation 14(1)(ii) read with Regulation 54 of the 2014 Tariff Regulations.

15. The Petitioner vide its submissions dated 6.10.2022 has furnished the details of

expenditure claimed within and beyond cut-off date for various items / works along with

some justification for claim beyond cut-off date, as under:

.A.

	1		I	(Rs. in lakh)
Item / Work	Total Claim	Claims within cut-off date	Claims beyond the cut- off date	Reasons
Malancha Ash Dyke	135.47	135.47		Works form part of the original scope
Coal Handling Package	0.05	0.05		of works but deferred for execution
Main Plant Civil Works	2616.77	2616.77		after COD and up to cut-off date.
Chimney	24.24	24.24		
Workshop & Lab Equipment	28.37	28.37		
Ash Handling and AWRS	8383.15 + 123.09	8288.00 + 113.99		Works form part of the original scope of works, which are to be taken up for continuous and sustainable operation of plant.
CPU (Condensate Polishing Unit)	1.86		0.28	Works form part of the original scope of works and have been completed
Cooling Tower	13.32		8.65	within the cut-off date and the claims
FDPS & Station Piping and Fire Fighting Tender & Equipment	140.92		46.45	are for balance of payments.
Water Pre-Treatment System Pkg	48.26		11.68	
DM Plant & CW Treatment System	6.94		3.96	
Electrical System	114.61		43.36	
Switchyard	15.67		1.19	
Approach Roads	1586.5		1.08	
Stores Civil &	51.07		4.05	
Electrification				
Main Plant Turnkey (SG) & (TG)	3197.01		142.42	
Air Conditioning & Ventilation	21.03		12.29	
CW and Offsite Civil Works			67.94	
Administrative & Service Building	235.19		37.89	
LT (Outdoor) Transformer	5.63		5.63	
Service Building	4.50		4.50	
C&I Package	80.74		12.29	
Drainage System	156.57			Majority of these works were
CW System Equipment	428.06		233.27	completed within cut-off date and the
Construction Tools / T&P	244.15		210.91	balance works are within original scope of works deferred for
Township and Colony	3746.56		2575.28	execution after COD and upto the cut-off date.
MGR & Track Signaling	177.21			MGR completed within cutoff date and coal is received through this. Only minor balance works related to track safety completed and capitalized in 2015-16. However, some finishing works remained pending and therefore, some payment was withheld and the

			present claim is for release of the
			same.
Furnitures and Fixture	151.89	140.52	These are MBOA items for new
IT & Satellite	717.56	685.42	buildings constructed i.e. FHC
Communication			Hospital, Indoor Stadium, New D
System			type quarters at FHC. Delay in
Electrical Installations	72.73	45.62	
Hospital Equipment	158.39	112.91	delay in ordering of these items.
Vehicles	3.28		
Office Equipment	261.12	230.77	

16. The Respondent, GRIDCO vide its written submissions dated 6.10.2022 has submitted that the Petitioner has claimed IDC of Rs.2662.69 lakh for 2014-15, Rs.123.60 lakh for 2015-16, Rs.45.68 lakh for 2016-17 and Rs.87.80 lakh for 2017-18 along with additional capital expenditure. It has stated that in terms of Regulations 9, 11 and 15 of the 2014 Tariff Regulations, IDC is applicable only for new projects and R & M projects, but not for existing projects and therefore, IDC on additional capital expenditure is liable to be rejected. The Respondent has further submitted that the claims made in 2015-16 to 2018-19 were disallowed vide order dated 3.3.2017 in Petition No. 280/GT/2014, on account of absence of justification. As regards MGR & Track Signaling, the works are incomplete and does not meet the satisfactory level and therefore, the amount claimed shall not be allowed, until and unless the work is fully completed and put to use. As regards the claims for Ash Dyke Works, Ash Handling and Ash Water Recycling System, despite the Commission's direction to submit the documentary evidence, the same has not been furnished by the Petitioner and hence the claim may be rejected.

17. The Commission vide ROP of the hearing dated 6.10.2022 had sought the following additional information:

- (i) The segregated original estimated cost based on RCE and estimated cost after MOEF&CC notification for Ash dyke works, Ash handling and Ash Water Recycling System, the details of work done under Ash dyke works, Ash handling and Ash Water Recycling System along with detailed justification for the actual capital expenditure incurred during the period 2014-19;
- (ii) Form 5B (details of capital cost);

- (iii) In respect of items / works claimed part of original scope of works but beyond cutoff date, supporting documents substantiating that the subject work is part of original scope.
- (iv) In respect of balance payments claimed against few items, supporting documents, including liability flow statement for each such claim.

18. In response, the Petitioner vide additional affidavit dated 2.11.2022 has submitted

the following:

(a) As per RCE, the total estimated cost for Ash Handling System and AWRS is Rs.100.28 crore. These are original scope of works and majority of the works completed before cutoff date and only minor works were executed beyond cutoff date.

(b) No ash dyke work was carried out till 2019, but only construction road from plant to ash dyke (Malancha) was executed within the cutoff date.

(c) As the entire ash produced cannot be utilized right away, the Ash Handling System is required and bottom ash is transported to ash dyke through AWRS and this ash is transported after water is settled.

(d) The expenditure to be incurred on account of MoEF&CC will be taken up after April, 2019.

(e) Form 5B has been submitted. The claims made as on the cut-off date and 31.3.2019 and Forms 9A, 9B(i), 9C, 9D, 9E and 9F deals with the year-wise statement of the additional capitalization, assets decapitalized, reconciliation of additional capital claimed with capital additions as per books, exclusions, capital cost and capital works in progress, respectively and these forms have been filed.

(f) Feasibility Report is enclosed to substantiate items / works claimed beyond the cutoff date, but form part of the original scope of works.

(g) Certain justification for various items and certain documents w.r.t. CPU, Water Pre - Treatment System Pkg, Switchyard, Air Conditioning Ventilation System, CW & Offsite Civil works, Construction T & P, MGR & Track Signaling and CW System Equipment Package has been submitted

(h) The item-wise and year-wise claims, beyond the cut-off date, for certain items are as follows:

				(Rs. Ir	n lakh)
	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Total
CPU (Condensate Polishing	0.26		0.01		0.28
Unit)					
Cooling Tower	8.18	0.47			8.65
FDPS & Station Piping	0.12	46.34			46.45
Fire Fighting Tender &					
Equipment					
Water Pre-Treatment System	11.68				11.68
Pkg					
DM Plant & CW Treatment	3.96				3.96
System					

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	2015 - 16	2016 - 17	2017 - 18	2018 - 19	Total
Electrical System	43.36				43.36
Switchyard	1.19				1.19
Approach Roads	1.08				1.08
Stores Civil & Electrification	4.05				4.05
Main Plant Turnkey (SG) & (TG)	121.24	18.94	2.23		142.42
Air Conditioning & Ventilation		9.65	2.64		12.29
CW and Offsite Civil Works	67.83		0.11		67.94
Administrative & Service Building	37.89				37.89
LT (Outdoor) Transformer		5.63			5.63
Service Building		4.50			4.50
C&I Package	11.38	0.01	0.91		12.29

(i) As regards Construction T & P and MGR & Track Signaling works, the submissions made is reiterated. As regards MGR & track signaling, MGR was completed within the cut-off date and coal was received through the same and the work for S & T was also in fast track. However, the additional requirement of 16 sets of Point & Crossings along with sleepers and other accessories was necessitated. However, the sub agency M/s RITES was not able to provide the same. In order to complete the works in time, in a meeting held on 10.6.2013, the Petitioner agreed to provide spares available with it to M/s RITES, subject to returning the same to Petitioner on priority. Accordingly, the work was successfully completed and M/s RITES placed an order on 7.3.2014 and the material was delivered. Thus, the Petitioner withheld the payment on this account and released the same after liquidation of above issues.

(j) As regards CW system equipment package, there were issues relating to vibrations in pumps and joint inspections were carried along with vendor. Subsequently, the vendor carried out modifications and pumps have taken lot of time to stabilize and operate below acceptable level. Accordingly, the payment was withheld and released in 2015-16.

19. Considering the submissions of the parties and documents on record, the matter

has been examined. It is noticed that in terms of Regulation 3(11) of the 2009 Tariff Regulations, the cut-off date of the generating station is 31.3.2015. It is also noticed that claims of the Petitioner include both, prior to and after the cu-off date. Accordingly, in terms of Regulation 14 (i) of 2014 Tariff Regulations, the claims which form part of the original scope of works and which are within the cut-off date, are allowed. Also, these claims had been allowed by the Commission vide its order 3.3.2017 in Petition No. 280/GT/2014. Accordingly, the claims of the Petitioner in 2014-15 i.e. within the cut-off date, are allowed.

<u> </u>			<b>-</b>		n lakh)
S. No.	Head of Work / Equipment				
		2015-16	2016-17	2017-18	2018-19
1	Ash Handling & AWRS	20.54	4.40	1.57	68.63
2		8.35	0.06	0.69	
3	CPU (Condensate Polishing Unit)	0.26		0.01	
4	Cooling Tower	8.18	0.47		
5	FDPS & Station Piping	0.12	46.34		
6	Water Pre-Treatment System Package	11.68			
7	DM Plant & CW Treatment System	3.96			
8	Electrical System	43.36			
9	Switchyard	1.19			
10	Approach Roads	1.08			
11	Stores Civil & Electrification	4.05			
12	Main Plant Turnkey (SG) & (TG)	121.24	18.94	2.23	
13	Air Conditioning & Ventilation		9.65	2.64	
14	CW and Offsite Civil Works	67.83		0.11	
15	Administrative & Service Building	37.89			
16	LT (Outdoor) Transformer		5.63		
17	Service Building		4.50		
18	C&I Package	11.38	0.01	0.91	
19	Drainage System	156.57			
20	CW System Equipment	222.77	2.51	7.99	
21	Construction Tools / T&P	95.81	16.21	98.88	
22	Township and Colony	1209.74	413.64	938.56	13.35
23	MGR & Track Signalling	175.75		1.46	
24	Furnitures and Fixtures	4.03	8.39	49.96	78.14
25	IT & Satellite Communication System	59.67	162.59	137.61	325.54
26	Electrical Installations	4.88	0.20		40.54
27	Hospital Equipment	42.93	20.41	23.95	25.62
28	Office Equipment	103.30	13.10	57.76	56.62
	Subtotal	3434.28	1289.07	3668.54	1207.19

20. The claims made by the Petitioner beyond the cut-off date (2015-19), are as under:

21. It is observed that the Petitioner, in Petition No. 280/GT/2014, had claimed some of the above works / items beyond the cut-off date viz., Ash Handling, AWRS, Condensate Polishing Unit (CPU), Cooling Tower, FDPS & Station Piping, Water Pre-Treatment System Pkg, DM Plant & CW Treatment System, Switchyard, Approach Roads, Stores Civil Works, Main Plant Turnkey, Air Conditioning, Offsite Civil Works, C & I Package, Drainage System and CW System Equipment. The Commission vide its order dated 3.3.2017 had disallowed these claims, except for Ash Handling System, Ash Water Recycling System and Malancha Ash Dyke works. In addition, the Commission vide the said order had also disallowed other claims i.e. Drains, Misc. Civil Works – M. Plant, Chimney Civil, Township Facilities, Main Plant Civil Works Pkg,

Electrical Equipment Supply and Erection, and Control Cable.

22. It is further noticed that the Commission had disallowed various claims in its order 3.3.2017, on the ground that the Petitioner has not furnished any reasons / justifications for the delay in execution of works, as under:

"26. ...... The Petitioner had sufficient time period of three years from the COD of the generating station till the cut-off date (31.3.2015) for execution of these works. It is however noticed that the Petitioner has also not submitted any reasons/justifications for the delay in completion of the said works and the steps taken by the Petitioner to mitigate the delay in the execution. Accordingly, in our view there is no reason for us to consider the claim of the Petitioner in exercise of the power to relax and allow the capitalization. Hence, the claim of the Petitioner for capitalization of the said works in 2015-16 is not allowed."

23. With regard to the remaining claims i.e. Electrical System, Stores Electrification, Ventilation, CW Civil Works, Administrative & Service Building, LT (Outdoor) Transformer, Service Building, Construction Tools / T & P, Township and Colony, MGR & Track Signaling, Furnitures and Fixtures, IT & Satellite Communication System, Electrical Installations, Hospital Equipment and Office Equipment, it is observed that these are either new works or a combination of more than one work or one work was segregated or not matching with works claimed in Petition No. 280/GT/2014. Thus, the Head Works / Equipment claimed in the present petition are at variance with the heads claimed in Petition No. 280/GT/2014 and does not also not match with the original scope of works / investment approval i.e. Form 5B submitted. For instance, the claims include 'Administrative and Service Building' as well as 'Service Building' but no reasons have been provided for deviation from standard practice in the assigning heads. The Petitioner is directed to submit its claims as per standard heads and sub heads and avoid such anomalies.

24. Considering the above and in terms of the information and documents available, claims are decided as follows:

 (a) The Petitioner has contended that Condensate Polishing Unit (CPU), Cooling Tower, FDPS & Station Piping, Water Pre-Treatment System Package, DM Plant & CW Treatment system, Switchyard, Approach roads, Stores civil works, Main Plant Turnkey, Air Conditioning, Off-site civil works, C & I Package are within original scope of works and has been completed within the cut-off date and the claims are for balance of payments. However, it is also noticed that the Petitioner has submitted supporting documents to substantiate the works completed within cut-off date only with regard to CPU, Water Pre-Treatment System Pkg, Switchyard and Air Conditioning, CW and offsite civil. But the document submitted with regard to CW and Offsite civil work does not support the claim of the Petitioner. Further, no documents have been submitted to substantiate that the works are completed with cutoff date for the remaining claims. In view of the above, only the claims towards CPU, Water Pre-Treatment System Package, Switchyard and Air Conditioning are **allowed** under Regulation 14 (2) (iv) in exercise of the power under Regulation 54 of the 2014 Tariff Regulations.

- (b) The Petitioner has claimed Drainage System and CW System Equipment as part of the original scope of works. Though majority works have been completed within the cutoff date, the Petitioner has not furnished any documents to substantiate that the delay in execution of works was beyond its control. In view of this, the claims for these assets are **not allowed**.
- (c) The Petitioner has claimed expenditure towards Electrical System, Stores Electrification, Ventilation, CW Civil Works, Administrative & Service Building, LT (Outdoor) Transformer and Service Building which are within the original scope of works and completed within cut-off date and towards balance of payments. It is also noticed that the Petitioner has submitted supporting documents to substantiate that the works have been completed within the cut-off date with regard to Ventilation. However, no document has been furnished with regard to CW and offsite Civil works to establish the claim. Also, no documents have been submitted to substantiate that the works have been completed within the cutoff date in respect of the balance claims on assets. In view of the above, only the claims with regard to Ventilation is **allowed** under Regulation 14 (2) (iv) in exercise of power under Regulation 54 of the 2014 Tariff Regulations.
- (d) The Petitioner has claimed expenditure towards Construction Tools / T & P, Township and Colony which are part of the original scope of works and majority of the works have been completed within the cut-off date. The Petitioner has also

furnished supporting documents to substantiate that purchase orders have been placed within the cutoff date for Rs.41.53 lakh towards Construction Tools / T & P. Accordingly, after prudence check, out of the total claim of Rs. 268.46 lakh towards Construction Tools / T & P, only an expenditure of Rs. 41.53 lakh is **allowed**, inclusive of the claim already allowed in 2014-15, under Regulation 14(1)(ii) in exercise of the power under Regulation 54 of the 2014 Tariff Regulations. Thus, the year wise claim allowed towards Construction Tools / T & P is Rs.38.26 lakh in 2014-15 (cash – Rs.33.24 lakh & liability – Rs. 5.02 lakh) and Rs.3.27 lakh in 2015-16 (cash – Rs.3.27 lakh).

- (e) As regards to Township & Colony, it is noticed that as per the feasibility report submitted to substantiate that these works form part of the original scope and as per RCE, the approved cost towards Township & Colony is Rs. 2646 lakh. It is further noticed that due to dispute with the original contractor for 48 no. of type D II quarters, the works were re-awarded to another contractor in 2014, but citing delay on account of high rainfall and water logging thereof in 2015, continued to claim expenditure towards these works till 2018-19. It is pertinent to mention that the CEA (Technical Standards for Construction of Electric Plants and Electric Lines) Regulations, provide that the drains in the station area shall be designed for maximum rainfall intensity of fifty years frequency. Therefore, we find no merit to consider the delay as claimed by the Petitioner on account of heavy rainfall. However, considering the nature of works and on account of dispute with vendor and re-award of works thereof, the delay is condoned, as a one-time measure and as a special case, by exercising powers under regulation 54 of 2014, Tariff Regulations. Accordingly, the claim of the Petitioner towards Township & Colony is allowed, inclusive of the claim already allowed in 2014-15, under Regulation 14(1)(ii) in exercise of the power under Regulation 54 of the 2014 Tariff Regulations.
- (f) As regards MGR & Track Signaling, the Petitioner has submitted that MGR was completed within the cut-off date, but track signal was completed after the cutoff date. The Petitioner has also furnished certain documents to substantiate these works were expedited, but was delayed on account of external factors. In view of this, we, in exercise of power under Regulation 54, allow the claim under Regulation 14 (1)(ii) of the 2014 Tariff Regulations.

(g) As regards Furniture & Fixtures, IT & Satellite Communication system, Electrical Installations, Hospital Equipment's and Office Equipment, the Petitioner has submitted that due to delay in Buildings, the procurement of these items got delayed. On scrutiny, it is noticed that Township & Colony works w.r.t. 48 no. of D II type quarters only got delayed. However, about 90 % of the above claims of the Petitioner are beyond the cut-off date and the Petitioner has submitted that the delay in Township & Colony led to the delay in procurement of the above items. Considering the above and the delay w.r.t. quarters was already condoned, on prudence check, the claim w.r.t. electrical installation and Furniture & Fixtures is **allowed** under regulation 14(1)(ii) in exercise of powers under regulation 54 of 2014, Tariff Regulations. We however, do not find merit in the said contentions, particularly, in the procurement of IT & Satellite Communication system, Office Equipment etc. Even otherwise, as the Petitioner had a sufficient time of three years i.e. till the cut-off date to complete the said works. In view of the above, the claims of the Petitioner, towards IT & Satellite Communication system, Hospital Equipment and Office Equipment are not allowed.

25.	n line with the above, the head-wise and year-wise additional capital expenditur	е
allov	d for the generating station is as under :	

							Rs. lakh)
S.	Head of Work /	Ad	ditional Cap	oitalization	Allowed o	on Cash Ba	sis
No.	Equipment	2014-15	2015-16	2016-17	2017-18	2018-19	Total
1	Malancha Ash Dyke	135.47	-	-	-	-	135.47
2	Coal Handling Package	0.05	-	-	-	-	0.05
3	Main Plant Civil Works	2616.77	-	-	-	-	2616.77
4	Chimney	24.24	-	-	-	-	24.24
5	Workshop & Lab equipment's	28.37	-	-	-	-	28.37
6	Ash Handling & AM/DS	8288.00	20.54	4.40	1.57	68.63	8383.15
7	Ash Handling & AWRS	113.99	8.35	0.06	0.69		123.09
8	CPU (Condensate Polishing Unit)	1.58	0.26		0.01		1.86
9	Cooling Tower	4.67	-	-	-	-	4.67
10	FDPS & Station Piping		-	-	-	-	94.47
11	Fire Fighting Tender & Equipment's	94.47		-	-	-	
12	Water Pre-Treatment System PKG	36.58	11.68	-	-	-	48.26
13	DM Plant & CW Treatment system	2.99	-	-	-	-	2.99
14	Electrical System	71.25		-	-	-	71.25
15	Switchyard	14.48	1.19	-	-	-	15.67
16	Approach Roads	1585.42	-	-	-	-	1585.42
17	Stores Civil & Electrification	47.02	-	-	-	-	47.02

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S.	Head of Work /	Ad	ditional Cap	oitalization	Allowed o	on Cash Bas	sis
No.	Equipment	2014-15	2015-16	2016-17	2017-18	2018-19	Total
18	Main Plant Turnkey (SG) & (TG)	3054.59	-				3054.59
19	Air Conditioning & Ventilation	8.74	-	9.65	2.64	-	21.03
20	CW and Offsite civil works	788.78	-	-	-	-	788.78
21	Administrative & Service building	197.30	-	-	-	-	197.30
22	LT (Outdoor) Transformer		-	-	-	-	-
23	Service Building		-	-	-	-	-
24	C&I Package	68.45	-	-	-	-	68.45
25	Drainage System		-	-	-	-	-
26	CW System-Equipment	194.79	-	-	-	-	194.79
27	Construction Tools / T&P	33.24	3.27	-	-	-	36.50
28	Township and Colony	1171.28	1209.74	413.64	938.56	13.35	3746.56
29	MGR & Track Signalling		175.75		1.46		177.21
30	Furniture's and Fixtures	11.37	4.03	8.39	49.96	78.14	151.89
31	IT & Satellite Communication System	32.14	-	-	-	-	32.14
32	Electrical Installations	27.12	4.88	0.20		40.54	72.73
33	Hospital Equipment's	45.48	-	-	-	-	45.48
34	Vehicles	3.28	-	-	-	-	3.28
35	Office Equipment	30.35	-	-	-	-	30.35
	Total additional capital expenditure before initial spares, negative entries and discharges	18732.24	1439.68	436.34	994.89	200.66	21803.83

# Capitalization of Initial Spares

26. The Petitioner has claimed initial spares for a total amount of Rs. 4908.86 lakh i.e. Rs. 386.16 lakh in 2014-15 (up to cut-off date) under Regulation 14(1)(iii) of the 2014 Tariff Regulations and Rs. 4522.70 lakh during the period 2015-19 (beyond the cut-off date) under Regulation 14(1)(iii) read with Regulation 54 of the 2014 Tariff Regulations. In justification for the same, the Petitioner has submitted that ordering of capital spares was initiated in 2012, but, due to huge capacity addition during the said period, the delivery of the items got adversely affected. Accordingly, the Petitioner has prayed that Commission may condone the delay and allow the capitalisation of the same in exercise of the power under Regulation 54 of the 2014 Tariff Regulations.

27. The Respondent, BSPHCL has submitted that since the Petitioner had sufficient

time of three years from the COD of generating station till the cut-off date, the additional capitalisation claimed for initial spares from 2015-16 to 2018-19, except for deferred works relating to ash pond or ash handling system, may be rejected. The Respondent, GRIDCO has submitted that as per conjoint reading of Regulation 13 and Regulation 14(1)(iii) of the 2014 Tariff Regulations, Initial spares can be capitalised up to the cut-off date and in accordance to the first proviso to Regulation 13 of the 2014 Tariff Regulations, same shall be restricted to 2.5% of the Plant & Machinery cost upto the cut-off date, and any claim beyond the cut-off date may be rejected.

28. In response to reply to the above reply submissions, the Petitioner vide its rejoinder has clarified that though capital spares were ordered in 2012, due to the substantial addition of thermal generation capacity in the country during the said period, the delivery of several spares got adversely affected and therefore, certain spares were capitalised beyond the cut-off date. It has however submitted that these spares are within the original scope of work and is also within the 2.5% ceiling limit of capital cost, as specified under the Regulations notified by the Commission. The Petitioner has further submitted that the total capital spares claimed for Rs. 4908.86 lakh is within the ceiling of 2.5 %, and hence may be allowed to be capitalised beyond the cut-off date by exercising power to relax under the 2014 Tariff Regulations.

29. Thereafter, the Petitioner vide its additional submissions has clarified that in terms of the Tariff Regulations, the allowable limit for capitalisation of capital spares is around Rs. 64.45 crore, however the total value of spares capitalised as on the cut-off date is around Rs. 42 crore. Further, the Petitioner vide its written submissions dated 6.10.2022 has submitted that the delay in capitalization of initial spares will avoid the front loading of tariff and there would be no undue burden on beneficiaries.

30. The Respondent, GRIDCO, vide its written submissions dated 6.10.2021 has

stated that there is neither any valid ground to invoke Regulation 54 of the 2014 Tariff Regulations nor the Petitioner has furnished any documentary support to substantiate the delay in procurement of these spares. It has also submitted that the Petitioner has not produced any documentary proof and the amount of penalty / liquidated damages recovered from the supplier on account of the delay and therefore, the claim may be rejected.

31. Subsequently, the Commission vide ROP of the hearing dated 6.10.2022 had sought details of the Liquidated Damages (LD) recovered by the Petitioner, from the vendors for delayed delivery of the initial spares along with the year-wise details of the initial spares procured/ capitalized from the COD of the generating station till the cut-off date, on cash basis, and on accrual basis. In response, the Petitioner, vide its affidavit dated 2.11.2022, has submitted that it has not recovered LD from vendors for the delayed delivery of initial spares and since it is in the process of closing the contract with M/s BHEL, the details of recovery, if any, will be furnished at the time of truing-up of tariff for the period 2019-24. The Petitioner has however, furnished the year-wise value of capital spares capitalisation on cash and accrual basis as under:

		(Rs. in lakh)
	Cash basis	Accrual basis
UP to COD	415.96	415.96
COD to 31.3.2013	1684.45	1863.31
2013-14	1712.69	1716.24
2014-15	386.16	390.03
2015-16	1017.73	1017.73
2016-17	562.02	625.03
2017-18	2344.19	2448.03
2018-19	598.75	671.66
	8721.95	9147.99

32. The matter has been examined. As stated, the COD of the generating station is 4.4.2012 and hence, the cut-off date of the generating station is 31.3.2015. Accordingly, Regulation 8 of the 2009 Tariff Regulations, provides as under:

**"8. Initial Spares**: Initial spares shall be capitalised **as a percentage of the original project cost**, subject to following ceiling norms:

(i) Coal-based/lignite-fired thermal generating stations - 2.5% Xxx

33. Further, Regulation 3 (29) of the 2009 Tariff Regulations define the 'original project cost' as under:

"original project cost means the capital expenditure incurred by the generating company or the transmission licensee, as the case may be, within the original scope of the project up to the cut-off date as admitted by the Commission."

34. It is observed that the Petitioner has claimed capital spares for Rs. 4385.54 lakh on accrual basis (Rs.3995.51 lakh, as on 31.3.2014 and Rs.390.03 lakh in 2014-15) within the cut-off date and Rs. 4762.44 lakh, on accrual basis (Rs.1017.73 lakh in 2015-16, Rs. 625.03 lakh in 2016-17, Rs.2448.03 lakh in 2017-18 and Rs. 671.66 lakh in 2018-19) i.e. after the cut-off date, under Regulation 14(1)(iii) of the 2014 Tariff Regulations. It is observed that the Commission vide its order dated 3.3.2017 in Petition No. 280/GT/2014 had allowed initial spares amounting to Rs.386.16 lakh in 2014-15 as claimed by the Petitioner. In terms of Regulation 3 (29) read with Regulation 8 of the 2009 Tariff Regulations, the ceiling limit for capitalisation of initial spares is 2.50% of the capital cost of the generating station, as on cut-off date. It is noticed that the capital cost allowed, as on 31.3.2015, is Rs. 257725.12 lakh on cash basis. Thus, the ceiling limit for capitalisation of initial spares on accrual basis works out to Rs. 6500.66 lakh. However, the Petitioner has claimed initial spares for Rs.4199.26 lakh on cash basis (Rs. 4385.54 lakh on accrual basis) as on cut-off date and the same was allowed by the Commission earlier. It is also noticed that the Petitioner has not projected any claim for initial spares beyond the cut-off date in Petition No. 280/GT/2014, but has now claimed the same beyond the cut-off date along with supporting documents for certain items ordered within the cut-off date but delivered after the cut-off date, for Rs.998.46 lakh, including 80,965 Euro towards 'Control Fluid Pump' (considering the Euro @ INR 69). With regard to the recovery of LD for the delay in delivery of these items, the Petitioner has submitted that it has not withheld any payment or recovered any LD.

35. In consideration of the above submissions and keeping in view the necessity of initial spares for reliable operation of the generating station and that same is within the ceiling limit, we, in exercise of the powers under Regulation 54 of the 2014 Tariff Regulations, **allow** the claim of the Petitioner towards initial spares for the years 2015–16 and 2016–17 only, i.e. beyond the cut-off date. However, the Petitioner is directed to furnish the details of de-capitalisation of spares considered as part of the capital cost. In addition, the Petitioner is directed to take all necessary action against the concerned vendors for the delay in delivery of initial spares, including the recovery of LD and penalty, as applicable in terms of award, and furnish the same, along with supporting documents, at the time of truing up of tariff for the period 2019-24 and the same will be considered in accordance with law.

## Negative Entries

36. The Petitioner has claimed the following negative entries under Regulation 14(4) of the 2014 Tariff Regulations.

						(Rs. in lak	(h)
		2014-15	2015-16	2016-17	2017-18	2018-19	Total
1	De-capitalization of Spares	(-)153.19	(-)148.66	(-)55.80	(-)73.94	(-)136.74	(-)568.32
2	De-capitalization of MBOA	(-)6.69	(-)1.19	(-)5.90	(-)5.94	(-)53.03	(-)72.75
3	Reversal of IDC in various packages	(-)56.71					(-)56.71
4	Adjustments Under various Packages / Assets	(-)0.49	(-)0.05				(-)0.54
	Total	(-)217.07	(-)149.90	(-)61.71	(-)79.88	(-)189.77	(-)698.33

37. We have considered the de-capitalisation of only those assets which form part of the capital cost of the generating station. Further, the reversal of IDC in various packages and the adjustments in various packages have been considered as submitted by the Petitioner. Accordingly, the details of negative entries allowed are as under:

						(	Rs. in lakh)	
			2014-15	2015-16	2016-17	2017-18	2018-19	Total
1	De-capitalization Spares	of	(-)153.19	(-)148.66	(-)55.80	(-)73.94	(-)85.65	(-) 517.24
2	De-capitalization MBOA	of	(-)6.69	(-)1.19	(-)5.30	(-)4.18	(-)28.94	(-)46.29



		2014-15	2015-16	2016-17	2017-18	2018-19	Total
2	Reversal of IDC in various	(-)56.71	0.00	0.00	0.00	0.00	(-)56.71
3	packages						
1	Adjustments Under	(-)0.49	(-)0.05	0.00	0.00	0.00	(-)0.54
4	various Packages / Assets						
	Total	(-) 217.07	(-) 149.90	(-) 61.10	(-) 78.12	(-) 114.60	(-) 620.79

#### **Discharge of liabilities**

38. The Petitioner has claimed discharge of liabilities as under:

				(Rs. in lakh)
2014-15	2015-16	2016-17	2017-18	2018-19
1110.85	1233.88	361.16	532.22	637.76

39. The matter has been considered. The discharge of liabilities allowed as part of

allowed additional capital expenditure are as under:

				(Rs. )	in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening un-discharged liabilities (A)	4277.06	3872.37	2793.17	2698.00	2347.55
Additions during the period 2014-19 (corresponding to allowed additional capital expenditure) (B)	801.28	157.60	283.96	190.31	81.05
Discharges during the period 2014-19 (corresponding to allowed additional capital expenditure) (C)	1110.85	1233.88	335.74	490.80	575.39
Reversal of liabilities out of liabilities added during the period 2014-19 (corresponding to allowed additional capital expenditure) (D)	95.13	2.91	43.40	49.96	68.04
Closing un-discharged liabilities (E) = (A+B-C-D)	3872.37	2793.17	2698.00	2347.55	1785.17

## LD and Risk & Cost Recovery as per order dated 21.1.2014

40. The Petitioner has submitted that the Commission in its order dated 21.1.2014 in Petition No. 204/GT/2011, had directed the Petitioner to share 50 % of the LD recovered in various contract packages with the beneficiaries and accordingly, 50% of the same has been claimed in tariff as under:

				(Rs. in lakh)
2014-15	2015-16	2016-17	2017-18	2018-19
14.07	1.46	0.00	4.24	17.76

41. The Respondent BSPHCL has submitted that vide order dated 3.3.2017, the Commission had directed the Petitioner to share the benefits accrued through recovery of LD and Risk & cost by the Petitioner with the beneficiaries of the generating station

and accordingly 50% of the LD and Risk and cost recovered from the contractors by the Petitioner which was disallowed from exclusion has been considered in the additional capital expenditure in 2014-15, reducing the capital cost. However, it has submitted that the Petitioner has claimed the same by loading 50% of the LD and the Risk and cost recovered from the contractors in tariff for the period 2013-14 to 2018-19 under additional capital expenditure. The Respondent has submitted that the benefits received in the form of LD/ Risk and cost recovered cannot be claimed in tariff. In response, the Petitioner submitted that it has only claimed 50% of the LD recovered and risk & cost in the additional capitalisation for the period 2014-19.

42. The mater has been considered. The Commission vide its order dated 3.3.2017 in Petition No. 280/GT/2014 had observed as under:

36. In line with the above direction, the benefits accrued through recovery of LD and Risk & Cost recovered by the Petitioner shall be shared by the Petitioner with the beneficiaries of the generating station. Accordingly, 50% of the LD recovered and risk & cost recovered from the contractors by the Petitioner is disallowed from exclusion...."

43. In terms of the above, the LD & risk recovered is required to be shared among the parties in the ratio of 50 : 50 ratio i.e. 50% recovered shall be adjusted in tariff i.e. capital cost and the balance 50% is to be retained by the Petitioner. Accordingly, the Petitioner has claimed 50% of LD & risk recovered, as additional capitalisation. Further, the Petitioner has shown actual LD & risk recovered in Form-9D (i.e. Exclusions) stating that the LD recovered in various contract packages, as per terms of contract has been done through reversal of liability. The exclusions claimed by the Petitioner corresponding to the LD recovered is Rs.28.15 lakh in 2014-15 and Rs.2.91 lakh in 2015-16. However, no claim for exclusion has been made towards LD recovered has been allowed as additional capital expenditure, i.e. Rs.14.07 lakh in 2014-15 and

Rs.1.46 lakh in 2015-16, for the purpose of tariff.

44. The Petitioner has furnished the reconciliation statement of the actual additional

capital expenditure, with books of accounts, the summary of which are as under:

					(Rs. ir	n lakh)
	Ref	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Gross Block as per	А	595738.80	621637.65	325661.71	340700.47	353953.96
audited books	~					
Closing Gross Block as per	В	621637.65	632067.36	340700.47	353953.96	374434.35
audited books	D					
Additional capital expenditure	C=B-A	25898.85	10429.71	15038.76	13253.49	20480.40
as per audited books	C=D-A					
Additional capital expenditure	D	6290.75	7071.54	13460.70	8483.22	19498.95
pertaining to other Stages	D					
Additional capital expenditure		19608.09	3358.17	1578.06	4770.27	981.45
for the generating station as	E=C-D					
per books						
IND AS Adjustment	F	0.00	0.00	16.20	22.60	26.86
Additional capital expenditure		19608.09	3358.17	1561.86	4747.67	954.59
as per IGAAP for the	G=E-F					
generating station						
Exclusions	Н	(-) 94.52	(-) 196.24	(-) 45.40	822.09	(-) 247.15
Additional capital expenditure		19702.61	3554.41	1607.26	3925.58	1201.74
claimed for the generating	I=G-H					
station (on accrual basis)						
Un-discharged liabilities included	J	801.28	270.02	379.89	336.91	184.31
above	5					
Additional capital expenditure		18901.33	3284.38	1227.36	3588.67	1017.43
claimed for the generating	K=I-J					
station (on cash basis)						
Discharges of liabilities	L	1110.85	1233.88	361.16	532.22	637.76
Add : 50% of LD and Risk & Cost		14.07	1.46	0.00	4.24	17.76
Recovery as per order dated	М					
21.1.2014				(		
Net Additional capital		20026.26	4519.72	1588.52	4125.13	1672.94
expenditure claimed including	N=K+L					
discharges for the generating	+M					
station						

## **Exclusions**

45. The summary of exclusions from books of accounts claimed under different heads

for the purpose of tariff is as under:

					(Rs. in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Reversal of Liability	(-) 66.98	0.00	(-) 43.40	(-) 49.96	(-) 100.13
LD and Risk & Cost Recovery	(-) 28.15	(-) 2.91	0.00	0.00	0.00
Inter Unit Transfer	0.61	(-) 193.33	(-) 2.00	872.06	(-) 147.02
Total Exclusions	(-) 94.52	(-) 196.24	(-) 45.40	822.09	(-) 247.15

## a) Reversal of Liability

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

(Rs. in lakh)							
2014-15	2015-16	2016-17	2017-18	2018-19			
(-) 66.98	0.00	(-) 43.40	(-) 49.96	(-) 100.13			

47. In justification, the Petitioner has submitted that as tariff is determined on cash basis, the liability reversal has been kept under exclusion. Considering the above, after prudence check, the exclusion of the said amounts is allowed.

## b) LD and Risk & Cost Recovery

48. The Petitioner has claimed LD and Risk & Cost Recovery under exclusion as follows:

(Rs. in lakh)								
2014-15	2015-16	2016-17	2017-18	2018-19				
(-) 28.15	(-) 2.91	0.00	0.00	0.00				

49. In justification for the same, the Petitioner has submitted that LD and Risk & Cost recovered in various contract packages as per the terms of the contract is done through reversal of liability. In this regard, it is noticed that the Commission vide order dated 3.3.2017 had directed the Petitioner to share the LD & Risk recovered in the ratio of 50:50 and the same has been discussed under additional capitalisation. Accordingly, the exclusion as claimed is allowed.

## c) Inter-unit transfer of assets

50. The Petitioner has claimed exclusion of inter-unit transfer as under:

(Rs. in lakh)								
2014-15	2015-16	2016-17	2017-18	2018-19				
0.61	(-) 193.33	(-) 2.00	872.06	(-) 147.02				

51. In justification of the same, the Petitioner has submitted that the Commission has not been considering the inter-unit transfers as part of tariff and hence, kept under exclusions. We are of the considered view that both positive and negative entries arising out of inter unit transfers of temporary nature shall be ignored for the purpose of tariff. In view of the above, the exclusion of inter-unit transfer as claimed by the Petitioner is allowed. 52. Based on the above discussion, the summary of exclusions allowed / not allowed

for the purpose of tariff is as under:

				(Rs. in lakh)		
	2014-15	2015-16	2016-17	2017-18	2018-19	
Exclusions claimed (A)	(-) 94.52	(-) 196.24	(-) 45.40	822.09	(-) 247.15	
Exclusions allowed (B)	(-) 94.52	(-) 196.24	(-) 45.40	822.09	(-) 247.15	
Exclusion not allowed (A-B)	0.00	0.00	0.00	0.00	0.00	

53. Accordingly, the additional capital expenditure, allowed on cash basis, for the

period 2014-19 is summarised below:

				(Rs.	in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Total additional capital expenditure prior to capitalisation of initial spares, negative entries and liability discharges	18732.24	1439.68	436.34	994.89	200.66
Add: Capitalization of Initial Spares	386.16	1017.73	562.02	0.00	0.00
Add: Negative Entries	(-) 217.07	(-) 149.90	(-) 61.10	(-) 78.12	(-) 114.60
Add: Discharge of Liabilities	1110.85	1233.88	335.74	490.80	575.39
Add: LD and Risk & Cost recovery as per order dated 21.1.2014	14.07	1.46	0.00	0.00	0.00
Add: Exclusions not allowed	0.00	0.00	0.00	0.00	0.00
Net Additional capital expenditure allowed	20026.26	3542.85	1273.00	1407.58	661.46

## Capital cost allowed for the period 2014-19

54. Accordingly, the capital cost allowed for the purpose of tariff for the period 2014-

19 is as sunder:

					(Rs. in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	237698.86	257725.12	261267.96	262540.96	263948.54
Add: Additional Capital	20026.26	3542.85	1273.00	1407.58	661.46
Expenditure allowed					
Closing Capital Cost	257725.12	261267.96	262540.96	263948.54	264610.00
Average Capital Cost	247711.99	259496.54	261904.46	263244.75	264279.27

## Debt-Equity Ratio

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

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

Provided that:

*(i)* where equity actually deployed is less than 30% of the capital cost actual equity shall be considered for determination of tariff:

(ii) the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:

(iii) any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt-equity ratio.

Explanation - The premium if any raised by the generating company or the transmission licensee as the case may be while issuing share capital and investment of internal resources created out of its free reserve for the funding of the project shall be reckoned as paid up capital for the purpose of computing return on equity only if such premium amount and internal resources are actually utilised for meeting the capital expenditure of the generating station or the transmission system.

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

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

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

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

56. The gross loan and equity as allowed in order dated 3.3.2017 in Petition No. 280/

GT/2014 has been retained as on 1.4.2014. Further, the additional capital expenditure

approved as above (including de-capitalisation of assets) has been allocated to debt

and equity in the ratio of 70:30. Accordingly, the details of debt-equity ratio in respect of

the generating station as on 1.4.2014 and as on 31.3.2019 are as follows:

	Capital cost as on 1.4.2014 ( <i>Rs. in lakh</i> )	(%)	Net Additional capital expenditure ( <i>Rs. in lakh</i> )	(%)	Total cost as on 31.3.2019 <i>(Rs. in lakh)</i>	(%)
Debt	166389.21	70.00%	18837.80	70.00%	185227.00	70.00%
Equity	71309.66	30.00%	8073.34	30.00%	79383.00	30.00%
Total	237698.86	100.00%	26911.14	100.00%	264610.00	100.00%

## Return on Equity

57. 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."

58. 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.

(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."

59. The Petitioner has claimed tariff considering the rate of return on equity (ROE) of

19.6106% in 2014-15, 19.7056% in 2015-18 and 19.7575% in 2018-19. The Petitioner

has arrived at these rates after grossing up base rate of ROE of 15.50% with MAT rate

of 20.961% in 2014-15, 21.342% in 2015-18 and 21.5488% in 2018-19. However, after

rectifying the rounding off errors, the rate of ROE to be considered for the purpose of

tariff, works out to 19.610% for 2014-15, 19.705% for 2015-18 and 19.758% for 2018-

19. Accordingly, ROE has been worked out as under:

		(Rs. in lakh)				
		2014-15	2015-16	2016-17	2017-18	2018-19
Normative Equity- Opening	А	71309.66	77317.53	78380.39	78762.29	79184.56
Addition of Equity due to additional capital expenditure	В	6007.88	1062.85	381.90	422.27	198.44
Normative Equity-Closing	C=A+B	77317.53	78380.39	78762.29	79184.56	79383.00
Average Normative Equity	D=(A+C)/2	74313.59	77848.96	78571.34	78973.42	79283.78
Return on Equity (Base Rate)	Е	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate for respective years	F	20.961%	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (Pre-Tax)	G=E/(1-F)	19.610%	19.705%	19.705%	19.705%	19.758%
Return on Equity (Pre- tax) - (annualised)	H=DxG	14572.90	15340.14	15482.48	15561.71	15664.89

#### Interest on Loan

60. 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 decapitalisation 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 capitalised:

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."

- 61. Interest on loan has been computed as under:
  - a. Gross normative loan amounting to Rs.166389.21 lakh as considered in order dated 3.3.2017 in Petition No. 280/GT/2014 has been retained as on 1.4.2014.
  - b. Cumulative repayment amounting to Rs.22443.35 lakh, as considered in order dated 3.3.2017 in Petition No. 280/GT/2014, has been retained as on 1.4.2014.
  - c. Accordingly, the net normative opening loan as on 1.4.2014 works out to Rs.143945.86 lakh.

- d. Depreciation allowed has been considered as repayment of normative loan during the respective year of the 2014-19 tariff period. Also, repayments have been adjusted for de-capitalisation of assets considered for the purpose of tariff.
- e. The Petitioner has claimed interest on loan considering weighted average rate of interest (WAROI) of 9.8028% in 2014-15, 9.4221% in 2015-16, 9.3076% in 2016-17, 8.7507% in 2017-18 and 8.3614% in 2018-19. However, the WAROI as per Form-13 submitted by the Petitioner is 9.7269% in 2014-15, 9.4010% in 2015-16, 9.1968% in 2016-17, 8.8014% in 2017-18 and 8.5371% in 2018-19, the same has been considered.

					(Rs. in lakh)	
		2014-15	2015-16	2016-17	2017-18	2018-19
А	Gross opening loan	166389.21	180407.58	182887.58	183778.68	184763.98
В	Cumulative repayment of loan upto previous year	22443.35	35297.64	48938.90	62687.90	76496.64
С	Net Loan Opening (A-B)	143945.86	145109.94	133948.67	121090.78	108267.34
D	Addition due to additional capital expenditure	14018.38	2479.99	891.10	985.31	463.02
E	Repayment of loan during the year	12860.72	13648.38	13765.66	13831.65	13879.48
F	Repayment adjustment on account of de- capitalisation	6.43	7.12	16.67	22.91	38.72
G	Repayment adjustment on account of discharges/reversals corresponding to un- discharged liabilities deducted as on 1.4.2009	0.00	0.00	0.00	0.00	0.00
Н	Net Repayment of loan during the year (E-F+G)	12854.29	13641.26	13748.99	13808.74	13840.76
Ι	Net Loan Closing (C+D-H)	145109.94	133948.67	121090.78	108267.34	94889.60
J	Average Loan [(C+I)/2]	144527.90	139529.31	127519.73	114679.06	101578.47
Κ	WAROI	9.7269%	9.4010%	9.1968%	8.8014%	8.5371%
L	Interest on Loan (J x K)	14058.03	13117.12	11727.73	10093.40	8671.86
М	Adjustment for interest capitalised	0.00	102.25	45.68	87.80	0.00
N	Net Interest on Loan (L- M)	14058.03	13014.87	11682.05	10005.60	8671.86

62. Necessary calculation of interest of loan is as under:

# **Depreciation**

63. 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- of assets in respect of generating station or unit thereof or transmission system or element thereof the cumulative depreciation shall be adjusted by taking into account the depreciation recovered in tariff by the decapitalized asset during its useful services."

64. Cumulative depreciation and freehold land amounting to Rs.22772.13 lakh and

Rs.0.00 lakh, respectively, as on 1.4.2014, as considered in order dated 3.3.2017 in

Petition No. 280/GT/2014 has been retained as on 1.4.2014. Depreciation has been

worked out as follows:

					(Rs. in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Average capital cost (A)	247711.99	259496.54	261904.46	263244.75	264279.27
Value of freehold land included					
above (B)	-	-	-	-	-
Aggregated depreciable Value [C = (A-B) x 90%]	222940.79	233546.89	235714.02	236920.28	237851.34
Remaining depreciable value at					
the beginning of the year (D = C - 'K' of previous year)	200168.66	197920.47	186446.33	173903.60	161025.92
Balance useful life at the beginning of the year (E)	23.01	22.01	21.01	20.01	19.01
Weighted average rate of depreciation (F)	5.1918%	5.2596%	5.2560%	5.2543%	5.2518%
Depreciation during the year (G	12860.72	12640.20	10765.66	13831.65	13879.48
$= A \times F$	12000.72	13648.38	13765.66	13031.05	13079.40
Cumulative depreciation at the	35632.85	49274.80	63033.35	76848.32	90704.90
end of the year, before					
adjustment of de-capitalisation					
adjustment (H = G + 'K' of					
previous year)					
Cumulative depreciation	6.43	7.12	16.67	22.91	38.72
adjustment on account of de-					
capitalisation (I)					
Cumulative Depreciation	0.00	0.00	0.00	0.00	0.00
adjustment on a/c of un-					
discharged liabilities deducted as					
on 01.04.2009 (J)					
Cumulative depreciation, at the end of the year $(K = H - I + J)$	35626.42	49267.68	63016.68	76825.42	90666.18

## **Operation & Maintenance Expenses**

65. The Petitioner had claimed O & M charges for the generating station under Regulation 29 (1) (a) as under:

				(Rs. Lakhs)
2014-15	2015-16	2016-17	2017-18	2018-19
7200.00	7654.50	8136.00	8649.00	9193.50

66. Subsequently, the Petitioner vide additional affidavit dated 19.10.2021, has submitted that the O&M charges allowed vide order dated 3.3.2017 in Petition No. 280/ GT/2014 was challenged before APTEL in Appeal no. 178 of 2017 and since the unit was commissioned prior to 1.4.2014, the proviso to Regulation 29(1)(a) of 2014 Tariff Regulations will not be applicable. Accordingly, the Petitioner has claimed O&M charges

under Regulation 29 (1) (a) as under:

				(Rs. in lakh)
2014-15	2015-16	2016-17	2017-18	2018-19
8000.00	8505.00	9040.00	9610.00	10215.00

67. The Respondent, GRIDCO has submitted that the Commission vide its order dated 3.3.2017 in Petition No. 280/GT/2014 had allowed the O & M charges in terms of the proviso to Regulation 29 (1) (a) and since the Petitioner has challenged the same, the matter is under sub-judice and cannot be revised.

68. The matter has been examined. It is noticed that the issue of applicable O&M

expenses based on the multiplication factor in terms of the proviso to Regulation

29(1)(a) in some of the Commission's order including order dated 3.3.2017 (in Petition

No. 340/GT/2014 relating to tariff of Korba STPS-III for the period 2014-19) was

appealed against before APTEL and vide common judgment dated 11.1.2022 in Appeal

No. 101/2017 and Appeal No. 110/2017, set aside the findings of the Commission, on

this issue, as extracted below:

"8.1(a) The Normative O&M charges for 2014-19 control period are determined on the basis of O&M charges incurred during the 2009-2014 control period.

Xxx

(b) Further, the O&M charges for the past years are collected as consolidated charges for the complete project /generating station irrespective of new /additional units during that period or existing units.

"8.2. From the above, it is crystal clear that the Normative O&M charges are

determined based on the actual consolidated O&M charges for the past five years for a specific project having similar unit sizes.

8.3 Also, the Normative O&M charges are determined for the complete Generating Station including all the units which achieve COD prior to 1.4.2014. The multiplication factor is to be applied for new units which achieve COD after 1.4.2014 and during the control period 2014-19."

хххх

8.7 We agree with the submissions made by the Appellant that considering the above COD, only the revised O&M norms for units existing as on 01.04.2014, as laid down in Regulation 29 (1) (a) of the 2014 Tariff Regulations are to be applied in case of the Appellant. As such any other interpretation of the aforesaid regulations is contrary to the plain text and meaning.

Xxx

8.13 We decline to accept the said contention as the provisions of the Tariff Regulations, 2014 have already been deliberated in the foregoing paras and there is no doubt that the Normative O&M charges are determined by consolidating the actual O&M charges for the past five years (the last control period) thus considering the actual sharing benefits by the additional units for that period and rationalising the expenditure Xxx

8.15 We do not find any relevance to the above submission as the benefit of sharing of resources by the additional units have already been factored in the actual O&M charges considered for the past years *Xxx* 

8.17 There is no denial that the benefit of sharing of resources by the additional units should be passed on to the consumers, however, once already factored into the actual O&M charges which is the basis for determination of Normative O&M charges for the next control period, such a benefit becomes the integral part of O&M charges. *Xxx* 

8.25 However, in the Impugned Order, CERC has essentially amended Proviso to Regulation 29 (1) (a) of the Tariff Regulations, 2014 without providing an opportunity to the Appellant to make submissions on this issue of Proviso to Regulation 29 (1)(a) of the Tariff Regulations, 2014. It is apposite to mention that in the entire proceedings no party had even whispered that the Proviso to Regulation 29 (1)(a) ought to be made applicable to units achieving COD Prior to 01.04.2014. Hence, there was no occasion for the Appellant to even respond to such a course being adopted by Central Commission. Even Central Commission at no stage indicated that it is seeking to apply to Proviso to Regulation 29 (1)(a) to Units achieving COD before 01.04.2014. Such a course adopted by Central Commission violates the principle of Natural Justice and for this ground alone the Impugned Order is liable to be set aside In light of the above, we are of the considered view that the issues raised in the batch of Appeals have merit and hence Appeals are allowed. The impugned order dated 21.01.2017 in Petition No. 283/GT/2014 and order dated 06.02.2017 in Petition No. 372/GT/2014 ("Petition 372"), are hereby set aside to the extent of our findings. The matter is remitted back to the Central Commission for passing a reasoned order pursuant to our observations are scrupulously complied with expeditiously and in a time-bound manner."

69. Regulation 29 (1) (a) of the 2014 Tariff Regulations provides the year-wise O&M

expense norms for the generating station as under:

					(Rs. In lakh/MV	V)
Unit Size (MW)	2014-15	2015-16	2016-17	2017-18	2018-19	
500	16.00	17.01	18.08	19.22	20.43	

70. In line with the above decision/findings of APTEL, the O&M expenses allowable in

terms of Regulation 29(1)(a) of the 2014 Tariff Regulations as claimed by the Petitioner

is allowed.

#### Water Charges

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

follows:

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

Provided that water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details regarding the same shall be furnished along with the petition..."

72. The actual water consumption, the rate of water charges and water charges claimed by the Petitioner are as under:

	2014-15	2015-16	2016-17	2017-18	2018-19 (Apr – Sept)	2018-19 (Oct – Mar)
Actual Water Consumption (1000 m3)	18611.14	17121.57	20174.28	18898.18	10323.07	10091.7
Rate (Rs / 1000 m3)	1143.86	1143.86	1143.86	1143.86	1143.86	5500.66
Water Charges (Rs. in	212.89	195.24	230.55	216.17	118.08	555.08
lakh)	212.89	195.24	230.55	216.17	673.16	

73. As the claim for the water charges is around Rs.1528.01 lakh and the same is in excess of Rs.537 lakh, to the amount allowed vide Commission's order dated 3.3.2017 in Petition No. 280/GT/2014. Also, the water charges are much higher in 2018-19 (Rs. 673.16 lakh) than the amount in 2017–18 (Rs. 216.17 lakh). Accordingly, the Commission had directed the Petitioner to furnish detailed justification along with supporting documents for the same. In response, the Petitioner, vide additional affidavit dated 2.11.2022, has submitted that the Ministry of Water Resources, GOI on 21.1.2019 had increased the water charges from Rs.5.20 per 1000 gallon to Rs.20.82 per 1000 gallon and has furnished the copy of the same.

74. As per the submissions of the Petitioner, the claim for water charges is based on actual water consumption. It is however noticed that though water charges have increased in terms of the letter dated 21.1.2019 of Ministry of Water Resources, the Petitioner has claimed revision in the rate of water charges since October, 2018 and has also not furnished any reasons/supporting documents in support of the revision in water charges from 1.10.2018 to 20.1.2019. It is further noticed that the source of water for all stages of Farakka STPS i.e. Stage I, II and III is Farakka Barrage Project and while the generating station i.e. FSTPS Stage III had closed cycle of circulating water system, Stages I & II has open cycle of cooling water system. However, no details of the apportionment of water quantity among Stage I & II and III has been provided by the Petitioner. It is however observed that the Petitioner, in Petition No. 698/GT/2020

(truing-up of tariff for the period 2014-19 for Farakka STPS, Stages I & II), has claimed the rate of water charges as Rs. 2.929 / m3 in 2018–19. Considering the said rate, the rate of water charges allowed is Rs. 2.929 / m3 in 2018–19 for this generating station. Accordingly, the water charges allowed to the generating station for the period 2014-19 is as under:

	2014-15	2015-16	2016-17	2017-18	2018-19
Actual Water Consumption	18611.14	17121.57	20174.28	18898.18	20414.77
(1000 m3)					
Rate (Rs / 1000 m3)	1143.86	1143.86	1143.86	1143.86	2929.29
Water Charges (Rs. in lakh)	212.89	195.24	230.55	216.17	598.01

## Capital Spares

75. The last proviso to Regulation 29(2) of the 2014 Tariff Regulations provides as under:

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

XXXX

Provided that the generating station shall submit the details of year wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance or special allowance or claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization."

76. In terms of above Regulation, the Petitioner has submitted year-wise list of capital

spares consumed by the generating station during the 2014-19 tariff period. The details

of claim in brief are as follows:

				(Rs. in lakh)
2014-15	2015-16	2016-17	2017-18	2018-19
153.19	148.66	55.80	73.94	136.74

77. In justification for consumption of list of items furnished, the Petitioner has submitted that in order to meet the customers demand and to maintain high machine availability at all times by the generating station, units / equipment's are taken under overhaul / maintenance and inspected regularly for wear and tear. During such works, spares parts of equipment which became damaged / unserviceable are replaced / consumed so that the machine continue to perform at expected efficiency on sustained

basis, but not submitted item wise justification.

78. The Respondent, GRIDCO has submitted that the Petitioner has not substantiated the funding for capital spares. In response, the Petitioner, has submitted that neither special allowance nor compensation allowance are applicable to the generating station and the claimed items are not part of stores and spares.

79. We have examined the list of the capital spares claimed by the Petitioner. These capital spares comprise of (i) spares which form part of the capital cost and (ii) spares which do not form part of the capital cost of the project. In respect of capital spares which form part of the capital cost of the project, the Petitioner has been recovering tariff since their procurement and, therefore, the same cannot be allowed as part of the additional O&M expenses. Accordingly, only those capital spares, which do not form part of the capital cost of the project, are being considered. It is pertinent to mention that the term 'capital spares' has not been defined in the 2014 Tariff Regulations. The term capital spares, in our view, is a piece of equipment, or a spare part, of significant cost that is maintained in inventory for use in the event that a similar piece of critical equipment fails or must be rebuilt. Keeping in view, the principle of materiality and to ensure standardised practices in respect of earmarking and treatment of capital spares, the value of capital spares exceeding Rs. 1 (one) lakh, on prudence check of the details furnished by the Petitioner in Form-17 of the petition, has been considered for the purpose of tariff. The Commission is also of the view that spares of value less than Rs. one lakh would normally form part of normal repair and maintenance expenses. Further, as initial spares claimed upto cut-off date are being capitalised, the capital spares claimed after cut-off date only have been considered for the purpose of tariff. Considering the above, the details of the allowed capital spares in 2014-19 tariff period is summarized as under:

			(Rs in lakh)			
	2014-15	2015-16	2016-17	2017-18	2018-19	
Capital spares form part of capital cost	153.19	57.41	55.80	72.71	66.08	
Capital spares not part of capital cost claimed	0.00	91.25	0.00	1.23	70.66	
Value of spares Rs 1(one) lakh and below are disallowed on individual basis	0.00	0.54	0.00	0.00	2.09	
Net total value of capital spares considered	0.00	90.71	0.00	1.23	68.57	

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

			(Rs. In lakh)		
	2014-15	2015-16	2016-17	2017-18	2018-19
Net total value of capital spares considered	0.00	90.71	0.00	1.23	68.57
Less: Salvage value @ 10%	0.00	9.07	0.00	0.12	6.86
Net Capital spares allowed	0.00	81.64	0.00	1.10	61.71

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

				(Rs. In lakh)		
	2014-15	2015-16	2016-17	2017-18	2018-19	
O&M Expenses as per	8000.00	8505.00	9040.00	9610.00	10215.00	
Regulation 29(1)						
Additional O&M Expenses under						
Regulation 29(2)						
Water Charges	212.89	195.24	230.55	216.17	598.01	
Capital Spares	0.00	81.64	0.00	1.10	61.71	
Total O&M Expenses allowed	8212.89	8781.87	9270.55	9827.27	10874.72	

#### Impact of wage revision

82. The Petitioner has claimed an amount of Rs. 3254.77 lakh during the period 2015-

19 as impact of wage revision of employees of CISF and Kendriva Vidyalaya Staff from 1.1.2016 and employees of the Petitioner posted at the generating station employee cost from CC expenses with effect from 1.1.2017. The details of wage impact claimed by the Petitioner for the generating station in brief are as follows:

Period		NTPC Employee	CISF Staff	KV Staff	Total
1.1.2016 -	Pre-Revised	-	118.91	8.85	127.76
31.3.2016	Post Revised	-	152.41	10.88	163.30
	Wage Revision impact	-	33.50	2.04	35.54
1.4.2016 -	Pre-Revised	871.79	481.15	36.63	1389.56
31.3.2017	Post Revised	1700.87	568.46	44.20	2313.52
	Wage Revision impact	829.09	87.31	7.57	923.96
1.4.2017 –	Pre-Revised	4322.83	485.16	42.02	4850.01
31.3.2018	Post Revised	5271.79	582.75	49.01	5903.72
	Wage Revision impact	949.13	97.59	6.99	1053.71
1.4.2018 –	Pre-Revised	3469.12	431.26	46.08	3946.45
31.3.2019	Post Revised	4511.56	624.23	52.21	5188.01
	Wage Revision impact	1042.44	192.97	6.13	1241.55
Total Impact	Pre-Revised	8663.74	1516.48	133.58	10313.78
	Post Revised	11484.2	1927.85	156.3	13568.55
	Wage Revision impact	2820.66	411.37	22.72	3254.77

83. Subsequently, the Petitioner vide affidavit dated 28.6.2021 has submitted the following:

- (a) Break-up of the actual O&M expenses during 2014-19 period
- (b) Comparative table indicating the actual O&M expenses versus normative O&M expenses allowed for 2014-19 tariff period for the whole generating station (i.e., all Stages of FSTPS);
- (c) Actual impact of pay revision duly certified by Auditor, Expenses after comparing salaries wages before and after pay revision; and
- (d) Break up of actual O & M expenses of Corporate office and other offices
- 84. In addition, the Petitioner has furnished a comparative table indicating the actual

O & M expenditure versus normative O & M recovery allowable to FSTPS during 2014-

19 as follows:

					(Rs. lakh)
	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19
Actual O&M expenditure for Farakka STPS excluding water charges & Capital spares (2100 MW)	59943.51	61078.95	66344.24	72077.20	110367.82
Total Normative O&M recovery excluding water charges & capital spares in tariff for Farakka STPS (2100 MW)	37540	39904.5	42416	45089	47929.5
Difference (Normative – Actual) for Farakka STPS (2100 MW)	(-) 22403.5	(-) 21174.5	(-) 23928.2	(-) 26988.2	(-) 62438.3

85. The Petitioner has further submitted that the actual O&M expenses are prorated as per MW ratio and compared with the normative O&M expenses allowed by Commission, as under:

				(	Rs.in lakh)
	2014 - 15	2015 - 16	2016 - 17	2017 - 18	2018 - 19
Actual O&M expenditure for Farakka Stage III excluding water charges & Capital spares (500 MW)	14272.26	14542.61	15796.25	17161.24	26278.05
Total Normative O&M recovery excluding water charges & capital spares in tariff for Farakka stage III (500 MW)	7200.00	7654.50	8136.00	8649.00	9193.50
Difference (Normative – Actual) for Farakka Stage III (500 MW)	(-) 7072.26	(-) 6888.11	(-) 7660.25	(-) 8512.24	(-) 17084.55

86. The Respondents BSPHCL has submitted that the Regulation 29 (1) of 2014 Tariff Regulations do not provide for any impact of increase in the employee cost, otherwise also, prudence check may be applied before deciding O&M expenses, this may include performance-based incentives, which should be borne generating stations form extra earnings made out on account of higher performance. It has also submitted that the Performance Related Pay (PRP) had effected from 2017-18 onwards, but the Petitioner has not furnished any details regarding performance analysis of their employees and remuneration fixed thereof. The Respondent has further submitted that while clause 3 of DPE's O.M dated 3.8.2017 provides that the revised pay scales were to be

implemented, subject to the condition that the additional impact in the year of implementing the revised pay package should not be more than 20 % of average profit before tax of last three financial years, preceding the year of implementation, the Clause 17 provides that expenditure on account of pay revision is to be entirely borne by the Central Public Sector Enterprises (CPSE) out of their earnings and no budgetary support will be provided. Accordingly, it has submitted that the Respondent beneficiaries and / or consumers cannot be burdened with the impact of pay revision. The Respondent has further submitted that the expenses incurred towards Kendriya Vidyalaya staff and the arrears on account of wage revision are not admissible as per Tariff Regulations and the expenses under O & M should be limited to expenses incurred towards operation and maintenance of the plant only.

87. The Respondent GRIDCO has submitted that in terms of Statement of Reasons and Object (SOR) to the 2014 Tariff Regulations, the O&M expenses are controllable in nature and a generating station must limit these expenses within the norms specified. It has submitted that the increase in O&M expenses, on account of pay revision shall be examined, on a case to case basis, balancing the interest of generating stations and consumers, and that if O&M expense norms provided under Regulations are inadequate to cover all justifiable O&M expenses for the particular year, including the employee expenses, then the balance amount may be considered for reimbursement. It has further submitted that as per P & L account, after accounting for wage revision impact, the profit of generating station during 2014-19 is of Rs. 217996.19 lakh, whereas, the ROE allowed is Rs. 76002.64 lakh. Accordingly, the Respondent has submitted that the Commission may review the increase in O&M cost taking into account the margin of profit under different heads, in order to decide whether the balance O&M cost due to Pay Revision should be recovered from the beneficiaries or adjusted in the profit of the Petitioner, so as to balance the interest of consumers and the generator, as mandated under Section 61 (d) of Electricity Act, 2003 and as spelt out in Para 29.26 of the SOR to the 2014 Tariff Regulations.

88. In response, the Petitioner has submitted that it has already demonstrated that the O & M expenses allowed by this Commission are not sufficient to cover the impact of the 7th Pay Commission's recommendations and that the increase being claimed as a direct result of the implementation of the 7th Pay Commission recommendations and 3rd Pay Revision Committee for CPSUs, the Petitioner alone cannot be made responsible. It has further submitted that during the previous tariff periods also, these issues had come up before Commission as well as the APTEL and these were duly considered and allowed. The Petitioner has stated that the Commission, while framing the O & M expense norms for the 2014 Tariff Regulations, had not considered the wage revision impact and the employee cost expenses, cannot be denied in a cost-plus tariff under section 61 and 62 of Electricity Act, 2003. Accordingly, the Petitioner has stated that it should get reimbursed all its reasonable costs and expenses along with a reasonable ROE. The Petitioner has added that the financial impact in year of pay revision implementation is less than 20% of the average profit of last three years and that clause 17 of OM dated 3.8.2017, only means that the GOI will not give any allocation / budgetary support for the purposes of pay out of the 7th Pay Commission recommendations but not that the Petitioner will not be able to claim all reasonable costs and expenses incurred by it in a cost of tariff determination under Section 62 of the Electricity Act, 2003.

89. It is noticed that the Commission, while specifying the O&M expense norms under the 2014 Tariff Regulations, had considered the actual O&M expense data for the period from 2008-09 to 2012-13. However, considering the submissions of the stakeholders, the Commission in the SOR to the 2014 Tariff Regulations, had observed that the increase in employees cost due to impact of pay revision impact will be examined on a

case-to-case basis balancing the interest of generating stations and the consumers.

The relevant extract of SOR is extracted as follows:

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

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

90. In consideration of above, the Commission finds it appropriate to compare the

normative O&M expenses with the actual O&M expenses for a longer duration so as to

capture the variation in the sub-heads. Accordingly, it is decided that for ascertaining

that whether the O&M expense norms provided under the 2014 Tariff Regulations are

inadequate / insufficient to cover all justifiable O&M expenses including employee

expenses, the comparison of the normative O&M expenses and the actuals O&M

expenses incurred shall be made for four years i.e. 2015-19, on combined basis which

is commensurate with the wage revision claim being spread over these four years.

91. Accordingly, the matter has been examined on the basis of the submissions of the parties and the documents available on record. The Petitioner has furnished the detailed break-up of the actual O&M expenses incurred during the period 2015-19 for entire

stages of the generating station FSTPS (2100 MW) i.e. Stage-I, II and III. It is noticed that the total O&M expenses claimed is more than the normative O&M expenses allowed during each year of the period 2015-19. Admittedly, the impact of the wage revision could not be factored by the Commission while framing the O&M expenses norms under the 2014-19 Tariff Regulations since the pay / wage revision came into effect from 1.1.2016 (CISF & KV employees) and 1.1.2017 (employees of the Petitioner) respectively. As such, in terms of relevant provisions of SOR of the 2014 Tariff Regulations, the approach followed for arriving at the allowable impact of pay revision is given in the subsequent paragraphs.

92. First step is to compare the normative O&M expenses with the actual O&M expenses for the period from 2015-16 to 2018-19, commensurate to the period for which wage revision impact has been claimed. For like to like comparison, the components of O&M expenses like productivity linked incentive, water charges, filing fees, ex-gratia, loss of provisions, prior period expenses, community development, store expenses, ash utilization expenses, RLDC fee & charges and others (without breakup / details) which were not considered while framing the O&M expenses norms for the 2014-19 tariff period, have been excluded from the yearly actual O&M expenses of the generating station as well as corporate centre. Having brought the normative O&M expenses and actual O&M expenses at same level, if normative O&M expenses for the period 2015-19 are higher than actual O&M expenses (normalized) for the same period, the impact of wage revision (excluding PRP and ex-gratia) as claimed for the period is not admissible / allowed, as the impact of pay revision gets accommodated within the normative O&M expenses. However, if the normative O&M expenses for the period 2015-19 are less than the actual O&M expenses (normalized) for the same period, the wage revision impact (excluding PRP and ex-gratia) to the extent of under recovery or wage revision impact (excluding PRP and ex-gratia), whichever is lower, is required to be allowed as wage revision impact for the period 2015-19.

93. Considering the information furnished by the Petitioner, the year- wise wage revision impact claimed by the Petitioner is Rs.35.54 lakh, Rs.923.96 lakh, Rs.1053.54 lakh and Rs.1241.54 lakh in 2015–16, 2016–17, 2017–18 and 2018–19, respectively.

94. As stated above, for like-to-like comparison of the actual O&M expenses and normative O&M expenses, the expenditure against O&M expenses sub-heads as discussed at above, has been excluded from the actual O&M expenses to arrive at the actual O&M expenses (normalized) for the combined Stage-I, II and III of the generating station (2100 MW). Similarly, the wage revision impact claimed, exclusive of PRP / exgratia has been determined. Accordingly, the following table portrays the comparison of normative O&M expenses versus the actual O&M expenses (normalized) along with wage revision impact claimed by the Petitioner for the generating station (Stage-III 500 MW) for the period 2015-19 commensurate with the wage revision claim being spread over these four years:

					(*	<b>\</b> 3.       <b>a</b> k  )
S. No		2015-16	2016-17	2017-18	2018-19	Total for 2015-2019
1	Actual Audited O&M expenses	62027.83	67359.43	73076.24	113073.19	315536.69
2	Actual Audited O&M expenses (excluding water Charges and capital spares)	61078.95	66344.24	72077.20	110367.82	309868.22
3	Actual O&M expenditure (normalized) for Farakka STPS (Combined for stage-I, II and III) (a)	51801.19	60548.24	63999.25	62569.02	238917.70
4	Actual O&M expenditure (normalized) for Farakka STPS -III prorated based on capacity (b)	12333.62	14416.25	15237.92	14897.39	56885.17
5	Normative O&M Expenses for Farakka STPS -III (c)	8505.00	9040.00	9610.00	10215.00	37370.00
6	Under-recovery (c)-(b)	(-)3828.62	(-)5376.25	(-)5627.92	(-)4682.39	(-)19515.17
7	Wage revision impact allowed excluding PRP / exgratia	35.54	923.96	981.10	967.52	2908.12

95. It is observed that for the wage revision impact during the period 2015-19, the normative O&M expenses is less than the actual O&M expenses (normalized) and the under recovery is to the tune of Rs.19515.17 lakh. As such, in terms of methodology

described above, the wage revision impact (excluding PRP / incentive) of Rs.2908.12 lakh for the generating station is allowable.

96. Accordingly, we, in exercise of the Power to relax under Regulation 54 of the 2014 Tariff Regulations, relax Regulation 29(1) of the 2014 Tariff Regulations and allow the reimbursement of the wage revision impact for this generating station, as additional O&M charges for the period 2015-19 for an amount of Rs.2908.12 lakh. The arrear payments on account of the wage revision impact is payable by the beneficiaries in twelve equal monthly instalments from the date of issue of this order. Keeping in view the consumer interest, we, as a special case, direct that no interest shall be charged by the Petitioner on the arrear payments on the wage revision impact allowed in this order. This arrangement, in our view, will balance the interest of both, the Petitioner and the Respondents. Also, considering the fact that the impact of wage revision is being allowed in exercise of the power to relax, these expenses are not made part of the O&M expenses and consequent annual fixed charges being determined in this order under the 2014 Tariff Regulations.

### Impact of Goods and Service Tax (GST)

97. The Petitioner has claimed the impact of GST as a change in law and submitted that the impact of increase in rate of indirect tax from 15 % to 18 % has been calculated on all taxable services and being claimed for the period 1.7.2017 to 31.3.2019. The Petitioner has claimed Rs. 283.51 lakh towards impact of GST for the period 1.7.2017 to 31.3.2019.

98. The Respondents BSPHCL has submitted that the engagement of 3<sup>rd</sup> party vendor for O&M services is the commercial decision of the Petitioner for its own advantage and any increase in the cost on account of this, is purely attributable to Petitioner, hence, no relief can be provided on this issue. The Respondent requested the Commission to reject the Petitioner's request to exercise the 'Power to Relax' as the same can only be invoked for technical and procedural considerations and not for financial and commercial considerations. The Respondent GRIDCO has submitted that Petitioner has claimed Rs.120.74 lakhs and 162.77 lakhs in 2017-18 and 2018-19, respectively, towards GST under Change in Law on the ground that increase in rate of Indirect Tax from 15 % to 18 % on all Taxable Services, however, the Petitioner has not submitted the documents in support of the said claim. Accordingly, the Petitioner shall furnish details of such Taxable Services with corresponding GST, failing which, the above claim for GST may be disallowed.

99. In response, the Petitioner has submitted that it has already furnished the entire break up of its claim for GST including, the impact of increase in taxes from 15% to 18 % both on material and labour in its various contracts. It has also submitted that the claim has already been declared to be a change in law in several orders passed by the Commission and its impact has to be given in truing-up.

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

### **Operational Norms**

### (a) Normative Annual Plant Availability Factor

101. The Petitioner has claimed Normative Annual Plant Availability Factor (NAPAF) of 83 % during 2014-15 to 2016-17 and 85 % in 2017-18 and 2018-19. The Respondent, GRIDCO has submitted that the relaxation in NAPAF in 2014-15 to 2016-17 may be considered only after the Petitioner establishes the shortfall in coal availability. Considering the fact that the claim of the Petitioner is in line with the provisions of Regulation 36 (A) of the 2014 Tariff Regulations, the NAPAF claimed by the Petitioner is allowed.

### (b) Auxiliary Energy Consumption:

102. The Petitioner has claimed Auxiliary Energy Consumption (AEC) of 5.75% during the period 2014–19. Regulation 36(E)(a) of the 2014 Tariff Regulations provides for AEC of 5.25 % for 500 MW units with steam driven Boiler Feed Pumps (BFPs) and additional 0.5 % for generating station with induced Draft Cooling Towers. As the generating station is an IDCT based station, the AEC of 5.75%, as claimed by the Petitioner is allowed.

### (c) Station Heat Rate

*103.* The Petitioner has claimed Gross Station Heat Rate (GSHR) of 2436.62 Kcal / kWh during the period 2014-19. The COD of the generating station is a4.4.2012. Accordingly, in terms of provisions to the Regulation 36(C)(a) of the 2014 Tariff Regulations, the maximum SHR allowable for the generating station is 2436.62 (1.045 x 1944.4/0.8339) kCal / kWh. In line with the above, the SHR as claimed by the Petitioner is allowed.

## (d) Specific Oil consumption

104. The Petitioner has claimed secondary fuel oil consumption of 0.50 ml/kWh. As the

claim is in accordance with the provisions of Regulation 36(D)(a) of the 2014 Tariff

Regulations, the same is allowed.

#### Interest on Working Capital

105. Sub-section (a) of clause (1) of Regulation 28 of the 2014 Tariff Regulations

provides as follows:

*"28. Interest on Working Capital:* 

(1) The working capital shall cover:

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

(i) Cost of coal or lignite and limestone towards stock if applicable for 15 days for pithead 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.

(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."

106. The Petitioner has claimed total amount of Rs.27253.69 lakh (Rs.5315.79 lakh in

2014-15, Rs.5373.88 lakh in 2015-16, Rs.5429.23 lakh in 2016-7, Rs.5538.65 lakh in

2017-18 and Rs.5596.14 lakh in 2018-19) towards Interest on Working Capital (IWC).

Subsequently, the Petitioner vide additional affidavit dated 19.10.2021 has revised the

total claim as Rs. 27535.66 lakh as detailed below:

				(R:	s.in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Coal for Stock	3951.10	3951.10	3951.10	4046.31	4046.31
Cost of Coal for Generation	7902.20	7902.20	7902.20	8092.62	8092.62
Cost of Main Secondary Fuel Oil	150.20	150.20	150.20	153.82	153.82
O & M expenses	697.17	740.37	854.19	922.88	1035.77
Maintenance Spares	1673.21	1776.89	2050.06	2214.91	2485.84
Receivables	25370.65	25677.30	25724.91	26038.93	26108.78
Total Working Capital	39744.54	40198.06	40632.67	41469.46	41923.14
Rate of Interest (%)	13.50	13.50	13.50	13.50	13.50
Interest on Working Capital	5365.51	5426.74	5485.41	5598.38	5659.62

Fuel Cost and Energy Charges for Working Capital

107. Regulation 28(2) of the 2014 Tariff Regulations provides that the computation of

cost of fuel as a part of working capital is to be based on the landed price and gross

calorific value of the fuel as per actuals, for the three months preceding the first month

for which the tariff is to be determined and no fuel price escalation shall be provided

during the tariff period. Regulation 30 (6) of the 2014 Tariff Regulations provides as

follows:

*"30. Computation and Payment of Capacity Charge and Energy Charge for Thermal Generating Stations:* 

(6) Energy charge rate (ECR) in Rupees per kWh on ex-power plant basis shall be determined to three decimal places in accordance with the following formula:

#### (a) For coal based and lignite fired stations

ECR = {(GHR – SFC x CVSF) x LPPF / CVPF+SFC x LPSFi + LC x LPL} x 100 / (100 – AUX)

(b) xxxxx

Where,

AUX =Normative auxiliary energy consumption in percentage.

CVPF=(a) Weighted Average Gross calorific value of coal **as received**, in kCal per kg for coal based stations

(b) Weighted Average Gross calorific value of primary fuel **as received**, in kCal per kg, per litre or per standard cubic meter, as applicable for lignite, gas and liquid fuel based stations.

(c) In case of blending of fuel from different sources, the weighted average Gross calorific value of primary fuel shall be arrived in proportion to blending ratio.

CVSF =Calorific value of secondary fuel, in kCal per ml.

ECR = Energy charge rate, in Rupees per kWh sent out.

GHR =Gross station heat rate, in kCal per kWh.

*LC* = *Normative limestone consumption in kg per kWh.* 

LPL = Weighted average landed price of limestone in Rupees per kg.

LPPF =Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable, during the month. (In case of blending of fuel from different sources, the weighted average landed price of primary fuel shall be arrived in proportion to blending ratio)

SFC = Normative Specific fuel oil consumption, in ml per kWh. LPSFi=Weighted Average Landed Price of Secondary Fuel in Rs./ml during the month

108. Therefore, in terms of the above regulation, for determination of the Energy

Charges in working capital, the GCV on 'as received 'basis is to be considered.

109. Regulation 30 (7) of the 2014 Tariff Regulations provides as follows:

"(7) The generating company shall provide to the beneficiaries of the generating station the details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, eauction coal, lignite, natural gas, RLNG, liquid fuel etc., as per the forms prescribed at Annexure-I to these regulations:

Provided that the details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal and the weighted average GCV of the fuels as received shall also be provided separately, along with the bills of the respective month:

Provided further that copies of the bills and details of parameters of GCV and price of fuel *i.e.* domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal shall also be displayed on the website of the generating company. The details should be available on its website on monthly basis for a period of three months."

110. The issue of 'as received' GCV as specified in Regulation 30 of the 2014 Tariff

Regulations for computation of energy charges was challenged by the Petitioner and

other generating companies through various writ petitions filed before the Hon'ble High

Court of Delhi (W.P. No.1641/2014-NTPC v CERC). The Hon'ble Court directed the

Commission to decide the place from where the sample of coal should be taken for

measurement of GCV of coal on 'as received' basis on the request of Petitioners. In

terms of the directions of the Hon'ble High Court, the Commission vide order dated

25.1.2016 in Petition No. 283/GT/2014 (approval of tariff of Kahalgaon STPS for the

2014-19 tariff period), 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."

111. The Petitioner, had filed Review Petition No. 11/RP/2016 against the aforesaid order dated 25.1.2016 in Petition No. 283/GT/2014 and the same was rejected by the Commission vide order dated 30.6.2016. The Petitioner has also filed Petition No. 244/MP/2016 before this Commission inter alia praying for removal of difficulties in view of the issues faced by it in implementing the Commission's orders dated 25.1.2016 and 30.6.2016 with regard to sampling of coal from loaded wagon top for measurement of GCV, in plants wherein, the coal is transported by electrified railway track upto track hopper and the clearance between coal heap and overhead traction line is about 1.5 meter only. The Commission by order dated 19.9.2018 disposed of the preliminary objections of the respondents therein and held that the petition is maintainable. Against this order, some of the respondents have filed appeal before the APTEL in Appeal Nos. 291/2018 (GRIDCO Vs NTPC & Ors) and the same is pending for adjudication.

112. Inspite of the above, in Petition No. 280/GT/2014 filed by the Petitioner for determination of tariff of this generating station for the period 2014-19, the Petitioner had not furnished GCV of coal on 'as received' basis for the preceding 3 months i.e. for January 2014, February 2014 and March 2014 that were required for determination of Interest on Working Capital (IWC). In this regard, the Commission vide order dated 3.3.2017 in Petition No. 280/GT/2014 observed that the Petitioner has not placed on record the GCV of coal on "as received" basis though the Petitioner was statutorily required to furnish such information with effect from 1.4.2014. Therefore, the Commission decided to consider GCV of coal on as 'billed basis' and provisionally

allowed adjustment for total moisture for determination of cost of coal towards generation, stock and two months' energy charges in the working capital.

113. The Petitioner, in this petition, has furnished Form-15 for the preceding three months of tariff determination i.e. January, 2014 to March, 2014. In addition, also furnished GCV of coal 'as received' basis from October, 2016 to March, 2019 and claimed the average GCV of coal on 'received basis' during the same period as 3799.63 kCal/ kg. The details provided in form 15 in brief are as follows :

						(in kCal / kg
	Jan, 20	014	Feb,	2014	Mar,	204
GCV Billed	4895.00	5916	5032.00	5852.00	4375.00	6034.00
Weighted Average GCV Billed	4991.48		5156.13		5007.71	
Weighted average GCV Fired	3420.00		3572.00		3322.00	

114. The Petitioner has further submitted that CEA vide its letter dated 17.10.2017 has opined that a margin of 85-100 kCal / kg for pit-head station and a margin of 105-120 kCal / kg for non-pit head station is required to be considered as loss of GCV of coal from "as received" basis to "as fired" basis. In line with this, the Petitioner has considered a margin of 120 kCal / kg on average GCV of coal for the period from October 2016 to March 2019 i.e. 3679.63 kCal / kg for computation of working capital of the generating station. In addition, price of coal, price of secondary fuel and GCV of secondary fuel are considered as Rs. 4001.67 / MT, 49578.55 / kL and 9613.33 kCal / Lt, respectively. Accordingly, the cost of fuel component in the working capital of the generating station claimed by the Petitioner is as under:

(Rs. in lakh)

					· · /
	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Coal towards stock (15 days)	3951.10	3951.10	3951.10	4046.31	4046.31
Cost of Coal towards Generation (30 days)	7902.20	7902.20	7902.20	8092.62	8092.62
Cost of Secondary fuel oil 2 months	150.20	150.20	150.20	153.82	153.82

115. The Petitioner has claimed Energy Charge Rate (ECR) ex-bus of 283.229 paise/ kWh for the generating station based on GCV and price of fuel (coal and secondary fuel oil) as indicated above.

116. Subsequently, the Petitioner vide additional affidavit dated 28.6.2021 has submitted that the 2009 Tariff Regulations, notified on 19.1.2009, specifies for GCV of coal on 'as fired basis'. Subsequently, vide amendment dated 31.12.2012 to 2009, Tariff Regulations, changed the determination of GCV to 'as received' basis. The same has been considered in 2014, Tariff Regulations. Thus, GCV on 'as received' basis is affected from 1.4.2014. Further, as IWC is being based on preceding three months to the determination of tariff i.e. Jan, 2014, to Mar, 2014, the 2014, Tariff Regulations provides for computation of energy charge on 'as received' basis, however, the IWC shall be 'as fired' basis. However, in furtherance to direction of the Commission, the GCV on 'as received' basis is submitted for January, 2014 to March, 2014. as under:

	Weighted Average GCV of Coal received (EM / AD basis) (kCal/kg)	Weighted Average Total Moisture (TM) (%)	Weighted Average Equilibrated Moisture (EM / AD) (%)	Weighted Average GCV of Coal received (TM basis) (kCal/kg)
Jan, 2014	3995.4	11.66	6.26	3766
Feb, 2014	4079	12.0	6.30	3831
Mar, 2014	3428	12.07	6.04	3208
Average	3834			3602

117. The Respondent, BSPHCL has submitted that the Petitioner has not provided the basis and rationale for considering 120 kCal/ kg of loss in GCV of coal between 'as received' and 'as fired'. The Respondent has further submitted that as the loss of GCV depends on Petitioner's efficacy in handling and storage of the coal i.e. moisture in coal sample taken from wagon top, coal storage, handling etc, consideration of loss of 120 kCal/ kg is not as per regulations and it must be rejected. The Respondent, GRIDCO has submitted that as per Commission's order dated 3.3.2017 in Petition No. 280/GT/2014 (i) sample for measurement of GCV of coal on 'as received' basis shall be collected from loaded wagons at the generating station but not after the crusher set up inside the generating station (ii) the Petitioner could not submit GCV determined at the

un-loading point of the Generating Station and has claimed cost for fuel components in working capital based on "as fired GCV" basis (iii) In absence of 'as received' GCV at the unloading point, the Commission arrived at the same by adjusting moisture to the GCV billed. (iv) The Petitioner has neither objected nor challenged this moisture correction formula considered in this order. (vii) Even though heat energy of coal per kg varies from point of mining to point of receiving at generating station, total heat content of coal consignment at receiving end would be same mining end i.e. the 'GCV as Received' shall be same as 'GCV as billed' barring minor transit loss. Further, the IS: 1350 (Part I) and (Part II) specify for determination of GCV as received after adjusting moisture to the GCV on EM basis, whereas, the GCV on EM basis is same at mine end as well as receiving end. (ix) The 'GCV As Received' on Total Moisture at mine end need to be adopted for calculation of Energy Charge billing. Thus, the formulae adopted by commission is fully justified. The Respondent GRIDCO has further submitted that it has filed an Appeal No. 238 of 2017 before APTEL challenging the order dated 25.1.2016 with the prayer to consider 'as received GCV' at mine end for billing. It has stated that instead of furnishing 'as received GCV' for January, 2014, February, 2014 and March, 2014, the Petitioner has submitted the data for October, 2016 to March, 2019 and also claimed a loss of 120 kCal/kg, but the 2014 Tariff Regulations do not provide for any such loss. CEA vide its letter dated 20.3.2018 has recommended GCV compensation of 70 -80 kCal/kg due to improper sampling, 15 kCal/kg due to storage for 30 days and 2-3 kCal/kg towards handling inside plant. Further, the MoM dated 21.9.2017 among CIMFR, CPRI and CEA, acknowledges that the due to time constraints, practically it is not possible to draw samples (as per IS) upto bottom of wagon, so samples are drawn from top and wagon top sample generally doesn't represent whole lot i.e. improper sampling. The same was acknowledged by CIL in a meeting held on 11.10.2017. As this improper sampling is providing advantage to MCL,

the Petitioner shall ensure proper sampling as per IS, as it is party to joint sampling as FSA as well as guidelines for 3<sup>rd</sup> party sampling. Further, as per notification of Coal Controller, mechanical sampling / auto sampling are preferable and as per new provision in modification arising out of migration from UHV based grading to GCV system, "Samples of Coal shall be collected jointly either manually or through any suitable mechanical sampling arrangement including Augur Sampling method during each of the shifts and at each of the Delivery points for determining the guality of Coal." Thus, this controllable loss of 70 – 80 kCal/ kg cannot be passed on. In terms of 2009, Tariff Regulations, the Petitioner shall determine 'GCV as Received' from 1.1.2013 and in terms of 2014, Tariff regulations shall submit as received data for January, 2014 to March, 2014, however, provided it from October, 2016 to March, 2019. Considering this, the formulae adopted by Commission in determining 'GCV As Received' after adjusting moisture to 'GCV As Billed' shall prevail and the Petitioner may be directed to furnish Billed GCV along with Total Moisture and Equilibrated Moisture / Inherent Moisture from April, 2014 to September, 2014 with revised ECR calculations and energy bills thereof, as per the above formulae.

118. In response to the replies of Respondents BSPHCL and GRIDCO, the Petitioner has submitted that it has already provided the monthly 'GCV as received' basis from October 2018 to December 2018 and the margin claimed of 120 kCal / kg on 'GCV as received' is as per CEA's recommendations. It has also submitted 'GCV as received' basis for the months of January 2014 to March 2014 and has also been uploaded on website and shared with beneficiaries including the Respondents. The Respondent has further submitted that the Commission in its order dated 11.7.2018 in Petition No. 93/MP/2017 held that all such costs, including stone picking charges, loco driver's salary, sampling charges etc., which lead to landed cost of fuel shall be recovered from beneficiaries and thus, there is no deviation from the provisions of the 2014 Tariff

Regulations and merely, there is no separate entry as "Other Charges", it does not mean that the claim is against the provisions of the 2014 Tariff Regulations. With regard to the contention of Respondent GRIDCO relating to Appeal No. 238 of APTEL challenging Commission's order dated 25.1.2016, the Petitioner has submitted that the said appeal will be answered on its own merit. The Petitioner has also stated that it has complied with the third amendment to 2009 Tariff Regulations and had indicated the 'as received GCV' data on the website on a regular basis. However, 'as fired GCV' was followed during the period 2009-14, the amendment does emphasize computation of interest on working capital in the period 1.4.2014 to 31.3.2019, on 'as received GCV' basis. Further, reference GCV to January, 2014 to March, 2014 is being 'as fired', interest on working capital can be brought down by considering 'GCV as received' at the stage of truing up.

119. Subsequently, the Respondent, GRIDCO in its written submissions dated 6.10.2022 has pointed out that the data furnished in Form 15 of generating station and Petition No. 698/GT/2020 are same and in Form 15 (in 698/GT/2020), the Petitioner has clarified that it does not have infrastructure for measuring the representative figures of 'as received' GCV for January, 2014 to March, 2014. It has stated that huge difference upto 1580 kCal/ kg and average of 1221 kCal/ kg has been claimed between 'Weighted average GCV of Coal as billed' furnished in Form 15 and the 'Weighted average GCV of coal as billed' furnished in Form 15 and the 'Weighted average GCV of coal as received (on EM basis)' as furnished vide additional submissions dated 28.6.2021. It has added that as per Commission's order dated 3.3.2017 in Petition No. 280/GT/2014 and this petition, the Petitioner had GCV and Moisture for both Colliery end and Firing Stage of generating station from January, 2014 to March, 2014, but not 'as received' and had it from Oct, 2016 to Mar, 2019. Thus, the data 'GCV as received' furnished by the Petitioner from January, 2014 to March, 2014 is irrelevant. Further, in terms of Form-15 of the 2014 Tariff Regulations, the claim of the Petitioner not to consider 'as received GCV' from January, 2014 to March, 2014, in computation of IWC

is mis-conceived and untenable. Accordingly, the Respondent has submitted that the Petitioner may be directed to furnish the Total Moisture & Equilibrated Moisture data at Colliery end, as determined jointly by the Petitioner and Coal Supplier for the months of January 2014 to March 2014, failing which 'as billed GCV' may be considered, has been done provisionally in order dated 3.3.2017.

120. The Commission vide ROP had directed the Petitioner to furnish the detailed break up of 'other charges' as claimed under transportation in Form-15 for the period 2014-19 along with detailed justification for each such head. In response, the Petitioner vide additional affidavit dated 2.11.2022, has furnished break up of other charges along with justification, as under:

	1	Π	•	•	(in Rs.)
Source	Head	Jan, 2014	Feb, 2014	Mar, 2014	Remarks
Domestic	Incentive paid to coal company	32495343	0.00	0.00	Performance Incentive charged by coal company as per Clause 3.12.1 of FSA i.e. seller delivers Coal in excess of 90% of Annual Contracted Quantity (ACQ).
	Patrolling / Vehicle hiring cost	3880723.00	4850904.00	4931752.40	These charges mainly include patrolling cost, vehicle hiring, fuel cost etc. Further, Farakka STPS having MGR of around 85 km and is passing through multiple districts of two States, more prone to pilferage. So, necessitates for higher patrolling and vehicle movement, led to more running expenses.
	Cost of Unloading	11893854.67	11893854.67	11893854.67	Charges paid towards deployment of labor through a contract for unloading of coal from Railway wagons, wagon tipplers and Track hoppers / wharf. Further, machines like rock breaker, etc. are deployed for breaking the big size coal boulders. This is an integral part of coal unloading contract.
	Cost of Stone Picking	1610533.33	1610533.33	1610533.33	Charges paid for stone picking during unloading Track Hoppers / Wagon Tipplers and Associated Systems and prior to crusher point, chute etc,
	Temporary Staff cost on Railway Siding & MGR	495182.33	495182.33	495182.33	These are salaries and perks paid to ex-railway staff deployed for operation and maintenance of MGR, MGR control room, railway siding, i.e. Station controllers, gatemen, points men, Signaling system

					maintainers, track inspectors, shunting operations.		
	Grade sampling charge	229617.00	229617.00	229617.00	These charges are paid to third party for coal sample collection before unloading and analysis thereof. These charges include at both load and unloading end.		
	Total	50605253	19080091	19160940			
Imported	Cost of Unloading	790257	790257	790257	Charges paid towards deployment of labor through a contract for unloading of coal from Railway wagons, wagon tipplers and Track hoppers / wharf. Further, machines like rock breaker, etc. are deployed for breaking the big size coal boulders. This is an integral part of coal unloading contract.		

121. The submissions have been considered. It is noticed that in Form 15 of the original petition, the Petitioner had furnished 'GCV as billed' and 'GCV as fired', for the total coal including domestic, imported and opening stock, and in Form 13, the Petitioner has considered the average GCV of coal on "as received basis" for the period from October 2016 to March 2019, for the purpose of computation of working capital for the period 2014-19 and also considered a margin of 120 kCal / kg for computation of the working capital of the generating station. Subsequently, the Petitioner has furnished 'GCV as received' along with Total Moisture and Equilibrated Moisture for the period from January, 2014 to March, 2014, as detailed below:

		(ii	n kCal / kg)
	January, 2014	February, 2014	March, 2014
GCV Billed	4991.48	5165.13	5007.71
GCV as Received (EM)	3995.4	4079	3428
GCV as Received (TM)	3766	3831	3208
GCV as fired	3420.00	3572.00	3322.00

122. Regulation 28 (2) of the 2014 Tariff Regulations provides that the computation of cost of fuel as a part of IWC is to be based on the landed price and gross calorific value of the fuel, as per actuals, for the three months preceding the first month for which the tariff is to be determined and no fuel price escalation shall be provided during the tariff period. Thus, the calculation of IWC for period 2014-19 is to be based on such values for months of January 2014, February 2014 and March 2014. The Petitioner has not

been able to furnish these values at the time of determination of tariff for the period 2014-19 in Petition No. 280/GT/2014. In the present petition, the Petitioner has proposed that instead of GCV for January 2014, February 2014 and March 2014, the Commission should consider the average values for months of October, 2016 to March 2019 since the measurement of 'as received' GCV has been done in accordance with directions of the Commission vide order dated 25.1.2016 in Petition No. 283/GT/2014. In our view, the proposal of the Petitioner to consider the retrospective application of average of 'as received' GCV data for 30 months (October 2016 to March 2019) in place of 'as received' GCV of the preceding three months (January 2014 to March 2014) is not acceptable, keeping in view that the average GCV for 30 months may not be commensurate to the landed cost of coal for the preceding three months to be considered for calculating IWC in terms of Regulation 28(2) of the 2014 Tariff Regulations and that due to efflux of time (gap of 30 months), the guality of coal extracted from the linked mines would have undergone considerable changes. Also, the consideration of loss of GCV of 120 kCal / kg cannot be considered, as the same is not as per provisions of the 2014, Tariff Regulations.

123. It is observed that though the Petitioner has furnished the details of 'as received' GCV for the three months of January 2014 to March 2014, it has contended that since the period of January, 2014 to March, 2014 falls in the 2009-14 tariff period and in terms of Regulation 18(2) read with Regulation 21(6) of the 2009, Tariff Regulations generating company shall measure GCV on 'as fired' basis (and not on 'as received' basis), the GCV for computation of IWC shall be considered on 'As fired' basis. This submission of the Petitioner is also not acceptable in view of provisions of Regulation 21(6) of the 2009 Tariff Regulations that was amended on 31.12.2012, by addition of the following provisos.

"The following provisos shall be added under Clause (6) of Regulation 21 of the Principal Regulations as under, namely:

Provided that generating company shall provide to the beneficiaries of the generating station the details of parameters of GCV and price of fuel i.e. domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., as per the form 15 of the Part-I of Appendix I to these regulations:

Provided further that the details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal and the weighted average GCV of the fuels as received shall also be provided separately, along with the bills of the respective month:

Provided further that copies of the bills and details of parameters of GCV and price of fuel *i.e.* domestic coal, imported coal, e-auction coal, lignite, natural gas, RLNG, liquid fuel etc., details of blending ratio of the imported coal with domestic coal, proportion of e-auction coal shall also be displayed on the website of the generating company. The details should be available on its website on monthly basis for a period of three months."

124. Accordingly, in terms of the above amendment to the 2009 Tariff Regulations, the details regarding the weighted average GCV of the fuels on 'as received' basis was also required to be furnished by the Petitioner along with bills of the respective month. Also, bills detailing the parameters of GCV and price of fuel were to be displayed by the Petitioner on its website, on monthly basis. As per SOR to the 2014 Tariff Regulations, we note that the main consideration of the Commission while moving from 'as fired' GCV to 'as received' GCV for the purpose of energy charges under Regulation 30(6) of the 2014 Tariff Regulations for the 2014-19 tariff period was to ensure that GCV losses which might occur within the generating station after receipt of coal are not passed on to the beneficiaries on account of improper handling and storage of coal by the generating companies. As regards the allowable (normative) storage loss within the generating station, CEA had observed that there is negligible difference between 'as received' GCV and 'as fired' GCV. As such, for the purpose of calculating energy charges, the Commission moved from 'as fired' GCV to 'as received' GCV under Regulation 30(6) of the 2014 Tariff Regulations without allowing any margin between the two measurements of GCV. Thus, 'as received' GCV was made applicable for the purpose of calculating working capital requirements based on the actual GCV of coal for the preceding three months of the first month for which tariff is to be determined in terms of Regulation 28(2) of 2014 Tariff Regulations. In case the submission of the Petitioner that 'as fired' is to be considered 'at actuals' for the preceding three months for purpose of IWC, the same would mean allowing (and passing through) all storage losses which would have occurred during the preceding three months (January 2014 to March 2014) for the 2014-19 tariff period. This, according to us, defeats the very purpose of moving from 'as fired' GCV to 'as received' GCV in the 2014 Tariff Regulations. In this background and keeping in view that in terms of amended Regulation 21(6) of the 2009 Tariff Regulations, the Petitioner is required to share details of the weighted average GCV of the fuel on 'as received' basis, we consider the fuel component and energy charges for two months based on 'as received' GCV of the preceding three months (January 2014 to March 2014) for the purpose of computation of IWC in terms of Regulation 28(2) of the 2014 Tariff Regulations.

125. Accordingly, the 'GCV as received' as furnished by the Petitioner for January, 2014 to March, 2014 is considered and it is noticed that loss in GCV is observed between 'as billed' and 'as received' and for March, 2014, while the 'GCV as received' on EM basis is higher than the 'GCV as fired', the 'GCV as received' on TM basis is lower than the 'GCV as fired'. However, the Petitioner has not furnished any reasons for this inconsistency. Further, in terms of prevailing regulations, the 'GCV as received' shall be considered for the coal received in the month, excluding opening stock, and also GCV 'as billed', 'as received', as well as 'as fired' are pertaining to same coal and same month, the submission of the Petitioner that GCV 'as received' on TM basis for March, 2014 is lower than 'GCV as fired' does not have any merit and therefore not accepted. Thus, GCV As Received (EM basis) is considered for March, 2014. Further, as per submissions of the Petitioner, it is noted that the storage capacity of primary fuel for the FSTPS I, II and III is 279520 MTs. It is also noted that in terms of FSA, the Petitioner receives credit note for excess moisture.

126. As regards the breakup of the 'other charges' furnished, it is noticed that in January, 2014, these charges include an incentive of Rs. 3,24,95,343 /- (Rs. 3.25 crore) paid towards coal company for coal supplied beyond 90% of ACQ. However, the Petitioner has not provided any details regarding the ACQ, actual quantity supplied, the reasons for incentive for coal supply beyond 90% of ACQ, rather than 100% ACQ, period for which it is associated with, the reasons for considering this annual charge in working capital, loading the complete amount in January, 2014 alone etc., In this context, it is noticed that the existing regulations provide for working capital with regard to NAPAF and the actual generation during 2012-13 and 2013-14 is lower than generation at NAPAF i.e. the PLF of FSTPS is 63.5% in 2012-13 and 72.18% in 2013 -14. Accordingly, the claim made for incentive given to coal company has not been considered for working capital. Further, the generating station has an MGR system, but the Petitioner has not furnished the break -up of domestic coal received (i.e. through MGR and through Indian Railways), and thus the normative losses are restricted to 0.2 %. The Petitioner has furnished secondary fuel details inclusive of opening stock, but the weighted average GCV and weighted average cost of secondary fuel claimed in the present petition are in variance with those claimed in Petition No. 698/GT/2020, for which no reasons have been furnished by the Petitioner.

127. In line with the above, after considering the claims, relevant regulations, including on blending ratio and on prudence check, the weighted average GCV and weighted average cost of primary as well as secondary fuel for January, 2014 to March, 2014, are determined. In addition, all other operational norms such as NAPAF, Station Heat Rate (SHR), Auxiliary Energy Consumption, Secondary Fuel etc, have been considered as deliberated in preceding paras. Accordingly, various parameters, considered for calculation of working capital is as follows:

	Unit	2014-19
Capacity	MW	500
Gross Station Heat Rate	kCal/kWh	2436.62
Auxiliary Energy Consumption	%	5.75%
Weighted average GCV of oil	kCal / lit	9616.43
Weighted Average GCV of Coal	kCal / kg	3654.86
Weighted average price of oil	Rs. / kL	49578.55
Weighted average price of Coal	Rs. / MT	3861.76
NAPAF	2014 - 17	83 %
	2017 - 19	85 %

128. Accordingly, the cost of fuel components in working capital is worked out and allowed as follows:

					(Rs. in lakh)
	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Coal towards stock					
(15 days) w.r.t. NAPAF	3838.79	3838.79	3838.79	3931.29	3931.29
Cost of Coal towards					
generation (30 days) NAPAF	7677.58	7677.58	7677.58	7862.58	7862.58
Cost of Secondary fuel oil 2 months NAPAF	150.20	150.61	150.20	153.82	153.82

## (b) Energy Charge Rate (ECR) for calculating working capital

129. Regulation 30(6)(a) of the 2014 Tariff Regulations provides for computation and payment of energy charge for thermal generating stations. The Petitioner has claimed ECR (ex-bus) for 283.229 paise/ kWh for the generating station, based on the landed cost of coal during the preceding three months, GCV of coal on 'as received' basis for average of 30 months along with the storage loss of 120 kCal/ kg, GCV and price of Oil procured and burnt for the preceding three months of the period 2014-19 for the generating station. However, as deliberated in above paragraphs, the allowable ex-bus ECR (rounded off to three decimals) for the generating station is Rs. 2. 753 / kWh.

130. Energy Charges of two months for the purpose of working capital has been worked out as under:

(Rs. in lakh)						
2014-15	2015-16	2016-17	2017-18	2018-19		
15721.30	15764.37	15721.30	16100.13	16100.13		

# (c) Maintenance Spares for Working Capital

131. The Petitioner in Form-13B has claimed maintenance spares in the working capital shown in the table as follows:

 (Rs. in lakh)						
2014-15	2015-16	2016-17	2017-18	2018-19		
1,673.21	1,776.89	2,050.06	2,214.91	2,485.84		

132. Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provide for maintenance spares @ 20% of the operation & maintenance expenses. In terms of Regulation 29(2) of the 2014 Tariff Regulations, the cost of maintenance spares @20% of the operation & maintenance expenses including water charges and cost of capital spares consumed, allowed are as follows:

_		(Rs. in lakh)						
	2014-15	2015-16	2016-17	2017-18	2018-19			
	1642.58	1756.37	1854.11	1965.45	2174.94			

## (d) Receivables for the computation of working capital

133. Receivables equivalent to two months of capacity charge and energy charge, duly considering secondary fuel, has been worked out as follows:

	2014-15	2015-16	2016-17	2017-18	2018-19
Variable Charges - for two months (A)	15721.30	15764.37	15721.30	16100.13	16100.13
Fixed Charges – for two months (B)	9158.74	9347.72	9250.25	9102.91	9086.68
Total (C) = (A+B)	24880.05	25112.10	24971.55	25203.04	25186.81

## (e) O & M Expenses (1 month) for Working Capital

134. O&M expenses for 1 (one) month as claimed by the Petitioner in Form-13B for the

purpose of working capital is as under:

	(Rs. in lakh)					
2014-15	2015-16	2016-17	2017-18	2018-19		
697.17	740.37	854.19	922.88	1035.77		

135. Regulation 28(a)(vi) of the 2014 Tariff Regulations provides for O&M expenses for

one month for coal-based generating station as a part of working capital. The one-month

O&M expenses, as allowed is as under:

_		(Rs. in lakh)						
I	2014-15	2015-16	2016-17	2017-18	2018-19			
	684.41	731.82	772.55	818.94	906.23			

A.

## (f) Rate of interest on working capital

136. In terms of clause (3) of Regulation 28 of the 2014 Tariff Regulations, the rate of

interest on working capital has been considered as 13.50% (Bank rate of 10.00% + 350

bps). Accordingly, Interest on working capital has been computed as follows:

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Working capital for Cost of Coal towards	3838.79	3838.79	3838.79	3931.29	3931.29
Stock (15 days generation					
corresponding to NAPAF) (A)					
Working capital for Cost of Coal towards	7677.58	7677.58	7677.58	7862.58	7862.58
Generation (30 days generation					
corresponding to NAPAF) (B)					
Working capital for Cost of Secondary	150.20	150.61	150.20	153.82	153.82
fuel oil (2 months generation					
corresponding to NAPAF) (C)					
Working capital for O&M expenses (1	684.41	731.82	772.55	818.94	906.23
month of O&M expenses) (D)					
Working capital for Maintenance Spares	1642.58	1756.37	1854.11	1965.45	2174.94
(20% of O&M expenses) (E)					
Working capital for Receivables (2	24880.05	25112.10	24971.55	25203.04	25186.81
months of sale of electricity at NAPAF)					
(F)					
Total Working Capital (G =	38873.60	39267.28	39264.77	39935.13	40215.67
A+B+C+D+E+F)					
Rate of Interest (H)	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital (I = G x H)	5247.94	5301.08	5300.74	5391.24	5429.12

### Annual Fixed Charges for the period 2014-19

*137.* Based on the above, the annual fixed charges approved for the generating station

for the 2014-19 tariff period are summarised as follows:

				(Rs. in lakh)		
	2014-15	2015-16	2016-17	2017-18	2018-19	
Depreciation	12860.72	13648.38	13765.66	13831.65	13879.48	
Interest on Loan	14058.03	13014.87	11682.05	10005.60	8671.86	
Return on Equity	14572.90	15340.14	15482.48	15561.71	15664.89	
O&M Expenses	8212.89	8781.87	9270.55	9827.27	10874.72	
Interest on Working Capital	5247.94	5301.08	5300.74	5391.24	5429.12	
Total annual fixed charges approved	54952.47	56086.35	55501.48	54617.48	54520.06	
Total annual fixed charges approved in order dated <b>3.3.2017</b> in Petition No. 280/GT/2014	53309.07	54462.76	53820.30	53287.28	52543.68	
Wage revision impact allowed excluding PRP/ exgratia	0.00	35.54	923.96	981.10	967.52	

**Note:** (1) All figures are on annualized 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.

138. The difference between the annual fixed charges already recovered by the

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

139. Petition No. 391/GT/2020 is disposed of in terms of the above.

Sd/ (Pravas Kumar Singh) Member Sd/ (Arun Goyal) Member Sd/ (I.S. Jha) Member