

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 278/GT/2020

Coram:

**Shri P.K. Pujari, Chairperson
Shri I.S. Jha, Member
Shri Pravas Kumar Singh, Member**

Date of Order: 8th March, 2022

In the matter of

Petition for truing up of tariff for 1200 MW Dgen Mega Power Project (DGEN Plant) of Torrent Power Limited from COD of Unit 51 (First Block) till 31.3.2019.

And

In the matter of

Torrent Power Limited,
Torrent House, Off Ashram Road,
Near Income Tax Circle,
Ahmedabad- 380009

.....Petitioner

Vs

1. Torrent Power Limited,
Dahej Distribution, Plot No. Z/21,
Dahej SEZ Limited

2. Torrent Power Limited,
(Unit: Ahmedabad Distribution)
Electricity House, Lal Darwaja,
Ahmedabad- 380009

3. PTC India Limited,
2nd Floor, NBCC Tower, Bhikaji Cama Place,
New Delhi- 110066

.....Respondents

Parties present

Ms. Deepa Chawan, Advocate, TPL
Ms. Reshmarani Nathani, Advocate, TPL
Ms. Ruchi Patil, Advocate, TPL
Shri Chetan Bundela, TPL



Shri Naresh Joshi, TPL
Shri Jignesh Langalia, TPL
Shri Vihar Patel, TPL
Shri Parth Desai, TPL
Shri Ravi Kishore, Advocate, PTC

ORDER

The Petition has been filed by Torrent Power Limited for truing-up of tariff of Dgen Mega Power Project (1200 MW) (in short 'the generating station') for the period from COD of Unit 51 (First Block) up to 31.3.2019, in accordance with the provisions of the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2014 (hereinafter referred to as 'the 2014 Tariff Regulations').

Background

2. The generating station has been granted the status of co-developer in the name of Torrent Energy Limited (TEL) by the Ministry of Commerce, GOI by virtue of which TEL is responsible for catering to the entire power requirement of the entities coming up in DSEZ (Dahej Special Economic Zone). In this background, the erstwhile TEL has set up the generating station along with dedicated DGEN-Navsari transmission line as well as the power distribution infrastructure at DSEZ area. The project has been granted provisional Mega power status by the Ministry of Power, GOI vide letter dated 28.11.2011. The commissioning activities and trial operations of all 3 blocks had been completed and COD of the blocks are as under:

Block	COD
Block 51 (First block)	7.9.2014
Block 52 (Second block)	12.9.2014
Block 53 (Third block)	13.11.2014



3. The Commission vide order dated 31.3.2017 in Petition No.281/GT/2015 approved the capital cost and annual fixed charges of the generating station for the 2014-19 tariff period as under:

Capital cost allowed

(Rs in lakh)

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Opening Capital Cost	274414.86	380662.70	507545.92	519247.89	537255.57	540022.36	540022.36
Add: Additional Capital Expenditure	0.00	0.00	11,701.97	18007.68	2766.79	0.00	0.00
Closing Capital Cost	274414.86	380662.70	519247.89	537255.57	540022.36	540022.36	540022.36

Annual Fixed Charges allowed

(Rs. in lakh)

Particulars	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Depreciation	13834.97	19450.05	26472.10	26872.17	27379.02	27449.34	27449.34
Interest on Loan	25074.63	34559.69	45820.21	44113.93	41494.07	38095.79	34568.55
Return on Equity	16143.83	22394.39	30203.14	31227.60	31841.64	31923.42	31923.42
Interest on Working Capital	11194.49	12561.07	14036.77	14211.88	14336.68	14449.74	14569.99
O&M Expenses	11521.08	23042.16	34563.23	36735.23	39051.23	41523.23	44175.23
Total	77769.00	112007.35	151095.45	153160.81	154102.65	153441.52	152686.53

4. The capital cost and the annual fixed charges claimed by the Petitioner in the present petition are as under:



Capital Cost claimed

(Rs. in lakh)

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Opening capital cost	275876.44	381567.29	519964.57	532931.24	544702.11	568517.76	568987.36
Add: Addition during the year/period	0.00	0.00	2484.90	4645.98	23290.08	138.17	20.57
Less: De-capitalization during the year/period	0.00	0.00	0.00	8929.82	71.93	310.26	37.70
Less: Reversal during the year/period	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year/period	0.00	0.00	10481.77	16054.71	597.50	641.69	12.04
Closing capital cost	275876.44	381567.29	532931.24	544702.11	568517.76	568987.36	568982.27
Average capital cost	275876.44	381567.29	526447.90	538816.68	556609.93	568752.56	568984.82

Annual fixed charges claimed

(Rs. in lakh)

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Depreciation	14088.03	19537.48	27075.00	27604.38	28572.76	28965.70	28978.68
Interest on Loan	25198.62	34628.05	46978.42	44270.76	37636.37	26824.74	24669.83
Return on Equity	16229.81	22447.60	30970.93	31852.15	32904.00	33621.81	33726.01
Interest on Working Capital	11205.15	12565.88	14094.98	14260.86	14325.49	15799.99	15984.71
O&M Expenses	11521.08	23042.16	34563.23	36921.44	39389.14	42060.99	45110.29
Total	78242.69	112221.17	153682.57	154909.59	152827.75	147273.23	148469.52

5. The petition was heard on 29.6.2021 and the Commission, after directing the Petitioner to submit certain additional information, reserved its order in the petition. Based on the submissions of the parties and documents available on record, we



proceed to determine the tariff of the generating station, on prudence check, as stated in subsequent paragraphs.

Approved Project Capital Cost

A. Generation Project Cost

6. The Board of Directors of Torrent Energy Limited (TEL) on 27.4.2010 had approved implementation of the generating station comprising three blocks of 400 MW each at an estimated capital cost of Rs.550000.00 lakh, including Working Capital Margin (WCM), to be funded by debt-equity ratio of 70:30. Subsequently, during October 2010, SBI Capital Market Ltd. had assessed the capital cost at Rs.532539.00 lakh, including WCM of Rs.16566.00 lakh. Accordingly, the approved capital cost (of the generating station) after excluding WCM of Rs.16566.00 lakh is Rs.515973.00 lakh.

B. Transmission Line and Associated Bays Project cost

7. The Board of Directors had, on 30.3.2011, approved the implementation of connectivity transmission line comprising 400 kV DGEN-Navasari line at the estimated capital cost of Rs.28500.00 lakh.

C. Total Project Cost

8. Accordingly, the total project capital cost works out to Rs.544473.00 lakh which comprises of (i) Rs.515973.00 lakh for the generating station and (ii) Rs.28500.00 lakh for transmission line and associated bays.

9. The Commission vide its order dated 31.3.2017 in Petition No. 281/GT/2015 had allowed the capital cost of Rs.274414.86 lakh, Rs.380662.70 lakh and Rs.507545.92



lakh respectively, as on COD of Block-51, Block-52 and Block-53. In the said order, the Commission had observed the following:

“34. On reconciliation of the capital cost claimed by the petitioner as on COD of each Blocks with the corresponding audited gross block values (as shown in the table above) unexplained variances amounting to Rs.9514.18 lakh, Rs.8048.76 lakh and Rs.3713.31 lakh has been observed as on COD of Block-51, Block-52 and Block-53 respectively. These unexplained values have not been allowed for the purpose of tariff. Further, the petitioner is directed to furnish proper reconciliation in the manner as indicated above at the time of truing-up of tariff in terms of Regulation 8 of the 2014 Tariff Regulations.”

10. Against the capital cost approved vide order dated 31.3.2017, the Petitioner has claimed capital cost of Rs.275876.44 lakh, Rs.381567.29 lakh and Rs.519964.57 lakh up to COD of Block-51, Block-52 and Block-53, respectively. The Commission vide ROP of hearing dated 29.6.2021 directed the Petitioner to furnish the justification for change in the capital cost claimed as compared to the capital cost allowed vide order dated 31.3.2017 in Petition No.281/GT/2015. In response, the Petitioner vide reply affidavit dated 29.7.2021 has clarified that the difference in capital cost is due to the un-discharged liabilities and depreciation. The Petitioner vide affidavit dated 23.7.2021 has furnished the reconciliation of the capital cost claimed with the capital cost approved in order dated 31.3.2017 in Petition No. 281/GT/2015, as on COD of each block, as under:

	(Rs. in lakh)		
	COD of Block-51 (i.e. 7.9.2014)	COD of Block-52 (i.e. 12.9.2014)	COD of Block-53 (i.e. 13.11.2014)
Capital cost approved in order dated 31.3.2017 in Petition No. 281/GT/2015	274414.86	380662.70	507545.92
Add: Pre-commissioning depreciation capitalised to gross block disallowed in order dated 31.3.2017 in Petition No. 281/GT/2015	2816.19	2816.19	2894.49
Add: IDC, FC & FERV disallowed in order dated 31.3.2017 in Petition No. 281/GT/2015	0.00	142.98	536.37
Less: Difference in value of Gross Block as considered in order dated 31.3.2017 in Petition No. 281/GT/2015 and in the Petition	0.02	0.03	0.03



	COD of Block-51 (i.e. 7.9.2014)	COD of Block-52 (i.e. 12.9.2014)	COD of Block-53 (i.e. 13.11.2014)
Less: Pre-commissioning depreciation capitalised to gross block, as per Auditor certified statement, de-capitalised in the Petition	1354.59	2054.55	2894.49
Add: CWIP claimed on accrual basis as on COD of Block-53	0.00	0.00	4177.60
Less: Un-discharged liabilities corresponding to CWIP as on COD of Block-53	0.00	0.00	464.28
Add: Normative IDC claimed as on COD of Block-53	0.00	0.00	8168.99
Capital cost claimed	275876.44	381567.29	519964.57

11. The claim of the Petitioner has been reconciled with the audited gross block as shown below:

(Rs. in lakh)

	Cumulative Gross Block as on		
	COD of Block-51 (on 7.9.2014)*	COD of Block-52 (on 12.9.2014)**	COD of Block-53 (on 13.11.2014)***
Gross block	298296.92	416999.43	538509.10
Less: Un-discharged liabilities	21065.89	33377.59	27532.35
Gross block (on cash basis)	277231.03	383621.84	510976.75
Less: Pre-commissioning depreciation capitalised to gross block	1354.59	2054.55	2894.49
Add: Normative IDC over and above actual IDC	0.00	0.00	8168.99
Add: Capital work in progress (CWIP) on cash basis	0.00	0.00	3713.32
Capital cost claimed	275876.44	381567.29	519964.57

* Cumulative Gross block of Block 51;

** Cumulative Gross block of Block 51 & 52;

*** Cumulative Gross block of Block 51, 52 & 53;

Capital Cost as on COD

12. The Petitioner has claimed capital cost of Rs.275876.44 lakh, on cash basis, as on COD of Block-51. This Capital Cost includes IDC & FC of Rs.33922.48 lakh, FERV of Rs.8975.37 lakh and is after adjusting pre-commissioning depreciation capitalised to gross block up to COD of Block-51 amounting to Rs.1354.59 lakh. Accordingly, the hard cost component as on COD of Block-51 works out to Rs.234333.18 lakh (i.e.



Rs.275876.44 lakh *minus* Rs.33922.48 lakh *minus* Rs.8975.37 lakh *plus* Rs.1354.59 lakh) on cash basis. The un-discharged liabilities corresponding to capital cost claimed as on COD of Block-51 is Rs.21065.89 lakh. The hard cost component of capital cost of Rs.234333.18 lakh is allowed as on COD of Block-51. Further, adjustment of the pre-commissioning depreciation already capitalised to the gross block amounting to Rs.1354.59 lakh as claimed by the Petitioner, is allowed for the purpose of tariff, as on COD of Block-51. Thus, the net hard cost allowed as on COD of Block-51 works out to Rs.232978.59 lakh.

13. Considering the details of loans as submitted by the Petitioner, the allowable IDC & FC and FERV as on COD of Block-51 works out to Rs.33475.59 lakh and Rs.8975.37 lakh, respectively. In view of the above, the Capital Cost of Rs.275429.55 lakh has been considered, on cash basis, as on COD of Block-51 of the generating station. The corresponding un-discharged liabilities as on COD of Block-51 is Rs.21065.89 lakh.

14. Further, the Petitioner has claimed capital cost of Rs.381567.29 lakh, on cash basis, up to COD of Block-52. This capital cost includes IDC & FC of Rs.52769.90 lakh, FERV of Rs.17336.91 lakh and is after adjusting the pre-commissioning depreciation capitalised to gross block up to COD of Block-52 amounting to Rs.2054.55 lakh. The Petitioner has considered un-discharged liabilities of Rs.33377.59 lakh corresponding to capital cost claimed up to COD of Block-52 as against un-discharged liabilities of Rs.33377.60 lakh as per details submitted in the Petition. The un-discharged liabilities of Rs.33377.60 lakh has been considered for the purpose of tariff up to COD of Block-52. Accordingly, the hard cost component up to



COD of Block-52 works out to Rs.313515.02 lakh (i.e. Rs.381567.29 lakh *minus* Rs.52769.90 lakh *minus* Rs.17336.91 lakh *plus* Rs.2054.55 lakh *minus* differential un-discharged liabilities of Rs.0.01 lakh) on cash basis. The hard cost component of capital cost of Rs.313515.02 lakh is allowed as on COD of Block-52. The adjustment of the pre-commissioning depreciation already capitalised to the gross block amounting to Rs.2054.55 lakh as claimed by the Petitioner is allowed for the purpose of tariff as on COD of Block-52. Thus, the net hard cost allowed up to COD of Block-52 works out to Rs.311460.47 lakh.

15. Considering the details of loans as submitted by the Petitioner, the allowable IDC & FC and FERV up to COD of Block-52 works out to Rs.52066.30 lakh and Rs.17336.91 lakh, respectively. In view of above, the capital cost of Rs.380863.68 lakh is considered, on cash basis, up to COD of Block-52 of the generating station. The corresponding un-discharged liabilities as on COD of Block-52 is Rs.33377.60 lakh.

16. Further, the Petitioner has claimed gross capital cost of Rs.519964.57 lakh, on cash basis, up to COD of Block-53. This capital cost includes IDC & FC of Rs.75030.46 lakh, FERV of Rs.25885.83 lakh, normative IDC over and above actual IDC of Rs.8168.99 lakh, CWIP on cash basis of Rs.3713.32 lakh and is after adjusting pre-commissioning depreciation capitalised to gross block up to COD of Block-53 amounting to Rs.2894.49 lakh. Accordingly, the hard cost component as on COD of Block-53 works out to Rs.410060.46 lakh (i.e. Rs.519964.57 lakh *minus* Rs.75030.46 lakh *minus* Rs.25885.83 lakh *plus* Rs.2894.49 lakh *minus* Rs.8168.99 lakh *minus* 3713.32 lakh) on cash basis. The un-discharged liabilities corresponding to gross



capital cost claimed up to COD of Block-53 is Rs.27532.35 lakh. The adjustment of the pre-commissioning depreciation already capitalised to the gross block amounting to Rs.2894.49 lakh as claimed by the Petitioner is allowed for the purpose of tariff as on COD of Block-53. Thus, the net hard cost allowed as on COD of Block-53 works out to Rs.407165.97 lakh.

17. Considering the details of loans as submitted by the Petitioner, the allowable IDC & FC and FERV up to COD of Block-53 works out to Rs.73933.69 lakh and Rs.25885.83 lakh, respectively. The Petitioner has claimed normative IDC of Rs. 8168.99 lakh in addition to the actual IDC in respect of the combined asset of 1200 MW of the generating station (i.e. Block-51, Block-52 & Block-53) as on COD of Block-53 and has also submitted the computation of normative IDC indicating quarterly expenditure from the date of construction as well as date of first infusion of debt till the date of commissioning of Block-53. However, considering the details of cumulative capital expenditure, on cash basis, and IDC allowed to the generating station up to COD of Block-52, and in terms of the Regulation 9(2)(b) of the 2014 Tariff Regulations, the allowable normative IDC over and above actual IDC as on COD of Block-53, works out to Rs.484.27 lakh and the same has been considered for the purpose of tariff. The Petitioner has also claimed Rs.3713.32 lakh towards CWIP on cash basis up to COD of Block-53. There is no provision under the 2014 Tariff Regulations, to allow tariff on assets/ works which form part of the project, but are not in use/ rendering service. CWIP being expenditure incurred for the generating station, but not rendering any service till date, is not allowed for the purpose of tariff. In view of above, the capital cost of Rs.507469.76 lakh has been considered, on cash basis, up



to COD of Block-53 of the generating station. The corresponding un-discharged liabilities up to COD of Block-53 is Rs.27532.35 lakh.

Additional Capital Expenditure

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

“14(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:

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

(ii) Change in law or compliance of any existing law;

(iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies of statutory authorities responsible for national security/internal security;

(iv) Deferred works relating to ash pond or ash handling system in the original scope of work;

(v) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.;

(vi) Any liability for works admitted by the Commission after the cut-off date to the extent of discharge of such liabilities by actual payments;

(vii) Any additional capital expenditure which has become necessary for efficient operation of generating station other than coal/lignite based stations or transmission system as the case may be. The claim shall be substantiated with the technical justification duly supported by the documentary evidence like test results carried out by an independent agency in case of deterioration of assets, report of an independent agency in case of damage caused by natural calamities, obsolescence of technology, up-gradation of capacity for the technical reason such as increase in fault level;

(viii) In case of hydro generating stations, any expenditure which has become necessary on account of damage caused by natural calamities (but not due to flooding of power house attributable to the negligence of the generating company) and due to geological reasons after adjusting the proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation;

(ix) In case of transmission system, any additional expenditure on items such as relays, control and instrumentation, computer system, power line carrier communication, DC batteries, replacement due to obsolescence of technology, replacement of switchyard equipment due to increase of fault level, tower strengthening, communication equipment, emergency restoration system, insulators cleaning infrastructure, replacement of porcelain insulator with polymer insulators, replacement of damaged equipment not covered by insurance and any other



expenditure which has become necessary for successful and efficient operation of transmission system; and

(x) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialisation 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”

19. The projected additional capital expenditure allowed for assets/ items vide order dated 31.3.2017 in Petition No.281/GT/2015 are summarized below:

(Rs.in lakh)						
Sl. No.	Head of Work/ Equipment	2014-15	2015-16	2016-17	2017-18	2018-19
1	External Water supply system	0.24	4013.07	0.00	0.00	0.00
2	CSR	1.49	0.00	1199.28	0.00	0.00
3	Gas Pipe Line	0.00	0.00	1217.51	0.00	0.00
4	Township & Colony	1086.18	3115.84	0.00	0.00	0.00
5	Miscellaneous Civil work	1946.97	0.00	350.00	0.00	0.00
4	Tools & Tackles	0.00	2195.94	0.00	0.00	0.00
5	Payment of un-discharged liabilities	9931.83	8682.83	0.00	0.00	0.00
	Total	12966.71	18007.68	2766.79	0.00	0.00

However, as the Petitioner had furnished the audited gross block position as on 31.3.2015 also, the additional capital expenditure allowed for 2014-15 (13.11.2014 to 31.3.2015) was revised vide order dated 31.3.2017 in Petition No.281/GT/2015 as shown below:

(Rs.in lakh)	
	2014-15 (13.11.2014 to 31.3.2015)
Closing gross block	539423.48
Less: Opening gross block	538509.13
Additional capital expenditure as per books	914.35
Less: Liabilities included above	98.77
Add: Discharges *	10886.39
Additional capital expenditure allowed	11701.97

*(Opening liability + Addition during the period – Closing liability)

Accordingly, the additional capital expenditure allowed for the 2014-19 tariff period vide order dated 31.3.2017 in Petition No. 281/GT/2015 stood as follows:

(Rs. in lakh)						
2014-15			2015-16	2016-17	2017-18	2018-19
7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
0.00	0.00	11701.97	18007.68	2766.79	0.00	0.00



20. The additional capital expenditure, on cash basis, claimed by the Petitioner for the 2014-19 tariff period is as under:

<i>(Rs. in lakh)</i>						
Sl. No.	Head of work/ Equipment	2014-15	2015-16	2016-17	2017-18	2018-19
1	Building	671.63	6264.47	86.70	0.00	0.00
2	Plant & Machinery	524.66	1196.31	25063.83	76.06	1.10
3	Transmission system-Overhead	246.70	0.00	0.00	0.00	0.00
4	Transmission system-Overhead	(-)766.94	0.00	0.00	0.00	0.00
5	Electrical fittings and apparatus	26.71	502.44	0.00	3.70	0.10
6	Furniture and Fixtures	139.13	150.23	17.52	0.81	0.00
7	Office Equipment	72.94	92.55	5.69	8.65	10.82
8	Vehicles	(-)0.47	133.74	69.49	48.95	0.00
9	Leasehold Land	0.00	87.24	0.00	0.00	0.00
10	Software acquired	0.00	0.00	13.99	0.00	8.55
A	Sub-total	914.35	8426.98	25257.22	138.17	20.57
B	Decapitalisation of Spares-part of capital cost	0.00	8929.82	71.93	310.26	37.70
C	Total Additional capital expenditure claimed [(A) - (B)]	914.35	(-) 502.84	25185.29	(-) 172.09	(-) 17.13

21. The Commission in the order dated 31.3.2017 in Petition No. 281/GT/2015 had allowed the projected additional capitalization of Rs.1200.77 lakh (Rs.1.49 lakh in 2014-15 and Rs.1199.28 lakh in 2016-17) for Corporate Social Responsibility (CSR) initiatives as per directives of the Ministry of Environment and Forest (MOE&F), GOI. The Commission, in the said order, had directed the Petitioner to submit the details of CSR schemes which has been undertaken, duly endorsed by the District Administration, at the time of truing-up of tariff. The Petitioner, in this petition, has submitted that it has incurred Rs.162 lakh for CSR initiatives till 31.3.2019, in terms of the MOE&F directive. However, the Petitioner has neither furnished the details of the schemes undertaken along with the year of capitalization nor the endorsement of District Administration.



22. Further, as the additional capital expenditure claimed for the items/ assets could not be correlated with the items/ assets allowed as projected additional capitalisation, the Commission vide RoP of hearing dated 29.6.2021 directed the Petitioner to furnish the justification of the additional capital expenditure claimed under heads (a) Plant & Machinery and (b) Other heads. In response, the Petitioner vide affidavit dated 23.7.2021 has submitted the asset-wise details of the additional capital expenditure from 13.11.2014 till 31.3.2019 as under:

(Rs. in lakh)

		2014-15 (13.11.2014 to 31.3.2015)	2015-16	2016-17	2017-18	2018-19
A	Plant and Machinery	524.66	1196.31	25063.83	76.06	1.10
B	Other Heads					
1	Freehold Land	-	-	-	-	-
2	Buildings	671.63	6264.47	86.70	-	-
3	Transmission system	(-) 520.25	-	-	-	-
4	Electrical Fittings and Apparatus	26.71	502.44	-	3.70	0.10
5	Furniture and Fixtures	139.13	150.23	17.52	0.81	-
6	Office Equipment	72.94	92.55	5.70	8.65	10.82
7	Vehicles	(-) 0.47	133.74	69.49	48.95	-
8	Software (Acquired)	-	-	13.99	-	8.55
9	Lease Hold Land	-	87.24	-	-	-
10	Dedicated 400 kV Transmission Lines & GIS Bay	-	-	-	-	-
	Total	389.69	7230.67	193.40	62.11	19.47
	Grand Total	914.35	8426.98	25257.23	138.17	20.57

23. The Petitioner has submitted year-wise details along with the relevant provision of the regulations under which the additional capital expenditure for the 2014-19 tariff period is as under:



		<i>(Rs. in lakh)</i>
Year	Description	Amount
Period up to the cut-off date		
2014-15 (13.11.2014 to 31.3.2015)	Additional capitalisation in accordance with Regulations 14(1)(ii) of the 2014 Tariff Regulations and covered within the original scope of work of project.	914.35
2015-16	Additional capitalisation in accordance with Regulations 14(1)(ii) of the 2014 Tariff Regulations and covered within the original scope of work of project	8426.98
2016-17	Additional capitalisation in accordance with Regulation 14(1)(ii) and Regulation 14(1)(iii) of the 2014 Tariff Regulations and covered within the original scope of work of project. -Initial Spares in the nature of Insurance Spares purchased for Rs 22433.67 lakh.	25257.23
Period after the cut-off date		
2017-18	Additional capitalisation in accordance with Regulations 14(2) and Regulation 14(3) of the 2014 Tariff Regulations and is covered within the original scope of work of project: - Raw Water Pipeline being part of external Water Supply System in original scope of work for Rs 42.05 lakh - Motor for plant which is part of 'Other Assets'-BOP Mechanical: Rs 33.66 lakh - Purchase of vehicle due to obsolesce of old vehicles for Rs 47.42 lakh	138.17
2018-19	Additional capitalisation in accordance with Regulation 14 (2) and Regulation 14(3) of the 2014 Tariff Regulations	20.57

24. The admissibility of the actual additional capital expenditure claimed is discussed in following paragraphs.

Plant & Machinery

25. The Petitioner has claimed additional capital expenditure of Rs.26861.96 lakh (Rs.524.66 lakh in 2014-15, Rs.1196.31 lakh in 2015-16, Rs.25063.83 lakh in 2016-17 under Regulation 14(1), Rs.76.06 lakh in 2017-18 and Rs.1.10 lakh in 2018-19 under Regulation 14(2) and Regulation 14(3) of the 2014 Tariff Regulations) towards Plant & Machinery. The Petitioner has submitted that the expenditure incurred towards Plant & Machinery is towards procurement of initial spares up to the cut-off date. The Petitioner has submitted that the additional capitalization claimed is in accordance with Regulation 14(1)(ii) and Regulation 14(1)(iii) of the 2014 Tariff Regulations and is



covered within the original scope of work of project. The Petitioner has submitted that 'Initial Spares' purchased for Rs.22433.67 lakh have been included in the total actual additional capital expenditure of Rs.25257.22 lakh claimed in 2016-17. As regards, initial spares, the Petitioner has further submitted the following:

(a) Regulation 13(b) of the 2014 Tariff Regulations permits the Petitioner to capitalise 'initial spares' equivalent to 4% of Plant & Machinery cost, up to cut-off date i.e. Rs. 11782.31 lakh as under:

<i>(Rs. in lakh)</i>	
Description	Amount
Cost of Plant and Machinery as on cut-off date (As per Form 5-C of main petition)	294557.71
Initial Spares allowed to be capitalised equivalent to 4% of cost of Plant & Machinery as per Regulation 13 (b) of the 2014 Tariff Regulations	11782.31

(b) The amount of initial spares claimed by the Petitioner over and above that allowed in terms of provisions of the 2014 Tariff Regulations are as shown below:

<i>(Rs. in lakh)</i>	
Description	Amount
Initial spares claimed up to 31.3.2016 (A)	6740.83
Initial spares claimed in 2016-17 (B)	22433.67
Total initial spares claimed up to the cut-off date (A+B)	29174.50
Initial Spares allowed to be capitalised as per Regulation 13(b) of the 2014 Tariff Regulations [= 4% of Plant and Machinery cost up to cut-off date] (C)	11782.31
Initial spares allowed vide order dated 31.3.2017 in Petition No. 281/GT/2015 (D)	5116.06
Balance amount of Initial Spares eligible to be capitalised as per Regulation 13 (b) of the 2014 Tariff Regulations (C-D)	6666.25
Additional amount of Initial Spares claimed (A+B-C)	17392.19

26. As regards additional amount of Rs.17392.19 lakh claimed for initial spares, the Petitioner has submitted the following:

(i) The Initial spares purchased have been mandated as essential for maintenance of these plants by the OEM, M/s Siemens AG. The generating station is equipped with Advanced Class SGT5 4000 F Gas Turbines which are used at limited places in the country and, thus, may have a problem of availability



when requiring maintenance during operation of the generating station. Also, as these Gas Turbines being advanced class, the critical success factor is dependent on spares being available on a time bound basis.

(ii) Due to higher lead time for the availability of spares, the Petitioner has purchased complete set of required spares along with supply of equipment. In the absence of these spares, in case of break down, the generating station will be subjected to outage for long duration.

(iii) Purchase of Initial spares along with equipment has helped the Petitioner avoid higher cost due to inflation, if the same were to be purchased in future and ultimately the benefits shall be passed on to the beneficiaries, over the term of the plant life.

(iv) The Commission, in the past, had approved initial spares for gas-based power plants, above the norms specified in the Regulations, considering the reason of higher replacement cost, increased equipment cost, higher time period of equipment failure, increase in cost of spares.

27. The matter has been considered. Regulation 13 of the 2014 Tariff Regulations provides as under:

“13. Initial Spares: Initial spares shall be capitalised as a percentage of the Plant and Machinery cost up to cut-off date, subject to following ceiling norms:

(a) Coal-based/lignite-fired thermal generating stations - 4.0%

(b) Gas Turbine/Combined Cycle thermal generating stations - 4.0%”

28. The Petitioner has claimed initial spares for Rs.22433.67 lakh in 2016-17 as on the cut-off date of the generating station (31.3.2017). The Petitioner, in Form 5C, has furnished the Plant & Machinery cost as Rs. 294557.71 lakh as on 31.3.2017 (cut-off date). As per Regulation 13(b) of the 2014 Tariff Regulations, initial spares @4% of Plant & Machinery cost, up to cut-off date, works out to Rs.11782.31 (Rs.294557.71 x 0.04) lakh. The Commission in its order dated 31.3.2017 in Petition No. 281/GT/2015



had allowed 'initial spares' for Rs.5116.06 lakh as on the COD of the generating station. As regards additional amount of Rs.17392.19 lakh as 'initial spares' over and above the ceiling of 4% of the Plant & Machinery cost, the Petitioner has mainly submitted that the plant is equipped with advanced class SGT5 4000 F Gas Turbines, which are used at limited places in the country and, thus, may have a problem of availability, when maintenance is required during the operation of the plant. It is observed that in respect of other gas-based power plants such as Pragati Power Plant and OTPCL's Palatana plant, which also have advance 'F' class machines, the Commission has allowed 'initial spares' @4% of the Plant & Machinery cost. In view of this, the claim of the Petitioner for additional amount of Rs.17392.19 lakh for initial spares, which are over and above 4% of Plant & Machinery cost is not allowed. Hence, initial spares for Rs.11782.31 lakh is only allowed as on 31.3.2017 (cut-off date) in terms of Regulation 13(b) of the 2014 Tariff Regulations.

Buildings

29. The Petitioner has claimed additional capital expenditure of Rs.7023.00 lakh (Rs.671.63 lakh in 2014-15, Rs.6264.47 lakh in 2015-16 and Rs.86.70 lakh in 2016-17) towards Buildings under Regulation 14(1)(ii) of the 2014 Tariff Regulations. The Commission vide order dated 31.3.2017 in Petition No.281/GT/2015 had allowed the projected additional capitalization of Rs.4202.02 lakh for 'Township & Colony' during 2014-16 and Rs.2296.97 lakh during the period 2014-17 for 'Miscellaneous Civil Work', as mentioned in the table under paragraph 18 above. No additional capital expenditure was claimed by the Petitioner under the head 'Buildings' in Petition No. 281/GT/2015. However, from the justification furnished by the Petitioner for the additional capital expenditure of Rs.7023.00 lakh claimed, it is not clear as to whether



the said work form part of the original scope of work and has been completed within the cut-off date. However, from Form 5C submitted by the Petitioner, in Petition No. 281/GT/2015, it is observed that the total amount towards 'Buildings' such as Main Plant building, Admin/other building, Switchyard buildings and BFP building capitalized by the Petitioner was Rs.25225.81 lakh out of an amount of Rs.25961.53 lakh which was envisaged up to cut-off date of the project. It is, therefore, evident that only a balance amount of Rs.735.72 lakh (Rs.25967.53-Rs.25335.81 lakh) is available for capitalization under the head 'Buildings' up to cut-off date i.e. 31.3.2017. Accordingly, amount of Rs.735.72 lakh (Rs.671.63 lakh in 2014-15 and Rs.64.09 lakh in 2015-16) is allowed under Regulation 14(1)(ii) of the 2014 Tariff Regulations.

Transmission System

30. The Petitioner has claimed additional capital expenditure of (-) Rs.520.25 lakh in 2014-15 for Transmission system-Overhead under Regulation 14(1)(ii) of the 2014 Tariff Regulations. As the Petitioner has clarified that the negative amount is due to reduction in the scope of work, the adjustment of the said amount is allowed in 2014-15.

Leasehold land

31. The Petitioner has claimed additional capital expenditure of Rs.87.24 lakh in 2015-16 for leasehold land under Regulation 14(1)(ii) of the 2014 Tariff Regulations. The Commission vide its order dated 31.3.2017 in Petition No 281/GT/2015 had not allowed the projected additional capital expenditure for this item/ asset. From the justification furnished by the Petitioner, it is not clear as to whether this item/ asset form part of original scope of work or whether the said expenditure has been incurred based on the site-specific requirement. However, from Form-5C furnished in Petition



No. 281/GT/2015, it is observed that the total amount of Rs.10555.79 lakh for leasehold land was envisaged up to cut-off date of the project and the same was capitalized. It is, therefore, clear that no additional amounts were envisaged up to the cut-off date even at the time of furnishing details of leasehold land in the said petition (affidavit dated 15.2.2016). In view of this, the additional capital expenditure of Rs.87.24 lakh claimed in 2015-16 for leasehold land is not allowed.

Other Miscellaneous Items

32. The Petitioner has claimed additional capital expenditure of Rs.1393.25 lakh (Rs.307.69 lakh for furniture & fixtures, Rs.532.95 lakh for electrical fittings etc., Rs.22.54 lakh for software, Rs.252.18 lakh for vehicles, Rs.190.65 lakh for office equipment). It is noticed that the Commission vide its order dated 31.3.2017 in Petition No. 281/GT/2015 had allowed certain additional capitalisation under 'tools & tackles' within the cut-off date of the generating station. The items/ assets claimed by the Petitioner in the present petition do not match with the items/ assets allowed in the said order. Also, from the submissions of the Petitioner, it is not clear as to whether these items were part of the original scope of work. In view of the above, the additional capital expenditure for Rs.1393.25 lakh is not allowed.

Decapitalization

33. The de-capitalization amount claimed by the Petitioner is as under:

<i>(Rs.in lakh)</i>					
2014-15	2015-16	2016-17	2017-18	2018 - 19	Total
-	8929.82	71.93	310.26	37.70	9349.71

34. The Petitioner has furnished the details of de-capitalization claimed as under:



(Rs. in lakh)

Year	Description	Amount
2015-16	Receipt of LoP claim form EPC contractor - Rs. 8828.90 lakh Other Plant & Machinery items - Rs. 83.08 lakh Vehicles – Rs. 17.84 lakh	8929.82
2016-17	Plant & Machinery items - Rs. 20.48 lakh Vehicles – Rs. 23.24 lakh Other items – Rs. 0.07 lakh	71.93
2017-18	Plant & Machinery items - Rs. 8.70 lakh Refund received from vendor related to Transmission line - Rs. 245.13 lakh De-capitalisation for outstanding balance of undischarged liability related to Transmission line - Rs. 56.42 lakh Other items – Rs. 0.07 lakh	310.26
2018-19	Due to obsolesce, procurement of new vehicles and de- capitalised old vehicles - Rs. 37.13 lakh Others – Rs. 0.57 lakh	37.70
	Total	9349.71

35. Since the de-capitalization pertains to items which form part of the capital cost of the generating station but are not in use/ rendering useful service in the generating station, the de-capitalization amount claimed by the Petitioner is allowed.

Reconciliation of the Additional Capital Expenditure claimed

36. The Petitioner in Form-9C has furnished reconciliation of the additional capital expenditure claimed as under:

(Rs.in lakh)

	2014-15 13.11.2014 to 31.3.2015	2015-16	2016-17	2017-18	2018-19
Closing Gross Block	539423.45	538920.61	564105.91	563933.82	563916.69
Less: Opening Gross Block	538509.10	539423.45	538920.61	564105.91	563933.82
Total additions as per books	914.35	(-) 502.84	25185.30	(-)172.09	(-) 17.13
Less: Additions pertaining to other Stages (give Stage wise breakup)	-	-	-	-	-
Net additions pertaining to project/Unit/Stage	914.35	(-) 502.84	25185.30	(-) 172.09	(-) 17.13
Less: Exclusions (items not allowable/ not claimed)	-	-	-	-	-
Net additional capital expenditure claimed	914.35	(-) 502.84	25185.30	(-) 172.09	(-) 17.13



37. It is evident from the above that there is no difference between the net additional capital expenditure claimed and the net additions as per books in respect of the generating station. The Petitioner has also not claimed any exclusions. Based on the above discussions, the additional capital expenditure allowed for the purpose of tariff for the 2014-19 tariff period are as under:

(Rs. in lakh)

Sl. No.	Head of work/ Equipment	2014-15	2015-16	2016-17	2017-18	2018-19
1	Initial Spares (4% of Plant & Machinery cost)	0.00	0.00	6666.25	0.00	0.00
2	Buildings	671.63	64.09	0.00	0.00	0.00
3	Decapitalisation of Spares - part of capital cost	0.00	(-) 8929.82	(-) 71.93	(-) 310.26	(-) 37.70
4	Total additional capital expenditure allowed [(A)+(B)]	671.63	(-) 8865.73	6594.32	(-) 310.26	(-) 37.70

Un-discharged liabilities

38. The un-discharged liabilities and discharges corresponding to the additional capital expenditure claimed by the Petitioner for the 2014-19 tariff period is as under:

(Rs. in lakh)

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Un-discharged liabilities included in additional capital expenditure claimed	0.00	0.00	98.77	770.13	10.26	0.00	0.00
Discharges during the year/ period included in the additional capital expenditure claimed	0.00	0.00	10886.39	16054.71	607.76	641.69	8.04



39. Since un-discharged liabilities included in the additional capital expenditure claimed for 2015-16 (i.e. Rs.770.13 lakh) exceeds the positive additions allowed as additional capital expenditure for 2015-16 (i.e.Rs.64.09 lakh), the un-discharged liabilities corresponding to admissible additional capital expenditure for 2015-16 has been restricted to Rs. 64.09 lakh. Accordingly, un-discharged liabilities corresponding to the admitted additional capital expenditure considered is as under:

(Rs. in lakh)

2014-15			2015-16	2016-17	2017-18	2018-19
7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
0.00	0.00	98.77	64.09	10.26	0.00	0.00

40. Further, discharges corresponding to admitted additional capital expenditure considered for the purpose of tariff is as under:

(Rs. in lakh)

2014-15			2015-16	2016-17	2017-18	2018-19
7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
0.00	0.00	10886.39	16054.71	607.76	* 156.61	* 0.00

* restricted to balance un-discharged liabilities corresponding to allowed capital cost.

Additional Capital Expenditure allowed for the 2014-19 tariff period

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

(Rs. in lakh)

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Addition during the year/ period	0.00	0.00	671.63	64.09	6666.25	0.00	0.00
Less: De-capitalization during the year/ period	0.00	0.00	0.00	8929.82	71.93	310.26	37.70
Net additional	0.00	0.00	671.63	(-) 8865.73	6594.32	(-)310.26	(-)37.70



capital expenditure allowed (on accrual basis)							
Less: Un-discharged liabilities included above	0.00	0.00	98.77	64.09	10.26	0.00	0.00
Add: Discharges of liabilities	0.00	0.00	10886.39	16054.71	607.76	156.61	0.00
Net additional capital expenditure allowed	0.00	0.00	11459.25	7124.89	7191.82	(-) 153.65	(-) 37.70

Capital cost allowed for the 2014-19 tariff period

42. Based on the above, the capital cost allowed for the 2014-19 tariff period is summarized as under.

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Opening capital cost	275429.55	380863.68	507469.76	518929.01	526053.90	533245.72	533092.07
Add: Additional capital expenditure	0.00	0.00	11459.25	7124.89	7191.82	(-) 153.65	(-) 37.70
Closing capital cost	275429.55	380863.68	518929.01	526053.90	533245.72	533092.07	533054.37
Average capital cost	275429.55	380863.68	513199.38	522491.45	529649.81	533168.89	533073.22

Note: Un-discharged liabilities corresponding to allowed capital cost as on 31.3.2019 is 'nil'.

Debt-Equity Ratio

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

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

Provided that:

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

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

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



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

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

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

(4) In case of 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 modernization expenditure for life extension shall be serviced in the manner specified in clause (1) of this regulation.”

44. The Petitioner has considered debt-equity ratio of 70:30 for purpose of tariff for the 2014-19 tariff period. Considering the cumulative capital expenditure (on cash basis) vis-à-vis the debt position as on COD of each block, the debt-equity ratio as on COD of Block-51, Block-52 and Block-53 works out to 65.68:34.32, 66.14:33.86 and 68.32:31.68, respectively, which are well within the normative debt-equity ratio of 70:30. Further, it is observed from the Petitioner’s submission that the additional capital expenditure claimed has been funded through internal accruals. Accordingly, in terms of Regulation 19 of the 2014 Tariff Regulations, the debt-equity ratio of 70:30 has been considered as on COD of each block, as well as for the purpose of funding of the admitted additional capital expenditure, as under:

Capital Cost	As on COD of	(%)	As on COD of	(%)	As on COD of	(%)	Additional capital	(%)	As on 31.3.2019	(%)
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	Block-51		Block-52		Block-53		expenditure from COD of Block-53 to 31.3.2019			
Debt	192800.68	70.00%	266604.58	70.00%	355228.83	70.00%	17909.23	70.00%	373138.06	70.00%
Equity	82628.86	30.00%	114259.10	30.00%	152240.93	30.00%	7675.38	30.00%	159916.31	30.00%
Total	275429.55	100.00%	380863.68	100.00%	507469.76	100.00%	25584.61	100.00%	533054.37	100.00%

Return on Equity

45. Regulations 24 and 25 of the 2014 Tariff Regulations provide 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.”

25. Tax on Return on Equity:

(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee as the case may be. The actual tax income on other income stream (i.e. income of non-generation or non-transmission business as the case may be) shall not be considered for the calculation of “effective tax rate”.



(2) Rate of return on equity shall be rounded off to three decimal places and shall be computed as per the formula given below:

Rate of pre-tax return on equity = Base rate / (1-t) Where "t" is the effective tax rate in accordance with Clause (1) of this regulation and shall be calculated at the beginning of every financial year based on the estimated profit and tax to be paid estimated in line with the provisions of the relevant Finance Act applicable for that financial year to the company on pro-rata basis by excluding the income of non-generation or non-transmission business as the case may be and the corresponding tax thereon. In case of generating company or transmission licensee paying Minimum Alternate Tax (MAT) "t" shall be considered as MAT rate including surcharge and cess.

Illustration.

(i) In case of the generating company or the transmission licensee paying Minimum Alternate Tax (MAT) @ 20.96% including surcharge and cess: Rate of return on equity = $15.50 / (1 - 0.2096) = 19.610\%$

(ii) In case of generating company or the transmission licensee paying normal corporate tax including surcharge and cess:

(a) Estimated Gross Income from generation or transmission business for FY 2014-15 is Rs 1000 crore.

(b) Estimated Advance Tax for the year on above is Rs 240 crore.

(c) Effective Tax Rate for the year 2014-15 = Rs 240 Crore / Rs 1000 Crore = 24%

(d) Rate of return on equity = $15.50 / (1 - 0.24) = 20.395\%$

(3) The generating company or the transmission licensee as the case may be shall true up the grossed up rate of return on equity at the end of every financial year based on actual tax paid together with any additional tax demand including interest thereon duly adjusted for any refund of tax including interest received from the income tax authorities pertaining to the tariff period 2014-15 to 2018-19 on actual gross income of any financial year. However, penalty if any arising on account of delay in deposit or short deposit of tax amount shall not be claimed by the generating company or the transmission licensee as the case may be. Any under-recovery or over recovery of grossed up rate on return on equity after truing up shall be recovered or refunded to beneficiaries or the long-term transmission customers/DICs as the case may be on year to year basis."

46. The Petitioner has claimed Return on Equity (ROE) considering the base rate of 15.50% and effective tax rate of 20.961% (i.e. MAT rate for 2014-15), 21.342% (i.e. MAT rate for 2015-16, 2016-17 & 2017-18) & 21.549% (i.e. MAT rate for 2018-19) for the period from COD of Block-51 to 31.3.2015, 2015-18 and 2018-19, respectively. The same is in order and has been considered for the purpose of tariff. Accordingly, ROE has been worked out as shown below:



(Rs. in lakh)

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Notional Equity-Opening	82628.86	114259.10	152240.93	155678.70	157816.17	159973.71	159927.62
Addition of Equity due to additional capital expenditure	0.00	0.00	3437.78	2137.47	2157.55	(-) 46.10	(-) 11.31
Normative Equity - Closing	82628.86	114259.10	155678.70	157816.17	159973.71	159927.62	159916.31
Average Normative Equity	82628.86	114259.10	153959.81	156747.44	158894.94	159950.67	159921.96
Return on Equity (Base Rate)	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%	15.50%
Effective Tax Rate	20.961%	20.961%	20.961%	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (Pre Tax)	19.610%	19.610%	19.610%	19.705%	19.705%	19.705%	19.758%
Return on Equity (Pre Tax)- (annualized)	16203.52	22406.21	30191.52	30887.08	31310.25	31518.28	31597.38

Interest on loan

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

“26. Interest on loan capital:

(1) The loans arrived at in the manner indicated in regulation 19 shall be considered as gross normative loan for calculation of interest on loan.

(2) The normative loan outstanding as on 1.4.2014 shall be worked out by deducting the cumulative repayment as admitted by the Commission up to 31.3.2014 from the gross normative loan.

(3) The repayment for each of the year of the tariff period 2014-19 shall be deemed to be equal to the depreciation allowed for the corresponding year/period. In case of de-capitalization of assets the repayment shall be adjusted by taking into account cumulative repayment on a pro rata basis and the adjustment should not exceed cumulative depreciation recovered upto the date of de-capitalization of such asset.

(4) Notwithstanding any moratorium period availed by the generating company or the transmission licensee as the case may be the repayment of loan shall be considered from the first year of commercial operation of the project and shall be equal to the depreciation allowed for the year or part of the year.



(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized:

Provided that if there is no actual loan for a particular year but normative loan is still outstanding the last available weighted average rate of interest shall be considered:

Provided further that if the generating station or the transmission system as the case may be does not have actual loan then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

(6) The interest on loan shall be calculated on the normative average loan of the year by applying the weighted average rate of interest.

(7) The generating company or the transmission licensee as the case may be shall make every effort to re-finance the loan as long as it results in net savings on interest and in that event the costs associated with such re-financing shall be borne by the beneficiaries and the net savings shall be shared between the beneficiaries and the generating company or the transmission licensee as the case may be in the ratio of 2:1.

(8) The changes to the terms and conditions of the loans shall be reflected from the date of such re-financing.

(9) In case of dispute any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations 1999 as amended from time to time including statutory re-enactment thereof for settlement of the dispute:

Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.

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

i) The gross normative loan corresponding to 70% of the admissible capital cost works out to Rs.192800.68 lakh, Rs.266604.58 lakh and Rs.355228.83 lakh as on COD of Block-51, Block-52 and Block-53, respectively.

ii) Cumulative repayment as on COD of Block-51 is considered as 'nil'.

iii) Accordingly, the net normative opening loan as on COD of Block-51 works out as 'nil'.

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

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

vi) The Petitioner has considered the weighted average rate of interest (WAROI) of 13.0551% for the period from COD of Block-51 to 31.3.2015,



12.6649% for the year 2015-16, 11.2705% for 2016-17, 8.5512% for 2017-18 and 8.6586% for 2018-19. Considering the terms and details of loans, the WAROI to be considered for the purpose of tariff works out as 12.6878% for the period from COD of Block-51 to COD of Block-52, 12.6977% for the period from COD of Block-52 to COD of Block-53, 12.7067% for the period from COD of Block-53 to 31.3.2015, 12.3314% for the year 2015-16, 11.2705% for the year 2016-17, 8.5512% for the year 2017-18 and 8.6586% for the year 2018-19.

49. Necessary calculations for interest on loan are as under:

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Gross opening loan	192800.68	266604.58	355228.83	363250.30	368237.73	373272.00	373164.45
Cumulative repayment of loan up to previous year / period	0.00	191.71	3501.16	13534.57	40371.72	67542.00	94917.53
Net Loan Opening	192800.68	266412.86	351727.67	349715.74	327866.01	305730.00	278246.92
Addition due to additional capital expenditure	0.00	0.00	8021.48	4987.42	5034.27	(-) 107.56	(-) 26.39
Repayment of loan during the year	191.71	3309.44	10033.41	26842.54	27174.51	27376.88	27370.87
Less: Repayment Adjustment due to de-capitalization considered during the year/period	0.00	0.00	0.00	5.40	4.23	1.35	6.37
Net Repayment of loan	191.71	3309.44	10033.41	26837.15	27170.28	27375.53	27364.50
Net Loan Closing	192608.97	263103.42	349715.74	327866.01	305730.00	278246.92	250856.03
Average Loan	192704.83	264758.14	350721.70	338790.87	316798.01	291988.46	264551.48
Weighted Average Rate of Interest on Loan	12.6878%	12.6977%	12.7067%	12.3314%	11.2705%	8.5512%	8.6586%
Interest on Loan	24449.96	33618.31	44565.07	41777.82	35704.73	24968.39	22906.56

Depreciation

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



“27. Depreciation:

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

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

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

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

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

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

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

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

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

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

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

(7) The generating company or the transmission license as the case may be shall submit the details of proposed capital expenditure during the fag end of the project



(five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.

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

51. The Petitioner has claimed depreciation considering the Weighted Average Rate Of Depreciation (WAROD) of 5.120%, 5.130%, 5.150%, 5.130%, 5.140%, 5.099% and 5.100% for the period from COD of Block-51 to COD of Block-52, COD of Block-52 to COD of Block-53, COD of Block-53 to 31.03.2015, 2015-16, 2016-17, 2017-18 and 2018-19, respectively. However, considering the value of freehold land amounting to Rs.719.67 lakh, WAROD for the period from COD of Block-51 to COD of Block-52, COD of Block-52 to COD of Block-53, COD of Block-53 to 31.03.2015, 2015-16, 2016-17, 2017-18 and 2018-19 works out as 5.0812%, 5.1155%, 5.1338%, 5.1374%, 5.1307%, 5.1347% and 5.1345%, respectively, the same has been considered for the purpose of tariff. The statement showing computation of WAROD is annexed as ‘Annexure-I’ to this order. Cumulative depreciation has been adjusted for de-capitalization considered during the period. Accordingly, depreciation allowed for the 2014-19 tariff period is as under:

Sl. No.		2014-15			2015-16	2016-17	2017-18	2018-19
		7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
A	Average Capital Cost	275429.55	380863.68	513199.38	522491.45	529649.81	533168.89	533073.22
B	Freehold land included above	719.67	719.67	719.67	719.67	719.67	719.67	719.67
C	Depreciable value @ 90% [(A-B) x 90%]	247238.89	342129.61	461231.74	469594.60	476037.12	479204.30	479118.19
D	Rate of Depreciation	5.0812%	5.1155%	5.1338%	5.1374%	5.1307%	5.1347%	5.1345%



E	Balance depreciable value (C - Previous year/period's J)	247238.89	341937.90	457730.58	456060.03	435665.40	411662.30	384200.67
F	Depreciation (for the period) (A x D)	191.71*	3309.44*	10033.41*	26842.54	27174.51	27376.88	27370.87
G	Depreciation (annualized) [A x D]	13995.15	19483.00	26346.73	26842.54	27174.51	27376.88	27370.87
H	Cumulative depreciation at the end (Previous year/period's J + F)	191.71	3501.16	13534.57	40377.11	67546.23	94918.87	122288.39
I	Cumulative depreciation adjustment on account of de-cap	0.00	0.00	0.00	5.40	4.23	1.35	6.37
J	Net cumulative depreciation at the end (H-I)	191.71	3501.16	13534.57	40371.72	67542.00	94917.53	122282.02

* Corresponding to number of days of operations during the period.

Target Availability

52. The Target Availability of 85% as allowed in order dated 31.3.2017 in Petition No. 281/GT/2015 has been considered for the purpose of tariff.

O & M Expenses

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

<i>(Rs. in lakh/MW)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
26.55	28.36	30.29	32.35	34.56

54. The O&M expenses claimed by the Petitioner in Form-3A, based on above norms, are as under:



(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
31860.00	34032.00	36348.00	38820.00	41472.00

55. As the O&M expenses claimed by Petitioner are the same as allowed by order dated 31.3.2017 in Petition No. 281/GT/2015 and are as per Regulation 29(1)(a) of the 2014 Tariff Regulations, the same are allowed.

Water Charges

56. Regulation 29(2) of the 2014 Tariff Regulations provides as under:

“29(2) Operation and Maintenance Expenses

(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:

xxxxx.”

57. The Commission in its order dated 31.3.2017 in Petition No. 281/GT/2015 had allowed water charges of Rs.2703.23 lakh during each year of the 2014-19 tariff period. The Petitioner in this petition has claimed the following water charges:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
2703.23	2889.44	3041.14	3240.99	3638.29

58. As regards the Petitioner’s claim for water charges, the Commission, in its order dated 31.3.2017 in Petition No. 281/GT/2015 had observed the following:

“61. The petitioner has submitted that the water requirement of the project is met from the reservoir of Gujarat Industrial Development Corporation (GIDC) and the project has been allotted 30 MLD (6.60 MGD) of water from Phase-II reservoir of GIDC. The petitioner has submitted that as the work of Phase-II reservoir was progressing very slowly, GIDC allowed the petitioner to draw water for initial period from the existing Phase-I reservoir as a stop gap arrangement. The petitioner has claimed Water charges in terms of Regulation 29(2) of the 2014 Tariff Regulations based on the consideration of (a) running of 3 units and (b) current actual rate of water charges (Rate/m³) during 2014-15. The petitioner has claimed water charge rate based on the actual rate of



Rs.33.68/m³ for 2014-15 and thereafter escalated @ 6.75% per year. The water charges claimed by the Petitioner are as under:

	2014-15	2015-16	2016-17	2017-18	2018-19
Unit Running	3	3	3	3	3
Water quantity (1000 M ³)	12404.16	12438.14	12404.16	12404.16	12404.16
Rate/M ³ (including drainage cess)	33.68	36.00	38.43	41.02	43.79
Water Charges	4177.72	4477.73	4766.92	5088.69	5432.17

62. The petitioner has claimed total water charges in 2014-15 on actual basis and the water charge rate is based on the actual rate for 2014-15 and there after escalated @ 6.75% per year for the period 2014-19. The petitioner has not furnished the copy of water agreement or the copy of the notification of the GIDC/Govt. of Gujarat which indicates the contracted/allocated quantum of water and water charges. **Further, the petitioner has not furnished the actual water consumption data from COD of generating station (13.11.2014) till 31.3.2016 in the additional information filed vide affidavit dated 24.5.2016. In the absence of actual water consumption data, the consumptive water claimed by the petitioner for 3 blocks (3 x 400 MW) of 1200 MW has been compared with the data of Sugan CCPP (1147.5 MW) of the petitioner which was considered in the Commission's order dated 6.10.2015 in Petition No.186/GT/2014. It is observed that the consumptive water claimed by petitioner is comparable to the claim made in Sugan CCPP Project. However, the Commission in the order dated 6.10.2015 has observed that the water quantum claimed in Sugan CCPP was much higher than the maximum water consumption during 2009-14, and accordingly, the Commission restricted the projected water quantity based on maximum consumption during 2009-14. Being similar project, the projected water quantity in case of DGEN is considered based on Sugan CCPP as 8026229 m³ in absence of actual consumption data. The rate of water charges of Rs.33.68/m³ in 2014-15 is much higher as compared to the rate of water charges in the case of Sugan CCPP Project which is in the range of Rs.19.492 to 25.944/m³. This variation is on account of that present water rate is @ Rs.25.27/ m³ and drainage cess of Rs.8.41/m³ for the generating station. The petitioner vide affidavit dated 24.5.2016 has submitted that the rate of Rs.33.68/m³ claimed in 2014-15 is the actual rate. Accordingly, the water charges rate as claimed by the petitioner for the year 2014-15 has been considered for the computation of water charges on projected basis for the period 2014-19. Based on the above discussions, the water charges for the period 2014-19 has been allowed based on the actual water charge rate of Rs.33.68/m³ in 2014-15 without any escalation in the subsequent years of the tariff period in the absence of any document furnished by the petitioner indicating that the water charges are to be escalated at the rate of 6.75%. Accordingly, the water charges allowed are as under:**

	Projected Quantity (m ³)	Rate (Rs./m ³)	Water Charges (in Rs.)
2014-15	8026229	33.68	270323393
2015-16	8026229	33.68	270323393
2016-17	8026229	33.68	270323393
2017-18	8026229	33.68	270323393
2018-19	8026229	33.68	270323393

63. The water charges allowed as above is subject to truing-up at the end of the tariff period and the petitioner is directed to place on record all relevant documents /information in support the claim."



59. Thus, in the absence of the actual data of water consumption, the Commission vide its order dated 31.3.2017 in Petition No. 281/GT/2015 had allowed the projected water charges for the generating station, as 8026229 M³, based on the similar project i.e. Sugan CCPP. The Commission had also directed the Petitioner to place on record all relevant documents/ information in support of the claim of water charges. The Petitioner, instead of furnishing the actual consumption of water during the 2014-19 tariff period, has only furnished the applicable rates and computed the water charges based on the quantity of water as allowed on projected basis, considering the similar project of Sugan CCPP as 8026229 M³. Further, the Petitioner has furnished only one month water charges bill (for the month of March) for each financial year of the tariff period. The details furnished by Petitioner in water charges bills is as under:

Sl. No.	Particulars	2014-15 (March-15)	2015-16 (March-16)	2016-17 (March-17)	2017-18 (March-18)	2018-19 (March-19)
1	Consumption of water (Cu.m) (March)	27481	360996	35287	82206	54822
2	Rate of water charges Rs./Cum	25.27	27.04	28.99	31.13	34.84
3	Current month water charges (1x2) (Rs.)	694445	9761332	1022970	2559073	1909998
4	Rate of Drainage Cess	8.41	8.96	8.90	9.25	10.49
5	Current month drainage charges (1x4) (Rs.)	231115	3234524	314054	760405	575083
6	Total monthly bill (3+5) (Rs.)	925560	12995856	1337024	3319478	2485081

60. It is evident from the water charges bills that the Petitioner has paid water charges based on actual consumption of water, during the month and not as per the contracted quantity of the generating station. Though the Petitioner was required to furnish the audited accounts, certifying the actual water bills paid, it has furnished only one month water bill in each year. In view of this, the actual water charges bills furnished by the petitioner has been considered as the actual water bills. Accordingly, the annual water charges for the 2014-19 tariff period has been allowed as under:



(Rs.in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
9.26	129.96	13.37	33.19	24.85

Capital Spares

61. Regulation 29(2) of the 2014 Tariff Regulations provides as under:

“29(2) Operation and Maintenance Expenses

(2) xxxx:

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.”

62. The Petitioner in Form-15 has claimed actual capital spares incurred as under:

(Rs in lakh)

Details of Capital Spares and Expenses		Claimed as a part of additional Capitalisation	Funded through compensatory allowance	Funded through Special allowance (If Applicable)	Claimed as a part of stores and spares
Name of spare	Amount				
Mandatory spares under EPC Contract	11753.72	-	N.A.	N.A.	N.A.
Mandatory spares under EPC Contract	17432.28	17432.28	N.A.	N.A.	N.A.

63. The Petitioner, instead of furnishing details of capital spares in Form-17, has furnished the details of the total mandatory spares (initial spares) for Rs.29185.00 lakh. It is observed that spares in Form 17, is linked to initial spares in Form 5C. The Petitioner has, however, not furnished any details of the actual capital spares consumed during the 2014-19 tariff period. In view of the above, capital spares have not been allowed.



64. Accordingly, the total O&M expenses allowed between COD of Block-51 to COD of Block-52, COD of Block-52 to COD of Block-53 and COD of Block-53 to 31.3.2015 and for the period 2015-19 is summarised as under:

<i>(Rs.in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses under Regulation 29(1)(a) of the 2014 Tariff Regulations	31860.00	34032.00	36348.00	38820.00	41472.00
O&M expenses under Regulation 29(2) of the 2014 Tariff Regulations					
Water Charges	9.26	129.96	13.37	33.19	24.85
Total O&M expenses allowed	31869.26	34161.96	36361.37	38853.19	41496.85

Interest on Working Capital

65. Sub-section (b) of clause (1) of Regulation 28 of the 2014 Tariff Regulations provides as under:

“28 (1) the working capital shall cover:

Open-cycle Gas Turbine/Combined Cycle thermal generating stations

(i) Fuel cost for 30 days corresponding to the normative annual plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel;

(ii) Liquid fuel stock for 15 days corresponding to the normative annual plant availability factor, and in case of use of more than one liquid fuel, cost of main liquid fuel duly taking into account mode of operation of the generating stations of gas fuel and liquid fuel;

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

(iv) Receivables equivalent to two months of capacity charge and energy charge for sale of electricity calculated on normative plant availability factor, duly taking into account mode of operation of the generating station on gas fuel and liquid fuel; and

(v) Operation and maintenance expenses for one month.

Fuel Cost and Energy Charges in Working Capital

66. The Commission vide its order dated 31.3.2017 in Petition No.281/GT/2015 had allowed the following fuel cost:



	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Fuel cost (30 days)	21647.64	21647.64	21647.64	21647.64	21647.64
Energy Charge for 2 months	43896.61	44016.87	43896.61	43896.61	43896.61
Cost of liquid for 15 days	0.00	0.00	0.00	0.00	0.00

67. The Petitioner has claimed the following fuel cost:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Fuel cost (30 days)	21647.64	21647.64	21647.64	21647.64	21647.64
Energy Charge for 2 months	43896.61	44016.87	43896.61	43896.61	43896.61
Cost of liquid for 15 days	0.00	0.00	0.00	10823.82	10823.82

68. It is evident from above that the Petitioner has claimed the cost of liquid for 15 days during the period 2017-19 which was not allowed by order dated 31.3.2017 in Petition No. 281/GT/2015. The Petitioner has furnished the following justification for the claims of the cost of liquid for 15 days during 2017-19.

(i) Liquid Fuel stock: Regulation 28(b)(ii) of the 2014 Tariff Regulations allows Liquid fuel stock for 15 days corresponding to normative annual plant availability factor. There is a shortfall of domestic gas availability in India since 2011-12. Due to such shortfall, the Petitioner needs to arrange fuel from alternate source i.e. direct import of LNG or procurement of LNG from marketing companies like GAIL, IOCL and BPCL etc. However, the Petitioner has started direct import of LNG to meet power offtake requirement at economic price.

(ii) The following facts relate to direct import of LNG:

- The procurement process of LNG is divided into two broad categories i.e. (a) contractual process and (b) operational process. The contractual process involves floating of RFP, Bid Evaluation and Contract award. It generally takes 15 days.
- Operational process involves (for delivery) booking of loading port, LNG delivery ship and unloading port. As per standard practice, such process requires 45 days period. Such period is required to keep margin for unforeseen or force majeure events including transportation time from loading port to unloading port (to ensure timely delivery).
- In view of the same, it is necessary to keep inventory of 60 days of Liquid Fuel (LNG).



69. The above-mentioned liquid fuel stock was not considered at the time of approval of tariff vide order dated 31.3.2017 in Petition No.281/GT/2015 as the Petitioner had started import of LNG from 2017. Further, Regulation 28(b)(ii) allows Liquid fuel stock for 15 days corresponding to the normative annual plant availability factor.

70. The matter has been examined. Regulation 28(b)(ii) of the 2014 Tariff Regulations provides that if the generator uses more than one fuel, in that event, depending upon the cost of main liquid fuel, duly taking into account the mode of operation of the generating station of gas fuel and liquid fuel, the cost of liquid fuel can be allowed. Further, to claim the cost of liquid fuel stock, the Petitioner is required to furnish details in Form-15, such as quantity of liquid fuel procured during the three months prior to COD/ three months preceding the start of the tariff period, GCV of the fuel and cost at which fuel as procured. The Petitioner, in Petition No.281/GT/2015 had claimed RLNG as the main fuel and had not claimed the liquid fuel stock for 15 days and, hence, the same was not allowed, However, in the present petition, the Petitioner has claimed liquid fuel stock for 15 days, considering LNG as the alternate liquid fuel. The Petitioner has, however, not furnished the details of liquid fuel procured/ used during the period 2017-19. In view of this, the liquid fuel stock for 15 days as claimed by the Petitioner for the period 2017-19 is not allowed.

71. As the Fuel cost (gas) for 30 days and Energy Charge for 2 months claimed by the Petitioner is the same as allowed vide order dated 31.3.2017 in Petition No. 281/GT/2015, the same is considered as under:



(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Fuel cost (30 days)	21647.64	21647.64	21647.64	21647.64	21647.64
Energy Charge for 2 months	43896.61	44016.87	43896.61	43896.61	43896.61
Cost of liquid for 15 days	0.00	0.00	0.00	0.00	0.00

O & M Expenses (1 month)

72. O&M expenses for 1 month claimed by the Petitioner in Form-13B for the purpose of working capital are as under:

(Rs. in lakh)

7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015	2015-16	2016-17	2017-18	2018-19
960.09	1920.18	2880.27	3076.79	3282.43	3505.08	3759.19

73. The Commission vide its order dated 31.3.2017 in Petition No 281/GT/2015, based on the projected water charges claimed by the Petitioner, had allowed O&M expenses for 1 month as under:

(Rs. in lakh)

7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015	2015-16	2016-17	2017-18	2018-19
960.09	1920.18	2880.27	3061.27	3254.27	3460.27	3681.27

74. Regulation 28(b)(v) of the 2014 Tariff Regulations provides for O&M expenses for one month for gas-based generating station. Accordingly, one-month O&M expenses allowed for the purpose of tariff is as under:

(Rs. in lakh)

7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015	2015-16	2016-17	2017-18	2018-19
885.26	1770.51	2655.77	2846.83	3030.11	3237.77	3458.07

75. The difference in the O&M expenses for 1 month claimed by the Petitioner and as allowed now in true-up petition is due to the fact that water charges allowed are less than the water charges claimed by the Petitioner during the 2014-19 tariff period.



Maintenance Spares

76. The Petitioner in Form-13B has claimed maintenance spares in working capital as under:

<i>(Rs. in lakh)</i>						
7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015	2015-16	2016-17	2017-18	2018-19
3456.32	6912.65	10368.97	11076.43	11816.74	12618.30	13533.09

77. The Commission vide its order dated 31.3.2017 in Petition No. 281/GT/2015, based on the projected water charges claimed by the Petitioner, allowed the O&M expenses for 1 month as under:

<i>(Rs. in lakh)</i>						
7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015	2015-16	2016-17	2017-18	2018-19
3456.32	6912.65	10368.97	11020.57	11715.37	12456.97	13252.57

78. Accordingly, maintenance spares, based on Regulation 28(b)(v) of the 2014 Tariff Regulations is allowed as under:

<i>(Rs. in lakh)</i>						
7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015	2015-16	2016-17	2017-18	2018-19
3186.93	6373.85	9560.78	10248.59	10908.41	11655.96	12449.06

79. The difference in the maintenance spares claimed by the Petitioner as against those allowed is due to the fact that the water charges allowed in this order are lesser than the water charges claimed by the Petitioner in this petition.

Receivables equivalent to two months of Capacity Charge & Energy Charge

80. The receivables have been worked out on the basis of two months of fixed and energy charges (duly taking into account mode of operation of station on gas fuel and liquid fuel) as shown below:



(Rs. in lakh)

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Variable Charges - for two months	43896.61	43896.61	43896.61	44016.87	43896.61	43896.61	43896.61
Fixed Charges – for two months	12731.45	18192.95	24462.11	24603.92	24088.84	22775.08	22910.08
Total	56628.05	62089.56	68358.72	68620.79	67985.44	66671.69	66806.68

Rate of Interest on working capital

81. In line with the Regulation 28(3) of the 2014 Tariff Regulations, the rate of interest on working capital has been considered as 13.50%.

82. Accordingly, Interest on Working Capital is allowed as under:

(Rs. in lakh)

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Cost of fuel – 30 days	21647.64	21647.64	21647.64	21647.64	21647.64	21647.64	21647.64
Liquid fuel stock – 15 days	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Maintenance Spares @ 30% of O&M expenses	3186.93	6373.85	9560.78	10248.59	10908.41	11655.96	12449.06
Receivables – Two months	56628.05	62089.56	68358.72	68620.79	67985.44	66671.69	66806.68
O&M expenses – One month	885.26	1770.51	2655.77	2846.83	3030.11	3237.77	3458.07
Total Working Capital	82347.88	91881.56	102222.91	103363.85	103571.61	103213.06	104361.45
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	11116.96	12404.01	13800.09	13954.12	13982.17	13933.76	14088.80

Annual Fixed Charges



83. The annual fixed charges approved for the generating station (after truing-up exercise) for the 2014-19 tariff period is summarized as under:

(Rs. in lakh)

	2014-15			2015-16	2016-17	2017-18	2018-19
	7.9.2014 to 11.9.2014	12.9.2014 to 12.11.2014	13.11.2014 to 31.3.2015				
Depreciation	13995.15	19483.00	26346.73	26842.54	27174.51	27376.88	27370.87
Interest on Loan	24449.96	33618.31	44565.07	41777.82	35704.73	24968.39	22906.56
Return on Equity	16203.52	22406.21	30191.52	30887.08	31310.25	31518.28	31597.38
Interest on Working Capital	11116.96	12404.01	13800.09	13954.12	13982.17	13933.76	14088.80
O&M Expenses	10623.09	21246.17	31869.26	34161.96	36361.37	38853.19	41496.85
Total	76388.67	109157.70	146772.66	147623.53	144533.02	136650.50	137460.45

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

PSDF Fund based Gas Plant Revival Scheme of MoP, GOI

84. Regulation 23A of the 2014 Tariff Regulations provides as under:

“23A. Tariff Determination of Gas based generating stations: The tariff of gas based generating stations covered under the “Scheme for Utilization of Gas based power generation capacity” issued by the Government of India, Ministry of Power vide Office Memorandum No. 4/2/2015-Th.1 dated 27.3.2015 shall be determined in due consideration of the provisions of that scheme in deviation of the relevant regulations”.

85. The generating station of the Petitioner is covered under the PSDF scheme dated 27.3.2015 issued by MOP, GOI. In this regard, the Commission vide its order dated 31.3.2017 in Petition No. 281/GT/2015 had directed the Petitioner to furnish certain additional information at the time of truing up of tariff and decided that the tariff for the period from 1.6.2015 to 30.9.2015 and from 1.10.2015 to 31.3.2015 charged from the Discoms shall not be higher than the net target price of electricity sold. The relevant portion of the order is extracted below:



“68. The Scheme for utilization of gas based power generation capacity is presently applicable for the years 2015-16 and 2016-17. The Regulation 23A shall be applicable on the eligible gas based power plants. The petitioner in terms of the above scheme was the successful bidder for PSDF support for the period from 1.6.2015 to 30.9.2015 and from 1.10.2015 to 31.3.2016 under PSDF scheme. This project of the petitioner has been allocated RLNG to the extent of 226.23 MMSCM which is equivalent to 35% PLF during the period from June, 2015 to September, 2015. During the period from October, 2015 to March, 2015 the allocation should be 240.88 MMSCM (approx) equivalent to 25% PLF. The petitioner has stated that it has availed PSDF scheme during the period from 1.6.2015 to 30.9.2015 and from 1.10.2015 to 31.3.2016 and is likely to avail PSDF up to 31.3.2017. However, the petitioner has not furnished any details about the distribution companies to whom it has supplied/to be supplied power during the period from 1.6.2015 to 30.9.2015 and from 1.10.2015 to 31.3.2016. In view of this, the petitioner at the time of truing up shall furnish the following information;

- i) The distribution companies to whom power was supplied under the PSDF scheme during the period from 1.6.2015 to 30.9.2015 and from 1.10.2015 to 31.3.2016;*
- ii) The incremental electricity generated at target PLF and the target price at which the same were sold to the distribution companies;*
- iii) Details of the quantum of RLNG allocated under the PSDF scheme and whether the same was fully utilized for generation up to the target PLF;*
- iv) Whether there was any generation of electricity over & above the target PLF during the said period. If yes, the quantum*

86. The Petitioner, in the present petition, has submitted the following information:

- i) The power was supplied to TPL-Distribution Licensee during the period from 1.6.2015 to 30.9.2015 and from 1.10.2015 to 31.3.2016;
- ii) The incremental electricity generated at target PLF is as below:
 - (a) **For the period from 1st June 2015 to 30th September 2015**
 - i. Total electricity units: 1,258,181,000 Units
 - ii. Units for Power System Development Fund: 1,187,333,280 Units
 - (b) **1st October 2015 to 31st March 2016**
 - i. Total electricity units: 1,392,209,500 Units
 - ii. Units for Power System Development Fund: 1,305,429,347 units
- iii) The net target price at which the electricity sold to the distribution companies (considering PSDF support provided from GoI) is as below:
 - (a) 1st June 2015 to 30th September 2015: Rs. 3.99/Unit
 - (b) 1st October 2015 to 31st March 2016: Rs. 3.99/Unit
- iv) The quantum of RLNG allocated under the PSDF scheme is as below:
 - (a) 1st June 2015 to 30th September 2015: 87,97,908 MMBTU on GHV basis
 - (b) 1st October 2015 to 31st March 2016: 96,72,977 MMBTU on GHV basis



The above quantity was fully utilized for generation up to the target PLF.

v) The details of generation of electricity over & above the target PLF (i.e. above PSDC units) is as below:

(a) 1st June 2015 to 30th September 2015: 70,847,720 Units

(b) 1st October 2015 to 31st March 2016: 86,780,153 Units

The above electricity was also supplied to TPL-Distribution Licensee.

87. The aforesaid information was sought only to bring on record the amount of gas used by the Petitioner through PSDF and the price at which energy was sold to consumers. The beneficiaries may reconcile the data furnished by the Petitioner in this petition with the actual benefit incurred under the PSDF scheme.

88. The difference between the annual fixed charges already recovered by the Petitioner in terms of order dated 31.3.2017 in Petition No. 281/GT/2015 and the annual fixed charges determined by this order, shall be adjusted in terms of Regulation 8(13) of the 2014 Tariff Regulations.

89. Annexure-I forms part of this order.

90. Petition No. 278/GT/2020 is disposed of in terms of the above.

Sd/-
(Pravas Kumar Singh)
Member

Sd/-
(I.S. Jha)
Member

Sd/-
(P.K. Pujari)
Chairperson



Annexure-I

Statement showing computation of weighted average rate of depreciation:

(Rs. in lakh)

Name of assets	Depreciation Rate	From COD of Block-51 to COD of Block-52		From COD of Block-52 to COD of Block-53		From COD of Block-53 to 31.3.2015		2015-16		2016-17		2017-18		2018-19		
		Gross Block as on COD-51	Depreciation Amount	Gross Block as on COD-52	Depreciation Amount	Gross Block as on COD-53	Depreciation Amount	Gross Block as on 01.04.2015	Depreciation Amount	Gross Block as on 01.04.2016	Depreciation Amount	Gross Block as on 01.04.2017	Depreciation Amount	Gross Block as on 01.04.2018	Depreciation Amount	Gross Block as on 31.03.2019
Freehold Land	0.00%	719.67	0.00	719.67	0.00	719.67	0.00	719.67	0.00	719.67	0.00	719.67	0.00	719.67	0.00	719.67
Leasehold Land	3.34%	10555.79	352.56	10555.79	352.56	10555.79	352.56	10555.79	354.02	10643.04	355.48	10643.04	355.48	10643.04	355.48	10643.04
Building & Civil Engineering Works																
Offices & Showrooms	3.34%	1645.73	54.97	1645.73	54.97	1645.73	54.97	1645.73	54.97	1645.73	54.97	1645.73	27.48	0.00	0.00	0.00
Containing Thermo Electric Generating Plant	3.34%	14972.91	500.10	14972.91	629.45	22718.90	756.67	22590.54	757.53	22770.77	760.70	22779.95	380.43	0.00	0.00	0.00
Other Buildings	3.34%	3184.93	106.38	3184.93	106.38	3184.93	106.55	3195.49	203.63	8998.08	301.36	9047.46	151.09	0.00	0.00	0.00
Roads other than Kucha road	3.34%	11766.38	393.00	11766.38	393.23	11780.38	401.41	12256.23	412.71	12457.01	416.06	12457.01	208.03	0.00	0.00	0.00
Temporary erection	100.00%	92.68	92.68	92.68	92.82	92.95	172.93	252.90	252.97	253.04	253.04	253.04	253.04	253.04	253.04	253.04
Building & civil works	3.34%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	* 767.03	45930.15	1534.07	45930.15
Plant & Machinery																
Diesel Electric & Gas Plant	5.28%	183954.96	12363.68	284366.16	17713.92	386615.49	20426.29	387107.68	20235.28	379380.17	20690.16	404338.05	22310.74	440765.55	23272.42	440765.55
Cooling Tower & Circulating water system	5.28%	23776.26	1496.77	32919.67	1792.67	34984.37	1883.50	36360.50	1919.83	36360.50	1919.83	36360.50	959.92	0.00	0.00	0.00



Name of assets	Depreciation Rate	From COD of Block-51 to COD of Block-52		From COD of Block-52 to COD of Block-53		From COD of Block-53 to 31.3.2015		2015-16		2016-17		2017-18		2018-19		
		Gross Block as on COD-51	Depreciation Amount	Gross Block as on COD-52	Depreciation Amount	Gross Block as on COD-53	Depreciation Amount	Gross Block as on 01.04.2015	Depreciation Amount	Gross Block as on 01.04.2016	Depreciation Amount	Gross Block as on 01.04.2017	Depreciation Amount	Gross Block as on 01.04.2018	Depreciation Amount	Gross Block as on 31.03.2019
Transformers, Kiosk, Sub-Station Equipment & Other Fixed Apparatus (including Plant)																
Transformer including foundation	5.28%	9088.73	720.99	18221.61	1211.68	27675.31	1427.58	26399.62	1396.03	26480.35	1398.16	26480.35	1398.16	26480.35	1396.17	26480.35
Switchgear including Cable Connections	5.28%	3838.39	202.67	3838.39	202.35	3826.55	201.36	3800.59	200.67	3800.59	200.67	3800.59	200.67	3800.59	200.67	3800.59
Lightning Arrestor - Station Type	5.28%	1574.68	83.14	1574.68	83.01	1569.79	82.60	1559.14	82.32	1559.14	82.32	1559.14	82.32	1559.14	82.32	1559.14
Meters	5.28%	224.37	11.85	224.37	11.83	223.68	11.77	222.16	12.10	236.17	12.74	246.26	13.01	246.61	13.02	246.61
Airconditioning Plant – Static	5.28%	3194.27	168.66	3194.27	168.40	3184.67	168.48	3197.22	168.81	3197.22	168.81	3197.22	168.81	3197.22	168.81	3197.22
Street Light Fitting	5.28%	177.58	9.38	177.58	9.38	177.58	9.38	177.58	9.38	177.58	9.38	177.58	9.38	177.58	9.38	177.58
Furniture and fixtures	6.33%	207.86	13.63	222.89	14.23	226.86	18.77	366.15	27.92	515.97	33.22	533.49	33.80	534.30	33.82	534.30
Other Office Equipment	6.33%	133.90	8.48	133.90	9.17	155.79	11.29	201.02	15.42	286.17	18.22	289.51	18.60	298.17	19.07	304.33
Internal Wiring	6.33%	321.37	20.34	321.37	20.34	321.37	20.34	321.37	36.18	821.62	52.01	821.62	52.13	825.33	52.25	825.43
IT Equipment (incl. software)	15.00%	263.16	39.47	263.16	39.47	263.16	39.56	264.25	40.04	269.64	41.67	285.91	42.89	285.91	43.83	298.55
Self -Propelled Vehicles	9.50%	308.69	29.33	308.69	29.29	307.99	29.24	307.53	34.72	423.42	42.42	469.67	46.94	518.62	47.51	481.49
Communication equipment	6.33%	1074.16	67.99	1074.16	67.47	1057.71	66.73	1050.55	66.58	1052.97	66.65	1052.97	66.65	1052.97	66.65	1052.97
For Dedicated Transmission																



Name of assets	Depreciation Rate	From COD of Block-51 to COD of Block-52		From COD of Block-52 to COD of Block-53		From COD of Block-53 to 31.3.2015		2015-16		2016-17		2017-18		2018-19		
		Gross Block as on COD-51	Depreciation Amount	Gross Block as on COD-52	Depreciation Amount	Gross Block as on COD-53	Depreciation Amount	Gross Block as on 01.04.2015	Depreciation Amount	Gross Block as on 01.04.2016	Depreciation Amount	Gross Block as on 01.04.2017	Depreciation Amount	Gross Block as on 01.04.2018	Depreciation Amount	Gross Block as on 31.03.2019
Line																
Lines	5.28%	27197.25	1436.01	27197.25	1436.01	27197.25	1426.81	26848.56	1417.60	26848.56	1417.60	26848.56	1409.64	26547.01	1401.68	26547.01
Building & Civil Engineering Works	3.34%	23.21	0.78	23.21	0.78	23.21	0.78	23.21	0.78	23.21	0.78	23.21	0.78	23.21	0.78	23.21
Others not covered above	5.28%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	75.39	3.98	75.39	4.01	76.49
Total		298296.93	18172.85	416999.45	24439.42	538509.13	27669.56	539423.48	27699.50	538920.62	28296.25	564105.92	28961.00	563933.85	28954.98	563916.72
Weighted Average Rate of Depreciation		5.0812%		5.1155%		5.1338%		5.1374%		5.1307%		5.1347%		5.1345%		

* Depreciation calculated on average value

