

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 528/GT/2020

Coram:

**Shri Jishnu Barua, Chairperson
Shri Arun Goyal, Member
Shri Ramesh Babu V, Member**

Date of Order: 20th June, 2024

In the matter of

Petition for revision of tariff in respect of NTPL (1000 MW) coal based Thermal Power Station for the period 2014-19 after truing-up exercise.

And

In the matter of

NLC Tamil Nadu Power Limited,
First Floor, No.8, Mayor Sathyamurthy Road,
FSD, Egmore Complex of Food Corporation of India,
Chetpet, Chennai-600031,
Tamil Nadu, India

...Petitioner

Vs

1. Tamilnadu Generation and Distribution Corporation Limited,
NPKRR Maaligai, 144, Anna Salai, Chennai – 600002.
2. Transmission Corporation of Andhra Pradesh,
VidyutSoudha, Khairatabad, Hyderabad – 500082
3. Southern Power Distribution Company of Andhra Pradesh Limited,
D. No: 19-13-65/A, Srinivasapuram, Tiruchhanur Road,
Kesavayanagunta, Tirupati (AP) – 517501
4. Eastern Power Distribution Company of Andhra Pradesh Limited,
Corporate Office P&T Colony, Seethammadhara,
Visakhapatnam (AP) – 530013
5. Transmission Corporation of Telangana Limited,
Vidyut Soudha Khairatabad, Hyderabad – 500082
6. Northern Power Distribution Company of Telangana Limited,
H.No 1-1-504, Opp. NIT petrol pump, Chaityanarayani colony,
Hanamkonda, Warangal (Telangana) – 506004



7. Southern Power Distribution Company of Telangana Limited,
2nd Floor, H.No. 6-1-50, Mint Compound, Hyderabad – 500063
8. Power Company of Karnataka Limited,
KPTCL Complex, Kaveri Bhawan, Bangalore – 560009
9. Bangalore Electricity Supply Company Ltd,
Krishna Rajendra Circle, Bangalore – 560001
10. Mangalore Electricity Supply Company Limited,
Paradigm Plaza A.B Shetty circle, Mangalore – 560009
11. Chamundeshwari Electricity Supply Company Limited,
Corporate Office No. 927, L.J Avenue, New Kantharaj Urs Road,
Saraswathipuram, Mysore – 570009
12. Gulbarga Electricity Supply Company Limited,
Main Road, Gulbarga, Karnataka – 585102
13. Hubli Electricity Supply Company Limited,
PB.Road, Navanagar, Hubli – 580025
14. Kerala State Electricity Board,
Vaidyuthi Bavanam, Pattom
Thiruvananthapuram – 695004
15. Puducherry Electricity Department,
137, NSC Bose Salai, Puducherry – 605001

.... Respondents

Parties present:

Ms. Anushree Bardhan, Advocate, NTPL
Ms. Surbhi Kapoor, Advocate, NTPL
Ms. Shirsa Saraswati, Advocate, NTPL
Ms. Ratna Chowdhury, NTPL
Shri D. Tulasi Kumar, NTPL
Shri S. Vallinayagam, Advocate, TANGEDCO

ORDER

This Petition has been filed by the Petitioner, NLC Tamil Nadu Power Limited (in short 'NTPL') for truing-up of the tariff of NLC Tamil Nadu Power Limited TPS (2 x 500 MW) (in short, 'the generating station'), for the period from the date of commercial operation (COD) of Unit-I & Unit-II till 31.3.2019, based on the provisions of the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2014 ("the



2014 Tariff Regulations”). The Petitioner is a Joint Venture Company of Neyveli Lignite Corporation (NLC) and TANGEDCO and is a subsidiary of NLC India Ltd. The said company was incorporated on 18.11.2005 to implement the power project (coal-fired) at Tuticorin, and the promoters, namely, NLC and TNEB/TANGEDCO, share the equity in the ratio of 89:11, respectively. The generating station is a coal-based thermal power project located at the Harbour estate of Tuticorin Port Trust (TPT) and is adjacent to the Tuticorin Thermal Power Station in Tamil Nadu.

Background

2. The investment approval of the project comprising two units of 500 MW each was sanctioned on 12.5.2008 by the Govt. of India at a cost of Rs.4909.54 crore at the April 2007 price level. As per the Govt. of India (GOI) guidelines, the Revised Cost Estimate (RCE) was submitted and approved on 9.12.2013 by the GOI. The approved project cost as per RCE-I is Rs.6602.74 crore, including IDC at the June 2013 price level. Further, RCE-II of Rs. 7293.48 crore was approved by the GOI on 27.4.2016, including IDC of Rs.1379.15 crore and foreign exchange component of Rs. 93.11 crore, equivalent to US \$18.10 million at the June 2015 price level.

3. The Petitioner has entered into Power Purchase Agreements (PPA) with the Respondent beneficiaries and the Ministry of Power, GOI had allocated the power generated from this project amongst the Respondent beneficiaries on 9.8.2010, as under:

Tamil Nadu	387 MW
Andhra Pradesh &Telangana	254.6 MW
Karnataka	157.9 MW
Kerala	72.5 MW
Puducherry	9.5 MW
Un-allocated	118.5 MW

4. The Commission, *vide* its order dated 11.7.2017 in Petition No. 135/GT/2015, had approved the capital cost and the annual fixed charges of the generating station for the



period 2014-19, vide order dated 11.7.2017, as under:

Capital cost allowed

	2015-16		2016-17	2017-18	(Rs. in lakh) 2018-19
	18.6.2015 to 28.8.2015 (Unit I)	29.8.2015 to 31.3.2016 (Unit I & Unit II)			
Opening Capital cost excluding IDC and Normative IDC	234629.88	463694.98	-	-	-
IDC allowed	25810.19	52958.13	-	-	-
Normative IDC allowed	1415.24	2846.80	-	-	-
Less: Unexplained funding gap	15735.48	2830.88	-	-	-
Opening capital cost	246119.82	516669.04	516669.04	516947.54	522377.54
Additional capital expenditure allowed	-	-	278.50	5430.00	-
Capital Cost as on 31st March of the year	246119.82	516669.04	516947.54	522377.54	522377.54

Annual Fixed Charges allowed

	2015-16		2016-17	2017-18	(Rs. in lakh) 2018-19
	18.6.2015 to 28.8.2015 (Unit I)	29.8.2015 to 31.3.2016 (Unit I & Unit II)			
Return on Equity	2211.06	13469.73	22830.19	22962.92	23089.16
Interest on Loan	3385.50	21152.14	33745.70	31318.90	28868.26
Depreciation	2530.76	15935.09	26228.02	26372.87	26510.66
Interest on Working Capital	679.18	4871.56	9601.75	9781.03	9805.90
O&M expenses	1734.60	10223.15	18392.56	19532.56	20742.56
Total	10541.10	65651.67	110798.23	109968.28	109016.54

5. Aggrieved by the order dated 11.7.2017, the Petitioner filed a Review Petition No.

38/RP/2017, seeking review on the following grounds:

- To consider & allow the projected un-discharged liabilities to the tune of Rs.1069.31 crore in the tariff computation.
- To correct the error in the funding gap to tune of Rs. 157.35 crore for Unit I and Rs.28.31 crore for the station and allow the same for tariff computation.
- To allow the grossing up MAT/Applicable tax from the financial year 2017-18 in the computation of ROE.
- To allow the additional O&M of Rs.2.208 lakh/MW for the additional facilities of NTPL.
- To consider the share application money of Rs. 14.61 crores remitted by JV partner on 7.8.2015 as equity for tariff computation.
- To consider startup fuel cost of Rs. 199.18 crores in full for tariff computation.
- To allow the IDC, IEDC, Normative interest and overheads in full considering the details



mentioned in Review Petition No. 38/RP/2017.

6. The Commission, vide its order dated 26.12.2018, disposed of the Review Petition No. 38/RP/2017, rejecting the issues related to the undischarged liabilities to the tune of Rs. 1069.31 crore, funding gap, Normative IDC, and delay and consequential IDC and IEDC on the ground that there is no error apparent on the face of the record. As regards issues (c) to (f) above, the Commission observed that the same will be considered at the time of the truing-up of the tariff.

Present Petition

7. Clause (1) of Regulation 8 of the 2014 Tariff Regulations provides as follows:

“8. Truing up

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

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

8. In terms of the above, the Petitioner has filed the present petition for the truing-up of tariff for the period 2014-19 and has claimed the following capital cost and annual fixed charges:

Capital Cost claimed

S. N.		2015-16		2016-17	2017-18	2018-19
		(Unit I)	(Station COD)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
A	Opening Capital Cost	246119.83	516669.03	534116.56	561373.58	594107.45
B	Add: Addition during the year / period	-	17447.53	27257.02	32733.87	9546.83
C	Less: Decapitalization during the year /period	-	-	-	-	-
D	Less: Reversal during the year / period	-	-	-	-	-
E	Add: Discharges during the year /period	-	-	-	-	-
F	Closing Capital Cost	246119.83	534116.56	561373.58	594107.45	603654.28



S. N.		2015-16		2016-17	2017-18	2018-19
		(Unit I)	(Station COD)			
(1)	(2)	(3)	(4)	(5)	(6)	(7)
G	Average Capital Cost	246119.83	525392.79	547745.07	577740.51	598880.87

Annual Fixed Charges claimed

	2015-16		2016-17	2017-18	2018-19
	(Unit I)	(Station COD)			
Return on Equity	11239.58	23229.37	30852.63	32625.81	33966.64
Interest on Loan	17209.98	36411.35	35705.71	34862.11	33269.94
Depreciation	12864.68	28368.84	28683.52	30205.79	31278.67
Interest on Working Capital	4708.34	9622.97	9875.66	10170.88	10271.81
O&M expenses	8518.04	17023.04	18412.04	19718.71	21038.45
Total	54540.61	114655.57	123529.57	127583.30	129825.51

9. Respondent TANGEDCO and the Respondent (KSEBL) have filed their replies vide affidavits dated 11.9.2020 and 20.7.2021, respectively and the Petitioner has filed its rejoinder to the same vide affidavit dated 18.1.2021 (TANGEDCO) and 26.7.2021 (KSEBL). The Petition was heard on 6.9.2022 along with Petition No. 254/GT/2020, and the Commission directed the Petitioner to submit certain additional information. In response, the Petitioner, vide affidavit dated 21.9.2022, filed the additional information after serving copies to the Respondent. The Respondent TANGEDCO has filed its reply vide affidavit dated 6.10.2022 to the additional information, and the Petitioner vide affidavit dated 18.10.2022 has filed its rejoinder to the said reply. The Petition was thereafter heard on 2.11.2022, and the Commission, after directing the Petitioner to submit certain additional information, reserved its order in the matter. In response, the Petitioner vide affidavit dated 12.12.2022 has filed the additional information after serving a copy to the Respondents. The Respondent TANGEDCO vide affidavit dated 20.12.2022, has filed its reply to the additional information and the Petitioner, vide affidavit dated 29.12.2022, has filed its rejoinder to the same. Since the order in the present Petition could not be issued prior to one Member of this Commission, who



formed part of the Coram demitting office, this Petition was re-listed and heard on 6.2.2024, and the Commission, after directing the Petitioner to file certain additional information, reserved its order in the Petition. The Petitioner has filed the additional information vide affidavit dated 23.2.2024, after serving a copy to the Respondents. However, as the order in the Petition (which was reserved on 6.2.2024) could not be issued prior to one Member, who formed part of the Coram, demitting office, the matter has been again re-listed for hearing on 29.5.2024. During the hearing, the learned counsels for the Petitioner and the Respondent TANGEDCO submitted that since the pleadings and arguments have already been completed, the Commission may reserve its order in the petition. Based on the consent of the parties, the Commission reserved its order in the petition. Accordingly, based on the submissions of the parties and the documents available on record, we proceed to truing-up the tariff of the generating station for the period 2015-19, as stated in the subsequent paragraphs.

Capital Cost

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

“9. Capital Cost:

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

(a) the capital cost admitted by the Commission prior to 1.4.2014 duly trued up by excluding liability, if any, as on 1.4.2014.

(b) additional capitalization and de-capitalization for the respective year of tariff as determined in accordance with Regulation 14; and

(c) expenditure on account of renovation and modernization as admitted by this Commission in accordance with Regulation 15.

xxx...”



11. The Petitioner has claimed capital cost as on COD of Unit-I and COD of Unit-II/ generating station as follows:

<i>(Rs. in lakh)</i>	
As on COD of Unit-I	As on the COD of generating station
246119.83	516669.03

12. The Commission vide order dated 11.7.2017 in Petition No. 135/GT/2015 had admitted the opening capital cost of Rs.246119.82 lakh as on COD of Unit-I and Rs. 516669.04 lakh, as on the COD of the Unit-II/generating station. Therefore, the capital cost of Rs. 246119.82 lakh and Rs.516669.04 lakh, have been considered as the opening capital cost as on COD of Unit-I and Unit-II/station COD, in terms of Regulation 9(3) of the 2014 Tariff Regulations, respectively.

Commissioning Schedule

13. The Commission vide its order dated 11.7.2017 in Petition 135/GT/2015, had decided the issue of time overrun and the time overrun allowed (against the actual time overrun) for Unit-I and Unit-II and the scheduled COD (reset) for the purpose of computation of IDC is reproduced as under:

Units	Schedule COD as per Investment Approval	Actual COD	Time Overrun considering SCOD (months)	Time overrun allowed (in months)	SCOD (reset) for IDC computation
I	11.3.2012	18.6.2015	39.23	15	11.6.2013
II	11.8.2012	29.8.2015	36.60	11	11.7.2013

Extension of the cut-off date

14. The COD of the generating station is 29.8.2015. Hence, in terms of the 2014 Tariff Regulations, the cut-off date of the generating station is 31.3.2018. The Petitioner, in the present petition, has prayed for the extension of the cut-off date from 31.3.2018 to 31.3.2020 in the exercise of the power to relax' and in justification for the same, the



Petitioner has submitted that due to the non-completion of certain capital works, owing to external delays, the completion of the work was not done as on the cut-off date. It is noticed from the records that the Commission, in its order dated 11.7.2017 in Petition No.135/GT/2015, had considered some of the reasons like geological surprises, i.e., change in the type of foundations, heavy rain, and flooding during November and December 2009 and the consequent dewatering of the site which has affected the civil works. Further, the period of 20 days due to flooding of the Project area, 7 days due to fatal accident and labour unrest, and a period of 4 months delay on account of environmental clearance had also been condoned. In this background and keeping in view the submissions of the Petitioner that the assets/ works could not be completed within the cut-off date due to external delay, we, instead of extending the cut-off date, permit the additional capitalization claims of the Petitioner in respect of works/items after the cut-off date, but which are within the original scope of work (but could not be executed/ completed), on prudence check, subject to the balance expenditure limit available for the additional capitalization in respect of the assets/works within the original scope.

Interest During Construction (IDC), IEDC, and Normative IDC

15. The Commission, vide its order dated 11.7.2017 had approved the IDC, IEDC, and normative IDC, considering the revised scheduled COD. However, the Commission vide its order dated 26.12.2018 in Review Petition No. 38/RP/2017, had rejected the claim of the Petitioner on time overrun of the generating station due to wildlife clearance, a ban on mining, hostile climate, and delay due to the issuance of statutory clearances, viz. forest clearance, wildlife clearance and CRZ clearance for the generating station. The relevant portion of the order dated 26.12.2018 is extracted below:

“43. We find that the petitioner in the review petition has only re-argued his case regarding time overrun. Since, in the impugned order, all justifications including



the supporting documents furnished by the petitioner have been considered there is no error apparent on the face of the order. The petitioner is seeking to reargue the matter on merit which is beyond the scope of review. Hence, review on this ground is rejected.”

16. As regards IEDC, the Commission vide ROP of the hearing dated 6.2.2024 directed the Petitioner to justify the variance in the IEDC amount as per Form 13D and Form 5B, since the IEDC, as per Form 13D is Rs.183542.07 lakh and as per Form 5B is Rs. 19027.55 lakh respectively. In justification for the same, the Petitioner has submitted that Form 5B is based on the actual cash expenditure incurred on the date of COD, and the same comprise the overhead amount of Rs.19027.55 lakh and IDC amount of Rs.137915.00 lakh, etc. The Petitioner has clarified that the amount indicated in Form 13D, with a total expense of Rs.183542.07 lakh, is on an accrual basis, as per financials consisting of employee benefit expenses, finance cost, depreciation, and other expenses, and hence the figure in Form 5B, which is based on only cash expenditure, has less number than the figure shown on an accrual basis in Form 13D. The Petitioner has also stated that the interest on advances and deposits & interest from others are netted off in the overhead expenditure in Form 5B and have been certified by the auditor, and hence, the same may be considered.

17. The submissions have been examined. It is observed that the Petitioner has claimed the soft cost and also considered the IDC, IEDC, and normative IDC as allowed *vide* order dated 11.7.2017 in Petition No. 135/GT/2015. It is observed that the Petitioner has claimed ‘Overheads’ during the years 2015-16 and 2017-18 as a cash expenditure, which is after the COD. The ‘overhead’ expenditure after COD is considered as ‘revenue’ in nature and hence not considered as ‘additional capital expenditure.’ Accordingly, the ‘cash expenditure’ on ‘Overhead’ for Rs.2189.48 lakh [Rs.21217.03 lakh (as on



31.3.2016)-Rs.19027.55 lakh (as on COD)] in 2015-16 and Rs.1706.40 lakh [Rs. 22923.43 lakh (as on 31.3.2018)-Rs.21217.03 lakh (as on 31.3.2017)] in 2017-18 has not been considered as 'additional capital expenditure.'

Initial Spares

18. Regulation 13 of the 2014 Tariff Regulations provides as under:

"13. Initial Spares: Initial spares shall be capitalized 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%*

Provided that:

i. where the benchmark norms for initial spares have been published as part of the benchmark norms for capital cost by the Commission, such norms shall apply to the exclusion of the norms specified above:

iv. for the purpose of computing of initial the cost spares, plant and machinery cost shall be considered as project cost as on cut-off date excluding IDC, IEDC, Land Cost and cost of civil works. The transmission licensee shall submit the break-up of head wise IDC & IEDC in its tariff application."

19. The Commission vide its order dated 11.7.2017 in Petition No. 135/GT/2015 allowed the initial spares for Rs.9414.43 lakh, based on the Plant and Equipment cost of Rs. 290385.34 lakh, as on the COD of the generating station. However, the Petitioner was directed to furnish the details of the initial spares capitalized from COD up to the cut-off date of the generating station at the time of the truing-up of tariff in terms of Regulation 8 of the 2014 Tariff Regulations.

20. The matter has been considered. The COD of the generating station is 29.8.2015 and accordingly, the cut-off date of the generating station is 31.3.2018. The total initial spares claimed by the Petitioner up to the cut-off date of the generating station is Rs.15065.64 lakh (Rs.9414.43 lakh as on COD, Rs.3853.56 lakh in 2015-16, Rs.673.32 lakh in 2016-17 and Rs.1124.33 lakh in 2017-18). The total Plant and Machinery cost of the Project, including the taxes & duties and transport as per Form-5B is Rs.330266.93



lakh, up to the cut-off date of the generating station. Accordingly, the limit of initial spares in terms of the above regulations, works out to Rs.13210.68 lakh, which is 4% of the total Plant and Machinery cost of the project up to the cut-off date. The total initial spares claimed by the Petitioner up to the cut-off date of the generating station is Rs.15065.64 lakh, which is beyond the ceiling limit of 4% as specified under the said regulations. Hence, the amount of initial spares allowed has been restricted to Rs.13210.68 lakh (4% of Rs.330266.93 lakh). The excess initial spares of Rs.1854.96 lakh have been disallowed as detailed under:

	As on 29.8.2015 (Station COD)	30.8.2015- 31.3.2016 (2015-16)	2016-17	2017-18	Total
Initial Spares claimed	9414.43	3853.56	673.32	1124.33	15065.64
Excess initial spares	-	57.31	673.32	1124.33	1854.96
Initial spares allowed	9414.43	3796.25	0.00	0.00	13210.68

Share application money

21. In Petition No. 135/GT/2015, the Petitioner had claimed the Share Application money for Rs. 14.61 crore, as remitted by the JV partner on 7.8.2015, as equity for the tariff computation. The Commission *vide* order dated 11.7.2017 disposed of the prayer with the following observation:

“56. It is observed that there is share application money amounting to Rs.5500.00 lakh and Rs.1461.60 lakh respectively pending for allotment. Though, the same has been utilized toward expenditure of project, the same was not converted into share capital as on COD. As such, the same cannot be treated as part of equity and has been considered as debt for the calculation of debt equity ratio for the purpose of tariff.”

22. Aggrieved by the said order dated 11.7.2017, the Petitioner had filed Review Petition No. 38/RP/2017 in Petition No. 135/GT/2015, and though there was no error apparent in the said order, liberty was granted to the Petitioner to submit the details along with documentary evidence, on this count, at the time of true-up. The Petitioner has also filed an Appeal No. 178/2019 before the Appellate Tribunal for Electricity (APTEL) on the issue



of share application money as equity, and the matter is pending consideration. As per para 6(G)(g) of '**General Instructions for Preparation of Balance Sheet**' provided in Schedule III (see section 129 of Companies Act, 2013), "..... *Share application money not exceeding the issued capital and to the extent not refundable shall be shown under the head Equity*". Further, it has been noted that the share certificates were issued on 5.9.2015 against the share application money of Rs.14.61 crore. In view of the above, the share application money of Rs. 14.61 crore remitted by JV partner as equity has been considered as a part of equity w.e.f. date of issuance of share certificate/allotment of shares i.e. 5.9.2015. The impact of considering Rs. 14.61 crore as a part of equity has been summarized in paragraph 55.

Infirm power

23. Regulation 18 of the 2014 Tariff Regulations provides as under:

"18. Sale of Infirm Power: Supply of infirm power shall be accounted as deviation and shall be paid for from the regional deviation settlement fund accounts in accordance with the Central Electricity Regulatory Commission (Deviation Settlement Mechanism and Related matters) Regulations, 2014, as amended from time to time or any subsequent re-enactment thereof:

Provided that any revenue earned by the generating company from supply of infirm power after accounting for the fuel expenses shall be applied in adjusting the capital cost accordingly."

24. The Commission vide its order dated 11.7.2017 in Petition No. 135/GT/2015, had allowed the fuel cost of Rs.12055.58 lakh, instead of Rs.19918.47 lakh, in the absence of any explanation/justification for the discrepancy in the fuel cost in Petition No. 135/GT/2015. Aggrieved by the said order, the Petitioner filed a review petition (Petition No. 38/RP/2017) on the issue of the computational errors in the calculation of fuel cost, stating that the Commission had allowed the fuel cost and adjusted the infirm power from synchronization to the COD of the units, but the cost of fuel incurred for testing before synchronization, such as burner testing, steam blowout and other testing had not been



included in the same. The Petitioner in the Review petition had also furnished the details of the consumption of startup fuel, i.e., coal, LDO & HFO before synchronization and up to COD. The Commission, vide its order dated 26.12.2018, allowed the review petition on this issue but directed the Petitioner to furnish the bifurcation of the initial startup of coal consumptions prior to synchronization and from synchronization to COD, along with an audited copy of the details of consumption of startup fuel at the time of truing-up of tariff. In response, the Petitioner in the present petition has furnished the detailed bifurcation of initial startup coal consumptions prior to synchronization and from synchronization to COD, along with an audited copy of the details of consumption of startup fuel.

25. The matter has been considered. It is observed from the submissions of the Petitioner that the revenue from the sale of infirm power, excluding fuel cost, from Units I and II of the Project till the COD of the generating station is (-) Rs.7380.81 lakh. Further, from the details of fuel cost, it is noticed that the total cash expenditure on the fuel cost (coal+oil) is Rs.19918.47 lakh, and the Petitioner has also furnished the details with regard to the same. As such, the net expenditure on fuel cost, after adjusting the revenue earned from the sale of infirm power, is Rs.12537.66 lakh (-7380.81 lakh+19918.47 lakh). The Commission, vide its order dated 11.7.2017 in Petition No. 135/GT/2015, had allowed the net adjustment of Rs.4674.77 lakh, considering the total expenditure on fuel cost (coal+oil) for Rs.12055.58 lakh. Accordingly, the balance amount of Rs.7862.89 lakh (12537.66-4674.77) is allowed, considering the total expenditure on fuel cost (coal+oil) as Rs.19918.47 lakh.

Capital Cost

26. In view of the above, the capital cost approved as on the COD is as follows:



(Rs. in lakh)

	2015-16	
	Unit-I	Units I & II
	18.6.2015 to 28.8.2015	29.8.2015 to 31.3.2016
Opening capital cost	234629.88	463694.98
IDC allowed	25810.19	52958.13
Normative IDC allowed	1415.24	2846.80
Add: Fuel cost	-	7862.89
Less: Unexplained Funding Gap	15735.48	2830.88
Total Opening cost	246119.82	524531.92

Additional Capital Expenditure

27. Regulation 14 of the 2014 Tariff Regulations provides as under:

“14. Additional Capitalization and De-capitalization:

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

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

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

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

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;*
- (ii) Change in law or compliance of any existing law;*
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work; and*
- (iv) Any liability for works executed prior to the cut-off date, after prudence check of the details of such un-discharged liability, total estimated cost of package, reasons for such withholding of payment and release of such payments etc.*

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

- (i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;*
- (ii) Change in law or compliance of any existing law;*



- (iii) Any expenses to be incurred on account of need for higher security and safety of the plant as advised or directed by appropriate Government Agencies 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 materialization of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:

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

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

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

- (4) In case of de-capitalization of assets of a generating company or the transmission licensee, as the case may be, the original cost of such asset as



on the date of decapitalization shall be deducted from the value of gross fixed asset and corresponding loan as well as equity shall be deducted from the outstanding loan and the equity respectively in the year such de-capitalization takes place, duly taking into consideration the year in which it was capitalized.”

28. The Commission, in its order dated 11.7.2017 in Petition No. 135/GT/2015, had allowed the projected additional capital expenditure of Rs. 278.50 lakh in 2016-17 and Rs. 5430.00 lakh in 2017-18, respectively. The Petitioner was directed to submit the detailed justification along with relevant clauses/ documentary evidence in respect of its claim for additional capitalization, at the time of the truing-up of the tariff. The head-wise details of the projected additional capital expenditure for the period 2016-17 and 2017-18 allowed by order dated 11.7.2017 in Petition No.135/GT/2015 are detailed below:

	(Rs. in lakh)	
	2016-17	2017-18
Additional compressor 3 nos.	65.00	200.00
Mini JCB/ Robot	20.00	30.00
Construction of additional Silos civil works	50.00	450.00
Mercury analyser 2 nos.	0.00	43.20
Generator rotor	0.00	500.00
Exciter	0.00	1500.00
SF6 gas analyser	0.00	25.00
CEMS (Continuous Emission Monitoring System)	43.50	72.00
PPM Meter	0.00	5.00
H2 Leak detector	0.00	5.00
Special dust control equipment	100.00	100.00
Additional makeup line and one more set of makeup and outfall pump	0.00	2500.00
Total additional capital expenditure	278.50	5430.00

29. The Petitioner, in the present Petition, has claimed the year-wise additional capital expenditure for the period from 2015-16 to 2018-19, which is discussed below.

2015-16

30. The additional capital expenditure claimed by the Petitioner, on a cash basis, in 2015-16 (29.8.2015 to 31.3.2016) are as under:



(Rs. in lakh)

Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (actual)				Regulation	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
1	Main Plant Package (Boiler, Turbine, Generator)	42225.54	35899.28	6326.26	-	14(1)(i)	Undischarged liabilities recognized & paid
2	Coal Handling System	6392.25	3527.30	2864.95	-		
3	Ash Handling System	790.91	737.41	53.51	-		
4	Circulating Water System	962.03	887.49	74.54	-		
5	Demineralisation and Effluent Plant	2085.08	1927.19	157.89	-		
6	RCC Chimney	433.61	378.65	54.96	-		
7	Natural Drought Cooling Tower	1509.11	1101.91	407.19	-		
8	Switch Yard	568.01	461.86	106.15	-		
9	Power Transformers	973.08	453.45	519.63	-		
10	Hydrogen Plant	74.22	74.22	-	-		
11	Fire Protection System	764.87	764.87	-	-		
12	Storm Water Pumping Arrangement	124.14	114.37	9.78	-		
13	Circulating Water Make up System and Outfall System	466.82	428.06	38.76	-		
14	Seawater RCC Intake Channel and Outfall Pipeline system	110.19	55.33	54.86	-		
15	Shore Unloader	1077.19	909.11	168.08	-		
16	Other Packages	636.06	272.77	363.29	-		
	Sub-total (A)	59193.13	47993.29	11199.84	-		
B							
1	Main plant package (TA1)	3384.51	-	3384.51	-	14(1)(i)	Part of the capital expenditure incurred is within the original scope of work.
2	Coal handling system - (TA2)	771.57	-	771.57	-		
3	Ash handling system-AHS(TA3)	271.22	-	271.22	-		
4	Circulating water system-CWS(TA4)	91.99	-	91.99	-		
5	RO/DM plant + Effluent plant (TA5)	234.76	-	234.76	-		
6	RCC chimney (TA6)	27.29	-	27.29	-		
7	Natural Drought Cooling Tower	40.78	-	40.78	-		
8	Switch Yard	348.90	-	348.90	-		
9	Power Transformer (TA 9)	259.24	-	259.24	-		
10	Interplant Communication (TB-5)	0.05	-	0.05	-		
11	General illumination (TD -3)	6.90	-	6.90	-		



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (actual)				Regulation	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
12	Circulating Water Make up System and Outfall System	135.81	-	135.81	-		
13	Seawater RCC Intake Channel and Outfall Pipeline system	173.65	-	173.65	-		
14	North Cargo Berth	0.81	-	0.81	-		
15	Shore Unloader	416.00	-	416.00	-		
16	Storm Water Pumping Arrangement	83.90	-	83.90	-		
17	Roads and culverts	0.21	-	0.21	-		
18	Approach Road	0.12	-	0.12	-		
	Subtotal (B)	6247.69	0.00	6247.69	-		
	Total (A+B)	65440.82	47993.29	17447.53			

31. It is observed that the Petitioner, in Petition No.135/GT/2015 had not claimed any additional capital expenditure in 2015-16. However, the Petitioner, in the present petition, has claimed the total additional capital expenditure of Rs.17447.63 lakh in 2015-16 (i.e., Rs.11199.84 lakh under Regulation 14(1)(i) of the 2014 Tariff Regulations towards discharge of liabilities and Rs.6247.69 lakh under Regulation 14(1)(i) of the 2014 Tariff Regulations i.e. expenditure incurred within cut-off date). In justification for the same, the Petitioner has submitted that the additional capital expenditure incurred is towards the undischarged liabilities recognized and paid, and some works form part of the additional capital expenditure incurred within the original scope of work.

32. Respondent TANGEDCO has submitted that in Form-5B, the Petitioner has not furnished the split-up details for the cash expenditure actually incurred in respect of Unit-I for the period from 18.6.2015 to 28.8.2015 and from 29.8.2015 to 31.3.2016 in respect of Unit-II. The Respondent has further submitted that the Petitioner has shown an amount of Rs.11199.84 lakh as cash expenditure incurred towards the discharge of liabilities and Rs.6247.69 lakh as part of the additional capital expenditure incurred in respect of the



works which are within the original scope of work, but no details have been furnished for the said amount. In response, the Petitioner has clarified that the detailed break-up of each line item of the cash expenditure incurred for Rs.6247.69 lakh, with justification, has been provided in Form-9A for the period from 29.8.2015 to 31.3.2016, which is within the original scope of the work and the same has been certified by the auditor.

33. The matter has been considered. As stated, the COD of the generating station is 29.8.2015, and the cut-off date of the generating station is 31.3.2018. It is noticed that the Petitioner had not claimed any additional capital expenditure in 2015-16 in Petition No. 135/GT/2015. However, the Petitioner, in this petition, has claimed the additional capital expenditure in 2015-16 under Regulation 14(1)(i) of the 2014 Tariff Regulations. Since the expenditures claimed are for assets/works within the original scope and are also within the cut-off date, we allow the claims for items 1 to 16 (under A) amounting to Rs.11199.84 lakh, as mentioned in the table under para 29, in terms of Regulation 14(1)(i) of the 2014 Tariff Regulations, i.e., undischarged liabilities recognized to be payable at a future date and allow for the balance items 1 to 18 (under B) amounting to Rs.6247.69 lakh, as mentioned in the table under para 29, under Regulation 14(1)(ii) of the 2014 Tariff Regulations, i.e., works deferred for execution.

2016-17

34. The detailed break-up of the additional capital expenditure claimed by the Petitioner, on a cash basis, in 2016-17 is as under:



(Rs. in lakh)

Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (Actual)				Regulation	Justification
		Accrual basis	Un-discharged liability included in col. 3	Cash basis	IDC included in col. 3		
A							
1	Main Plant Package (Boiler, Turbine, Generator)	35186.33	20559.26	14627.07	-	14(1)(i)	Undischarged liabilities recognized & paid
2	Coal handling system	3536.10	541.41	2994.69	-		
3	Ash handling system	735.46	658.46	77.00	-		
4	Circulating water system	864.96	604.11	260.85	-		
5	Demineralisation and Effluent plant	1918.19	1686.07	232.13	-		
6	RCC chimney	360.64	50.59	310.05	-		
7	Natural drought cooling tower	1159.20	1101.91	57.28	-		
8	Switch yard	614.79	227.42	387.37	-		
9	Power transformers	434.92	92.58	342.34	-		
10	Hydrogen plant	75.52	75.52	-	-		
11	Fire protection system	782.46	302.68	479.78	-		
12	Strom water pumping arrangement	126.17	122.07	4.10	-		
13	Circulating water make up system and Outfall system	429.04	274.46	154.58	-		
14	Seawater RCC intake channel and Outfall pipeline system	85.54	50.17	35.37	-		
15	Shore unloader	968.77	543.24	425.53	-		
16	Other packages	866.60	255.00	611.60	-		
	Subtotal (A)	48144.68	27144.95	20999.74	-		
B							
1	Bus shelter for housing colony	6.87	-	6.87	-	14(1)(i)	Constructed bus shelter at township for employee mobilisation from township to Plant which is within the original scope of work.
2	CISF pass section office	14.99	-	14.99	-		Constructed section office for plant safety, which is within the original scope of work.
3	Compound wall for New parking area and Rest shed	19.98	-	19.98	-		Constructed boundary wall for plant & vehicle safety, which is



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (Actual)				Regulation	Justification
		Accrual basis	Un-discharged liability included in col. 3	Cash basis	IDC included in col. 3		
							within the original scope of work.
4	Vehicle parking shed	1.49	-	1.49	-		Constructed a vehicle parking shed within the plant for employees, which is within the original scope of work.
5	NTPL guest house	9.43	-	9.43	-		Remaining completion of work in the Guest house, which is within the original scope of work.
6	Compound wall & Road NTPL township	9.66	-	9.66	-		Constructed boundary wall for the safety & security of employees and their families which is within the original scope of work.
7	Firefighting system	5552.71	-	5552.71	-		Entire thermal power station is secured by installing a firefighting system, which is within the original scope of work.
8	Hydrogen plant	434.83	-	434.83	-		Constructed hydrogen plant, which is within the original scope of work.
9	Effluent treatment plant 80Kld	13.48	-	13.48	-		Installed pollution control equipment as per the statute, which is within the original scope of work.
10	I/H Converter E60 2 Nos.	15.37	-	15.37	-		Installed I/H converter in the plant which is within the original scope of work.
11	Handle type platform trolley	0.28	-	0.28	-		Movable trolley in the power station



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (Actual)				Regulation	Justification
		Accrual basis	Un-discharged liability included in col. 3	Cash basis	IDC included in col. 3		
							which is within the original scope of work.
12	BSNL Modem 3Nos.	0.73	-	0.73	-		Installed communication system in the plant, which is within the original scope of work.
13	Ador welding machine 200A & Leather hole punch	0.24	-	0.24	-		Procured welding machine, which is within the original scope of work.
14	Jcb Robot 135/Skid Steer loader 2Nos.	30.54	-	30.54	-		Procured loaders in the plant which is within the original scope of work.
15	55" Samsung Led Tv 2.1 Ht speaker & stabiliser-CI-Ts	1.10	-	1.10	-		Installed TV for the purpose of displaying timely power generating status of the plant, which is within the original scope of work.
16	3 Ton & 2 Ton mega split Ac 20 Nos.	14.06	-	14.06	-		Installed air conditioners inside the plant, which is within the original scope of work.
17	Lt Power cable for storm water pump house li	4.57	-	4.57	-		Installed power cable in storm water pump house, which is within the original scope of work.
18	Dc Earth fault locator	3.99	-	3.99	-		Installed Earth fault locator in the plant which is within the original scope of work.
19	Infrared thermal imaging camera flu Ti450	6.17	-	6.17	-		Installed thermal imaging camera in the power station which is within the original scope of work.
20	Led display 6 X 4 Feet	2.10	-	2.10	-		Installed LED for the purpose of displaying timely



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (Actual)				Regulation	Justification
		Accrual basis	Un-discharged liability included in col. 3	Cash basis	IDC included in col. 3		
							power generating status of the unit which is within the original scope of work.
21	Digital ultrasonic thickness gauge 1 No.	0.93	-	0.93	-		Installed Digital Ultrasonic Thickness Gauge in the plant which is within the original scope of work.
22	Air circuit braker	25.43	-	25.43	-		Installed Air Circuit Braker in the plant, which is within the original scope of work.
23	Portable digital conductivity meter	1.56	-	1.56	-		Installed Portable Digital Conductivity Meter in the plant which is within the original scope of work.
24	Induction motor 30Kw for slag conveyor 2 No.	1.44	-	1.44	-		Installed Induction Motor in the plant, which is within the original scope of work.
25	Hp 406 Desktop with 0.6Kva Ups 33 Nos.	24.09	-	24.09	-		Procured desktops which are within the original scope of work.
26	Hp LaserJet Pro M202Dw 18 Nos	2.29	-	2.29	-		Procured printers in the plant which is within the original scope of work.
27	Voltas 3 Ton Split Ac with stabilizer 22 Nos. Ccr & Esp	16.39	-	16.39	-		Installed air conditioners inside the plant, which is within the original scope of work.
28	Motorola hand held Walkie Talkie set 50 Nos.	14.88	-	14.88	-		Procured Hand Held Walkie Talkie Set which is within the original scope of work.



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (Actual)				Regulation	Justification
		Accrual basis	Un-discharged liability included in col. 3	Cash basis	IDC included in col. 3		
29	Software for upgradation of ABT system	5.83	-	5.83	-		Installed ABT system software in the plant, which is within the original scope of work.
30	Lan connectivity between switch yard and control Ro	1.03	-	1.03	-		Installed LAN in the plant, which is within the original scope of work.
31	Steel senior plain cupboard 32 Nos.	3.65	-	3.65	-		Used for the purpose of storage of files & documents.
32	Industrial Lockers 16 Nos.	2.55	-	2.55	-		Lockers were procured for the safeguarding of the store room & other electrical rooms.
33	Hospital cot 3 Nos.	0.20	-	0.20	-		For the purpose of occupational health centre for employees in the plant.
34	4-Seater sofa with corner stand and coffee table	0.92	-	0.92	-		Furniture procured for providing hospitality to the guests & visitors to the plant.
35	Ss 5 Litre Grinder with Aue Motor - Guest House	0.13	-	0.13	-		Used in the industrial canteen in the plant.
36	Canteen appliances	0.31	-	0.31	-		Used in the industrial canteen in the plant.
37	Grinder 10L Crompton Motor Fitted- NTPL Guest House	0.19	-	0.19	-		Used in the industrial canteen in the plant.
38	Sony 50 Inch Led Tv 2 Nos.	1.62	-	1.62	-		Installed TV for the purpose of displaying timely power generating status of the unit.
39	Elliptical- NTPL gym club	0.41	-	0.41	-		For the employees' health & recreation.
40	Treadmill- NTPL gym club	1.25	-	1.25	-		For the employees' health & recreation.



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (Actual)				Regulation	Justification
		Accrual basis	Un-discharged liability included in col. 3	Cash basis	IDC included in col. 3		
41	Massage Chair- NTPL gym club	0.82	-	0.82	-		For the employees' health & recreation.
42	Voltas Freezer 500L Dd Chest Freezer	0.31	-	0.31	-		Used in the industrial canteen in the plant.
43	Whirlpool Fridge 200lm Power Cool Premier 4S Gold	0.12	-	0.12	-		Used in the industrial canteen in the plant.
44	Gym equipment	0.24	-	0.24	-		For the employees' health & recreation.
45	Maruti Suzuki Swift Dzire	8.12	-	8.12	-		For commuting employees for official purposes.
	Subtotal (B)	6257.28	0.00	6257.28	-		
	Total (A+B)	54401.97	27144.95	27257.02			

35. It is observed that the Petitioner in Petition No.135/GT/2015, had claimed the additional capital expenditure of Rs.278.50 lakh in 2016-17 for items like additional compressor 3 nos., Mini JCB/ Robot, Construction of additional Silos civil works, CEMS (Continuous emission monitoring system) and special dust control equipment. The Petitioner, in the present Petition, has claimed an expenditure of Rs 20999.74 lakh, under Regulation 14(1)(i) of the 2014 Tariff Regulations, towards the discharge of liabilities and Rs. 6257.28 lakh under Regulation 14(1)(i) of the 2014 Tariff Regulations. In justification for the same, the Petitioner has submitted that the additional capital expenditure incurred is towards the undischarged liabilities recognized and paid for the items 1 to 16 (under A) as mentioned in the above table, and part of the additional capital expenditure incurred within the original scope of work for the items 1 to 45 (under B) as mentioned in the table above.

36. Respondent TANGEDCO has submitted that the Petitioner has shown an amount of Rs.20999.74 lakh as a cash expenditure incurred towards the discharge of liabilities,



Rs.6236.46 lakh as part of the additional capital expenditure incurred within the original scope of work and Rs.20.85 lakh towards the expenditure like canteen appliances, grinder, Sony TV, Treadmill for gym, Massage chair, Gym equipment's etc., which is not within the original scope of work (Item nos. 31 to 45 of Form 9A). The Respondent has further submitted that in Form-5B (Sl. No. 2.3.13), the Petitioner has shown a figure of Rs.3517.36 lakh towards the expenditure approved under RCE-II for firefighting system, and in Form-9A (item 7), for 2016-17 the Petitioner has shown an amount of Rs.5552.71 lakh, towards the actual cash expenditure incurred towards the firefighting system. The Respondent has also pointed out that there is an increase of Rs.2034.81 lakh (57.85%) compared to the expenditure approved in RCE-II, and the Petitioner has not furnished any justification for the steep increase. In response, the Petitioner has submitted that the expenditure of Rs.20.85 lakh includes the expenditure incurred for the industrial canteen, installation of TV for displaying power generating status, other recreation expenditure for the purpose of employees' health, etc., which is required for the smooth operation and day to day functioning of the plant. It has also been submitted that in Form-5B, the expenditure approved under RCE-II towards the firefighting system is shown under Plant and Equipment head for the said portion, civil work for civil related portion, Taxes and Duties for taxes and duties portion and further split into Inland transport and Initial spares respectively. Hence, the Petitioner has stated that the claim of Rs.5552.71 lakh, including transportation, taxes and duties, is in order.

37. The matter has been considered. Since the additional capital expenditure claimed is in respect of the assets/works within the original scope and is within the cut-off date of the generating station (31.3.2018), the claims for items 1 to16 (under A) amounting to Rs.20999.74 lakh, as mentioned in the table under para 33 above, under Regulation



14(1)(i) of the 2014 Tariff Regulations (undischarged liabilities recognized to be payable at future date) and for the items 1 to 45 (under B) amounting to Rs.6257.28 lakh, as mentioned in the table under para 33 above, under Regulation 14(1)(ii) of the 2014 Tariff Regulations are allowed.

2017-18

38. The detailed breakup of the additional capital expenditure claimed by the Petitioner, on a cash basis, in 2017-18 are as follows:

(Rs. in lakh)							
Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
1	Main Plant Package (Boiler, Turbine, Generator)	22151.36	7946.16	14205.20	-	14(1) (i)	Undischarged liabilities recognized & paid
2	Coal handling system	774.08	534.94	239.14	-		
3	Ash handling system	1181.40	1152.85	28.55	-		
4	Circulating water system	649.86	85.78	564.08	-		
5	Demineralisation and Effluent plant	1802.01	270.81	1531.20	-		
6	RCC chimney	79.98	50.59	29.39	-		
7	Natural Drought cooling tower	1162.50	1101.91	60.59	-		
8	Switch Yard	257.85	227.42	30.43	-		
9	Power transformers	141.13	88.34	52.80	-		
10	Hydrogen plant	75.72	75.72	-	-		
11	Fire protection system	377.84	75.54	302.30	-		
12	Storm water pumping arrangement	131.63	126.40	5.23	-		
13	Circulating water make up system and Outfall system	309.37	158.75	150.63	-		
14	Seawater RCC intake channel and Outfall pipeline system	79.51	50.17	29.34	-		
15	Shore unloader	583.25	495.72	87.54	-		
16	Other Packages	1116.15	721.24	394.91	-		
	Sub-Total (A)	30873.67	13162.34	17711.33	-		
B							



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
1	Pipeline-Rerouting of spray Line-Fire fight system	10.49	-	10.49	-	14(1)(i)	Entire thermal power station is secured by installing firefighting system which is within the original scope of work.
2	Support platform for vacuum system-Unit1-Ahs	9.63	-	9.63	-		For the purpose of extension & rerouting of pipelines for the purpose of firefighting as per the statutory requirement.
3	Vacuum pump A2 in Unit-I	10.91	-	10.91	-		Used as pollution control equipment for the purpose of collecting ash released from the furnace as per the statutory requirement.
4	Vacuum pump B1 in Unit-I	10.91	-	10.91	-		Used as pollution control equipment for the purpose of collecting ash released from the furnace as per the statutory requirement.
5	Vacuum pump C1 in Unit-I	10.91	-	10.91	-		Used as pollution control equipment for the purpose of collecting ash released from the furnace as per the statutory requirement.
6	Vacuum pump	10.91	-	10.91	-		Used as pollution control equipment for the purpose of collecting ash released from the furnace as per the statutory requirement.
7	Vacuum pump-E2 in unit-I	10.91	-	10.91	-		Used as pollution control equipment for the purpose of collecting ash released from the furnace as per the



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
							statutory requirement.
8	Vacuum pump A1 in Unit-II	10.91	-	10.91	-		Used as pollution control equipment for the purpose of collecting ash released from the furnace as per the statutory requirement.
9	Vacuum pump	10.91	-	10.91	-		Used as pollution control equipment for the purpose of collecting ash released from the furnace as per the statutory requirement.
10	Vacuum pump	10.91	-	10.91	-		Used as pollution control equipment for the purpose of collecting ash released from the furnace as per the statutory requirement.
11	Water Line-Ac plant-Desalination plant	3.42	-	3.42	-		Water line in desalination plant within the original scope of work.
12	Cylinder storage room (H2, N2, Co2)	11.47	-	11.47	-		Constructed storage room in the plant which is within the original scope of work.
13	Indoor shuttle court at Township	83.21	-	83.21	-		For the employees' health & recreation, which is within the original scope of work.
14	Common Mtc'E workshop North of fuel oil pump house	463.79	-	463.79	-		Constructed workshop, which is within the original scope of work.
15	Weigh Bridge – Civil	25.07	-	25.07	-		Constructed weigh bridge which is within the original scope of work.
16	Modular work station for service building	51.72	-	51.72	-		Installation of a modular work station in the



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
							service departments, which is within the original scope of work.
17	HDPE Pipeline Desalination plant to power & pump house	179.07	-	179.07	-		HDPE pipeline was laid for the purpose of supplying water from the desalination plant to the pump house.
18	Online Effluent Monitoring systems	15.53	-	15.53	-		Used as pollution control equipment for the purpose of monitoring the discharge of water and air as per the statutory requirement, which is within the original scope of work.
19	Type IV Qtrs Unit-14 Nos. -Township-Phase li	165.50	-	165.50	-		Construction of houses for the employees of the plant which is within the original scope of work.
20	Type IV Qtrs Unit 2 – 4 Nos. -Township-Phase li	165.50	-	165.50	-		Construction of houses for the employees of the plant which is within the original scope of work.
21	Type IV Qtrs – 2 Nos. -Township-Phase li	82.75	-	82.75	-		Construction of houses for the employees of the plant which is within the original scope of work.
22	250Kva 3 Phase Dg Set	18.05	-	18.05	-		Installed for the purpose of supply of alternate power.
23	Nrb – commercial complex, Voc Hall - Township	621.40	-	621.40	-		Construction of commercial complex for the welfare and needs of employees of the plant which is within the original scope of work.



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
24	Resin cast, Indoor, voltage transformer 20 Qty	18.11	-	18.11	-		Used for transferring electrical energy between the circuits which is within the original scope of work.
25	Transformer winding resistance meter	7.45	-	7.45	-		Used for measuring DC resistance values of transformer windings & rotating machine windings which is within the original scope of work.
26	Self-Propelled articulated boom lift	65.66	-	65.66	-		Used for the purpose of lifting stores & spares, which is within the original scope of work.
27	Machine condition analyser A30-3	15.93	-	15.93	-		Used for maintenance of Plant & machinery.
28	Three phase power quality analyser 2 Nos.	15.34	-	15.34	-		Used for maintenance of Plant & machinery.
29	Purchase of 525Kw motor	41.01	-	41.01	-		Procured for the purpose of pumping of water.
30	Aluminium alloy A type ladder 8 feet 4 Nos.	0.28	-	0.28	-		Used for the purpose of stores & electrical works.
31	Aluminium alloy A type ladder 15 Feet 4 Nos.	0.34	-	0.34	-		Used for the purpose of stores & electrical works.
32	Test bench for Mrt Lab Electrical Div	33.04	-	33.04	-		Used in the laboratory for testing, which is within the original scope of work.
33	Orient make 16" pedestal fan 100 Nos.	2.20	-	2.20	-		Used in the plant for the welfare of the employees.
34	Aluminium alloy A type ladder 8 feet	0.31	-	0.31	-		Used for the purpose of stores & electrical works.
35	Aluminium alloy ladder 10 feet 4 Nos.	0.10	-	0.10	-		Used for the purpose of stores & electrical works.



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
36	Aluminium alloy wall ladder 12 feet 4 Nos.	0.12	-	0.12	-		Used for the purpose of stores & electrical works.
37	Portable Microprocessor-Karl Fisher Titrator	11.53	-	11.53	-		Lab equipment to determine trace amounts of water in a sample that is within the original scope of work.
38	8 Nos. -watch towers-NTPL project site	24.90	-	24.90	-		Constructed for the purpose of safeguarding the plant, which is within the original scope of work.
39	Modify-ware house-shed No. 1	86.48	-	86.48	-		Constructed for the purpose of storage of equipment & spares which is within the original scope of work.
40	Warehouse-shed No. 2	61.78	-	61.78	-		Constructed for the purpose of storage of equipment & spares, which is within the original scope of work.
41	Canteen building and Time office	158.34	-	158.34	-		Constructed industrial canteen for employees as per statute, which is within the original scope of work.
42	Boiler, Turbine, Chs Mtce, Desal. Mtce Building Shed	1105.62	-	1105.62	-		Constructed for the purpose of repairs & maintenance of boiler turbine & desalination plant, which is within the original scope of work.
43	Rcc Drain from bottom Ash Hopper area-Units 1&2	46.16	-	46.16	-		Constructed for collecting bottom ash from the furnace which is within the original scope of work.



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
44	Sewage Treatment Plant-80 Kld	56.74	-	56.74	-		Used as pollution control equipment for the purpose of controlling the water pollution from the plant as per the statutory requirement.
45	Laser printer Hp Duplex Mono 15 Nos.	2.13	-	2.13	-		Procured printers for printing information by service departments in the plant.
46	Laser printer all in one 3 Nos.	0.49	-	0.49	-		Procured printers for printing information by service departments in the plant.
47	Laser printer colour 2 Nos.	1.01	-	1.01	-		Procured printers for printing information by service departments in the plant.
48	Printer A3 size 4 Nos.	7.64	-	7.64	-		Procured printers for printing information by service departments in the plant.
49	Desktop system Hp280G2 40 Nos.	30.50	-	30.50	-		Procured desktops for information & data processing of the service departments in the plant which is within the original scope of work.
50	Olimms software	12.02	-	12.02	-		Installed an online integrated material management system for procurement, receipt & processing of bills for the purchase of machinery spares, which is within the original scope of work.



Sl. No.	Head of Work / Equipment	Additional capital expenditure claimed (actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
51	Voltas Ac 2Ton Sac 243Zyi 10 Nos. with stabilizer	4.93	-	4.93	-		Installed air conditioners inside the plant.
52	Carrier split Ac 24K Duractiv 3S, premier stabilize	0.45	-	0.45	-		Installed air conditioners inside the plant.
53	Voltas Ac 1.5Ton Sac 183Lym 2 Nos. with stabilizer	0.69	-	0.69	-		Installed air conditioners inside the plant.
54	L.P Rotor	5330.42	-	5330.42	-		Procured capital spares as standby equipment to ensure uninterrupted generation of power which is within the original scope of work.
55	Fd Fan Motor	94.66	-	94.66	-		Procured capital spares as standby equipment to ensure uninterrupted generation of power which is within the original scope of work.
56	Road & Drains (Tc-4A1)-Factory	2315.97	-	2315.97	-		Constructed roads inside the plant for commutation, which is within the original scope of work.
57	Land for acquisition of Ash Dyke	3476.32	-	3476.32	-		Land acquired for the discharge of bottom ash by constructing an ash pond in order comply with pollution control norms which is within the original scope of work.
	Sub-Total (B)	15022.54	0.00	15022.54	-	-	-
		45896.21	13162.34	32733.87	-	-	-

39. It is observed that the Petitioner, in Petition No.135/GT/2015, had claimed the additional capital expenditure of Rs.5430.00 lakh in 2017-18 for items like additional compressor 3 nos., Mini JCB/ Robot, construction of additional silos civil works, Mercury



analyzer 2 nos., Generator rotor, Exciter, SF6 gas analyzer, CEMS (Continuous emission monitoring system), PPM Meter, H2 Leak detector, special dust control equipment and additional makeup line and one more set of makeup and outfall pump. The Petitioner, in the present Petition, has claimed an additional capital expenditure of Rs.17711.33 lakh, under Regulation 14(1)(i) of the 2014 Tariff Regulations, towards the discharge of liabilities and Rs. 15022.54 lakh under Regulation 14(1)(i) of the 2014 Tariff Regulations. In justification for the same, the Petitioner has submitted that the capital expenditure incurred is towards the 'undischarged liabilities' recognized and paid for items 1 to 16 (under A), and part of the additional capital expenditure incurred is within the original scope of work in respect of the items 1 to 45 (under B) as mentioned in the table under para 37 above.

40. Respondent TANGEDCO has submitted that the expenditure of Rs.159.79 lakh (items 3, 10, 18, 44 of Form 9A for 2017-18) as claimed by the Petitioner towards Pollution control equipment does not fall under the provisions of Regulation 14(1)(i) of the 2014 Tariff Regulations. The Respondent has further submitted that though the Petitioner has stated that the Pollution control equipment is needed as per the statutory requirement, it has not furnished any documents directing the installation of the same, and it is also not clear as to whether the same is for complying with the MOEF&CC notification dated 7.12.2015. The Respondent has also submitted that the Petitioner has shown an amount of Rs. 5330.00 lakhs as a cash expenditure incurred towards the LP Rotor under the original scope of work but has stated that the LP Rotor is procured under capital spares as standby equipment, to ensure the uninterrupted generation of power. The Respondent has further submitted that the generating station achieved COD only during 2015, and considering the make and the original equipment manufacturer's warranty and the



minimal life period served by the Turbine from the date of COD, the necessity for including the expenditure of idle LP Rotor is not reasonable. Accordingly, the Respondent has submitted that the Commission may disallow the claim for Rs.5330.42 lakh and remove the same from the capital cost. The Respondent has added that the Petitioner had brought in a proposal for sparing the LP rotor to Uttar Pradesh Rajya Vidhyut Utpadan Ltd (UPRVUNL) for using the same in Unit-VII of their Anpara station during the commercial sub-committee meeting of SRPC held on 24.2.2021 and the Petitioner ought to have intimated to the Respondent TANGEDCO, the lead procurer and the JV partner. The Respondent TANGEDCO, vide its letter dated 6.3.2021 addressed to the Petitioner, had sought certain clarifications as to whether the approval of the NTPL Board was obtained for sparing the standby LP rotor to UPRVUNL. The Respondent has further submitted that the Petitioner was also requested to furnish an undertaking that in case of failure of any one of the LP rotors, the Petitioner shall arrange for making good the loss of power from the failed unit at the same cost as per the existing unit. It has also stated that an undertaking may be obtained from UPRVUNL to the effect that all financial implications of the rotor being not available on time may be obtained by the Petitioner, and the undertaking may also include UPRVUNL's assurance to pay the 100% fixed charges month on month, on inclusion of the cost in the fixed cost of the generating station as well as transportation charges. The Respondent has also stated that the Petitioner, vide affidavit dated 29.3.2021, has stated that an MoU and deed of indemnity has been signed with UPRVUNL, and UPRVUNL has also agreed to pay the fixed charges, which would have been earned by the Petitioner as tariff from the beneficiaries, on the capital cost of spare LP rotor and the Petitioner will pass on the 100% charges received as fixed cost on spare LP rotor from UPRVUNL to the exiting beneficiaries, till the LP rotor is returned



to the Petitioner. The Respondent has further pointed out that the entire fixed charges proportionate to LP rotor capital cost, from the date of dispatch from the NTPL site to the date of receipt of the returned rotor at the NTPL site, is to be calculated and removed from the Southern Region beneficiaries.

41. In response to the above, the Petitioner has clarified that the claim for Rs.159.79 lakh towards the Pollution control equipment is the expenditure incurred, which has been included in the project cost under the head "Pollution Control Equipment," and the same is included under undischarged liabilities. The Petitioner has further stated that the project cost is approved by the Govt. of India, Ministry of Coal vide order No. 43011/05/2013-CPAM dated 27th April 2016, and hence the claim for Rs.159.79 lakh (items 3 -10, 18, 44 of Form 9A for the year 2017-18) towards the Pollution Control Equipment, is within the project cost and is also within the original scope of work. The Petitioner has also pointed out that the detailed break-up of each line item of the expenditure along with justification has been provided in Form-9A for the year 2017-18, with the auditor's certificate and is in terms of Regulation 14 (1)(i) of the 2014 Tariff Regulations.

42. As regards the additional capital expenditure incurred for LP Rotor, the Petitioner has submitted that the same has been considered in terms of the additional capital expenditure allowed by order dated 11.7.2017 for Rs. 5430 lakh in 2017-18 and the justification for the same has been furnished in Form-9A for 2017-18 along with the auditor's certificate. It has further submitted that in case of any failure of the LP Rotor, the lead time for the procurement of the LP Rotor will take more than 18 months, and therefore, it is necessary to keep a standby Rotor to ensure the restoration of the unit, at a minimum time period in order to minimize the loss of power generation. The Petitioner has also stated that the expenditure incurred is in terms of Regulation 14(1)(i) and is



within the original scope of the work, and the same is within the undischarged liabilities of Rs.106931.42 lakh towards the project capital expenditure as mentioned in para 42 of the Commission order dated 11.7.2017 and the same is also certified by the auditor. Further, the Petitioner has submitted that it has furnished the complete sequence of events that occurred in sparing the stand by LP Rotor to M/s UPRVUNL along with the status of LP Rotor in the rejoinder affidavit dated 5.7.2022, wherein it was mentioned that all inspections of LP Rotor were successfully completed and is expected to be delivered by BHEL/Haridwar at NTPL site at the end of July 2022.

43. We have examined the submissions above. The COD of the generation station is 29.8.2015, and the cut-off date of the generating station is 31.3.2018. As regards the additional capitalization claim for the Pollution Control Equipment, it is observed that the said expenditure is in respect of the assets/works within the original scope and is also within the cut-off date. Accordingly, the claim of the Petitioner is allowed. As regards the additional capitalization claim for LP rotor, it is observed that the Commission, while allowing the additional capital expenditure of Rs.5430 lakh for 2017-18, in para 50 of the order dated 11.7.2017 in Petition No.135/GT/2015, has observed as under:

“The Petitioner has also not submitted as to whether the assets like Generator Rotor, LP/HP Rotor etc. are in the nature of spares or whether these assets are required to replace the existing rotors due to breakdown.”

44. The Petitioner has submitted that a cash expenditure of Rs. 5330.00 lakh incurred towards LP Rotor is within the original scope of work and has been procured as capital spares, as standby equipment, to ensure the uninterrupted generation of power. The Petitioner has further submitted that the LP rotor was transferred to UPRVUNL on 29.3.2021 and had received back the same in the NTPL site on 6.8.2022. On perusal of the documents and submissions of the parties, we note that the Petitioner has agreed



that the procurement of LP rotor is in the nature of capital spares. The justification was sought from the Petitioner, and the Petitioner has submitted that the same has been procured as capital spares. The limit of 4% of initial spares has already been exhausted accordingly, the same may be allowed as and when the asset will be put to use as a capital spare consumption under O&M. In view of this, we are not inclined to allow the additional capital expenditure of Rs.5330.42 lakh towards LP rotor in 2017-18. However, the balance amount of Rs.27403.44 lakh, including items 1 to 16 (under A), as mentioned in the table above, is allowed for 2017-18.

2018-19

45. The detailed breakup of the additional capital expenditure claimed by the Petitioner on a cash basis is as follows :

Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
1	Main Plant Package (Boiler, Turbine, Generator)	8985.40	7937.79	1047.60	-	14(2)(iv)	Liabilities for the work executed prior to the cut-off date
2	Coal Handling System	703.95	534.94	169.01	-		
3	Ash Handling System	1152.85	1152.85	-	-		
4	Circulating Water System	160.18	85.78	74.40	-		
5	Demineralisation and Effluent Plant	272.58	109.29	163.29	-		
6	RCC Chimney	71.13	50.59	20.54	-		
7	Natural Drought Cooling Tower	1145.92	1101.91	44.01	-		
8	Switch Yard	249.01	227.42	21.59	-		
9	Power Transformers	123.61	88.23	35.38	-		
10	Hydrogen Plant	209.24	75.72	133.51	-		
11	Fire Protection System	82.37	82.37	-	-		
12	Storm Water Pumping Arrangement	128.89	115.11	13.77	-		
13	Circulating Water Make up System and Outfall System	215.28	164.92	50.35	-		
14	Seawater RCC Intake Channel and Outfall Pipeline system	71.48	50.17	21.31	-		
15	Shore Unloader	983.38	156.04	827.34	-		
16	Other Packages	1111.90	883.12	228.78	-		



Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
		15667.17	12816.27	2850.90	-		
1	Bitumen road-along conveyor 4a/b and 5a/b	50.49	-	50.49	-	Regulation 14(2)(iv)	Construction of Bitumen road along the conveyor, which is within the original scope of work.
2	Cisf barrack-housing colony-approach road-phase ii	195.40	-	195.40	-		Construction of CISF barrack housing colony approach road, which is within the original scope of work.
3	Roads and drains in power plant	30.64	-	30.64	-		Construction of roads and drains in the power plant, which is within the original scope of work.
4	33w&69n sub base road	7.60	-	7.60	-		Construction of 33w&69n sub base road, which is within the original scope of work.
5	Raising of compound wall-from west to east	104.06	-	104.06	-		Construction of compound wall-from west to east, which is within the original scope of work.
6	Type iv quarters unit 1 4 nos -township-phase ii	4.89	-	4.89	-		Construction of employee quarters which is within the original scope of work.
7	Type iv quarters unit 2 – 4 nos -township-phase ii	4.89	-	4.89	-		Construction of employee quarters which is within the original scope of work.
8	Type iv quarters – 2 nos - township-phase ii	2.44	-	2.44	-		Construction of employee quarters which is within the original scope of work.
9	Type iii quarters unit iv-16 nos-township-phase ii	409.54	-	409.54	-		Construction of employee quarters which is within the original scope of work.
10	Type iii quarters unit v-16 nos-township-phase ii	409.54	-	409.54	-		Construction of employee quarters which is within the original scope of work.
11	Type iii quarters unit vi-16 nos-township-phase ii	409.54	-	409.54	-		Construction of employee quarters which is within the original scope of work.
12	Type iii quarters unit vii-16 nos-township-phase ii	409.54	-	409.54	-		Construction of employee quarters which is within the original scope of work.
13	Type iii quarters unit viii-16 nos-township-phase ii	409.54	-	409.54	-		Construction of employee quarters which is within the original scope of work.
14	Type ii quarters unit iv-16 nos-township-phase ii	302.32	-	302.32	-		Construction of employee quarters which is within the original scope of work.
15	Type ii quarters unit v-16 nos-township-phase ii	302.32	-	302.32	-		Construction of employee quarters which is within the original scope of work.
16	Type ii quarters unit vi-16 nos-township-phase ii	302.32	-	302.32	-		Construction of employee quarters which is within the original scope of work.
17	Type ii quarters unit vii-16 nos-township-phase ii	302.32	-	302.32	-		Construction of employee quarters which is within the original scope of work.



Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
18	Type 1qrs 12nos 5392.20 sq.ft	9.11	-	9.11	-		Construction of employee quarters which is within the original scope of work.
19	Type ii quarters 36 nos 23916.60 sq.ft	40.41	-	40.41	-		Construction of employee quarters which is within the original scope of work.
20	Type iii quarters 36nos 31617.90 sq.ft	53.42	-	53.42	-		Construction of employee quarters which is within the original scope of work.
21	Type iv quarters 8 nos 11352 sq.ft	19.18	-	19.18	-		Construction of employee quarters which is within the original scope of work.
22	Type ceo quarters 1 no 1935 sq.ft	3.27	-	3.27	-		Construction of employee quarters which is within the original scope of work.
23	Paver blocks-township	13.88	-	13.88	-		Construction of Paver blocks in the township, which is within the original scope of work.
24	Nrb – commercial complex, voc hall -township	23.10	-	23.10	-		Construction of Nrb – commercial complex, voc hall in township, which is within the original scope of work.
25	Bus shelter for housing colony	1.31	-	1.31	-		Construction of a Bus shelter for the housing colony, which is within the original scope of work.
26	Administrative office building	59.88	-	59.88	-		Construction of Administrative office building, which is within the original scope of work.
27	Warehouse-shed no 1	6.94	-	6.94	-		Construction of Warehouse-shed which is within the original scope of work.
28	Canteen building and time office	18.94	-	18.94	-		Construction of Canteen building and time office, which is within the original scope of work.
29	Compound wall for new parking area and rest shed	11.46	-	11.46	-		Construction of Compound wall for new parking area and rest shed, which is within the original scope of work.
30	Chain link fencing-ash dyke-melapandiapuram	294.81	-	294.81	-		Fencing the ash dyke land, which is within the original scope of work.
31	3300 kw, 11kv, 18 pole vertical mounted cage motor cwip application frame	282.02	-	282.02	-		Procured capital spares as standby equipment to ensure uninterrupted generation of power which is within the original scope of work.
32	Construction water supply	1.15	-	1.15	-		Construction of Construction water supply which is within the original scope of work.
33	40mm dia-hdpe xchange-water-communicable	49.80	-	49.80	-		Laying of HD pipeline, which is within the original scope of work.



Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
34	Pipeline for conveying service water	144.33	-	144.33	-		Pipeline for conveying service water, which is within the original scope of work.
35	Water supply-sewage line-NTPL quarters-phase ii	16.52	-	16.52	-		Construction of water supply-sewage line-ntpl quarters-phase ii which is within the original scope of work.
36	Sewage treatment plant-80 kld	21.93	-	21.93	-		Construction of Sewage treatment plant, which is within the original scope of work.
37	Sewer lines from a.o building	9.36	-	9.36	-		Establishment of Sewage lines which is within the original scope of work.
38	3300 kw, 11kv, 1500 rpm scim drive pa fan frame	147.14	-	147.14	-		Procured capital spares as standby equipment to ensure uninterrupted generation of power which is within the original scope of work.
39	Gas cylinder for r134a gas 12 nos	0.88	-	0.88	-		Used in the industrial canteen in the plant, which is within the original scope of work.
40	Portable combustible gas leak detector hydrogen	2.33	-	2.33	-		Procured Portable combustible gas leak detector hydrogen, which is within the original scope of work.
41	Shiftable container 1 no 6050x2440x2600 mm	3.80	-	3.80	-		Procured shiftable container, which is within the original scope of work.
42	Inolab cond 7310 – digital conductivity meter	1.51	-	1.51	-		Procured a digital conductivity meter, which is within the original scope of work.
43	Digital ph meter inolab ph7310	1.44	-	1.44	-		Procured a Digital ph meter, which is within the original scope of work.
44	Turbidity meter	1.64	-	1.64	-		Procured a Turbidity meter, which is within the original scope of work.
45	5hp dewatering submersible pump	1.01	-	1.01	-		Procured a 5hp dewatering submersible pump, which is within the original scope of work.
46	5hp dewatering submersible pump	1.01	-	1.01	-		Procured a 5hp dewatering submersible pump, which is within the original scope of work.
47	2hp dewatering submersible pump 3 nos	1.53	-	1.53	-		Procured 2hp dewatering submersible pump, which is within the original scope of work.
48	Common mtc'e workshop north of fuel oil pump house	3.74	-	3.74	-		Construction of Common mtc'e workshop north of fuel oil pump house, which is within the original scope of work.



Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
49	Boiler, turbine, chs mtce, desalination mtce building shed	3.54	-	3.54	-		Construction of Boiler, turbine, chs mtce, desalination maintenance building shed, which is within the original scope of work.
50	Support platform for vaccum system-unit1	0.68	-	0.68	-		Support platform for vaccum system, which is within the original scope of work.
51	10 ton-eot crane-maintenance shed	23.60	-	23.60	-		Construction of crane-maintenance shed, which is within the original scope of work.
52	15 ton-eot crane-maintenance shed	29.26	-	29.26	-		Construction of crane-maintenance shed, which is within the original scope of work.
53	Battery operate platform trolley-4000 kg	6.64	-	6.64	-		Procurement of stores handling equipment which is within the original scope of work.
54	1 hp self-priming sewage/mud pump-2no	0.31	-	0.31	-		Procured self-priming sewage/mud pump, which is within the original scope of work.
55	Cooler for id fan lub oil shell and tube heat-4 no	4.63	-	4.63	-		Cooler for id fan, which is within the original scope of work.
56	Elt-500 5hp-coimbatore compressor-3 no	2.77	-	2.77	-		Elt compressor, which is within the original scope of work.
57	Battery operated platform trolley 2 nos	12.96	-	12.96	-		Procurement of stores handling equipment which is within the original scope of work.
58	Jo truck electric four-wheeler platform truck-2 no	14.40	-	14.40	-		Procurement of stores handling equipment which is within the original scope of work.
59	20 ton-eot crane-maintenance shed	38.17	-	38.17	-		Construction of crane-maintenance shed, which is within the original scope of work.
60	Compressor motor	18.63	-	18.63	-		Compressor motor which is within the original scope of work.
61	12v-27 plate-180-200 ah-battery	2.21	-	2.21	-		Battery, which is within the original scope of work.
62	Gravimetric feeder motor-double tacho generator	1.77	-	1.77	-		Procured Gravimetric feeder motor-double tacho generator, which is within the original scope of work.
63	3.3kv,300kw,1000rpm, air circulating motor-1no-6 frame	37.35	-	37.35	-		Procured air circulating motor which is within the original scope of work.
64	3.3kv,320kw,1500rpm, dmcw (sg) motor-1 no-4 frame	35.80	-	35.80	-		Procured 3.3kv,320kw,1500rpm, dmcw (sg) motor-1 no-4 frame



Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
							which is within the original scope of work.
65	3.3kv,180kw,1500rpm, dmcw (tg) motor-1 no-4 frame	25.72	-	25.72	-		Procured 3.3kv,180kw,1500rpm, dmcw (tg) motor-1 no-4 frame which is within the original scope of work.
66	Hitachi wrenches-cordless-wr14dssl-5 no	1.03	-	1.03	-		Procured communication equipment that is within the original scope of work.
67	Hitachi wrenches-cordless-wr18dhl- 5 no	1.79	-	1.79	-		Procured communication equipment that is within the original scope of work.
68	Vacuum bottle tester-portable-1 no	9.02	-	9.02	-		Procured Vacuum bottle tester, which is within the original scope of work.
69	Enforcer 100-ton puller with electric pump ph1002	19.88	-	19.88	-		Procured puller with electric pump, which is within the original scope of work.
70	Position feedback transmitter-rsg-10+2k-3 nos	5.04	-	5.04	-		Procured transmitter, which is within the original scope of work.
71	Position feedback transmitter-rsg-10-3 nos	4.43	-	4.43	-		Procured transmitter, which is within the original scope of work.
72	Position limit switch assembly r-4k-3 nos	2.36	-	2.36	-		Procured Position limit switch assembly, which is within the original scope of work.
73	Rotex solenoid valve-36 no	1.18	-	1.18	-		Procured solenoid valve, which is within the original scope of work.
74	Troughed aluminium sheet-roofing-cladding	40.91	-	40.91	-		Procured Troughed aluminium sheet, which is within the original scope of work.
75	Hdpe pipe line-service water scheme	42.44	-	42.44	-		Laying HDPE pipeline service water scheme, which is within the original scope of work.
76	Keltron make-pneumatic actuator-2 no	6.63	-	6.63	-		Procured pneumatic actuator, which is within the original scope of work.
77	Pipeline along intake channel-chemical dosing	7.48	-	7.48	-		Laying Pipeline along intake channel which is within the original scope of work.
78	Structural staging-frp sheet covering-cooling tower	46.74	-	46.74	-		Construction of staging cover for cooling tower, which is within the original scope of work.
79	Firefighting system	459.19	-	459.19	-		The entire thermal power station is secured by installing a firefighting system, which is within the original scope of work.
80	Modular sewage treatment plant 5kld	7.91	-	7.91	-		Construction of Modular sewage treatment plant, which is within the original scope of work.



Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
81	Pigeon type industrial locker-24 no	3.82	-	3.82	-		Procured Pigeon type industrial locker which is within the original scope of work.
82	Lt o2 analyzer	12.91	-	12.91	-		Procured Lt O2 analyser, which is within the original scope of work.
83	Ht o2 analyzer probe-seco control-unit i	7.33	-	7.33	-		Procured Ht O2 analyser, which is within the original scope of work.
84	Ht o2 analyzer probe-seco control-unit ii	7.33	-	7.33	-		Procured Ht O2 analyser, which is within the original scope of work.
85	Cable fault locator-model 5762n-1 no	5.13	-	5.13	-		Procured Cable fault locator, which is within the original scope of work.
86	Ht motor 1 nos	28.32	-	28.32	-		Procured Ht motor which is within the original scope of work.
87	One set (24 no cells) lead acid storage battery	32.66	-	32.66	-		Procured lead acid storage battery, which is within the original scope of work.
88	390 kv-3 no-cgl make-lightning arrestors	6.91	-	6.91	-		Procured lightning arrestors, which are within the original scope of work.
89	Purchase of 525kw motor-1 no	41.01	-	41.01	-		Purchase of 525kw motor which is within the original scope of work.
90	Power supply-illumination-warehouse shed no 1	13.34	-	13.34	-		Construction of warehouse shed, which is within the original scope of work.
91	Continuous ambient air quality monitoring stations	53.45	-	53.45	-		Installed pollution control equipment as per the statute, which is within the original scope of work.
92	Continuous ambient air quality monitor station 2	53.45	-	53.45	-		Installed pollution control equipment as per the statute, which is within the original scope of work.
93	Continuous ambient air quality monitor station 3	53.45	-	53.45	-		Installed pollution control equipment as per the statute, which is within the original scope of work.
94	Continuous ambient air quality monitor station 4	53.45	-	53.45	-		Installed pollution control equipment as per the statute, which is within the original scope of work.
95	Continuous ambient air quality monitor station 5	53.45	-	53.45	-		Installed pollution control equipment as per the statute, which is within the original scope of work.
96	Continuous ambient air quality monitor station 6	53.45	-	53.45	-		Installed pollution control equipment as per the statute, which is within the original scope of work.



Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
97	lvdfn communication networks-ntpl township	29.66	-	29.66	-		Procured communication networks that are within the original scope of work.
98	Web based software application for digi-1 no	0.85	-	0.85	-		Procured Web-based software application that is within the original scope of work.
99	Microsoft sqlsvr std2014 sngl olp-1 no	1.14	-	1.14	-		Procured Microsoft sqlsvr which is within the original scope of work.
100	Continuous emission monitoring system	5.19	-	5.19	-		Installed pollution control equipment as per the statute, which is within the original scope of work.
101	Aluminium alloy a type ladder 8 feet 4 nos	0.07	-	0.07	-		Procured and used to improve the safety aspects of carrying out of various O&M activities while working at height which is within the original scope of work.
102	Aluminium alloy a type ladder 15 feet 4 nos	0.08	-	0.08	-		Procured and used to improve the safety aspects of carrying out of various O&M activities while working at height which is within the original scope of work.
103	1no whirl pool refrigerators 245 lts -cisf canteen	0.19	-	0.19	-		Used in the industrial canteen in the plant which is within the original scope of work.
104	Multitier racks at ntpl stores	99.80	-	99.80	-		Construction of racks for the purpose of stores & electrical works which is within the original scope of work.
105	Writing table with drawer 1 no	0.26	-	0.26	-		Procured Writing table with drawer which is within the original scope of work.
106	Executive high back chair	0.08	-	0.08	-		Procured Executive high back chair which is within the original scope of work.
107	Matress for hospital cot-5 nos	0.25	-	0.25	-		Procured Writing table with drawer which is within the original scope of work.
108	Steel almirah-4 adjustable shelves-25 nos	3.65	-	3.65	-		For the purpose occupational health centre for employees in the plant.
109	Vertical steel filing cabinet-4 drawer-40 nos	5.34	-	5.34	-		Procured warehouse equipment which is within the original scope of work.
110	Steel pigeon hole cabinet-72 pigeon hole-16nos	3.12	-	3.12	-		Procured warehouse equipment which is within the original scope of work.
111	Steel pigeon hole cabinet-24 pigeon hole-11 no	1.49	-	1.49	-		Procured warehouse equipment which is within the original scope of work.
112	Steel storage cum display rack-22 nos	2.93	-	2.93	-		Procured warehouse equipment which is within the original scope of work.



Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
113	Steel two side open rack-31 nos	1.44	-	1.44	-		Procured warehouse equipment which is within the original scope of work.
114	Steel open type-heavy duty platform trolley-11nos	2.37	-	2.37	-		Procured warehouse equipment which is within the original scope of work.
115	Steel wheel barrow-10 nos	0.85	-	0.85	-		Procured warehouse equipment which is within the original scope of work.
116	Steel cupboard-78x36x19"-5 nos	0.72	-	0.72	-		Procured warehouse equipment which is within the original scope of work.
117	Steel cupboard-50x30x17"-2 nos	0.20	-	0.20	-		Procured warehouse equipment which is within the original scope of work.
118	Examination table-75l x 20w x 32h-1 no-hospital	0.06	-	0.06	-		For the purpose occupational health centre for employees in the plant.
119	Led focus lamp-1 no-hospital	0.12	-	0.12	-		For the purpose occupational health centre for employees in the plant.
120	Magazine rack-2 nos-royal furniture	0.14	-	0.14	-		For the purpose occupational health centre for employees in the plant.
121	Gas stove 4*2 with metal tawa 12mm-1no	0.12	-	0.12	-		Used in the industrial canteen in the plant which is within the original scope of work.
122	Stainless steel-steam generating boiler-2 no	5.13	-	5.13	-		Used in the industrial canteen in the plant which is within the original scope of work.
123	Electric control panel-2 no	1.16	-	1.16	-		Used in the industrial canteen in the plant which is within the original scope of work.
124	Rice cooking vessel-2 no	0.58	-	0.58	-		Used in the industrial canteen in the plant which is within the original scope of work.
125	Sambar or rasam cooking vessel-2 no	0.70	-	0.70	-		Used in the industrial canteen in the plant which is within the original scope of work.
126	Milk boiler-1 no	0.28	-	0.28	-		Used in the industrial canteen in the plant which is within the original scope of work.
127	Idly cooker-1 no	1.04	-	1.04	-		Used in the industrial canteen in the plant which is within the original scope of work.
128	Steam line connecting system-1 no	0.47	-	0.47	-		Procured Steam line connecting system which is within the original scope of work.
129	9 kw heating coil-6 no	0.15	-	0.15	-		Procured heating coil which is within the original scope of work.
130	Split ac-243zyi-12 nos-stabilizer	6.29	-	6.29	-		Installed air conditioners inside the plant which is within the original scope of work.



Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
131	3d miniature scale model of ntpl	1.21	-	1.21	-		Displaying 3d miniature scale model of ntpl
132	Voltas mini magic cooling water	0.55	-	0.55	-		Used in the industrial canteen in the plant which is within the original scope of work.
133	Curtain fountain-foam jet	5.58	-	5.58	-		Procured Curtain fountain which is within the original scope of work.
134	Powerpack numeric 600va-40 no	0.69	-	0.69	-		Procured Powerpack numeric which is within the original scope of work.
135	3 phase 6 kva 1 qty	0.34	-	0.34	-		Procured 3 phase 6 kva which is within the original scope of work.
136	Single phase 3 kva 1 qty	0.12	-	0.12	-		Procured Single phase 3 kva which is within the original scope of work.
137	Dell power edge r530 server-1 no	2.60	-	2.60	-		Procured Dell power edge which is within the original scope of work.
138	Desktop pc hp 406 g1-2 no	1.44	-	1.44	-		Procured Desktop pc which is within the original scope of work.
139	A3 high speed scanner hp n9120-1 no	1.89	-	1.89	-		Procured A3 high speed scanner which is within the original scope of work.
140	Walkie-talkie-16 nos	9.89	-	9.89	-		Installed communication system in the plant which is within the original scope of work.
141	Surveillance camera system	17.01	-	17.01	-		Entire thermal power station is secured by Surveillance camera system which is within the original scope of work.
142	2 no-5-ton electric power winch	12.56	-	12.56	-		Procured electric power winch which is within the original scope of work.
143	1 no-5-ton electric power winch	6.28	-	6.28	-		Procured electric power winch which is within the original scope of work.
144	2 no-5-ton electric power winch	12.56	-	12.56	-		Procured electric power which is within the original scope of work.
145	2 no-3 ton-fork lift-battery operate	21.95	-	21.95	-		Procured fork lift which is within the original scope of work.
146	Canon multifunctional photo copier	0.51	-	0.51	-		Procured multifunctional photo copier which is within the original scope of work.
147	Preethi kettle armour 1 ltr – 9 nos	0.11	-	0.11	-		Used in the industrial canteen in the plant which is within the original scope of work.
148	Samsung led tv 43" – mu6100-1 no	0.48	-	0.48	-		Installed TV for the purpose of displaying timely power generating status of the plant



Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
							which is within the original scope of work.
149	5x3" dining table-6 no	1.49	-	1.49	-		Used in the industrial canteen in the plant which is within the original scope of work.
150	Dinning chair – teak wood-24 nos	1.61	-	1.61	-		Used in the industrial canteen in the plant which is within the original scope of work.
151	Sofa 3-seater-2 nos	0.65	-	0.65	-		Procured sofa which is within the original scope of work.
152	Matching teepoy top teakwood plank with glass-2 nos	0.19	-	0.19	-		Procured teepoy which is within the original scope of work.
153	Matching teepoy top teakwood plankwithoutglass-2no	0.18	-	0.18	-		Procured teepoy which is within the original scope of work.
154	6x7" bend type cotseat reepar-2 nos	1.30	-	1.30	-		Procured cotseat reepar which is within the original scope of work.
155	3x6.5x6"durotechfoam-coir mattress-pillow-12nos	1.13	-	1.13	-		Procured cotseat reepar which is within the original scope of work.
156	7x6x6" durotech foam-coir mattress-2nos	0.41	-	0.41	-		Procured coir mattress which is within the original scope of work.
157	Luggage rack-2 no	0.14	-	0.14	-		Procured Luggage rack which is within the original scope of work.
158	Analytical electronic balance-100 gms-1 no	0.83	-	0.83	-		Procured Analytical electronic balance which is within the original scope of work.
159	Weighing machine 100kg capacity-1 no	0.14	-	0.14	-		Procured Weighing machine which is within the original scope of work.
160	Hot air oven-3 no-electrical	1.25	-	1.25	-		Procured Hot air oven, which is within the original scope of work.
161	Battery operated-fork lift-3 mt-1 no	8.33	-	8.33	-		Procured fork lift, which is within the original scope of work.
162	Movie screen equipment-voc hall-township	16.84	-	16.84	-		For the employees' health & recreation.
163	Lan connectivity-common control room-switch yard	21.76	-	21.76	-		Installed Lan connectivity, which is within the original scope of work.
164	Upgradata-epabx-ipx 50xchange-300-line capacity	23.78	-	23.78	-		Procured Upgradata-epabx-ipx exchange, which is within the original scope of work.
165	Gemini-air-conditioning of ao building	0.72	-	0.72	-		Installed air conditioners inside the plant, which is within the original scope of work.



Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
166	Voltas cyat ac 1.5ton split 183lya 2 nos stabilize	0.72	-	0.72	-		Installed air conditioners inside the plant, which is within the original scope of work.
167	Blue star deep freezer 400 ltr for cist canteen	0.29	-	0.29	-		Used in the industrial canteen in the plant, which is within the original scope of work.
168	500 ltr freezer	0.44	-	0.44	-		Used in the industrial canteen in the plant, which is within the original scope of work.
169	Nova scales-weighing machine-cisf canteen	0.07	-	0.07	-		Procured weighing machine, which is within the original scope of work.
170	Onida 2ton split ac, stabilizer, stand 5 nos	2.24	-	2.24	-		Installed air conditioners inside the plant, which is within the original scope of work.
171	Lan connectiviey-control room-switch yard	1.03	-	1.03	-		Installed Lan connectivity, which is within the original scope of work.
172	Desktop computer 20 nos	15.13	-	15.13	-		Procured computer which is within the original scope of work.
173	Laptop computer 2 nos	0.82	-	0.82	-		Procured computer which is within the original scope of work.
174	Extension-computer lan-phase ii-1 set	13.79	-	13.79	-		Installed Lan connectivity, which is within the original scope of work.
175	Abt lan at ntpl-1 set	4.44	-	4.44	-		Installed Lan connectivity, which is within the original scope of work.
176	Aluminium ladder 15 feet qty 1 no	0.03	-	0.03	-		Used for the purpose of stores & electrical works.
177	Spiral slide at township children park	2.11	-	2.11	-		For the employees' health & recreation.
178	See saw at township children park	0.36	-	0.36	-		For the employees' health & recreation.
179	Double arc swing at township children park	0.50	-	0.50	-		For the employees' health & recreation.
180	I ball tablet 7236 6 nos	0.33	-	0.33	-		Procured computer which is within the original scope of work.
181	Carrier split ac-2 ton-stabilizer-ao office-3 nos	1.38	-	1.38	-		Installed air conditioners inside the plant, which is within the original scope of work.
182	Pearl motors-motor cycles for cisf	1.33	-	1.33	-		Purchase motor cycles for CISF for security purposes, which is within the original scope of work.
183	1 kva ups-1 no	0.04	-	0.04	-		Procured 1 kva ups, which is within the original scope of work.
184	0.6 kva ups-2 no	0.03	-	0.03	-		Procured 0.6 kva ups, which is within the original scope of work.



Sl. No.	Head of Work / Equipment	ACE Claimed (Actual)				Regulations	Justification
		Accrual basis	Un-discharged Liability included in col. 3	Cash basis	IDC included in col. 3		
A							
185	Tea can 7.5 ltr-5 nos-ich canteen	0.08	-	0.08	-		Used in the industrial canteen in the plant, which is within the original scope of work.
186	Tea can 10 ltr-2 no-ich canteen	0.03	-	0.03	-		Used in the industrial canteen in the plant, which is within the original scope of work.
187	Pop up toaster-1 no-ich canteen	0.02	-	0.02	-		Used in the industrial canteen in the plant, which is within the original scope of work.
188	Ever silver thookku-10 no-ich canteen	0.05	-	0.05	-		Used in the industrial canteen in the plant, which is within the original scope of work.
189	Float valve assembly-1 no	0.02	-	0.02	-		Float valve is provided to prevent the overflow of precious drinking water and necessarily to be installed. By installing the float valve assembly, wastage of water is avoided which is within the original scope of work.
190	Aluminium alloy a type ladder 8 feet	0.06	-	0.06	-		Procured and used to improve the safety aspects of carrying out various O&M activities while working at height which is within the original scope of work.
191	Aluminium alloy wall ladder 8 feet	0.02	-	0.02	-		Procured and used to improve the safety aspects of carrying out various O&M activities while working at height which is within the original scope of work.
192	Aluminium alloy ladder 10 feet 4 nos	0.03	-	0.03	-		Procured and used to improve the safety aspects of carrying out various O&M activities while working at height which is within the original scope of work.
193	Aluminium alloy wall ladder 12 feet 4 nos	0.03	-	0.03	-		Procured and used to improve the safety aspects of carrying out of various O&M activities while working at height which is within the original scope of work.
194	Mattress-examination table-1 no-hospital	0.04	-	0.04	-		For the purpose of occupational health centre for employees in the plant.
		22363.11	12816.27	9546.83	-		

46. It is observed that the Petitioner in Petition No.135/GT/2015, had not claimed any additional capital expenditure for 2018-19. The Petitioner, in the present Petition, has claimed the additional capital expenditure of Rs.2850.90 lakh under Regulation 14(2)(iv)



of the 2014 Tariff Regulations towards the discharge of liabilities and Rs.6695.93 lakh under Regulation 14(2)(iv) of the 2014 Tariff Regulations. In justification for items 1 to 16 in the table above, the Petitioner has submitted that the capital expenditure incurred is towards the undischarged liabilities recognized and paid, and for the other items 17 to 194, the Petitioner has submitted that the same form part of the original scope of work.

47. Respondents TANGEDCO and KSEBL have submitted that the additional capital expenditure claimed by the Petitioner is beyond the cut-off date, and the Petitioner has also not furnished any justification in support of the claim and, therefore, the same may be rejected. In response, the Petitioner has submitted that as per paragraph 42 of the order dated 11.7.2017, the capital expenditure furnished by the Petitioner is as per Form 5B as on the date of COD, i.e., 18.6.2015 for Unit-I and 29.8.2015 for Unit-II. It has been stated that the undischarged liability existing as on the COD was Rs.106931.42 lakh towards the projected capital expenditure. Pointing out that in terms of the order, the undischarged liability is to be considered at the time of truing-up of the tariff, the Petitioner has submitted that an amount of Rs. 9546.83 lakh has been claimed in 2018-19.

48. The matter has been considered. It is noticed that the Petitioner has claimed the total additional capital expenditure of Rs. 9546.83 lakh in 2018-19. The Petitioner has submitted that out of Rs.9546.83 lakh incurred in 2018-19, liability was created in 2017-18 for Rs.8623.48 lakh for the works executed prior to the cut-off date, as per Regulation 14(2)(iv) of the 2014 Tariff Regulations and for the remaining amount of Rs.923.35 lakh, liability has been created after the cut-off date, but related to the project expenditure. From the perusal of the annual accounts of the Petitioner for 2017-18, it is observed that an amount of Rs.8623.48 lakh has been shown under other current liabilities to be payable on the purchase of fixed assets, and the Petitioner for the period 2018-19 has



submitted that since the same has been discharged, the additional capital expenditure has been claimed. It is noted from the Petitioner's affidavit dated 18.1.2021 that out of claimed expenditure of Rs. 9546.83 lakh, the amount of Rs. 8623.48 lakh pertains to the discharge of liability (prior to the cut-off date) and payment of Rs. 923.35 lakh made against the expenditure of Rs.6695.94 lakh incurred after the cut-off date for works within original scope for which approval has been granted in para 14 above, to complete the work after the cut-off date. Accordingly, the additional expenditure of Rs.9546.83 lakh is allowed in 2018-19.

Discharges and Un-Discharged Liabilities

49. It is noted that the Petitioner, through an affidavit dated September 2, 2016 (in response to the ROP in Petition No. 135/GT/2015), submitted an "undischarged liability" of Rs. 48029.37 lakh as on the COD (Commercial Operation Date). This was duly supported by Form-9E and a statement reconciling it with the Balance Sheet (which also indicated undischarged liabilities of Rs. 48029.37 lakh). Consequently, the Commission accepted the "undischarged liability" of Rs. 48029.37 lakh as on the COD of the generating station (29.5.20215) in Petition No. 135/GT/2015. In the present Petition, the Petitioner claims an "undischarged liability" of Rs. 50712.81 lakh in Form-9E and Rs. 52036.56 lakh in the Liability Flow Statement (Form-18) as on the COD (August 29, 2015). However, they have not provided any justification or supporting documents for this increase from the previously admitted amount of Rs. 48029.37 lakh in Petition No. 135/GT/2015. Due to the discrepancy between the figures in Form-9E and Form-18 and the lack of justification and supporting documents for the higher amounts, the Commission has decided to retain the previously admitted "undischarged liability" of Rs. 48029.37 lakh as on the COD for the current petition. Further, based on the approved



‘additional capital expenditure’, ‘discharges of liabilities’ has been considered as follows:

		(Rs. in lakh)			
	Ref.	2015-16	2016-17	2017-18	2018-19
Opening Undischarged liabilities	(A)	48029.37	43986.09	23137.75	9155.15
Liabilities Addition	(B)	13404.25	6408.68	13420.85	9200.76
Liabilities Discharged	(C)	17447.53	27257.02	27403.45	9546.83
Closing Liabilities	D=(A+B-C)	43986.09	23137.75	9155.15	8809.08

Capital cost allowed for the period 2014-19

50. Based on the above, the capital cost allowed for the generating station for the period 2014-19 is as under:

	(Rs. in lakh)				
	As on 18.6.2015 (COD-Unit-)	As on 29.8.2015 (Station COD)	2016-17	2017-18	2018-19
Opening Capital Cost	246119.82	524531.92	539732.66	566316.36	590889.08
Add: Additional capital expenditure (including discharges) allowed during the year	-	17447.53	27257.02	27403.45	9546.83
Less: Excess initial spares	-	57.31	673.32	1124.33	-
Less: Post COD Overhead Expenditure (Revenue Expenditure in nature) in cash as per Form 5B not allowed in ‘additional capital expenditure’	-	2189.48	-	1706.40	-
Closing Capital Cost	246119.82	539732.66	566316.36	590889.08	600435.91

51. As regards the ‘Issue of funding gap’, ‘Consideration of share application money as ‘Equity’, ‘Normative IDC’, Time Overrun’ and ‘consequential IDC and IEDC’ the Petitioner has filed Appeal No. 178/2019 before APTEL and the same is pending consideration by APTEL. Therefore, the capital cost approved above, as on the COD is subject to the final decision of APTEL in the said appeal.

Debt-Equity Ratio

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

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

Provided that:



- (i) where equity actually deployed is less than 30% of the capital cost actual equity shall be considered for determination of tariff:*
- (ii) the equity invested in foreign currency shall be designated in Indian rupees on the date of each investment:*
- (iii) any grant obtained for the execution of the project shall not be considered as a part of capital structure for the purpose of debt-equity ratio.*

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

(2) The generating Company or the transmission licensee shall submit the resolution of the Board of the company or approval from Cabinet Committee on Economic Affairs (CCEA) regarding infusion of fund from internal resources in support of the 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.”

53. Further, the Commission vide its order dated 6.1.2020 in Petition No. 178/GT/2017 had observed the following:

“71. Considering the details of cash expenditure as submitted at Form-14A and the net loan position as on COD of Units-I, the debt-equity ratio as on COD of Unit-I works out to 67.88:32.12, which is within the normative norm of 70:30. As such, the debt-equity ratio of 70:30 has been considered for the purpose of tariff as on COD of Unit-I. Further, for the purpose of funding of projected additional capital expenditure, the debt-equity ratio of 70:30 has been considered for the purpose of tariff. This subject to revision based on truing-up exercise.”

54. It is evident from the aforesaid order that the Commission has considered the details of cash expenditure as submitted by the Petitioner in Form-14A and the net loan position as on the COD of Unit-I, the debt-equity ratio as on COD of Unit-I was worked out as



70.54:29.46. As on the COD of Unit-II, the Commission had considered the debt-equity ratio of 71.50:28.50 in the order dated 11.7.2017 in Petition No. 135/GT/2015, and the same has been claimed by the Petitioner. Accordingly, the same has been allowed for the purpose of tariff as on the COD of the generating station. Further, for the purpose of funding the additional capital expenditure, the debt-equity ratio of 70:30 has been considered. Accordingly, on the basis of the capital cost of Rs 246119.82 lakh, as on the COD of Unit-I, the gross normative loan and equity amounting to Rs.173606.43 lakh and Rs.72513.39 lakh respectively, have been considered. Further, on the basis of the capital cost of Rs.524531.92 lakh, as on the COD of Unit-II, the gross normative loan and equity amounting to Rs.375041.22 lakh and Rs.149490.70 lakh respectively, have been considered. The additional capital expenditure allowed for the period 2016-19 has been allocated to debt and equity in the ratio of 70:30. Accordingly, the debt-equity ratio as on the COD of the units and as on the date of allotment of shares, i.e., 05.09.2015 the Capital Expenditure as on 31.3.2019 has been approved as follows:

	As on COD of Unit-I (18.06.2015)		As on COD of Unit-II (29.08.2015)		As on 05.09.15 (Share Allotment Date)		Add-Cap (05.09.15 to 31.03.19)		As on 31.03.2019	
	Rs. In lakh	%	Rs. In lakh	%	Rs. In lakh	%	Rs. In lakh	%	Rs. In lakh	%
Debt	173606.43	70.54	375041.22	71.50	373924.45	71.22	52787.96	70.00	426712.42	71.07
Equity	72513.39	29.46	149490.70	28.50	151100.08	28.78	22623.41	30.00	173723.49	28.93
Total	246119.82	100.00	524531.92	100.00	525024.54	100.00	75411.37	100.00	600435.91	100.00

Return on Equity

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

“24. Return on Equity: (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.

(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:

Provided that:



- i) *in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:*
- ii) *the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:*
- iii) *additional RoE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:*
- iv) *the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:*
- v) *as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:*
- vi) *additional RoE shall not be admissible for transmission line having length of less than 50 kilometer.”*

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

“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

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



beneficiaries or the long-term transmission customers/DICs as the case may be on year to year basis.”

57. The Petitioner has claimed tariff considering the rate of Return on Equity (ROE) of 15.5% in 2015-16, 19.705% in 2016-18 and 19.758% in 2018-19. The Petitioner has not claimed any grossing up for 2015-16 and has arrived at a grossing up of the ROE with the effective MAT rate of 21.342% in 2016-18 and 21.549% in 2018-19. Based on the submission and on prudence check, ROE has been worked out as under:

	2015-16			2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 4.9.2015	5.9.2015- 31.03.16			
Notional Equity- Opening	72513.39	149490.70	151100.08	155512.52	163487.63	170859.44
Addition of Equity due to additional capital expenditure	0.00	147.78	4412.44	7975.11	7371.82	2864.05
Normative Equity – Closing	72513.39	149638.48	155512.52	163487.63	170859.44	173723.49
Average Normative Equity	72513.39	149564.59	153306.30	159500.07	167173.54	172291.47
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate	0.000%	0.000%	0.000%	21.342%	21.342%	21.549%
Rate of Return on Equity (Pre-tax)	15.500%	15.500%	15.500%	19.705%	19.705%	19.758%
Return on Equity (Pre-tax)	2211.06	443.38	13569.28	31429.49	32941.55	34041.35

Interest on loan

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

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

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

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

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

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



Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered: Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered.

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

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

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

(9) In case of dispute, any of the parties may make an application in accordance with the Central Electricity Regulatory Commission (Conduct of Business) Regulations, 1999, as amended from time to time, including statutory re-enactment thereof for settlement of the dispute: Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or the transmission licensee during the pendency of any dispute arising out of re-financing of loan.”

59. Interest on the loan has been worked out as under:

- (a) The weighted average rate of interest has been worked out on the basis of the actual loan portfolio of the respective year applicable to the project;
- (b) Depreciation allowed for the period has been considered as repayment;
- (c) The interest on the loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest calculated.

60. The necessary calculation of Interest on a loan is as under:

	2015-16			2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 4.9.2015	5.9.2015 to 31.3.2016			
Gross opening loan	173606.43	375041.22	373924.45	384220.14	402828.73	420029.63
Cumulative repayment of loan up to the previous year / period	0.00	2530.57	3055.13	18943.79	47011.09	76374.11
Net loan opening	173606.43	372510.65	370869.32	365276.35	355817.64	343655.52
Addition on account of additional capital expenditure	0.00	344.83	10295.69	18608.59	17200.90	6682.78
Repayment of loan during the year	2530.57	524.56	15888.66	28067.30	29363.02	30228.40
Less: Repayment adjustment on account of de-capitalization	-	-	-	-	-	-
Net repayment	2530.57	524.56	15888.66	28067.30	29363.02	30228.40
Net loan closing	171075.86	372330.92	365276.35	355817.64	343655.52	320109.90
Average Loan	172341.14	372420.79	368072.84	360547.00	349736.58	331882.71
Weighted average rate of interest on loan	9.986%	9.987%	9.987%	9.986%	9.988%	9.987%



	2015-16			2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 4.9.2015	5.9.2015 to 31.3.2016			
Interest on Loan	3385.50	711.36	20991.04	36004.64	34931.84	33144.48

Depreciation

61. 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 final 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.”

62. Since the elapsed life of the generating station is less than 12 years from the station COD of 29.8.2015, depreciation has been calculated by considering the weighted average rate of depreciation (WAROD) during the period 2015-19. The weighted average rate of depreciation is 5.227% for the period from 18.6.2015 to 28.8.2015 and 5.226% for the period from 29.8.2015 to 31.3.2016, and 5.075% for the period from 2016-17 to 2018-19 been considered (enclosed as **Annexure-A**). Accordingly, depreciation is worked out and allowed as under:

	2015-16			2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 4.9.2015	5.9.2015 To 31.3.2016			
Opening capital cost (A)	246119.82	524531.92	525024.54	539732.66	566316.36	590889.08
Add: Additional capital expenditure (B)	0.00	492.62	14708.12	26583.70	24572.72	9546.83
Closing capital cost [C=A+B]	246119.82	525024.54	539732.66	566316.36	590889.08	600435.91
Average capital cost D= (Average A&C)	246119.82	524778.23	532378.60	553024.51	578602.72	595662.49
Value of freehold land included above (E)	-	-	-	-	-	-
Aggregated depreciable value F=(D-E) *90%	221507.84	472300.41	479140.74	497722.06	520742.45	536096.24
Remaining aggregate depreciable value at the beginning of the year [G= F- cumulative depreciation up to previous year]	221507.84	469769.83	476085.61	494666.93	489620.02	475610.79
Weighted Average Rate of Depreciation (WAROD) [J]	5.227%	5.226%	5.226%	5.075%	5.075%	5.075%
Annualized Depreciation (K=D*J)	12863.74	27426.93	27824.16	28067.30	29363.02	30228.40
Depreciation for the period (L)	2530.57	524.56	15888.66	28067.30	29363.02	30228.40
Cumulative depreciation at the end of the year (before adjustment for de- capitalization) (M =L+ 'O' of previous period/year)	2530.57	3055.13	18943.79	31122.43	60485.45	90713.86
Less: Depreciation adjustment on account of de-capitalization (N)	0.00	0.00		0.00	0.00	0.00
Cumulative depreciation at the end [O=M-N]	2530.57	3055.13	18943.79	31122.43	60485.45	90713.86



Operation & Maintenance expenses

63. Regulation 29(1)(a) of the 2014 Tariff Regulations provides the year-wise O&M expense norms for 500 MW coal-based thermal generating units as under:

<i>(Rs. in lakh/MW)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
16.00	17.01	18.08	19.22	20.43

64. In terms of the above, the Petitioner has claimed the O&M expenses for the period 2015-19, which was also allowed by order dated 11.7.2017 in Petition No. 135/GT/2015, as under:

		<i>(Rs. in lakh)</i>		
2015-16		2016-17	2017-18	2018-19
18.6.2015 to 28.8.2015 (Unit-I)	29.8.2015 to 31.3.2016 (Units I & II)			
8505.00*	17010.00*	18080.00	19220.00	20430.00

**Since Unit-I of the generating station achieved COD on 18.6.2015 and Unit-II on 29.8.2015, the O&M has been calculated on an annualized basis. However, the same may be prorated while considering AFC.*

65. Since the above claim of the Petitioner is as per Regulation 29 (1)(a) of the 2014 Tariff Regulations, the same is allowed.

Water charges

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

*“29 (2) The Water Charges and capital spares for thermal generating stations shall be allowed separately:
Provided that water charges shall be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check. The details regarding the same shall be furnished along with the petition:
Provided that the generating station shall submit the details of year wise actual capital spares consumed at the time of truing up with appropriate justification for incurring the same and substantiating that the same is not funded through compensatory allowance or special allowance or claimed as a part of additional capitalization or consumption of stores and spares and renovation and modernization”*

67. In terms of the above Regulations, water charges are to be allowed based on the water consumption depending upon the type of plant, type of cooling water system, etc.,



subject to prudence check of the details furnished by the Petitioner. The Petitioner had not claimed any water charges, on a projection basis, during the year 2015-19 in Petition No. 135/GT/2015. Accordingly, no water charges were allowed by the Commission vide order dated 11.7.2017. The Petitioner has claimed water charges as per clause (2) of Regulation 29 of the 2014 Tariff Regulations and has prayed that they may be permitted to claim the same from the beneficiaries based on a demand note. The Petitioner has furnished the following audited details on water charges:

Source of Water: Sea Water		
Period	Consent fee payable under Water Act	Consent fee paid by the Petitioner
2015-16 from COD	13.04	13.04
2016-17	13.04	13.04
2017-18	15.70	15.70
2018-19	26.45	26.45

68. The matter has been considered. In terms of the first provision of Regulation 29(2) of the 2014 Tariff Regulations, water charges are to be allowed based on water consumption depending upon the type of plant, type of cooling water system, etc., subject to prudence check of the details furnished by the Petitioner. The generating station has a closed-circuit seawater cooling system. The Petitioner has furnished the audited details of water charges for the period 2015-19. The Petitioner has also claimed a consent fee payable to the Tamil Nadu Pollution Control Board under the Water Act. Accordingly, the claim of the Petitioner has been considered based on the audited details, and the water charges allowed for the period 2015-19 are as below:

<i>(Rs. in lakh)</i>			
2015-16 (from COD)	2016-17	2017-18	2018-19
13.04	13.04	15.70	26.45

Capital Spares

69. The Petitioner has furnished Form-17 and has claimed the capital spares amounting



to Rs.39.36 lakh in 2015-16, Rs.1076.89 lakh in 2016-17, Rs. 1247.16 lakh in 2017-18 and Rs.517.26 lakh in 2018-19. The Petitioner in Form-9Bi has not furnished the details of decapitalization corresponding to the capitalized items and submitted that the same is 'Nil' for the period 2014-19. Further, the Petitioner has not submitted the bifurcation of the spares forming part of the capital cost and spares not forming part of the capital cost. In the absence of the details, it is not justified to admit the capital spares as claimed by the Petitioner. The Petitioner has also procured some mandatory spares and submitted that these are procured under the project head and has also claimed the same under capital spares. Hence, it is not clear whether the same is consumed or not. In view of the above, the capital spares claimed by the Petitioner are not allowed as the same will be considered only when consumed or put to use.

Additional O&M expenses

Desalination Plant

70. As regards the claim of the Petitioner for additional O&M expenses due to the desalination plant, it is mentioned that in Petition No. 135/GT/2015, the Petitioner had prayed for a review of the normative O&M expenses and submitted that a total additional O&M expenses of Rs.22.08 crore per annum would be required for treating the seawater to soft water on account of the following additional features:

<i>(Rs. in crore)</i>	
Desalination Plant – (chemical, filters, membrane)	8.00
Shore un-loader	5.25
Offshore Conveyor	5.77
Bottom Ash Disposal	3.06

71. The Commission vide order dated 11.7.2017 allowed the O&M expenses separately for the R.O. desalination plant to the tune of Rs 0.312 lakh/MW/year, as against the claim of the Petitioner of Rs. 2.208 lakh/MW/year, as under:



“73. The matter has been examined. It is observed that the plant is located near sea coast and thus there will be no water charges, as water will be made available from sea itself. In addition, the O&M expenses for RO desalination plant is allowed separately as normative O&M for meeting the water requirement of the plant. Considering the location of the plant, an amount of Rs.22.08 crore per annum (which works out to Rs.2.208 lakh/MW/year), claimed by the petitioner is too high in comparison to the amount of Rs.468.84 lakh (which works out to Rs.0.312 lakh/MW/year) for 2015-16 claimed by Vallur Thermal Power Project of NTECL which has 3 x 500 MW units as compared to 2x500 MW units of this generating station. In view of this, the Operation & Maintenance expenses claimed by the petitioner including consumables are restricted to an amount of Rs.0.312 lakh/MW/year (Rs.312.56 lakh) at this stage. The O&M expenses for RO desalination plant allowed as above is subject to truing-up of tariff and the petitioner is directed to place on record all relevant information/justification comparing the claim for chemicals filters & membranes etc. with respect to the Vallur Thermal Power Project of NTECL. The normative O&M expenses do not include additional features like desalination plant, chemicals, filters and membranes used for the same. Hence, expenses on desalination plant are allowed separately.”

72. However, the Petitioner filed a Review Petition No. 38/RP/2017 seeking a review of the said order for restricting the O&M cost to Rs.0.312 lakh/ MW/ year, and the Commission *vide* order dated 26.12.2018, observed that since the Petitioner has been granted liberty to approach the Commission with the details of the expenditure incurred, along with the relevant documents with justification, there was no error in the said order.

73. In the present Petition, the Petitioner has furnished the details of the actual additional O&M expenditure incurred for the desalination plant on the basis of the audited financial statement for the period from 2015-16 to 2018-19 and has also furnished the auditor's certificate. The details of actual additional O&M expenditure incurred and claimed by the Petitioner are as under:

(Rs. in crore)

	Additional O&M expenses allowed	Additional O&M expenses incurred
2015-16 w.e.f. COD	3.12	-
2016-17	3.12	3.19
2017-18	3.12	4.83
2018-19	3.12	5.82

74. The Petitioner has furnished the LOAs issued to the different vendors for the claims



made during the period 2015-19, duly certified by the auditor. In view of the above, we allow the O&M expenses as claimed by the Petitioner for the period 2015-19. Accordingly, the total O&M expenses allowed for the period 2015-19 are as under:

(Rs. in lakh)

	2015-16		2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 31.3.2016			
Normative O&M expenses claimed under Regulation 29(1)(a) of the 2014 Tariff Regulations (a)	1673.11	10038.69	18080.00	19220.00	20430.00
Normative O&M expenses allowed under Regulation 29(1)(a) of the 2014 Tariff Regulations (b)	1673.11	10038.69	18080.00	19220.00	20430.00
Water charges claimed (c)	-	13.04	13.04	15.71	26.45
Water charges allowed (d)	-	13.04	13.04	15.71	26.45
Total O&M expenses claimed under Regulation 29 of the 2014 Tariff Regulations (a + c)	1673.11	10051.73	18093.04	19235.71	20456.45
Total O&M expenses allowed under Regulation 29 of the 2014 Tariff Regulations (b + d)	1673.11	10051.73	18093.04	19235.71	20456.45
Additional O&M expenses impact for desalination plant claimed	-	-	318.96	483.42	582.34
Additional O&M expenses impact for desalination plant allowed	-	-	318.96	483.42	582.34
Total O&M expenses allowed	1673.11	10051.73	18412.00	19719.13	21038.79

Operational Norms

75. The operational norms in respect of the generating station i.e. normative annual plant availability factor, gross station heat rate, specific fuel oil consumption and auxiliary power consumption are discussed as under:

Normative Annual Plant Availability Factor

76. Regulation 36(A)(a) of the 2014 Tariff Regulations provides the target availability of the generating station as under:

(A) Normative Annual Plant Availability Factor (NAPAF)

(a) All Thermal generating stations, except those covered under clauses (b) (c) (d) & (e)- 85%. Provided that in view of the shortage of coal and uncertainty of assured coal supply on sustained basis experienced by the generating stations, the NAPAF for recovery of fixed charges shall be 83% till the same is reviewed.



77. The Commission vide its order dated 11.7.2017 in Petition No. 135/GT/2015, had allowed the NAPAF of 83% for the period 2014-17 and 85% for the period from 2017-19. Since the claim of the Petitioner is as per Regulation 36(A)(a) of the 2014 Tariff Regulations, the same is allowed for the purpose of revision of tariff.

Gross Station Heat Rate (kCal/kWh)

78. Regulation 36 (C)(b) (i) of the 2014 Tariff Regulations provides as under:

(C) Gross Station Heat Rate

(b) *New Thermal Generating Station achieving COD on or after 1.4.2014*

(i) *Coal-based and lignite-fired Thermal Generating Stations*

= 1.045 X Design Heat Rate (kCal/kWh)

Where the Design Heat Rate of a generating unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/back pressure. Provided that the design heat rate shall not exceed the following maximum design, unit heat rates depending upon the pressure and temperature ratings of the units:

<i>Pressure Rating (Kg/cm²)</i>	<i>150</i>	<i>170</i>	<i>170</i>	<i>247</i>
<i>SHT/RHT (OC)</i>	<i>535/535</i>	<i>537/537</i>	<i>537/565</i>	<i>65/593</i>
<i>Type of BFP</i>	<i>Electrical Driven</i>	<i>Turbine Driven</i>	<i>Turbine Driven</i>	<i>Turbine Driven</i>
<i>Max Turbine Heat Rate (kCal/kWh)</i>	<i>1955</i>	<i>1950</i>	<i>1935</i>	<i>1850</i>
<i>Min. Boiler Efficiency</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>
<i>Sub-Bituminous Indian Coal</i>	<i>0.86</i>	<i>0.86</i>	<i>0.86</i>	<i>0.86</i>
<i>Bituminous Imported Coal</i>	<i>0.89</i>	<i>0.89</i>	<i>0.89</i>	<i>0.89</i>
<i>Max Design Unit Heat Rate (kCal/kWh)</i>				
<i>Sub-Bituminous Indian Coal</i>	<i>2273</i>	<i>2267</i>	<i>2250</i>	<i>2151</i>
<i>Bituminous Imported Coal</i>	<i>2197</i>	<i>2191</i>	<i>2174</i>	<i>2078</i>

Provided further that in case pressure and temperature parameters of a unit are different from above ratings, the maximum design unit heat rate of the nearest class shall be taken:

Provided also that where unit heat rate has not been guaranteed but turbine cycle heat rate and boiler efficiency are guaranteed separately by the same supplier or different suppliers, the unit design heat rate shall be arrived at by using guaranteed turbine cycle heat rate and boiler efficiency:

Provided also that where the boiler efficiency is below 86% for Subbituminous Indian coal and 89% for bituminous imported coal, the same shall be considered as 86% and 89% respectively for Sub- bituminous Indian coal and bituminous imported coal for computation of station heat rate:

Provided also that maximum turbine cycle heat rate shall be adjusted for type of dry cooling system:

Provided also that if one or more generating units were declared under commercial



operation prior to 1.4.2014, the heat rate norms for those generating units as well as generating units declared under commercial operation on or after 1.4.2014 shall be lower of the heat rate norms arrived at by above methodology and the norms as per the Regulation 36(C)(a)(i):

Provided also that for Generating stations based on coal rejects, the Commission will approve the Design Heat Rate on case to case basis.

79. Accordingly, in terms of regulation 36(C)(b)(i) of the 2014 Tariff Regulations, the Gross Station Heat Rate (GSHR) of 2347.60 kCal/kWh is allowed for the purpose of tariff.

Specific Oil Consumption

80. Regulation 36 (D) of the 2014 Tariff Regulations provides as under:

(D) Secondary fuel oil consumption

(a) Coal-based generating stations other than at (c) below: 0.50 ml/kWh

(b) (i) Lignite-fired generating stations except stations based on CFBC technology and TPS-I : 2ml/kWh

(ii) TPS-I: 1.5ml/kWh

(iii) Lignite-fired generating stations based on CFBC Technology: 1.00ml/kWh

(c) Coal-based generating stations of DVC: Mejia TPS Unit – I to IV 1.0 ml/kWh Bokaro TPS 1.5 ml/kWh Chandrapur TPS 1.5 ml/kWh Durgapur TPS 2.4 ml/kWh

(d) Generating Stations based on Coal Rejects: 2 ml/kWh

81. The Commission vide order dated 11.7.2017 in Petition No. 135/GT/2015 had allowed the Secondary oil consumption of 0.50 ml/kWh. The Petitioner has claimed the same secondary oil consumption as allowed in the order dated 11.7.2017. In terms of Regulation 36(D)(a) of the 2014 Tariff Regulations, the claim is allowed for the purpose of tariff.

Auxiliary Power Consumption

82. Regulation 36(E)(a)(i) of the 2014 Tariff Regulations provides for Auxiliary Power Consumption (APC) as under:

“36 (E) Auxiliary Energy Consumption

(a) Coal-based generating stations except at (b) below:

	<i>With Natural Draft cooling tower or without cooling Tower</i>
<i>(i) 200 MW series</i>	8.5%
<i>(ii) 300/330/350/500 MW and above</i>	
<i>Steam driven boiler feed pumps</i>	5.25%
<i>Electrically driven boiler feed pumps</i>	7.75%



Provided further that for thermal generating stations with induced draft cooling tower, the norms shall be further increased by 0.5%”

83. The Commission vide its order dated 11.7.2017 in Petition No. 135/GT/2015 allowed the auxiliary power consumption of 6.25%, considering the special features of the cross-country conveyor system, shore unloader, and desalination plant and directed the Petitioner to furnish the details of the actual APC, PLF of the generating station from COD to 31.3.2019 at the time of truing-up of tariff, in terms of Regulation 8 of the 2014 Tariff Regulations.

84. Accordingly, the Petitioner has furnished the audited certified details of the actual APC % and PLF % of the generating station from COD to 31.3.2019, as under:

Year	Gross generation (A)	Auxiliary power consumption (B)	Auxiliary power consumption (C = B/A*100)	Plant load factor (D)
	MU	MU	%	%
2015-16*	3280.76	307.05	9.36	54.25
2016-17	6252.74	445.89	7.13	71.38
2017-18	5413.00	386.63	7.14	61.79
2018-19	5486.63	373.35	6.80	62.63

85. The matter has been considered. The Petitioner, in Petition No. 135/GT/2015, had submitted that the total additional auxiliary consumption for the generating station due to additional features like cross-country conveyor system, shore un-loader, and desalination plant works out to 9.939 MW, which approximately works out to 1% of the installed capacity of the generating station. The COD of the generating station is 29.8.2015, and from the details of the actual auxiliary consumption submitted by the Petitioner for the period 2015-19, it is observed that there is an improving trend in the consumption of auxiliary power. This is mainly due to the reason that initially, due to teething problems, there is instability in the generating unit of the generating station and, accordingly, the fluctuation of load, which ultimately affects the auxiliary consumption. Moreover, the



auxiliary consumption also depends on the availability and PLF of the generating station. The average PLF achieved by the generating station is 62.51% for the period 2015-19. The normative auxiliary consumption of 5.25% is allowed to the generating station, based on the NAPAF of 85%. In this background, we find no reason to pass on the inefficiency of the Petitioner to the beneficiaries by relaxing the auxiliary power consumption. Accordingly, we allow the auxiliary consumption of 6.25%, considering 1% of the additional auxiliary power consumption of the special features.

Interest on Working Capital

86. Sub clause (a) of clause (1) of Regulation 28 of the 2014 Tariff Regulations provides as under:

“28 (1) The working capital shall cover:

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

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

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

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

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

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

(vi) Operation and maintenance expenses for one month.”

Fuel Cost and Energy Charges in Working Capital

87. Clause (2) of Regulation 28 of the 2014 Tariff Regulations provides that the computation of the cost of fuel as part of the interest on working capital (IWC) is to be based on the landed price and GCV of fuel as per actuals for the three months preceding the first month for which the tariff is to be determined.

88. Regulation 30(6)(a) of the 2014 Tariff Regulations provides as under:



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

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

(a) For coal based and lignite fired stations

$$ECR = \{(GHR - SFC \times CVSF) \times LPPF / CVPF + SFC \times LPSFi + LC \times LPL\} \times 100 / (100 - AUX)$$

Where,

AUX = Normative auxiliary energy consumption in percentage.

CVPF = Gross calorific value of primary fuel as received, in kCal per kg, per litre or per standard cubic metre, as applicable.

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

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

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

LC = Normative limestone consumption in kg per kWh.

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

LPPF = Weighted average landed price of primary fuel, in Rupees per kg, per litre or per standard cubic metre, as applicable during the month.

SFC = Normative specific fuel oil consumption, in ml/ kWh

LPSFi = Weighted average landed price of secondary fuel in Rs/ ml during the month”

89. In terms of the above, for the determination of the energy charges in working capital, the GCV on an ‘as received’ basis is to be considered. clause (7) of Regulation 30 of the 2014 Tariff Regulations provides as under:

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

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

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

90. The issue of ‘as received’ GCV for computation of energy charges was challenged by the Petitioner and other generating companies through various writ petitions filed before the Hon’ble High Court of Delhi (W.P. No.1641/2014-NTPC v CERC) challenging Regulation 30(6) of the 2014 Tariff Regulations with regard to the measurement of GCV of coal on ‘as received’ basis for purpose of energy charges and the Hon’ble High Court



had directed the Commission to decide the place from where the sample of coal should be taken for measurement of GCV of coal on an 'as received' basis on the request of Petitioner. In terms of the directions of the Hon'ble High Court, the Commission *vide* order dated 25.1.2016 in Petition No. 283/GT/2014 (approval of tariff of Kahalgaon STPS for the period 2014-19) decided as under:

"58. In view of the above discussion the issues referred by the Hon'ble High Court of Delhi are decided as under:

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

91. Review Petition No.11/RP/2016 filed by the Petitioner against the aforesaid order dated 25.1.2016 in Petition No. 283/GT/2014 was rejected by the Commission *vide* order dated 30.6.2016. The Petitioner has also filed Petition No. 244/MP/2016 before this Commission *inter alia*, praying for the removal of difficulties in view of the issues faced by it in implementing the Commission's orders dated 25.1.2016 and 30.6.2016, with regard to sampling of coal from loaded wagon top for measurement of GCV. The Commission, by its order dated 19.9.2018 in 244/MP/2016, had disposed of the preliminary objections of the Respondents therein, and held that the Petition is maintainable. Against this order, some of the Respondents have filed an appeal before the APTEL in Appeal Nos. 291/2018 (GRIDCO v NTPC & ors), and the same is pending.

92. In Petition No. 327/GT/2014 filed by the Petitioner for the determination of tariff of this generating station for the period 2014-19, the Petitioner had furnished GCV of coal



on 'as billed' and not on an 'as received' basis for the preceding 3 months, i.e., for January 2014, February 2014 and March 2014 that were required for the determination of Interest on Working Capital (IWC). Therefore, the Commission vide its order dated 6.2.2017 in Petition No.327/GT/2014 had considered GCV of coal on an 'as billed' basis and provisionally allowed adjustment for total moisture while allowing the cost of coal towards generation and stock and two months' energy charges in the working capital.

93. As per the Commission's order dated 25.1.2016 in Petition No. 283/GT/2014, the Petitioner in Form-13F has considered the average GCV of coal on an "as received basis," i.e., from wagon top for the period from October 2016 to March 2019 for the purpose of computation of working capital for the period 2014-19. The Petitioner has further submitted that CEA *vide* letter dated 17.10.2017 has opined that a margin of 85-100 kCal/kg for the pit-head station and a margin of 105-120 kCal/kg for the non-pit head station is required to be considered as loss of GCV of coal on an "as received" and on an "as fired" basis respectively. The cost of fuel component in the working capital of the generating station based on (i) 'as received' GCV of coal, (ii) the landed price of coal for the preceding three months, i.e., March 2015 to May 2015, and (iii) GCV and landed price of secondary fuel oil procured for the preceding three months, i.e., March 2015 to May 2015 for the generating station, the cost of fuel component claimed by the Petitioner in the working capital is as under:

	2015-16		2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 31.3.2016			
Cost of Coal towards stock (30 days)	5765.26	11686.18	11686.18	11967.78	11967.78
Cost of Coal towards Generation (30 days)	5765.26	11686.18	11686.18	11967.78	11967.78
Cost of Secondary fuel oil 2 months	75.95	139.74	139.36	142.72	142.72



94. The Petitioner has claimed the Energy Charge Rate (ECR) ex-bus of 2.071 paise/kWh from COD of Unit-I till 28.8.2015 and 2.098 paise/kWh from 29.8.2015 to 31.3.2019 for the generating station based on GCV and price of fuel (coal and secondary fuel oil) as indicated above. Clause (2) of Regulation 28 of the 2014 Tariff Regulations provides that the computation of the cost of fuel as a part of IWC, is to be based on the landed price and gross calorific value of the fuel, as per actuals, for the three months preceding the first month for which the tariff is to be determined. Thus, the calculation of IWC for the period 2015-19 is to be based on such values for the months of March 2015, April 2015, and May 2015 for Unit-I and June 2015, July 2015, and August 2015 for Unit-I&II. Also, the consideration of loss of GCV of 120 kCal/kg cannot be considered, as the same is not as per provisions of the 2014 Tariff Regulations.

95. Accordingly, the Energy Charge Rate (ECR) is worked out based on the operational norms specified in the 2014 Tariff Regulations and allowed as under:

Sl. No		Unit	Unit-I (18.6.2015 to 28.8.2015)	Generating Station (29.8.2015 to 31.3.2019)
(1)	Capacity	MW	500	1000
(2)	Gross Station Heat Rate	Kcal/kWh	2347.60	2347.60
(3)	Auxiliary Power Consumption	%	6.25	6.25
(4)	Weighted Average GCV of Oil	Kcal/L	10000	10000
(5)	Weighted Average GCV of Coal (as received)	Kcal/kg	3752.60	4651.66
(6)	Weighted Average price of oil	Rs/KL	34372.19	30721.19
(7)	Weighted Average price of Coal	Rs/MT	3085.80	3876.51
(8)	Rate of energy charge ex-bus	Rs/kWh	2.076	2.102

96. The Energy Charge Rate claimed by the Petitioner is Rs. 2.071 per kWh for the period from 18.6.2015 to 28.8.2015 for Unit-I and Rs. 2.098 per kWh for generating station considering the weighted average price of LDO as well as HFO. However, the



Commission has allowed ECR of Rs.2.076 per kW for Unit-I and Rs.2.102 per kWh for Unit-II, considering only HFO as per Regulation 28(1)(iii) of the 2014 Tariff Regulations.

97. Accordingly, the cost for the fuel component in working capital is worked out and allowed as under:

	2015-16			2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 4.9.2015	5.9.2015 to 31.3.2016			
Cost of Coal towards stock (30 days per annum) corresponding to NAPAF	1135.42	223.13	6662.05	11666.56	11947.68	11947.68
Cost of Coal towards Generation (30 days per annum) corresponding to NAPAF	1135.42	223.13	6662.05	11666.56	11947.68	11947.68
Cost of Secondary fuel oil 2 months per annum corresponding to NAPAF	20.54	3.57	106.58	186.14	190.63	190.63

Working Capital for Maintenance Spares

98. Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provide for maintenance spares @ 20% of the O&M expenses. Accordingly, maintenance spares @20% of the O&M expenses allowed for the generating station is as under:

2015-16			2016-17	2017-18	2018-19
18.6.2015 to 28.8.2015	29.8.2015 to 4.9.2015	5.9.2015 to 31.3.2016			
334.62	65.15	1945.20	3682.40	3943.83	4207.76

Working Capital for Receivables

99. Receivables equivalent to two months of capacity charges and energy charges have been worked out duly considering the mode of operation of the generating station on secondary fuel, is allowed as under:



(Rs. in lakh)

	2015-16			2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 4.9.2015	5.9.2015 to 31.3.2016			
Variable Charges - for two months corresponding to NAPAF	2322.80	457.32	13654.26	23845.95	24420.55	24420.55
Fixed Charges - for two months corresponding to NAPAF	1788.09	364.87	10946.88	20632.91	21186.39	21450.32
Total	4110.89	822.19	24601.14	44478.86	45606.94	45870.87

Working capital for O&M Expenses

100. In terms of Regulation 28(1)(a)(vi) of the 2014 Tariff Regulations, one month's O&M expenses allowed is as under:

(Rs. in lakh)

2015-16			2016-17	2017-18	2018-19
18.6.2015 to 28.8.2015	29.8.2015 to 4.9.2015	5.9.2015 to 31.3.2016			
139.43	27.15	810.50	1534.33	1643.26	1753.23

101. In terms of Clause (3) of Regulation 28 of the 2014 Tariff Regulations, the rate of interest on working capital has been considered as 13.50% (Bank rate 10% + 350 bps) for 2015-16 to 2018-19 and accordingly, Interest on working capital has been computed as under:

(Rs. in lakh)

	2015-16			2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 4.9.2015	5.9.2015 to 31.3.2016			
Working Capital for Cost of Coal towards Stock (30 days)	1135.42	223.13	6662.05	11666.56	11947.68	11947.68
Working Capital for Cost of Coal towards Generation (30 days)	1135.42	223.13	6662.05	11666.56	11947.68	11947.68
Working Capital for Cost of Secondary fuel oil (2 months)	20.54	3.57	106.58	186.14	190.63	190.63
Working Capital for Maintenance Spares @ 20% of O&M expenses	334.62	65.15	1945.20	3682.40	3943.83	4207.76
Working Capital for Receivables – 2 months of AFC	4110.89	822.19	24601.14	44478.86	45606.94	45870.87



	2015-16			2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 4.9.2015	5.9.2015 to 31.3.2016			
Working Capital for O&M expenses – 1 month	139.43	27.15	810.50	1534.33	1643.26	1753.23
Total Working Capital	6876.32	1364.32	40787.52	73214.85	75280.01	75917.85
Rate of Interest	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	928.30	184.18	5506.31	9884.00	10162.80	10248.91

Annual Fixed Charges for the period 2015-19

102. Accordingly, the annual fixed charges approved for the period 2015-19 for the generating station are summarized as under:

	2015-16			2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 4.9.2015	5.9.2015 to 31.3.2016			
Depreciation	2530.57	524.56	15888.66	28067.30	29363.02	30228.40
Interest on loan	3385.50	711.36	20991.04	36004.64	34931.84	33144.48
Return on Equity	2211.06	443.38	13569.28	31429.49	32941.55	34041.35
Interest on Working Capital	928.30	184.18	5506.31	9884.00	10162.80	10248.91
O&M Expenses	1673.11	325.75	9725.98	18412.00	19719.13	21038.79
Total	10728.55	2189.23	65681.28	123797.43	127118.34	128701.93

Note: 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.

103. The pro rata fixed charges shall be calculated using the bases as shown below:

	2015-16			2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 31.3.2016	5.9.2015 To 31.3.2016			
Days in year	366	366	366	365	365	365
No. of days for which tariff is to be calculated	72	7	209	365	365	365

104. The difference between the annual fixed charges already recovered in terms of the Commission's order dated 11.7.2017 in Petition No.135/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.



Month to Month Energy Charges

105. The Petitioner shall compute and claim the energy charges on a month-to-month basis from the beneficiaries based on the formulae given under Regulation 30(6)(a) of the 2014 Tariff Regulations.

Summary

106. Accordingly, the annual fixed charges allowed in the order dated 11.7.2017 in Petition No. 135/GT/2015 and the present Petition are as follows:

	2015-16			2016-17	2017-18	2018-19
	18.6.2015 to 28.8.2015	29.8.2015 to 31.3.2016	5.9.2015 to 31.3.2016			
Annual fixed charges allowed in order dated 11.7.2017 in Petition No.135/GT/2015	10541.10	65651.67		110798.23	109968.28	109016.54
Annual fixed charges allowed in this order	10728.55	2189.23	65681.28	123797.43	127118.34	128701.93

107. Petition No. 528/GT/2020 is disposed of in terms of the above.

Sd/-
(Ramesh Babu. V)
Member

Sd/-
(Arun Goyal)
Member

Sd/-
(Jishnu Barua)
Chairperson



Annexure-A

Weighted Average Rate of Depreciation (WAROD)

Admitted Capital Expenditure	As on COD 29.08.2015	18.6.2015 to 28.8.2015 (Unit - I)	Add-Cap					Admitted Capital Cost on 31.03.2019	Rate of Depreciation as per schedule	Annual Depreciation as per regulation					
			29.8.2015 to 04.09.2015 (Units I & II)	05.09.2015 to 31.3.2016 (Units I & II)	2016-17	2017-18	2018-19			18.6.2015 to 28.8.2015 (Unit - I)	29.8.2015 to 4.9.2015 (Units I & II)	5.9.2015 to 31.3.2016 (Units I & II)	2016-17	2017-18	2018-19
Land & Site Development (Leasehold)	8462.91	0.00	138.80	4144.12	0.00	0.00	0.00	12745.83	3.34%	37.09	8.11	249.54	663.97	634.73	654.43
Plant & Machinery	469739.52	0.00	353.82	10564.01	22702.83	15109.81	7331.71	525801.70	5.28%	2058.72	450.04	13637.80	25039.02	25066.85	26620.55
Civil Work in Plant	45386.06	0.00	0.00	0.00	3880.90	8254.88	2215.12	59736.96	3.34%	198.91	43.48	1316.69	2364.31	2453.45	2953.43
Temporary construction & enabling works	943.42	0.00	0.00	0.00	0.00	1208.00	0.00	2151.42	100.00%	235.85	22.93	684.63	-	1208.00	-
	524531.92	0.00	492.62	14708.13	26583.73	24572.69	9546.83	600435.91		2530.57	524.56	15888.66	28067.30	29363.02	30228.40
Average Gross Block										246119.82	524778.23	532378.60	553024.51	578602.72	595662.49
Weighted Average Rate of Depreciation										5.227%	5.226%	5.226%	5.075%	5.075%	5.075%

