

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 368/GT/2020

Coram:

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

Date of Order: 28th February, 2023

In the matter of:

Petition for revision of tariff of NLC Thermal Power Station-II 1470 MW (TPS- II Stage-I (630 MW) and Stage-II (840 MW) for the period 2014-19 after truing up exercise.

And

In the matter of:

NLC India Limited,
135/73, EVR Periyar High Road, Kilpauk,
Chennai – 600 010, Tamil Nadu

... Petitioner

Vs

1. Tamilnadu Generation and Distribution Corporation Limited,
NPKRR Maaligai, 144, Anna Salai,
Chennai – 600002
2. Transmission Corporation of Andhra Pradesh Limited,
Vidyut Soudha, Hyderabad- 500082
3. Southern Power Distribution Company of Andhra Pradesh Limited,
Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta,
Tirupati – 517 501, Chittoor District, Andhra Pradesh.
4. Eastern Power Distribution Company of Andhra Pradesh Limited,
P&T Colony, Seethmmadhara, Vishakhapatnam,
Andhra Pradesh - 503013
5. Transmission Corporation of Telangana Limited,
Vidyut Soudha, Khairatabad, Hyderabad-500082
6. Norther Power Distribution Company of Telangana Limited,
H. No. 1 – 1-504, Opposite NIT Petrol Pump,
Chaityanayapuri Colony, Hanmkonda,
Warangal Telangana - 506004



7. Southern Power Distribution Company of Telangana Limited,
6-1-50, MINT Compound, Hyderabad-500 063 (Telangana)
8. Power Company of Karnataka Limited,
KPTCL Complex, Kaveri Bhavan,
Bangalore – 560009
9. Bangalore Electricity Supply Company Limited,
Krishna Rajendra Circle, Bangalore - 560 001
10. Mangalore Electricity Supply Company Limited,
Corporate Office, MESCOM Bhavana, Bejai,
Kavoor Cross Road, Mangalore- 575 004
11. Chamundeshwari Electricity Supply Company Limited,
Corporate Office No CA 29, Vijayanagar 2nd Stage
Hinakal, Mysore -570017
12. Gulbarga Electricity Supply Company Limited,
Station Main Road, Gulbarga -585 102
Karnataka
13. Hubli Electricity Supply Company Limited,
Corporate office, P. B. Road, Navanagar,
Hubli - 580 025
14. Kerala State Electricity Board Limited,
Vaidyuthi Bhavanam, Pattom,
Thiruvananthapuram-695004
15. Puducherry Electricity Department,
137, NSC Bose Salai, Puducherry -605 001

... Respondents

Parties Present:

Ms. Anushree Bardhan, Advocate, NLC
Ms. Srishti Khindaria, Advocate, NLC
Shri Ravi Nair, Advocate, NLC
Shri Nambirajan K., NLC
Shri Srinivasan A., NLC
Shri A.K. Sahni, NLC
Shri M. Ravi Kumar, NLC
Shri S. Vallinayagam, Advocate, TANGEDCO
Shri B. Rajeswari, TANGEDCO
Ms. R. Ramalakshmi, TANGEDCO
Ms. R. Alamelu, TANGEDCO
Ms. Srimathi Shashi, PCKL



ORDER

The Petitioner, NLC India Limited has filed this petition for true-up of tariff of NLC Thermal Power Station-II 1470 MW (TPS- II Stage- I (630 MW) and Stage-II (840 MW) (in short 'the generating station') in terms of Regulation 8(1) the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014 (in short 'the 2014 Tariff Regulations') for the period 2014-19.

2. The generating station with a total installed capacity of 1470 MW, comprises of three units with a capacity of 210 MW each under Stage-I and four units with a capacity of 210 MW each under Stage-II. The dates of commercial operation of the units of the generating station of Stage-I and Stage-II are as under:

Stage-I		Stage-II	
Unit-I	29.9.1986	Unit-I	25.1.1992
Unit-II	8.5.1987	Unit-II	2.6.1992
Unit-III	23.4.1988	Unit-III	17.3.1993
		Unit-IV	9.4.1994

3. The Commission vide its order dated 8.3.2017 in Petition No. 256/GT/2014 had determined the tariff of the generating station for the period 2014-19, based on the opening capital cost of Rs.32023.21 lakh for Stage-I and Rs. 118778.71 lakh for Stage-II, as on 1.4.2014. Thereafter, vide corrigendum order dated 12.6.2017, the computation of O&M expenses and Interest on Working Capital were revised with consequential revision on the annual fixed charges approved. Accordingly, the capital cost and the annual fixed charges allowed by order dated 8.3.2017 read with the corrigendum order dated 12.6.2017 are as under:

Capital Cost allowed for Stage-I

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	32023.21	32023.21	32023.21	32023.21	32023.21
Additional Capital Expenditure	0.00	0.00	0.00	0.00	0.00
Closing capital cost	32023.21	32023.21	32023.21	32023.21	32023.21
Average capital cost	32023.21	32023.21	32023.21	32023.21	32023.21



Annual Fixed Charges allowed for Stage-I

(Rs.in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	729	733	733	733	733
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	4084	4152	4206	4272	4343
O & M Expenses	15156	16101	17109	18180	19320
Special Allowance	4365	4642	4937	5250	5584
Total	24335	25628	26985	28436	29980

Capital Cost allowed for Stage-II

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening capital cost	118778.71	118778.71	118778.71	118778.71	118778.71
Additional Capital Expenditure	0.00	0.00	0.00	0.00	0.00
Closing capital cost	118778.71	118778.71	118778.71	118778.71	118778.71
Average capital cost	118778.71	118778.71	118778.71	118778.71	118778.71

Annual Fixed Charges allowed for Stage-II

(Rs.in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	3342	3166	2974	2782	2590
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	975	975	975	975	975
Interest on Working Capital	5523	5608	5676	5760	5851
O & M Expenses	20208	21468	22812	24240	25760
Special Allowance	0.00	0.00	0.00	1894	6044
Compensation Allowance	735	840	840	630	210
Total	30782	32057	33276	36281	41429

Present Petition

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

“8. Truing up

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

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

5. In terms of the above Regulation, the Petitioner has, vide affidavit dated 24.10.2019, filed this petition, for truing up of tariff of the generating station for the period 2014-19, and has claimed the capital cost and annual fixed charges as under:



Capital Cost claimed for Stage-I*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	32023.21	32221.21	32920.21	34818.21	38338.21
Less: Land Value	863.00	863.00	863.00	863.00	863.00
Add: Additions during the year	198.00	699.00	1,898.00	3,520.00	1,923.00
Less: Decapitalization during the year	0.00	0.00	0.00	0.00	0.00
Less: Reversal during the year	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year	0.00	0.00	0.00	0.00	0.00
Closing capital cost	32221.21	32920.21	34818.21	38338.21	40261.21

Annual Fixed Charges claimed for Stage-I*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	7	40	144	382	648
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	900	836	1,073	1,555	1,996
Interest on Working Capital	4,478	4,548	4,620	4,711	4,802
O&M Expenses	15,242	16,183	17,194	18,287	19,360
Compensation Allowance	0.00	0.00	0.00	0.00	0.00
Special Allowance	4,365	4,642	4,937	5,250	5,584
Total	24,992	26,248	27,967	30,186	32,389

Capital Cost claimed for Stage-II*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	118778.71	119042.71	119975.71	122506.71	127200.71
Less: Land Value	863.00	863.00	863.00	863.00	863.00
Add: Additions during the year	264.00	933.00	2,531.00	4,694.00	2,564.00
Less: Decapitalization during the year	0.00	0.00	0.00	0.00	0.00
Less: Reversal during the year	0.00	0.00	0.00	0.00	0.00
Add: Discharges during the year	0.00	0.00	0.00	0.00	0.00
Closing capital cost	1,19,042.71	1,19,975.71	1,22,506.71	1,27,200.71	1,29,764.71

Annual Fixed Charges claimed for Stage-II*(Rs. in lakh)*

	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1,109	1,243	1,758	3,365	6,554
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	4,037	3,257	3,302	3,510	3,256
Interest on Working Capital	5,944	6,017	6,106	6,278	6,520
O&M Expenses	20,323	21,577	22,925	24,383	25,813
Compensation Allowance	735	840	840	630	210
Special Allowance	0.00	0.00	0.00	1,894	6,044
Total	32,148	32,934	34,932.00	40,059	48,397



6. The Respondent, TANGEDCO and Respondent KSEBL have filed replies vide their affidavits dated 5.11.2020 and 20.7.2021 respectively. The Petitioner has filed its rejoinder to the said replies, on 27.5.2021 and 23.8.2021 respectively. This Petition, along with Petition No. 385/GT/2020 (tariff of the generating station for the period 2019-24) was heard through video conferencing, on 15.3.2022, and the Commission, after directing the Petitioner, to submit certain additional information, reserved its order in both petitions. In compliance to the above directions, the Petitioner has filed the additional information vide affidavit dated 2.5.2022, after serving copies to the Respondents. The Respondent TANGEDCO has also filed the note of the arguments made during the hearing on 15.3.2022. Based on the submissions of the parties and documents available on record and after prudence check, we proceed for truing up the tariff of the generating station, in this petition, as stated in the subsequent paragraphs.

Capital Cost

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

Regulation 9(3) of the 2014 Tariff Regulations provides as under:

“(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 Regulations 14;*
- (c) expenditure on account of renovation and modernization as admitted by this Commission in accordance with Regulation 15;*
xxxx”

8. The Petitioner has claimed the annual fixed charges for the period 2014-19, based on the closing capital cost of Rs. 32023.21 lakh for Stage-I and Rs. 118778.71 lakh for Stage-II as on 31.3.2014. The Commission vide its order dated 8.3.2017 in Petition No.256/GT/2014 had allowed the opening capital cost of Rs 32023.21 lakh for Stage-I



and Rs 118778.71 lakh for Stage-II, as on 1.4.2014, for the generating station for the period 2014-19. It is noticed that the Petitioner has filed appeal (Appeal No.92/2017) before the Appellate Tribunal for Electricity ('the Tribunal') challenging the Commission's order dated 10.2.2017 (read with corrigendum order dated 12.6.2017) in Petition No. 473/GT/2014 (*truing-up of tariff of the generating station for the period 2009-14*) on various grounds, and the same is pending. Without prejudice to this appeal, the closing capital cost of Rs. 32023.21 lakh for Stage-I and Rs. 118778.71 lakh for Stage-II, has been considered as the opening capital cost, as on 1.4.2014, for truing up of tariff of the generating station, for the period 2014-19.

Additional Capital Expenditure

9. Regulations 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 powerhouse 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-capitalisation 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 de-capitalisation 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-capitalisation takes place, duly taking into consideration the year in which it was capitalised.”

10. The Petitioner, in Petition No. 256/GT/2014, had not claimed any projected additional capital expenditure, on direct assets, in respect of Stage-I. It had however claimed projected additional capital expenditure on direct assets in respect of Stage-II, for the period 2014-17, which was disallowed by order dated 8.3.2017. The Petitioner, in the present petition, has claimed additional capital expenditure for Stages-I and II, for the period 2014-19, as under:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Stage-I	198.00	699.00	1898.00	3520.00	1923.00
Stage-II	264.00	933.00	2531.00	4694.00	2564.00

11. The Petitioner has submitted the details of the common assets as well as direct assets. However, the Petitioner has not considered the additions of common asset in the capital cost for the purpose of tariff. The Commission vide ROP of the hearing dated 15.3.2022, had directed the Petitioner to submit revised Form 9A, clearly mentioning the sub-clauses of the regulation, under which the additional capital expenditure has been claimed. In response, the Petitioner vide affidavit dated 2.5.2022 has submitted revised Form 9A, along with the break-up details of the additional capital expenditure claimed for Stages-I and II, towards direct assets, as under:

	<i>(Rs. in lakh)</i>				
Regulations	2014-15	2015-16	2016-17	2017-18	2018-19
14(3)(ii)	0.00	14.49	27.77	0.00	0.00
14(3)(iii)	157.91	1335.02	3435.00	679.38	286.00
14(3)(iv)	0.00	0.00	89.24	0.00	0.00
Total	157.91	1349.52	3552.01	679.38	286.00

12. The break-up details of the additional capital expenditure claimed for Stage-I and



Stage-II as submitted by the Petitioner is as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Stage-I	67.68	578.36	1522.29	291.16	122.57	2582.06
Stage-II	90.24	771.15	2029.72	388.22	163.43	3442.76
	157.91	1349.52	3552.01	679.38	286.00	6024.82

13. The Respondent KSEBL has submitted that the Commission in its various orders have not allowed additional capitalization for projects which have already completed 25 years and availing special allowance. It has stated that since the Petitioner is allowed Compensation allowance and Special Allowance in terms of the 2014 Tariff Regulations for the period 2014-19, for meeting the requirement of expenses, including R&M beyond the useful life of the generating station, the projected additional capital expenditure for period 2014-19 may be disallowed and the Petitioner shall meet the expenses from the Special Allowance allowed to the generating station. The Respondent TANGEDCO has submitted that the additional capital expenditure claimed by the Petitioner is not admissible under Regulation 14(3)(i) to (vi) of the 2014 Tariff Regulations. It has also submitted that the Petitioner has claimed Special Allowance for both the Stages and hence, the revision of capital cost shall not be allowed as per Regulation 16 of the 2014 Tariff Regulations. The Respondent has also pointed out the Petitioner has utilised the O&M expenses in full amounting to Rs 1965.84 crore for the period 2014-19 and has further proceeded to claim Rs. 92.24 lakh towards capital additions. In view of this, the claim of the Petitioner may be rejected.

14. In response to the above, the Petitioner has submitted that the additional capital expenditure has been incurred only on essential items that are required and claimed in accordance with Regulation 14(3), stipulated for existing stations. It has also submitted that additional capital assets are towards statutory requirement, to cater to the requirement of safety and security of equipment, personnel, for sustenance of operation during the remaining useful period in terms of the applicable regulations. The Petitioner



while pointing out that it has suffered under recovery of O&M expenses, has submitted that it has claimed special allowance and compensation allowance, in terms of Regulation 16 and Regulation 17 of the 2014 Tariff Regulations to meet the requirements of expenses including R&M beyond the useful life and also to meet expenses which are not admissible under Regulation 14 of the 2014 Tariff Regulations. The Petitioner has further submitted that Regulation 17 places an embargo on the generator from claiming capital expenditure, which is otherwise admissible, under Regulation 14(3)(i) to (iv), as part of the Compensation allowance. It has added that the nature of expenditure dealt with in Regulation 14(3) (i) to (iv) is clearly independent of the expenditure relating to the extension of life of the generating station beyond the initial useful life of 25 years. The Petitioner has contended that Special allowance is an alternative to the scheme of R&M under Regulation 15 and provides for an option to the generator to avail the specific amount of special allowance with an escalation every year for the remaining period. Accordingly, the Petitioner has submitted that the claim of the Petitioner for additional capital expenditure for the period 2014-19, is well within the ambit of Regulation 14(3) of the 2014 Tariff Regulations and therefore admissible.

15. Based on the submissions of the parties and the documents available on record, we examine the claims of the Petitioner, on prudence check, as stated in the subsequent paragraphs.

Direct Assets

2014-15

16. The Petitioner has claimed total additional capital expenditure of Rs.157.91 lakh towards 'Direct Assets' under Regulation 14(3)(iii) of the 2014 Tariff Regulations, as detailed under:



(Rs. in lakh)

Sl. No.	Head of Work / Equipment's	Amount claimed
1	Battery operated industrial Trolley	3.75
2	Spectro meter / 1 no.	17.66
3	Mech. Foam fire extinguisher	0.88
4	6.6 kV Metal clad	52.49
5	Lt panel / 1no.	3.70
6	Lt panel / 1 no. near T	3.70
7	Recurrent surge oscilloscope	5.18
8	Portable power Harmonic	4.44
9	12kv,2500a 40kA for 3s	4.24
10	12kv,2500a,40kV for 3s	4.24
11	12kv,2500a,40kA for 3s	4.24
12	12kv2500a40ka for 3sec	4.24
13	12kv2500a40ka for 3sec	4.24
14	12kv2500a40ka for 3sec	4.24
15	Jr.exe.table1370lx685w	0.87
16	Split a/c/office	0.53
17	Split a/c/cgm/ts/2/1no	0.53
18	Split a/c /gm/hr/ts/2/	0.53
19	Split a/c / 10.06.2014	0.53
20	Split a/c/gm/operation	0.53
21	Split a/c gm/operation	0.53
22	Split a/c/ thyristor 3	0.53
23	Split a/c/thyristor/2/	0.53
24	Split a/c thyristor /2	0.53
25	Split a/c / thyristor/	0.53
26	Split a/c / ses / 1 no	0.53
27	Split a/c / ses / 1 no	0.53
28	Split a/c / ses / 1 no	0.53
29	Split a/c / ses / 1 no	0.53
30	Split a/c / ses / 1 no	0.53
31	Inverter based portable	0.20
32	H2 Gas cylinder/50.nos.	8.78
33	Refrigerator with stabiliser	0.18
34	Refrigerator with stabiliser	0.18
35	Refrigerator with stabiliser	0.18
36	Refrigerator with stabiliser	0.18
37	Bi/cycle/1no.	0.05
38	Bi/cycle / 1 no.	0.05
39	Air compressor /1 no.	0.56
40	Electronic analytical	0.77
41	Executive cushion arm	7.61
42	250 lit/hr capacity sk	1.17
43	250 lit/hr capacity sk	1.17
44	250 lit/hr capacity sk	1.17
45	Tub. cont. arm chair900h*	0.73
46	Tub: armless chair 895h*	0.54
47	Led 46-inch single display	0.73
48	M&M bolero 2wd lx/reg.	6.57
49	Hindi cell/tps2/pc	0.89



Sl. No.	Head of Work / Equipment's	Amount claimed
50	Volumetric flasks /70	0.16
	Total	157.91

17. Out of the total additional capital expenditure of Rs 157.91 lakh claimed as above, Rs 67.68 lakh pertains to Stage-I and Rs. 90.24 lakh pertains to Stage-II of the generating station. This includes an expenditure of Rs. 17.66 lakh towards the Purchase of Spectro meter, Rs. 0.88 lakh towards purchase of mechanical foam type fire extinguisher, Rs. 52.49 lakh towards purchase of 6.6 kV metal clad, Rs. 7.39 lakh towards Purchase of LT panels, Rs. 5.18 lakh towards purchase of recurrent surge oscilloscope (RSO), Rs. 4.44 lakh towards purchase of portable power harmonic analyser, and Rs. 69.86 lakh for items like Battery operated industrial operated trolley, 12 kV, 2500 A, 40 kV for 3 Sec VCB teito units, executive table, split AC, inverter based portable welding machine, H2 gas cylinder, refrigerator with stabilizer, bi-cycle, air compressor, electronic analytical balance, executive cushion armed, skid mounted RO units, armchair, LED display, M&M Bolero, Hindi cell, and volumetric flasks.

18. It is noticed that the Petitioner has not furnished the stage-wise bifurcation of the assets/items claimed in 2014-15. Further, the additional capital expenditure incurred is towards assets which are minor in nature and in the nature of tools & tackles, after the cut-off date, which is not permissible, in terms of the first proviso to Regulation 14(3) of the 2014 Tariff Regulations. Regulation 14(3)(iii) of the 2014 Tariff Regulations, provides for additional capitalisation of expenditure to be incurred on account of need for higher safety and security of the plant as advised and directed by the appropriate Government agencies or statutory authorities responsible for national/internal security. However, no documentary evidence/justification has been furnished by the Petitioner in support of the same. It is observed that the Petitioner is getting Special allowance for Stage-I including Compensation allowance and Special allowance for Stage-II of the



generating station. Accordingly, in our view, the Petitioner can meet the additional capital expenditure of Rs 157.91 lakh from the Compensation allowance and Special allowance granted to the generating station. In this background, the prayer of the Petitioner for additional capitalization of the expenditure in 2014-15 is not allowed.

2015-16

19. The Petitioner has claimed additional capital expenditure under Regulation 14(3)(ii) and Regulation 14(3)(iii) of the 2014 Tariff Regulations, detailed below:

<i>(Rs. in lakh)</i>			
Sl. No.	Head of Work / Equipment's	Regulation	Amount claimed
1	Effluent analyser for measurement of PH	14(3)(ii)	14.49
2	Blower shed for dry ash system near silo	14(3)(iii)	13.839
3	1000gpm 150m head submersible pump set		25.283
4	1000gpm 150m head submersible pump set		25.283
5	1000gpm 150m head submersible pump set		25.283
6	1000gpm 150m head submersible pump set		25.283
7	Wpil 1000gpm 150m submersible pump set		25.283
8	Wpil 1000gpm 150m submersible pump set		25.283
9	Wpil 1000gpm 150m submersible pump set		25.283
10	100gpm/150m sub. pump set		25.283
11	1000gpm/150m wpil sub. pump set		25.283
12	1000gpm/150m wpil sub. pump set		25.283
13	1000gpm/150m wpil sub. Pump set		25.283
14	Control& annunciation panels		9.536
15	Mobile distribution board / outgoing		2.478
16	Mobile distribution board		2.478
17	Split a/c-ele.mtce-static excitation room 1		0.588
18	Split a/c-ele.mtce-static excitation room2		0.588
19	Split a/c-ele.mtce-static excitation room3		0.588
20	Split a/c-ele.mtce-static excitation room4		0.588
21	Split a/c-ele.mtce-static excitation room5		0.588
22	Split a/c-ele.mtce-static excitation room6		0.588
23	Split a/c-ele.mtce-static excitation room7		0.588
24	Split a/c-ele.mtce-static excitation room 1		0.588
25	Split a/c-ele.mtce-static excitation room2		0.588
26	Split a/c-ele.mtce-static excitation room3		0.588
27	Split a/c-ele.mtce-static excitation room4		0.588
28	Split a/c-ele.mtce-static excitation room5		0.588
29	Split a/c-ele.mtce-static excitation room6		0.588
30	Split a/c-ele.mtce-static excitation room7		0.588
31	Automobile battery charger fire protection		1.545
32	Automobile battery charger fire protection		1.545
33	Automobile battery charger fire protection		1.545
34	Automobile battery charger fire protection		1.545
35	Battery operated Industrial Platform Trolley		6.336



Sl. No.	Head of Work / Equipment's	Regulation	Amount claimed
36	Battery operated Industrial Platform Trolley	14(3)(iii)	6.336
37	12k,200a,400ka for 3 switch mtce		4.240
38	12kv,200a,400ka for switchgear mtce		4.240
39	12k,200a,40ka for 3 switchgear mtce		4.240
40	12k,200a,40ka for 3 switchgear mtce		4.240
41	4 Wheel Battery operated Industrial Platform Trolley		4.116
42	1no.battery operated industrial trolley		6.336
43	1no.battery operated industrial trolley		6.336
44	Hydraulic surface grinder		5.066
45	Welding rectifier-600		1.010
46	Welding rectifier 600		1.010
47	Hydraulic press- 30 ton		2.169
48	Portable induction heater		1.659
49	Jr. Executive Table 1370l*685w*750h*3draw & locker 3no		0.282
50	Ex. Table 1675l * 865w * 76 /draw and cupboard 8 nos		1.026
51	Epson-eb965h-lcd projector 1 no-ucb1 meeting hall		0.920
52	Epson eb965h lcd projector 1 no AO building		0.920
53	DAS HMI Machines upgradable – DAS HMI machines upgradation-1 no.-das / elec. Division		8.995
54	Stack monitoring kit -		1.254
55	250 ltr/hr.-RO units		0.984
56	250 ltr/hr.-RO unit		0.984
57	Borosilicate glass tub		0.043
58	Breaker		0.041
59	Bi-cycle 22'gents model		0.045
60	Bi-cycle 22'gents model		0.045
61	Bi-cycle 22'gents model		0.045
62	Bi-cycle 22'gents model		0.045
63	Bi-cycle 22'gents model		0.045
64	Bi-cycle 22'gents model	0.045	
65	Bi-cycle-22'gents model	0.045	
66	Bi-cycle-22'gents model	0.045	
67	Bi-cycle-1no.gents model	0.046	
68	Bi-cycle-gents model-h	0.046	
69	By-cycle-1n o-gents model	0.046	
70	By-cycle-1n o-gents model	0.046	
71	By-cycle-1n o-gents model	0.046	
72	By-cycle-1n o-gents model	0.046	
73	By-cycle-1n o-gents model	0.046	
74	Tub.cont.arm.chair900h	0.056	
75	Tub.armlesschair895h*4	0.077	
76	Evaporating dish flat	0.067	
77	Dry chemical powder-fi	2.582	
78	DCS TS-II, St-II, Phase I	937.93	
	Total		1349.52

A. Items claimed under Regulation 14(3)(ii) of the 2014 Tariff Regulations

Effluent Analyser for measurement of PH

20. The Petitioner has claimed additional capital expenditure of Rs. 14.49 lakh towards



the purchase of effluent analyser for measurement of PH for Stage-I and Stage-II of the generating station under Regulation 14(3)(ii) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that it is a statutory norm to analyse the effluent parameters of water before letting out of the plant. It has also submitted that the data is required to be transmitted to TN Pollution Control Board (TNPCB)/ Central Pollution Control Board (CPCB) servers, for every 15-minute interval, during the normal operation of the unit.

21. It is noticed that the Petitioner has not furnished the details of the respective units/stages of the generating station, for which the expenditure is to be made. However, considering the fact that the asset/item is necessary for analysing the effluent parameters and has been purchased/installed, based on the requirements of TNPCB / CPCB, the claim of the Petitioner is prorated to Rs 8.28 lakh and allowed for Stage-II of the generating station only, under Regulation 14(3)(ii) of the 2014 Tariff Regulations. The balance expenditure shall be met from the Special Allowance/ Compensation allowance permitted to the Petitioner.

B. Items claimed under Regulation 14(3)(iii) of the 2014 Tariff Regulations

22. The Petitioner has claimed total additional capital expenditure of Rs 1335.02 lakh for items from serial nos. 2 to 77 (in the table under paragraph 19 above) in respect of Stages-I and II of the generating station, for 2015-16. This comprises of a total additional capital expenditure of Rs 397.10 lakh (which include Rs. 13.84 lakh towards Blower shed for dry ash system near silo, Rs. 278.11 lakh towards Procurement of submersible pump and Rs. 105.15 lakh towards items like mobile distribution board, Split AC, automatic battery charger, battery operated industrial operation trolley, hydraulic surface grinder, welding rectifier, hydraulic press, portable induction heater, projector, HMI machines, stack monitoring kit, glass tub, bicycle, evaporating dish flat and dry



chemical powder) and an expenditure of Rs 937.93 lakh towards Distributed Control System (DCS).

23. As stated above, the Petitioner has not furnished the details of the respective units/stages of the generating station, for which the expenditure of Rs 397.10 lakh is to be incurred in 2015-16. Though Regulation 14(3)(iii) of the 2014 Tariff Regulations, provides for additional capitalisation of expenditure to be incurred on account of need for higher safety and security of the plant as advised and directed by the appropriate Govt. agencies or statutory authorities responsible for national/internal security, no documentary evidence/justification has been furnished by the Petitioner in support of the same. It is observed that the Petitioner is getting Special allowance for Stage-I including Compensation allowance & Special allowance for Stage-II of the generating station. Accordingly, in our view, the Petitioner shall meet the total additional capital expenditure of Rs. 397.10 lakh from the Compensation allowance and Special allowance granted to the generating station. In this background, the prayer of the Petitioner for additional capitalization of the expenditure is **not allowed**. As regards additional capital expenditure of Rs 937.93 lakh claimed for DCS (sl no. 78 of the table) the same is dealt with separately, in this order.

2016-17

24. The Petitioner has claimed additional capital expenditure under Regulation 14(3)(ii), Regulation 14(3)(iii) and Regulation 14(3)(iv) of the 2014 Tariff Regulations, as detailed below:

<i>(Rs. in lakh)</i>			
Sl. No.	Head of Work / Equipment's	Regulations	Amount claimed
1	SOx NOx analyser-1 no	14(3) (ii)	3.97
2	SOx NOx analyser-1 no		3.97
3	SOx NOx analyser-1 no		3.97
4	SOx NOx analyser-1 no		3.97
5	SOx NOx analyser-1 no		3.97



Sl. No.	Head of Work / Equipment's	Regulations	Amount claimed
6	SOx NOx analyser-1 no		3.97
7	SOx NOx analyser-1 no		3.97
8	Heat of compression type of dryer-2100cc-1	14(3) (iv)	31.74
9	Heat of compression type of dryer-2100cc-1		31.74
10	Heat of compression type of dryer-2100cc-1		25.76
11	Electrically operated wire rope hoist. 10t.-crusher house/	14(3) (iii)	7.46
12	20-metre-high mast lighting tower no. 1/stage-i		4.31
13	20-metre-high mast lighting tower no. 1/stage-ii		4.31
14	Water lance 8 stage centrifugal pump-prp/boiler-1		3.86
15	Water lance 8 stage centrifugal pump-unit-6 pump6.2		3.86
16	2ton Electric operated wire rope hoist-r & f /boiler mtce-1no		1.89
17	2ton Electric operated wire rope hoist-r&f/boiler mtce-1no		1.89
18	2ton Electric operated wire rope hoist-r&f/boiler mtce-1no		1.89
19	2ton Electric operated wire rope hoist-r&f/boiler mtce-1no		1.89
20	Battery operated Industrial Platform trolley-4000kg-1 no		6.29
21	Battery operated Industrial Platform trolley-4000kg-1 no		6.29
22	Single phase 220v tig& arc welding machine-1 no.		0.19
23	Single phase 220v tig& arc welding machine-1 no.		0.19
24	Single phase 220v tig& arc welding machine-1 no.		0.19
25	Single phase 220v tig& arc welding machine-1 no.		0.19
26	Single phase 220v tig& arc welding machine-1 no.		0.19
27	Single phase 220v tig& arc welding machine-1 no.		0.19
28	220v tig & arc welding m/c.-r&f boiler-1 no.		0.20
29	220v tig & arc welding m/c.-r&f boiler-1 no.		0.20
30	220v tig & arc welding m/c.-r&f boiler-1 no.		0.20
31	220v tig & arc welding m/c.-r&f boiler-1 no.		0.20
32	220v tig & arc welding m/c.-r&f boiler-1 no.		0.20
33	220v tig & arc welding m/c.-r&f boiler-1 no.		0.20
34	Welding rectifier-600a -1 no.		0.98
35	Welding rectifier-600a -1 no.		0.98
36	Welding rectifier-600a -1 no.		0.98
37	Pan mixture-300ltrs		8.19
38	Inverter based welding machine-250amps-1no-tts2		0.29
39	Inverter based welding machine-250amps-1no-tts2		0.29
40	Welding rectifier 600a 1 no-turbine mtce		0.98
41	Welding rectifier 600a 1 no-turbine mtce		0.98
42	Welding rectifier 600 1 no-turbine mtce		0.98
43	Motor generator welding		2.53
44	Bicycle 22" gents model		0.04
45	Bicycle 22" gents model		0.04
46	Bicycle 22" gents model		0.04
47	Bicycle 22" gents model		0.04
48	Bicycle 22" gents model		0.04
49	3hp3phase 415v dewatering submersible pumpsets 1no	14(3)(iii)	0.38
50	3hp3phase 415v dewatering submersible pumpsets 1no		0.38
51	3hp3phase 415v dewatering submersible pumpsets 1no		0.38
52	3hp3phase 415v dewatering submersible pumpsets 1no		0.38
53	2000amps rectifier & control panel hydrogen gas 1no		7.47
54	2000amps rectifier & control panel hydrogen gas 1no		7.47
55	Hydraulic platform trolley 250kg lifting cap 4nos		1.88



Sl. No.	Head of Work / Equipment's	Regulations	Amount claimed
56	Rainwater harvesting/stage-1 store/cont dm line		5.36
57	Elec .operated chain hoist. 1ton-das-im silo& ash		4.28
58	Elec. operated chain hoist. 1ton-das-im silo& ash		4.28
59	Elec. operated chain hoist. 1ton-das-im silo& ash		4.28
60	43 Nos IR HD fixed cam		64.68
61	11 Nos HD camera		77.65
62	Trolley mounted acid transfer pump-1 no.		3.33
63	DCS TS-II, ST-II, Phase-I		102.40
64	Implementation of DCS TS-II-Phase-2		1030.64
65	Implementation of DCS TS-II-Phase-2 Unit-7		1013.67
66	Implementation of DCS TS-II-Phase-2 Unit-2		1042.41
	Total		3552.01

Items claimed under Regulation 14(3)(ii) of the 2014 Tariff Regulations

SO_x NO_x Analyser

25. The Petitioner has claimed total additional capital expenditure of Rs. 27.77 lakh for Purchase of SO_x & NO_x analyser (sl nos. 1 to 7 of the table above) in 2016-17 under Regulation 14(3)(ii) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that it is a statutory norm to analyse the SO_x and NO_x levels of the flue gas periodically and the data is required to be transmitted to TNPCB/CPCB servers, for every 15-minute interval during the normal operation of the unit.

26. As stated, the Petitioner has not furnished the details of the respective units/stages of the generating station, for which the expenditure is to be made. However, considering the fact that the asset/item is necessary for analysing the effluent parameters and has been purchased/installed, based on the requirements of TNPCB / CPCB, the claim of the Petitioner is prorated to Rs 15.87 lakh and allowed for Stage-II of the generating station only, under Regulation 14(3)(ii) of the 2014 Tariff Regulations. The balance expenditure is to be met from the Special allowance/ Compensation allowance permitted to the Petitioner.

Items claimed under Regulation 14(3)(iv) of the 2014 Tariff Regulations

Heat of compression type dryer



27. The Petitioner has claimed total additional capital expenditure of Rs. 89.24 lakh in towards Heat of compression type dryer (sl. nos. 8 to 10 of the table above) in 2016-17. In justification for the same, the Petitioner has submitted that dense phase pneumatic fly ash handling system of the generating station, was designed and erected as a package contract by M/s McNally Bharat Engineering Company, Kolkata and since it was a retrofit work with existing wet ash handling system, the same was carried out in three phases. Phase-I & II included the Units 6&7, Units 4&5 and Units 1,2&3 respectively, with different work completion date. In Phase-I, Stage-II (2 units each), each phase has three numbers of Conveying Air Compressors (CAC), with 2130 MJ capacity each, for conveying the ash from ESP to intermittent Silo and from there, to RCC silos. It has also submitted that there are four CACs, for conveying ash in phase-1 (for 3 units) and two number of Instrument Air Compressors (IAC) for supplying air to the instruments. The Petitioner has stated that each conveying Air Compressor has one heat of Compression Type Air Dryer and each Instrument Air Compressor has one Blower Heat activated type Air Dryer. It has submitted that as per project design, 1 no of CAC, shall be kept as reserve in each phase and one IAC should be kept as reserve, but in process, all the CACs are required for conveying ash i.e. without any reserve compressors. The Petitioner has added that two numbers of CACs were not sufficient for instruments.

28. Considering the fact that the additional capital expenditure has been incurred for the assets which are considered important for Ash handling and keeping in view that same has been deferred for execution and are within the original scope of work, the claim of the Petitioner is prorated to Rs 50.99 lakh and allowed for Stage-II of the generating station only, under Regulation 14(3)(iv) of the 2014 Tariff Regulations. The balance expenditure shall be met from the Special Allowance/Compensation allowance



permitted to the Petitioner.

Items claimed under Regulation 14(3)(iii) of the 2014 Tariff Regulations

29. The Petitioner has claimed total additional capital expenditure of Rs 3435.00 lakh for Stage-I and Stage-II of the generating station under Regulation 14(3)(iii) of the 2014 Tariff Regulations in 2016-17. This additional capital expenditure comprises of Rs 245.86 lakh towards items/assets from sl nos. 11 to Sl No. 62 (of the table under para 24 above) which includes Rs. 27.85 lakh towards Purchase of electrically operated hoist, Rs. 9.27 lakh towards Procurement of submersible pump, Rs. 8.62 lakh in 2016-17 towards Purchase of high mast light and Rs. 200.12 lakh towards items like battery operated industrial platform trolley, welding machine, welding rectifier, pan mixtures, bicycle, 2000amps rectifier & control panel hydrogen gas 1 no., rainwater harvesting, IR fixed cam and trolley mounted acid transfer pump and total expenditure of Rs 3189.14 lakh for implementation of DCS system (items in sl. nos .63 to 66 of the table).

30. It is noticed that the Petitioner has not furnished the stage-wise bifurcation of the assets/ items claimed in 2016-17. Further, the additional capital expenditure incurred is towards assets which are minor in nature and in the nature of tools & tackles, after the cut-off date, which is not permissible, in terms of the first proviso to Regulation 14(3) of the 2014 Tariff Regulations. Regulation 14(3)(iii) of the 2014 Tariff Regulations, provides for additional capitalisation of expenditure to be incurred on account of need for higher safety and security of the plant as advised and directed by the appropriate Government agencies or statutory authorities responsible for national/internal security, however, no documentary evidence/justification has been furnished by the Petitioner in support of the same. It is observed that the Petitioner is getting Special allowance for Stage-I including Compensation allowance & Special allowance for Stage-II of the generating station. Accordingly, in our view, the Petitioner can meet the additional



capital expenditure of Rs 245.86 lakh from the Compensation allowance and Special allowance granted to the generating station. In this background, the prayer of the Petitioner for additional capitalization of the expenditure in 2014-15 is not allowed. As regards additional capital expenditure of Rs 3189.14 lakh claimed for DCS (sl. no. 63 to 66 of the table) the same is dealt with separately, in this order.

2017-18

31. The Petitioner has claimed additional capital expenditure under Regulation 14(3)(iii) of the 2014 Tariff Regulations as detailed below:

<i>(Rs. in lakh)</i>		
Sl. No.	Head of Work / Equipment's	Amount claimed
1	Numerical motor protection relays	19.916
2	Battery bank ups system unit -v 1 no.	30.208
3	Battery bank ups system unit -v 1 no.	30.208
4	Battery bank ups system unit -v 1 no.	30.208
5	Infra red thermal imaging	3.077
6	Portable open well submersible dewatering -3hp-1n0	0.419
7	Water lance pump-centrifugal pump-unit boiler 'o' ml	3.864
8	Water lance pump-centrifugal pump-unit boiler 'o' ml	3.864
9	Water lance pump-centrifugal pump-unit boiler 'o' ml	3.864
10	Battery operated industrial platform trolley-4000kg-1 no.	6.871
11	Battery operated industrial platform trolley-4000kg-1 no.	6.871
12	Refridgerator-1 no. Fire protection division	0.578
13	Co2 fire extinguisher- fire protection division	5.623
14	Mechanical foam fire extinguisher-9lt capacity-100	2.281
15	Invertor based welding machine- 1 no.	0.172
16	Invertor based welding machine- -1 no	0.172
17	Valve lapping machine- -p&v/tm/ts2-1 no.	2.397
18	Valve lapping machine- -p&v/tm/ts-ii-1 no.	2.397
19	Hydraulic square drive torque wrench-bfp-3a-1 no.	9.872
20	Air handling system-u-3/ahu-5/turbine mtce 1no.	6.296
21	Air handling system-u-3/ahu-6/turbine mtce 1n0.	6.296
22	Improvement work in sub store stage 2	77.456
23	3hp.3phase.415v dewatering submersible pumpset-1 no	0.389
24	3hp.3phase.415v dewatering submersible pumpset-1 no	0.389
25	3hp.3phase.415v dewatering submersible pumpset-1 no	0.389
26	3hp.3phase.415v dewatering submersible pumpset-1 no	0.389
27	3hp.3phase.415v dewatering submersible pumpset-1 no	0.389
28	Circuit breaker-ict-1-400kv breaker. switchyard-1 no	30.230
29	Circuit breaker-1 no. ets2-switchgear	30.230
30	Circuit breaker-1 no.-switchyard-ets2	30.230
31	Circuit breaker-1 no.-bus transfer 400kv feeder	30.230
32	Circuit breaker-1 no.-bus coupler	30.230
33	Circuit breaker-1 no.	30.230
34	32 nos. IT switch disconnecter fuse units	10.477



Sl. No.	Head of Work / Equipment's	Amount claimed
35	RMU panel (ring main unit)-ets2-1 no.	5.122
36	300ah battery bank switch yard source-1 no.	18.947
37	300ah battery bank switch yard source-1 no.	18.947
38	Zirconia oxygen analyser-localinsutment-unit-5-3no	9.626
39	Zirconia oxygen analyser-local instrument-	9.626
40	Zirconia oxygen analyser-local instrument-	9.626
41	Zirconia oxygen analyser-local instrument-	6.417
42	EOT crane-5t-dry ash system-1 no.	13.663
43	Portable induction heater- 1 no.	1.699
44	High vacuum filter plant of 4500lph capacity-1 no.	15.299
45	Boiler lift modernization-boiler lift-2ESP controls	29.900
46	6 nos 10 Litre per hour RO dispenser & 1 no 25lph RO dispenser	1.907
47	3 nos 10lph RO dispenser	0.538
48	Digital PH meter-1 no.	1.168
49	Digital PH meter- 1 no	1.168
50	Digital PH meter-1 no.	1.168
51	Notebook-pci5-intel4 gen core i5-planning section	1.787
52	Water quality monitoring system	3.835
53	Portable multi gas detector-1 no.-safety-dn.,	0.755
54	Portable multi gas detector-1 no.-safety-dn.,	0.755
55	Fest-"q"-insect killer-6nos.	0.282
56	Air handling system-u-3/ahu-5/turbine mtce 1no.	0.127
57	Air handling system-u-3/ahu-6/turbine mtce 1no.	0.127
58	Circuit breaker-ICT-1-400kv breaker, switchyard-1no	2.549
59	Circuit breaker-1no.ets2-switchgear	2.549
60	Circuit breaker-1no.-switchyard-ets2	2.549
61	Circuit breaker-1 no.-bus transfer 400kv feeder	2.549
62	Circuit breaker-1no.-bus coupler	2.549
63	Circuit breaker-1 no. -salem-1	2.549
64	EOT crane-5T-dry ash system-1 no.	0.600
65	Valve lapping machine- p&v /tm/ts2-1no.	0.627
66	Zirconia oxygen analyser-3n0s.local instu-u4	6.417
67	Rainwater harvesting/stage-i store/cont dm line	0.266
68	DCS TS-II, ST-II, Phase-I	0.763
69	Implementation of DCS TS-II, ST-II, Phase-I	21.533
70	Implementation of DCS TS-II, ST-II, Phase-III (unit-7)	22.133
71	Implementation of DCS TS-II, ST-II, Phase-IV (unit-4)	12.548
	Total	679.38

32. The Petitioner has claimed total additional capital expenditure of Rs 679.38 lakh for Stages I and II of the generating station in 2017-18, comprising of Rs 622.45 lakh for items /assets (from sl nos. 1 to 67 of the table above) which includes expenditure of Rs. 19.92 lakh towards Purchase of numerical motor protection, Rs. 7.90 lakh towards Purchase of mechanical foam type fire extinguisher, Rs. 12.06 lakh towards Procurement of centrifugal pump and Rs. 582.57 lakh for items like Battery bank UPS



system, infra-red thermal imaging, battery operated industrial platform trolley, refrigerator, welding machine, valve lapping machine, hydraulic square drive torque wrench, air handling system, improvement works, circuit breaker RMU panel, zirconia oxygen, EOT crane, notebook water quality, portable gas detector, Q insect killer and rainwater harvesting and additional capital expenditure of Rs.56.98 lakh towards Implementation of DCS system (sl. nos. 68 to 71 of the table) under Regulation 14(3)(iii) of the 2014 Tariff Regulations.

33. It is noticed that the Petitioner has not furnished the stage-wise bifurcation of the assets/ items claimed in 2017-18. Further, the additional capital expenditure incurred is towards assets which are minor in nature and in the nature of tools & tackles, after the cut-off date, which is not permissible, in terms of the first proviso to Regulation 14(3) of the 2014 Tariff Regulations. Regulation 14(3)(iii) of the 2014 Tariff Regulations, provides for additional capitalisation of expenditure to be incurred on account of need for higher safety and security of the plant as advised and directed by the appropriate Government agencies or statutory authorities responsible for national/internal security, however, no documentary evidence/justification has been furnished by the Petitioner in support of the same. It is observed that the Petitioner is getting Special allowance for Stage-I including Compensation allowance & Special allowance for Stage-II of the generating station. Accordingly, in our view, the Petitioner shall meet the additional capital expenditure of Rs 622.45 lakh from the Compensation allowance and Special allowance granted to the generating station. In this background, the prayer of the Petitioner for additional capitalization of the expenditure in 2017-18 is not allowed. As regards additional capital expenditure of Rs 56.98 lakh claimed towards DCS (sl. no. 68 to 71) the same is dealt with separately, in this order.

2018-19



34. The Petitioner has claimed additional capital expenditure under Regulation 14(3)(iii) of the 2014 Tariff Regulations as detailed below:

		<i>(Rs. in lakh)</i>
Sl. No.	Head of Work / Equipment's	Amount claimed
1	SF6 Gas Maintenance kit -1 NO.	33.914
2	TS2_ Infra Red Thermal Imaging Camera	2.513
3	TS_2 SQL Server Standard Edition 2017-1 No.	0.501
4	TS_2 Visual Studio Professional 2017-1 No.	0.277
5	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
6	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
7	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
8	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
9	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
10	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
11	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
12	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
13	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
14	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
15	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
16	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
17	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
18	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
19	TS-II 15Nos. of HP Laser Jet MFP Colour Printers.	0.620
20	TS_2-Portable Elec.Oper. Reversible Torque Wrench	15.350
21	TSII EOT Crane	0.016
22	Battery Operated Industrial PlatformTrolley-4000K	5.775
23	TS_2 Battery Operated Industrial Platform Trolley-1	4.403
24	TS_2 Battery Operated Industrial Platform Trolley-1	4.071
25	TS_II Data Transfer Unit between Reclaimer/	2.236
26	TS_2-InfraRed Thermal Imaging Camera-1 No.	3.835
27	TS_2 Stacker 1985	12.396
28	TS_2 Reclaimer A 1985	22.574
29	TS_2 Reclaimer B 1985	23.358
30	Thermocouple wire attachment unit	0.704
31	Thermocouple wire attachment unit	0.704
32	TS2_L.P. of Bicycle -22" Gents Model -Herculus-2	0.051
33	TS2_L.P. of Bicycle -22" Gents Model -Herculus-2	0.051
34	TS_2 Acrylic Podium-24mm(22x18) Mic Stand-1 No.	0.407
35	TS_2 Acrylic Slanting Writing Dust(24x18x18)-5 nos	0.198
36	TS_2 Executive Cushion Armed Chairs-48 No DGM Oper	6.032
37	TS_2 Executive Cushion Armed Chairs-3 Nos.-FHS opr	0.377
38	TS_2 Executive Cushion Armed Chairs-2Nos Chemical	0.251
39	TS_2 Executive Cushion Armed Chairs-3 Nos.-swy	0.377
40	TS_2 Executive Cushion Armed Chairs-2Nos-ADPH	0.251
41	TS_2 Executive Cushion Armed Chairs-Unit Head cham	0.377
42	TS_2 Executive Cushion Armed Chairs-GM/O&M	0.126
43	TS_2 Executive Cushion Armed Chairs-DGM/Fin	0.126
44	TS_2 Executive Cushion Armed Chairs-DGM/CIVIL	0.754
45	TS_II Multiapplication opitcal finger sensor-1 no.	0.234
46	TS_II Desktop computer-82Nos. - Computer Division	42.048
47	TS_II Servers - 4 Nos- Computer Division	22.390



Sl. No.	Head of Work / Equipment's	Amount claimed
48	TS_2 LED49/50Inch Signage Display&Acessories-3nos.	0.557
49	TS_2 LED49/50Inch Signage Display&Acessories-3nos.	0.557
50	TS_2 LED49/50Inch Signage Display&Acessories-3nos.	0.557
51	TS_2 Low Pressure Calibarator-1 No.	2.932
52	TS_2 Hot Air Oven-1 No.-Turbine Mtce.	0.790
53	TS_2 Laser Jet Printer (MONO)-2 Nos.-Computer Division	0.323
54	TSII_Brush Cutter 1.6HP	0.262
55	TSII_Brush Cutter 1.6HP	0.262
56	TS_2 5-Ton Electric Power Winch - 3 Nos.	4.261
57	TS_2 5-Ton Electric Power Winch - 3 Nos.	4.261
58	TS_2 5- on Electric Power Winch - 3 Nos.	4.261
59	TS_2 Purchase of Refrigerators- 2 Nos.	0.336
60	TS_2 Purchase of Refrigerators- 2 Nos.	0.336
61	TS_2 Bottle Cooler-300Ltrs	0.602
62	TPS-II_DCS TS-II, ST-II, Phase-I Unit 5	7.104
63	TS-II_Implementation of DCS Phase II Unit 6	7.104
64	TSII_Implementation of DCS Phase IV Unit 4	24.864
65	TSII_Implementation of DCS Phase III Unit 7	10.656
	Total	286.00

35. The Petitioner has claimed total additional capital expenditure of Rs 286.00 lakh for Stages I and II of the generating station in 2018-19, comprising of Rs 236.27 lakh for items /assets (from sl nos. 1 to 61 of the table above) which includes expenditure of Rs. 33.91 lakh in 2018-19 towards Purchase of SF6 gas maintenance kit and Rs. 202.36 lakh on account of items like IR thermal imaging, TS-II SQL server standard edition, TS-II visual studio professional, HP laser jet printers, portable electrically operated reversible torque wrench, EOT crane, battery operated industrial platform trolley, data transfer unit, reclaimers, thermocouple wire, bicycle, acrylic podium, executive cushion, multiapplication finger sensor, desktop, LED, refrigerator and bottle cooler and additional capital expenditure of Rs 49.73 lakh towards Implementation of DCS system (sl. nos. 62 to 65 of the table) under Regulation 14(3)(iii) of the 2014 Tariff Regulations.

36. It is noticed that the Petitioner has not furnished the stage-wise bifurcation of the assets/ items claimed in 2018-19. Further, the additional capital expenditure incurred is towards assets which are minor in nature and in the nature of tools & tackles, after the cut-off date, which is not permissible, in terms of the first proviso to Regulation 14(3) of



the 2014 Tariff Regulations. Regulation 14(3)(iii) of the 2014 Tariff Regulations, provides for additional capitalisation of expenditure to be incurred on account of need for higher safety and security of the plant as advised and directed by the appropriate Government agencies or statutory authorities responsible for national/internal security, however, no documentary evidence/justification has been furnished by the Petitioner in support of the same. It is observed that the Petitioner is getting Special allowance for Stage-I including Compensation allowance and Special allowance for Stage-II of the generating station. Accordingly, in our view, the Petitioner shall meet the additional capital expenditure of Rs 236.27 lakh from the Compensation allowance and Special allowance granted to the generating station. In this background, the prayer of the Petitioner for additional capitalization of the expenditure in 2018-19 is not allowed. As regards additional capital expenditure of Rs 49.73 lakh claimed towards DCS (sl no. 62 to 65) the same is dealt with separately, in this order.

Implementation of DCS

37. As stated above, the Petitioner has claimed additional capital expenditure of Rs. 937.93 lakh in 2015-16, Rs 3189.11 lakh in 2016-17, Rs 56.98 lakh in 2017-18 and Rs 49.73 lakh in 2018-19 towards implementation of DCS system for Stage-II, Phase-I of the generating station under Regulation 14(3)(iii) of the 2014 Tariff Regulations. In justification of the same, the Petitioner has submitted that the present system is outdated, and the spares have become obsolete and unavailable. The Petitioner has also submitted that the Petitioner's company has decided for implementation of DCS.

38. The matter has been considered. The Petitioner has claimed the total expenditure towards implementation of DCS system for Stage-II of the generating station. Regulation 14(3)(iii) of the 2014 Tariff Regulations, provides for additional capitalisation of expenditure to be incurred on account of need for higher safety and security of the



plant as advised and directed by the appropriate Government agencies or statutory authorities responsible for national/internal security. However, no documentary evidence/justification has been furnished by the Petitioner in support of the same. On this ground alone, the claim for additional capitalisation of this asset/item, is not allowable. We notice, that in terms of Regulation 17 (compensation allowance) of the 2014 Tariff Regulations, a separate compensation allowance is admissible to meet the expenses on new assets of capital nature, which are not admissible under Regulation 14 of the 2014 Tariff Regulations. Moreover, in terms of Regulation 16 of the 2014 Tariff Regulations, the Petitioner has opted to avail Special Allowance in lieu of R&M, to meet the requirement of expenses, including R&M beyond the useful life of the generating station or unit thereof. It is pertinent to mention that the Commission vide its order dated 8.3.2017 in Petition No.256/GT/2014 (tariff of this generating station for the period 2014-19) had disallowed the claim of the Petitioner for the aforesaid asset/item as under:

“19. The COD of the generating station is 9.4.1994 and accordingly the units of Stage-I have completed more than 25 years of useful life as on 1.4.2014 and Units- I, II, III and IV of Stage-II of the generating station will complete their useful life of 25 years on 25.1.2017, 2.6.2017, 17.3.2018 and 9.4.2019 respectively. Since the units of both stages of the generating station would be completing the useful life during the period 2014-19, the petitioner is at liberty to approach the Commission with a proposal for comprehensive R&M in terms of Regulation 15 of the 2014 Tariff Regulations for life extension of the project. In the alternative, the petitioner can opt for Special allowance in terms of Regulation 16 of the 2014 Tariff Regulations, as compensation for meeting the requirement of expenses including R & M beyond useful life of the unit or the generating station. The units of Stage-II of the generating station have been granted Compensation allowance and units of Stages-I and II have been granted Special allowance in this order. Accordingly, in our view, the petitioner can meet the additional capital expenditure of Rs.4190.00 lakh from the Compensation allowance and Special allowance granted to the generating station. In this background, the prayer of the petitioner for capitalization of the expenditure is disallowed”.

39. The Petitioner, in terms of the above order, has not filed any petition seeking approval of R&M proposal for the generating station, which has completed its useful life during the period 2014-19. Thus, the Petitioner has availed the Compensation allowance and Special allowance permitted to Stage-II of the generating station, during the period 2014-19. Accordingly, in our view, the Petitioner shall meet the total additional



capital expenditure towards implementation of DCS system, from the Compensation allowance and Special allowance granted to the generating station.

40. Based on the above discussion, the total additional capital expenditure allowed for the period 2014-19 is summarised below:

Year	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Additional capitalisation claimed	157.91	1349.52	3552.01	679.38	286.00
Additional capitalization allowed for Stage - I	0.00	0.00	0.00	0.00	0.00
Additional capitalization allowed for Stage - II	0.00	8.28	66.86	0.00	0.00

Discharges of Liabilities

41. The Petitioner has not claimed any discharge of liabilities corresponding to the assets capitalized for both the stages of the generating station.

De-capitalization of assets

42. The Petitioner has not claimed any de-capitalization for both the stages of the generating station.

Capital cost allowed for the period 2014-19

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

Capital Cost for Stage-I

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	32023.21	32023.21	32023.21	32023.21	32023.21
Add: Additional Capital Expenditure	0.00	0.00	0.00	0.00	0.00
Less: Decapitalization	0.00	0.00	0.00	0.00	0.00
Less: Assumed Deletion	0.00	0.00	0.00	0.00	0.00
Closing Capital Cost	32023.21	32023.21	32023.21	32023.21	32023.21
Average Capital Cost	32023.21	32023.21	32023.21	32023.21	32023.21

Capital Cost for Stage-II

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	118778.71	118778.71	118786.99	118853.85	118853.85



	2014-15	2015-16	2016-17	2017-18	2018-19
Add: Additional Capital Expenditure	0.00	8.28	66.86	0.00	0.00
Less: Decapitalization	0.00	0.00	0.00	0.00	0.00
Less: Assumed Deletion	0.00	0.00	0.00	0.00	0.00
Closing Capital Cost	118778.71	118786.99	118853.85	118853.85	118853.85
Average Capital Cost	118778.71	118782.85	118820.42	118853.85	118853.85

Debt-Equity Ratio

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

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

Provided that:

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

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

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

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

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

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

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

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

45. As the Commission has considered Net Fixed Asset (NFA) method in the case of the generating station of the Petitioner, the actual source of funding has been



considered for calculating the debt-equity ratio. Accordingly, the net fixed asset details are as under:

Stage-I

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Net Fixed Asset (A)=Opening capital cost-Cumulative depreciation up to previous year	3719.81	3719.81	3719.81	3719.81	3719.81
Closing Net Fixed Asset (B)=Closing capital cost-Cumulative depreciation up to current year	3719.81	3719.81	3719.81	3719.81	3719.81
Average Net Fixed Asset (C)=(A+B)/2	3719.81	3719.81	3719.81	3719.81	3719.81
Average Loan (D)(on actuals)	0.00	0.00	0.00	0.00	0.00
Average Equity (E)=C-D	3719.81	3719.81	3719.81	3719.81	3719.81

Stage-II

	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Net Fixed Asset (A)=Opening capital cost-Cumulative depreciation up to previous year	17527.20	16440.92	15361.99	14330.45	13217.15
Closing Net Fixed Asset (B)=Closing capital cost-Cumulative depreciation up to current year	16440.92	15361.99	14330.45	13217.15	12103.85
Average Net Fixed Asset (C)=(A+B)/2	16984.06	15901.46	14846.22	13773.80	12660.50
Average Loan (D)(on actuals)	0.00	0.00	0.00	0.00	0.00
Average Equity (E)=C-D	16984.06	15901.46	14846.22	13773.80	12660.50

Return on Equity

46. Regulation 24 of the 2014 Tariff Regulations provides as under:

“24. Return on Equity:

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

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

Provided that:

(i) in case of projects commissioned on or after 1st April 2014 an additional return of 0.50% shall be allowed if such projects are completed within the timeline specified in Appendix-I:

(ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:

(iii) additional ROE of 0.50% may be allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee / National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:



(iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission if the generating station or transmission system is found to be declared under commercial operation without commissioning any of the Restricted Governor Mode Operation (RGMO) / Free Governor Mode Operation (FGMO) data telemetry communication system up to load dispatch centre or protection system:

(v) as and when any of the above requirement are found lacking in a generating station based on the report submitted by the respective RLDC ROE shall be reduced by 1% for the period for which the deficiency continues:

(vi) additional ROE shall not be admissible for transmission line having length of less than 50 kilometres.”

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

“25. Tax on Return on Equity:

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

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

Rate of pre-tax return on equity = Base rate / (1-t)

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

Illustration.

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

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

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

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

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

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

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



48. As the Commission has considered the Net Fixed Asset (NFA) method in the case of the generating stations of the Petitioner, the actual source of funding has been considered for calculating the debt-equity ratio. The Petitioner has claimed tariff considering the rate of Return on Equity (ROE) of 23.599% in 2014-15, 19.705% in 2015-18 and 19.758% in 2018-19. The Petitioner has worked out these rates, after grossing up the base rate of ROE of 15.50%, with corporate tax rate of 34.32% in 2014-15, 21.340% in 2015-18 and 21.55% in 2018-19. The Petitioner has furnished the effective tax rate for 2014-15, based on the auditor certificate dated 26.8.2019. However, on scrutiny, it is observed that the calculation of effective tax rate, is inclusive of penal interest of Rs. 684.30 lakh, which has not been considered for working out the effective tax rate. Accordingly, the effective tax rate works out as 33.99%, and is considered for the purpose of grossing up for 2014-15. The rate of ROE considered for the purpose of tariff, works out as 23.481% in 2014-15, 19.705% in 2015-18 and 19.758% in 2018-19. Accordingly, ROE for both the stages of the generating station, is worked out and allowed as under:

ROE for Stage-I

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Average Normative Equity (A)	3719.81	3719.81	3719.81	3719.81	3719.81
Return on Equity (Base Rate) (B)	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate (C)	33.990%	21.342%	21.342%	21.342%	21.549%
Rate of Return on Equity (Pre-Tax) (D=B/(1-C))	23.481%	19.705%	19.705%	19.705%	19.758%
Return on Equity (Pre-Tax) – (annualized) (E= A*D)	873.45	732.99	732.99	732.99	734.96

ROE for Stage-II

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Average Normative Equity (A)	16984.06	15901.46	14846.22	13773.80	12660.50
Return on Equity (Base Rate) (B)	15.500%	15.500%	15.500%	15.500%	15.500%
Effective Tax Rate (C)	33.990%	21.342%	21.342%	21.342%	21.549%



	2014-15	2015-16	2016-17	2017-18	2018-19
Rate of Return on Equity (Pre-Tax) (D=B/(1-C))	23.481%	19.705%	19.705%	19.705%	19.758%
Return on Equity (Pre-Tax) – (annualized) (E= A*D)	3,988.03	3,133.38	2,925.45	2,714.13	2,501.46

Interest on Loan

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

“26. Interest on loan capital:

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

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

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

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

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

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

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

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

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

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

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

Provided that the beneficiaries or the long term transmission customers /DICs shall not withhold any payment on account of the interest claimed by the generating company or



the transmission licensee during the pendency of any dispute arising out of re-financing of loan.”

50. The actual loan of the project has already been repaid. The normative loan on account of admitted additional capital expenditure during the respective years of the tariff period has been considered as fully paid, as the admitted depreciation is more than the amount of normative loan in these years. As such, the interest on loan during the period 2014-19 is “Nil”.

Depreciation

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

“27. Depreciation:

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

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

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

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

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

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

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

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

(5) Depreciation shall be calculated annually based on Straight Line Method and at rates



specified in Appendix-II to these regulations for the assets of the generating station and transmission system:

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

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

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

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

52. Since the entire depreciable value for Stage-I has been depreciated, as on 31.3.2014, in terms of order dated 8.3.2017 in Petition No. 256/GT/2014, and the additional capital expenditure allowed for Stage-I for the period 2014-19 is nil, the remaining depreciable value and depreciation for the period 2014-19 is “nil”.

53. The Petitioner has submitted that since the entire depreciable value has been depreciated as on 31.3.2014 in terms of order dated 10.2.2017 in Petition No. 473/GT/2014, the Petitioner on account of life extension plan for Stage-I of the generating station, has worked out the balance useful life of 13.23 years, as on 1.4.2019 for Stage-I of the generating station and has accordingly claimed the same. It is observed that the Commission vide order dated 8.3.2017 in Petition No. 256/GT/2014 has granted liberty to the Petitioner to approach the Commission with a comprehensive R&M proposal in terms of Regulation 15 of the 2014 Tariff Regulations. However, the Petitioner has not submitted/filed any R&M proposal for the generating station (both Stages-I and II). Considering the fact that the Stage-I of the generating station has already completed its useful life during the period 2009-14, and no additional capital expenditure is allowed for Stage-I of the generating station, we are not inclined to extend the life of the Stage-I of the generating station at this stage.



54. As regards Stage-II of the generating station, the balance depreciable value has been spread over the useful life as under.:

Depreciation for Stage-II

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Average Capital Cost (A)	118778.71	118782.85	118820.42	118853.85	118853.85
Value of freehold land included above (B)	218.00	218.00	218.00	218.00	218.00
Aggregated depreciable value (C) 90% of (A-B)	106704.64	106708.37	106742.18	106772.27	106772.27
Remaining aggregate depreciable value at the beginning of the year (D)=C-Cumulative Depreciation up to previous year	5453.13	4370.57	3317.18	2248.86	1135.56
Balance useful life at the beginning of the year (E)	5.02	4.02	3.02	2.02	1.02
Depreciation during the year (F)= D/E	1086.28	1087.21	1098.40	1113.30	1113.30
Cumulative Depreciation at the end of the year (before adjustment for de-capitalization) (G)	102337.79	103425.00	104523.40	105636.70	106750.00
Less: Depreciation adjustment on account of de-capitalization(H)	0.00	0.00	0.00	0.00	0.00
Cumulative depreciation at the end of the year (I)=G-H	102337.79	103425.00	104523.40	105636.70	106750.00

Note- Cumulative Depreciation up to 31-03-2014 is Rs.101251.51 lakh

Operation & Maintenance Expenses

55. Regulation 29(1)(a) of the 2014 Tariff Regulations specifies following the norms for O&M expenses for the Circulating Fluidised Bed Combustion (CFBC) technology:

(Rs. in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
23.90	25.40	27.00	28.70	30.51

56. The Commission vide order dated 8.3.2017 in Petition No. 256/GT/2014 read with the corrigendum order dated 12.6.2017, had allowed following total O&M expenses for the generating station:

O&M expenses allowed for Stage-I



(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses allowed under Regulation 29(1)(a)	15057.00	16002.00	17010.00	18081.00	19221.30
Water charges allowed under Regulation 29(2)	98.90	98.90	98.90	98.90	98.90
Total O&M expenses allowed	15155.90	16100.90	17108.90	18179.90	19320.20

O&M expenses allowed for Stage-II

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses allowed in terms of Regulation 29(1)(a)	20076.00	21336.00	22680.00	24108.00	25628.40
Water charges allowed in terms of Regulation 29(2)	131.86	131.86	131.86	131.86	131.86
Total O&M expenses allowed	20207.86	21467.86	22811.86	24239.86	25760.26

57. The total O&M expenses claimed by the Petitioner are as under:

O&M expenses claimed for Stage-I

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses claimed under Regulation 29(1)(a)	15057.00	16002.00	17010.00	18081.00	19221.30
Water charges claimed under Regulation 29(2)	185.17	180.72	183.63	206.09	138.75
Total O&M expenses claimed	15242.17	16,82.72	17193.63	18287.09	19360.05

O&M expenses claimed for Stage-II

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses claimed under Regulation 29(1)(a)	20076.00	21336.00	22680.00	24108.00	25628.40
Water charges claimed under Regulation 29(2)	246.89	240.97	244.83	274.78	185.00
Total O&M expenses claimed	20322.89	21576.97	22924.83	24382.78	25813.40

58. As the normative O&M expenses claimed by the Petitioner is in terms of Regulation 29(1)(a) of the 2014 Tariff Regulations, the claims are allowed as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Stage-I	15057.00	16002.00	17010.00	18081.00	19221.30
Stage-II	20076.00	21336.00	22680.00	24108.00	25628.40

Water Charges

59. Regulation 29(2) of the 2014 Tariff Regulations provide as under:

“29(2) The Water Charges and capital spares for thermal generating stations shall be



allowed separately:

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

xxxxx.”

60. The projected water charges allowed by order dated 8.3.2017 in Petition No. 256/GT/2014 read with corrigendum order dated 12.6.2017 is as under:

<i>(Rs. in lakh)</i>					
	2014-15	2015-16	2016-17	2017-18	2018-19
Stage-I	98.90	98.90	98.90	98.90	98.90
Stage-II	131.86	131.86	131.86	131.86	131.86

61. In terms of the first proviso to Regulation 29(2) of the 2014 Tariff Regulations, the water charges are to be allowed based on water consumption, depending upon type of plant, type of cooling water system etc., subject to prudence check. The Petitioner has claimed water charges consisting of pumping cost incurred by ground water control and storm water control for the year, consent fee payable to Government account, water cess payable to Government account, Personnel charges and other charges. However, Personnel charges and other charges were not included, while claiming water charges in Petition No. 256/GT/2014. The Petitioner has submitted the auditor certificate for the water charges claimed for the period 2014-19. The Petitioner has sought permission to fully recover the actual water charges incurred, from the beneficiaries. The details are as under:

Period	Water Quantity	Pumping charges (Rs. 0.376 / KL)	Water Cess	Water Consent Fee	Personnel Charges	Others if any	Water Charges	Water Charges
	(KL)	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)		(in Rs.)	(Rs. In lakh)
	1	2	3	4	5	6	7=2+3+4+5+6	
2014-15	69062592	25967535	6037296	703778	11148164	42145	43898918	438.99
2015-16	70326900	26442914	5780468	659831	10877447	21735	43782395	437.82
2016-17	69390400	26090790	5995704	669339	12035608	48590	44840031	448.40
2017-18	68129200	25616579	1410169	665923	15506385	29005	43228061	432.28
2018-19	49200200	18499275	-	999330	14898404	44065	34441074	344.41



62. The Respondent TANGEDCO and Respondent KSEB have submitted that the Petitioner may be directed to furnish the details in respect of water charges such as contracted quantum of water and allocated quantity, actual annual water consumption for the last 5 years (2014-19) along with the copy of the notification(s) of water charges. Respondent TANGEDCO has also submitted that Personnel charges may be disallowed, as per the Statement of Objects & Reasons (SOR) to the 2014 Tariff Regulations, which clearly stipulates that water charges are not inclusive of employee and other testing charges.

63. In response, the Petitioner has submitted that it has not been procuring water from outside and is utilizing the aquifer water beneath the lignite seam, which has been pumped out to facilitate lignite extraction. The Petitioner has also submitted that it has claimed only pumping, statutory charges and personnel charges. Accordingly, it has submitted that the contracted quantum of water is not applicable to the Petitioner. As regards the Personnel charges and other charges, the Petitioner has submitted details of the personnel charges incurred towards the personnel deployed in the raw water group and other charges pertaining to water analysis charges as a part of statutory charges paid to the Tamil Nadu Pollution Control Board (TNPCB).

64. We have considered the submissions of the parties. It is noticed that the Commission, vide its orders dated 9.6.2022 in Petition No. 367/GT/2020 (NLC TPS-II Expansion) had disallowed the Personnel charges claimed by the Petitioner in water charges. Aggrieved by the order dated 9.6.2022 in Petition No. 367/GT/2020, the Petitioner has filed Review Petition No. 33/RP/2022, raising several issues, including the disallowance of Personnel charges in water charges and the same is pending for consideration. In view of this, we are constrained not to allow the Personnel charges claimed in water charges, at this stage. This is however subject to the outcome of the



decision in Review Petition No.33/RP/2022. In case, the Personnel charges in the water charges are allowed in Review Petition No. 33/RP/2022, the same shall also be applicable for the instant petition. the actual water charges claimed by the Petitioner, based on the actual water consumption and as per auditor certified financial statements for the period 2014-19, is allowed for the as under:

Period	Water Quantity	Pumping charges (Rs. 0.376 / KL)	Water Cess	Water Consent Fee	Others If any	Water Charges
	(KL)	(in Rs.)	(in Rs.)	(in Rs.)	(in Rs.)	(Rs. in lakh)
	1	2	3	4	5	6=2+3+4+5
2014-15	6,90,62,592	2,59,67,535	60,37,296	7,03,778	42,145	327.51
2015-16	7,03,26,900	2,64,42,914	57,80,468	6,59,831	21,735	329.05
2016-17	6,93,90,400	2,60,90,790	59,95,704	6,69,339	48,590	328.04
2017-18	6,81,29,200	2,56,16,579	14,10,169	6,65,923	29,005	277.22
2018-19	4,92,00,200	1,84,99,275	-	9,99,330	44,065	195.43

Capital Spares

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

“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”.

66. In terms of the above proviso, capital spares consumed are admissible separately, at the time of truing up of tariff, based on the details furnished by the Petitioner. The capital spares claimed by the Petitioner for Stages-I and II are as under:

<i>(Rs. in lakh)</i>				
2014-15	2015-16	2016-17	2017-18	2018-19
764.60	807.85	1,048.05	781.77	614.16

67. The Petitioner has submitted justification for incurring the expenditure and has clarified that the same has not been funded through compensatory allowance or special allowance or claimed as a part of additional capitalisation or consumption of stores and spares and renovation and modernization.



68. The capital spares claimed do not form part of the capital cost of the generating station. It is pertinent to mention that the term ‘capital spares’ has not been defined in the 2014 Tariff Regulations. The term capital spares, in our view, is a piece of equipment, or a spare part, of significant cost that is maintained in inventory for use in the event that a similar piece of critical equipment fails or must be rebuilt. Keeping in view the principle of materiality and to ensure standardized practices in respect of earmarking and treatment of capital spares, the value of capital spares exceeding Rs.1.00 lakh, on prudence check of the details furnished by the Petitioner in Form-17 of the Petition, has been considered for the purpose of tariff. Based on this, the details of capital spares consumption allowed for the period 2014-19 is summarized as under:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Total capital spares consumed claimed	764.60	807.85	1048.05	781.77	614.16
Less: Value of capital spares below Rs.1.00 lakh disallowed on individual basis	0.00	0.00	0.00	0.00	0.00
Net total value of capital spares considered	764.60	807.85	1048.05	781.77	614.16

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

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Net total value of capital spares considered	764.60	807.85	1,048.05	781.77	614.16
Less: Salvage value @ 10%	76.46	80.79	104.80	78.18	61.42
Net capital spares allowed	688.14	727.07	943.24	703.60	552.75



70. Accordingly, the total O&M expenses allowed to the generating station in terms of Regulation 29 of the 2014 Tariff Regulations are as under:

O&M expenses allowed for Stage-I

		<i>(Rs. in lakh)</i>				
		2014-15	2015-16	2016-17	2017-18	2018-19
Normative O&M expenses under Regulation 29(1)(a) of the 2014 Tariff Regulations	Claimed	15,057.00	16,002.00	17,010.00	18,081.00	19,221.30
	Allowed	15,057.00	16,002.00	17,010.00	18,081.00	19,221.30
Water charges under Regulation 29(2) of the 2014 Tariff Regulations	Claimed	185.17	180.72	183.63	206.09	138.75
	Allowed	140.36	141.02	140.59	118.81	83.75
Capital spares under Regulation 29(2) of the 2014 Tariff Regulations	Claimed	327.69	346.22	449.16	335.05	263.21
	Allowed	294.92	311.60	404.25	301.54	236.89
Total O&M Expenses Claimed	Claimed	15,569.86	16,528.94	17,642.79	18,622.14	19,623.26
Total O&M Expenses allowed	Allowed	15,492.28	16,454.62	17,554.84	18,501.35	19,541.94

O&M expenses allowed for Stage-II

		<i>(Rs. in lakh)</i>				
		2014-15	2015-16	2016-17	2017-18	2018-19
Normative O&M expenses under Regulation 29(1)(a) of the 2014 Tariff Regulations	Claimed	20,076.00	21,336.00	22,680.00	24,108.00	25,628.40
	Allowed	20,076.00	21,336.00	22,680.00	24,108.00	25,628.40
Water charges under Regulation 29(2) of the 2014 Tariff Regulations	Claimed	246.89	240.97	244.83	274.78	185.00
	Allowed	187.15	188.03	187.45	158.41	111.67
Capital spares under Regulation 29(2) of the 2014 Tariff Regulations	Claimed	436.92	461.63	598.88	446.73	350.95
	Allowed	393.22	415.47	539.00	402.05	315.86
Total O&M Expenses Claimed	Claimed	20,759.81	22,038.60	23,523.71	24,829.51	26,164.35
Total O&M Expenses allowed	Allowed	20,656.37	21,939.50	23,406.45	24,668.46	26,055.93

Operational Norms



71. The operational norms in respect of the generating station as claimed by the Petitioner are as under:

- a) Target Availability of 75%.
- b) Gross Station Heat Rate of 2900 kcal/kwh
- c) Auxiliary Power Consumption of 10.00%.
- d) Specific oil consumption (SFC) of 2.00 ml/kWh

72. The operational norms for the generating station claimed by the Petitioner have been found to be in terms of the Regulation 36 of the 2014 Tariff Regulations and accordingly the same is allowed.

73. As regards Specific Fuel Oil Consumption (SFC), the Petitioner has submitted that as against the normative SFC, the actual SFC was very high, resulting in higher Energy Charge Rate (ECR). The Petitioner has furnished the details of the difference between the normative SFC and actual SFC, and the resultant difference in ECR for the above period. The Petitioner has also prayed for recovery of the financial expenditure due to force majeure events i.e. heavy rains, flood and inundation in mines and generating station, during November 2015, on the ground that these were beyond the control of the Petitioner, and the relief has been sought in exercise of the power to relax.

74. The Respondent TANGEDCO and Respondent KSEB have submitted that the Petitioner has not communicated the force majeure event, either to the beneficiaries or to the Commission.

75. The matter has been examined. The Petitioner has not substantiated its claim with relevant documents and has also not justified the event of force majeure. Therefore, we are not inclined to relax the operational norms with respect to SFC, as claimed by the Petitioner. Accordingly, the normative SFC of 2ml/kwh, is allowed in terms of the provisions of the 2014 Tariff Regulations.



Interest on Working Capital

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

“28. Interest on Working Capital:

(1) The working capital shall cover

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

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

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

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

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

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

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

Fuel Cost and Energy Charges in working capital

77. The Petitioner has claimed following cost for fuel components:

(a) Lignite and Secondary fuel rates for January 2014, February 2014 and March 2014 were adopted in the computation of interest on working capital and energy charges in respect of the generating station for the period 1.4.2014 to 31.3.2019.

(b) The lignite price claimed by the Petitioner in the computation of working capital is as under:

Base price of lignite (Rs. /MT)	1578.00
Additional O&M as per 32/MP/2018 (Rs./MT)	24.92
Total base price (Rs./MT)	1602.92
Royalty @ 6%	96.00
Clean Energy Cess Rs/T	50.00
Average Excise duty paid (Jan 14 to Mar 14)	17.07
Average price of Lignite (January,2014 to March, 2014) per tonne	1765.99

Stage-I

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of lignite towards stock	6,593.51	6,593.51	6,593.51	6,593.51	6,593.51
Cost of lignite towards Generation	3,296.75	3,296.75	3,296.75	3,296.75	3,296.75
Cost of secondary fuel oil for 2 months	713.08	715.03	713.08	713.08	713.08



Stage-II

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of lignite towards stock	8791.34	8791.34	8791.34	8791.34	8,91.34
Cost of lignite towards Generation	4395.67	4395.67	4395.67	4395.67	4395.67
Cost of secondary fuel oil for 2 months	950.77	953.38	950.77	950.77	950.77

Lignite Transfer Price and Energy Charges

78. In case of the generating stations of the Petitioner, the price of fuel for the preceding three months (January, 2014, February, 2014 and March, 2014) would be the pooled price of lignite for 2013-14. The pooled lignite transfer price for the generating station for 2013-14 as approved vide order dated 5.2.2014 in Petition No.167/MP/2011 and order dated 7.5.2015 in Petition No. 68/MP/2013 was Rs. 1610/tonne (this rate is exclusive of clean energy cess w.e.f. 1.7.2010 @ Rs. 50/ Ton and excise duty on lignite and other taxes and duties).

79. The Petitioner had filed Petition No. 149/MP/2015 for truing up of lignite transfer price for the period 2009-14 and the Commission vide order dated 20.3.2017 had directed the Petitioner to revise the pooled lignite transfer price based on the O&M cost of the mines allowed as under:

	<i>(Rs. in lakh)</i>				
O&M Cost	2009-10	2010-11	2011-12	2012-13	2013-14
Standalone Mines					
Mine-I	44011	48491	53350	58338	64357
Pooled Mines					
Mine-I (Expansion)	26898	29640	32606	35588	39454
Mine-IA	20415.76	22763.57	25381.38	28300.24	31554.77
Mine-II	58619.73	65361	71433	73224	81644.76
Mine-II (Expansion)	-	28012	30614	31382	34990.93

80. The Commission, in the said order, had also directed the Petitioner to work out the lignite transfer price based on actual capacity utilization. The relevant paragraph of the order dated 20.3.2017 in Petition No. 149/MP/2015 is extracted as under:



“28. The petitioner has not provided actual capacity utilization in respect of different mines. Para 4.1 of MOC Guidelines dated 11-06-2009 states as follows:

4.1 Capacity Utilization

"The existing guidelines of 85% capacity utilization are to be retained, as this is a basis on which projects are formulated and economic evaluation of the project is done. Also capacity utilization is heavily dependent on various mining operational conditions, land availability, space constraints and availability of main mining equipments etc. SEBs had suggested adoption of marginal costing norms for pricing of lignite produced at 85% of capacity utilization, while NLC insisted on retained existing guidelines of 85% capacity utilization. Since inception, mines have achieved mine capacity utilization of less than 85% cumulatively. The performance of mines over its entire life has to be taken into consideration while fixing parameters and should not be based on sporadic performance. The said norms were also the basis on which earlier agreements with SEBs were settled and agreed to by SEBs. Therefore, the extant guidelines shall be retained, as this would also act as an incentive to NLC to achieve higher capacity utilization, which would be in the interest of all stakeholders."

As per para 4.1 of the guidelines, 100% O & M cost shall be recovered at 85% capacity utilization. In case the mines have achieved lower capacity utilization, the O & M cost shall be proportionately reduced based on actual capacity utilization and lignite transfer price shall be worked out accordingly. In line with MOC guidelines, we have not gone into the detailed prudence of numbers/values as given in the auditor's certificate. Therefore, the petitioner shall ensure that proportionate reduction in the O & M cost is done in case the capacity utilization is less than 85%.

29. The petitioner is directed to calculate the impact on variable charge for the tariff period 2009-14 and in capacity charge during 2014-19 for its different generating stations within three months and adjust the same in the tariff accordingly.”

81. The Petitioner has considered the average price for lignite for January 2014, February 2014 and March 2014 as Rs. 1773.59 per tonne, for computation of working capital. However, for generating station, the average price of January 2014, February, 2014 and March, 2014, means the cost of lignite transfer price for the year 2013-14. The lignite transfer price for the year 2013-14, is required to be considered as per direction of the Commission in order dated 20.3.2017 in Petition No 149/MP/2015. Thus, in the absence of the details of pooled lignite transfer price for the period 2013-14, we have considered the pooled lignite transfer price of Rs.1610/ton for 2013-14 (for indicative purpose only) as approved by order dated 5.2.2014 in Petition No.167/MP/2011 and order dated 7.5.2015 in Petition No. 68/MP/2013. However, the final lignite transfer price to be considered for the computation of working capital for the period 2014-19 shall be computed by the Petitioner, based on the lignite transfer price



for the period 2013-14, as per the direction contained in order dated 20.3.2017 in Petition No. 149/MP/2015. Accordingly, the price & GCV of lignite and secondary oil as adopted by the Commission (for indicative purpose) are as under:

Stage-I

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Price of Lignite (Rs. / Tonne)*	1610.00	1610.00	1610.00	1610.00	1610.00
GCV of Lignite (kCal/kg)	2,623.63	2,623.63	2,623.63	2,623.63	2,623.63
Price of Secondary fuel oil (Rs./kL)	51,683.70	51,683.70	51,683.70	51,683.70	51,683.70
GCV of secondary fuel oil (kCal/kg)	10,304.45	10,304.45	10,304.45	10,304.45	10,304.45

**Subject to revision of lignite transfer price as per direction given by the Commission vide order dated 20.3.2017 in Petition No. 149/MP/2015 (This rate is exclusive of clean energy cess w.e.f. 1.7.2010 @ Rs. 50/ Ton and excise duty on lignite and other taxes and duties).*

Stage-II

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Price of Lignite (Rs. / Tonne) *	1610.00	1610.00	1610.00	1610.00	1610.00
GCV of Lignite (kCal/kg)	2,623.63	2,623.63	2,623.63	2,623.63	2,623.63
Price of Secondary fuel oil (Rs./kL)	51,683.70	51,683.70	51,683.70	51,683.70	51,683.70
GCV of secondary fuel oil (kCal/kg)	10,304.45	10,304.45	10,304.45	10,304.45	10,304.45

**Subject to revision of lignite transfer price as per direction given by the Commission vide order dated 20.3.2017 in Petition No. 149/MP/2015 (This rate is exclusive of clean energy cess w.e.f. 1.7.2010 @ Rs. 50/ Ton and excise duty on lignite and other taxes and duties).*

82. It is observed that in the preceding three months i.e. January, 2014, February, 2014 and March, 2014, the Petitioner has used both the secondary oils, LDO and HFO. From the details submitted by the Petitioner, it is observed that major secondary oil used is HFO. Accordingly, in terms of Regulation 28(1)(a)(iii) of the 2014 Tariff Regulations, in case of use of more than one secondary fuel oil, cost of fuel oil stock for the main secondary oil is to be considered for allowing two months of secondary oil cost in the working capital. Accordingly, the cost of HFO has been considered in the working capital. Based on the weighted average GCV and price of fuels as considered, the cost for fuel components in working capitals and two months of Energy charge works out as under:

Stage-I



(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Lignite (45 days generation corresponding to NAPAF)	9016.75	9016.75	9016.75	9016.75	9016.75
Cost of secondary fuel oil (2 months generation corresponding to NAPAF)	713.08	715.03	713.08	713.08	713.08
Energy Charge for 2 months	12901.57	12936.92	12901.57	12901.57	12901.57

Stage-II

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of Lignite (45 days generation corresponding to NAPAF)	12022.34	12022.34	12022.34	12022.34	12022.34
Cost of secondary fuel oil (2 months generation corresponding to NAPAF)	950.77	953.38	950.77	950.77	950.77
Energy Charge for 2 months	17202.10	17249.23	17202.10	17202.10	17202.10

Working capital for Maintenance Spares

83. Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provides for maintenance spares @ 20% of the yearly O&M expenses. Accordingly, maintenance spares have been worked out and allowed as follows:

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Stage-I	3098.46	3290.92	3510.97	3700.27	3908.39
Stage-II	4131.27	4387.90	4681.29	4933.69	5211.19

Working capital for Receivables

84. Regulation 28(1)(a)(v) of the 2014 Tariff Regulations provides for Receivables for two months of capacity charges and energy charges for Sale of Electricity at NAPAF. Accordingly, the Receivable component for working capital is allowed as follows:

(Rs. in lakh)

Stage-I	2014-15	2015-16	2016-17	2017-18	2018-19
Energy Charges – For two months	12901.57	12936.92	12901.57	12901.57	12901.57
Fixed Charges - For two months	3412.37	3559.64	3753.54	3921.10	4105.65
Total	16313.94	16496.56	16655.12	16822.68	17007.22

(Rs. in lakh)



Stage-II	2014-15	2015-16	2016-17	2017-18	2018-19
Energy Charges – For two months	17202.10	17249.23	17202.10	17202.10	17202.10
Fixed Charges - For two months	5216.44	5299.17	5524.17	5714.09	5923.44
Total	22418.54	22548.40	22726.27	22916.19	23125.54

Working capital for O & M expenses

85. Regulation 28(1)(a)(vi) of the 2014 Tariff Regulations provides for O&M Expenses for one month. Accordingly, the O&M expenses for working capital is allowed as follows:

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Stage-I	1291.02	1371.22	1462.90	1541.78	1628.50
Stage-II	1721.36	1828.29	1950.54	2055.71	2171.33

Rate of interest on working capital

86. In terms of clause (3) of Regulation 28 of the 2014 Tariff Regulations, the bank rate of 13.50% as on 1.4.2014, has been considered. Accordingly, interest on working capital has been allowed as follows:

Working Capital for Stage-I

	<i>(Rs. in lakh)</i>				
	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for Cost of Lignite towards Stock (15 days for pit head generating station corresponding to generation at NAPAF)	3005.58	3005.58	3005.58	3005.58	3005.58
Working Capital for Cost of Lignite towards Generation (30 days corresponding to generation at NAPAF)	6011.17	6011.17	6011.17	6011.17	6011.17
Working Capital for Cost of Secondary fuel oil (2 months corresponding to generation at NAPAF)	713.08	715.03	713.08	713.08	713.08
Working capital for Maintenance Spares 20% of annual O&M Expenses)	3098.46	3290.92	3510.97	3700.27	3908.39
Working capital for Receivables-2 months of capacity charges and energy charges)	16313.94	16496.56	16655.12	16822.68	17007.22
Working capital for O & M expenses (1 month of O&M expenses)	1291.02	1371.22	1462.90	1541.78	1628.50
Total Working Capital	30433.26	30890.49	31358.82	31794.56	32273.94
Rate of Interest	13.500%	13.500%	13.500%	13.500%	13.500%
Interest on Working capital	4108.49	4170.22	4233.44	4292.27	4356.98



Working Capital for Stage-II

(Rs. in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Working Capital for cost of Lignite towards Stock (15 days for pit head generating station corresponding to generation at NAPAF)	4007.45	4007.45	4007.45	4007.45	4007.45
Working Capital for cost of Lignite towards Generation (30 days corresponding to generation at NAPAF)	8014.89	8014.89	8014.89	8014.89	8014.89
Working Capital for cost of Secondary fuel oil (2 months corresponding to generation at NAPAF)	950.77	953.38	950.77	950.77	950.77
Working capital for Maintenance Spares @ 20% of the annual O&M expenses)	4131.27	4387.90	4681.29	4933.69	5211.19
Working capital for Receivables- (2 months of capacity charges and energy charges)	22418.54	22548.40	22726.27	22916.19	23125.54
Working capital for O & M expenses (1 month of O&M expenses)	1721.36	1828.29	1950.54	2055.71	2171.33
Total Working Capital	41244.29	41740.31	42331.21	42878.69	43481.16
Rate of Interest	13.500%	13.500%	13.500%	13.500%	13.500%
Interest on Working capital	5567.98	5634.94	5714.71	5788.62	5869.96

Compensation Allowance

87. Regulation 17 of the 2014 Tariff Regulations provides as under:

“17. Compensation Allowance: (1) In case of coal-based or lignite-fired thermal generating station or a unit thereof a separate compensation allowance shall be admissible to meet expenses on new assets of capital nature which are not admissible under Regulation 14 of these regulations and in such an event revision of the capital cost shall not be allowed on account of compensation allowance but the compensation allowance shall be allowed to be recovered separately.

(2) The Compensation Allowance shall be allowed in the following manner from the year following the year of completion of 10, 15, or 20 years of the useful life.

Years of operation	Compensation Allowance (Rs. lakh/MW/year)
0-10	Nil
11-15	0.20
16-20	0.50
21-25	1.00

88. The Stage-I units of the generating station has already completed useful life of 25 years during the period 2009-14. The Commission vide its order dated 8.3.2017 in



Petition No. 256/GT/2014 had allowed Compensation allowance of Rs.3255.00 lakh in 2014-19 for the Stage-II units of the generating station. The date of commissioning of Unit Nos. I, II, III and IV of Stage-II of the generating station is 25.1.1992, 2.6.1992, 17.3.1993 and 9.4.1994 respectively. Accordingly, in terms of the above Regulations, the compensation allowance is worked out and allowed as under:

S. No.		Unit-I	Unit-II	Unit-III	Unit-IV
1.	Capacity in MW	210	210	210	210
2.	COD	25.1.1992	2.6.1992	17.3.1993	9.4.1994
	Useful life as on 1.4.2014	22.18	21.83	21.04	19.98
3.	Actual useful life				
	a) 10 years	25.1.2002	2.6.2002	17.3.2003	9.4.2004
	a) 15 years	25.1.2007	2.6.2007	17.3.2008	9.4.2009
	a) 20 years	25.1.2012	2.6.2012	17.3.2013	9.4.2014
	a) 25 years	25.1.2017	2.6.2017	17.3.2018	9.4.2019
		(Rs. in lakh)			
	2014-15	210.00	210.00	210.00	105.00
	2015-16	210.00	210.00	210.00	210.00
	2016-17	210.00	210.00	210.00	210.00
	2017-18	0.00	210.00	210.00	210.00
	2018-19	0.00	0.00	0.00	210.00
	Total	630.00	840.00	840.00	945.00

Special Allowance

89. Regulation 16(2) of the 2014 Tariff Regulations provides as under:

“(2) The Special Allowance shall be @ `7.5 lakh/MW/year for the year 2014-15 and thereafter escalated @ 6.35% every year during the tariff period 2014-15 to 2018-19, unit-wise from the next financial year from the respective date of the completion of useful life with reference to the date of commercial operation of the respective unit of generating station:

Provided that in respect of a unit in commercial operation for more than 25 years as on 1.4.2014, this allowance shall be admissible from the year 2014-15:

Provided further that the special allowance for the generating stations, which, in its discretion, has already availed of a “special allowance” in accordance with the norms specified in clause (4) of regulations 10 of Central Electricity Regulatory Commission (Terms and Conditions of Tariff Determination) Regulations, 2009, shall be allowed Special Allowance by escalating the special allowance allowed for the year 2013-14 @ 6.35% every year during the tariff period 2014-15 to 2018-19.

90. The Petitioner has claimed Special Allowance for Stages-I and II of the generating station as under:



	(Rs. in lakh)				
	2014-15	2015-16	2016-17	2017-18	2018-19
Stage-I	4365	4642	4937	5250	5584
Stage-II	-	-	-	1894	6044

91. In this regard, the Commission in its order dated 8.3.2017 in Petition No. 256/GT/2014 had observed as under:

“32. It is however observed that the petitioner has not filed any application for R&M for extension of useful life of the generating station. It is also observed that Unit-III of Stage-I of the generating station was declared under commercial operation with effect from 23.4.1988 and hence the unit has completed the useful life of 25 years on 23.4.2013. Also Units-I,II and III of Stage-II of the generating station was declared under commercial operation on 25.1.1992, 2.6.1992 and 17.3.1993 and hence these units would complete their useful life of 25 years on 25.1.2017, 2.6.2017 and 17.3.2018 respectively. Hence, the Special allowance admissible to Units-I and II of Stage-I of the generating station (since 2012-13 and 2013-14) shall be allowed by escalating the Special Allowance allowed for the year 2013-14 @ 6.35% every year during the period 2014-15 to 2018-19 and the Special allowance admissible for Unit-III of Stage-I would be @ `7.5 lakh/MW/year for the year 2014-15 and thereafter escalated @ 6.35% every year during the period 2014-15 to 2018-19. Based on the above, Special Allowance allowed for Stage-I and Stage-II of the generating station is as under: -

Special Allowance	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Stage-I						
Rate per MW	6.642569	7.064372	7.512959	7.990032	8.497399	
Unit- I	1394.94	1483.52	1577.72	1677.91	1784.45	7918.54
Unit- II	1394.94	1483.52	1577.72	1677.91	1784.45	7918.54
Rate per MW	7.5	7.976250	8.482741	9.021395	9.594253	
Unit- III	1575.00	1675.01	1781.38	1894.49	2014.79	8940.67
Total Special Allowance for Unit-I, Unit-II and Unit-III of Stage-I						24777.75
Stage-II						
Rate per MW	7.5	7.976250	8.482741	9.021395	9.594253	
Unit- I	0.00	0.00	0.00	1894.49	2014.79	3909.28
Unit- II	0.00	0.00	0.00	0.00	2014.79	2014.79
Unit- III	0.00	0.00	0.00	0.00	2014.79	2014.79
Total Special Allowance for Unit-I, Unit-II and Unit-III of Stage-II						7938.86

92. Considering the above, the Petitioner is allowed total amount of Rs. 32716.61 lakh (i.e Rs. 24777.75 lakh for Stage-I and Rs. 7938.86 lakh for Stage-II) during the period 2014-19 as Special allowance for the generating station.

Annual Fixed Charges

93. Based on the above discussion, the annual fixed charges approved for the generating station for the period 2014-19 are summarised as follows:



(Rs. in lakh)

Stage-I	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	873.45	732.99	732.99	732.99	734.96
Interest on Working Capital	4108.49	4170.22	4233.44	4292.27	4356.98
O&M Expenses	15492.28	16454.62	17554.84	18501.35	19541.94
Total annual fixed charges approved	20474.22	21357.83	22521.27	23526.60	24633.88
Special Allowance	4364.88	4642.05	4936.82	5250.31	5583.69
Total	24839.10	25999.88	27458.09	28776.91	30217.57

(Rs. in lakh)

Stage-II	2014-15	2015-16	2016-17	2017-18	2018-19
Depreciation	1086.28	1087.21	1098.40	1113.30	1113.30
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	3988.03	3133.38	2925.45	2714.13	2501.46
Interest on Working Capital	5567.98	5634.94	5714.71	5788.62	5869.96
O&M Expenses	20656.37	21939.50	23406.45	24668.46	26055.93
Total annual fixed charges approved	31298.66	31795.03	33145.01	34284.51	35540.64
Compensation Allowance	735.00	840.00	840.00	630.00	210.00
Special Allowance	-	-	-	1894.49	6044.37
Total	32033.66	32635.03	33985.01	36809.00	41795.01

Note: All figures are on annualized basis. 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.

94. The difference between the annual fixed charges recovered by the Petitioner in terms of the order dated 8.3.2017 in Petition No. 256/GT/2014 read with corrigendum dated 12.6.2017, and the annual fixed charges determined by this order, as above, shall be adjusted in terms of the provisions of Regulation 8(13) of the 2014 Tariff Regulations.

95. Petition No. 368/GT/2020 is disposed of in terms of the above.

Sd/-
(Pravas Kumar Singh)
Member

Sd/-
(Arun Goyal)
Member

Sd/-
(I.S. Jha)
Member

