CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 256/GT/2014

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

Date of Order: **8th March, 2017**

In the matter of

Approval of tariff of NLC Thermal Power Station- II Stage- I (630MW) and Stage-II (840MW) for the period 2014-19.

And

In the matter of

Neyveli Lignite Corporation Limited
Neyveli House, 135, EVR Periyar Road,
Kilpauk, Chennai – 600010 …….**Petitioner**

Vs

1. Tamil Nadu Generation and Distribution Company Ltd
800, Anna Salai
Chennai – 600002

2. Power Company of Karnataka Ltd.
KPTCL Building, KaveriBhavan, K.G.Road,
Bangalore – 560009

3. Bangalore Electricity Supply Company Ltd.
KR Circle, Bangalore – 560001

4. Mangalore Electricity Supply Company Ltd.
Paradigm Plaza, AB Shetty Circle,
Mangalore-575001

5. Gulbarga Electricity Supply Company Ltd.
Station Main Road, Gulbarga-585102

6. Hubli Electricity Supply Company Ltd.
Corporate Office, Navanagar,
PB Road, Hubli-580025

7. Chamundeshwari Electricity Supply Corporation Ltd.
Corporate Office, No.927, LJ Avenue, New KantarajaUrs Road,
Saraswathipuram, Mysore-570009

8. Kerala State Electricity Board Ltd.
Vaidyuthi Bavanam, Pattom
Thiruvananthapuram-695004

9. Puducherry Electricity Department
137, NSC Bose Salai,
Puducherry – 605001

10. Transmission Corporation of Andhra Pradesh
Vidyut Soudha, Khairatabad
Hyderabad- 500082

11. Transmission Corporation of Telangana
Vidyut Soudha, Khairatabad
Hyderabad- 500082 ……..**Respondents**

Parties present:

Ms. Anushree Bardhan, Advocate, NLC
Ms. Poorva Saigal, Advocate, NLC
Shri. J Dhanasekaran, NLC
Shri S Vallinayagam, Advocate, TANGEDCO
Shri R.Jayaprakash, TANGEDCO

ORDER

This petition has been filed by the petitioner, Neyveli Lignite Corporation (NLC) for approval of annual fixed charges and energy charges for the period 2014-19for NLC TPS-II, Stage-I (630 MW) and Stage-II (840 MW) (hereinafter referred to as “the generating station”) based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, (hereinafter “the 2014 Regulations”).

2. The generating station with a total 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 order dated 27.6.2011 in Petition No. 231/2009 had determined the tariff of the generating station for the period 1.4.2009 to 31.3.2014. Aggrieved by the said order, the petitioner had filed Review Petition No. 17/RP/2011 on the ground of error apparent on the face of the order on certain issues. The Commission vide order dated 25.6.2013 disposed of the said review petition and revised the annual fixed charges of the generating station for the periods 2007-09 and 2009-14. Thereafter, the petitioner filed Petition No. 473/GT/2014 for revision of tariff of the generating station for the period from 1.4.2009 to 31.3.2014 based on the truing- up exercise and the Commission vide order dated 10.2.2017 revised the annual fixed charges for Stages- I and II of the generating station as under:

Stage-I

(₹ In lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	2771.54	2423.91	2086.55	1733.46	1221.48
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	1362.01	1362.71	1370.20	1122.46	0.00
Interest on Working Capital	2517.50	2547.14	2584.13	2631.23	2666.75
O&M Expenses	11466.00	12121.20	12814.20	13551.30	14326.20
Cost of secondary fuel oil	1514.91	1514.91	1519.06	1514.91	1514.91
Separate compensation allowance	409.50	409.50	409.50	273.00	136.50
Special allowance in lieu of R&M	0.00	0.00	0.00	1240.68	2623.30
Total	**20041.46**	**20379.37**	**20783.64**	**22067.05**	**22489.13**

Stage-II

(₹ In lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	6033.96	5590.40	5079.31	4614.07	4310.90
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Depreciation	1404.93	1383.30	1316.17	1218.76	1132.83
Interest on Working Capital	3390.71	3431.05	3477.49	3515.89	3568.55
O&M Expenses	15288.00	16161.60	17085.60	18068.40	19101.60
Cost of secondary fuel oil	2019.88	2019.88	2025.41	2019.88	2019.88
Separate compensation allowance	252.00	294.00	294.00	357.00	483.00
Total	**28389.49**	**28880.24**	**29277.98**	**29794.00**	**30616.76**

4. In response to the directions of the Commission, the petitioner has submitted the additional information and has served copies on the respondents. The respondents, TANGEDCO and KSEB have filed their replies and the petitioner has filed its rejoinder to the said replies. The matter was heard on 5.1.2016 and the Commission after directing the petitioner to file certain additional information reserved its orders. Based on the submissions

of the parties and the documents available on record, we proceed to determine the tariff of the generating station for the period 2014-19 as stated in the subsequent paragraphs.

Opening Capital Cost as on 1.4.2014

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

> *"9(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;*

6. Clause 2 of Regulation 48 of the 2014 Tariff Regulations provides as under:

> *"The tariff of the existing generating stations of Neyveli Lignite Corporation Ltd, namely, TPS-I and TPS-II (Stage I & II) and TPS-I (Expansion) and Badarpur TPS of NTPC Ltd., whose tariff for the tariff periods 2004-09 and 2009-14 has been determined by following the Net Fixed Assets approach, shall continue to be determined by adopting Net Fixed Assets approach"*

7. The petitioner had claimed the opening capital cost of ₹63085.69 lakh for Stage-I and ₹121612.01 lakh for Stage-II as on 1.4.2014 based on the Net Fixed Asset (NFA) methodology adopted for determination of tariff for the generating station for 2014-19. The Commission in order dated 10.2.2017 in Petition No. 473/GT/2014 had admitted the capital cost of ₹32023.21 lakh for Stage-I and ₹118778.71 lakh for Stage-II as on 31.3.2014.Accordingly, the closing capital cost of ₹32023.21 lakh for Stage-I and ₹118778.71 lakh for Stage-II as on 31.3.2014 has been considered as the opening capital cost as on 1.4.2014.

Projected Additional Capital Expenditure

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

> *"14.(3) The capital expenditure, in respect of existing generating station or the transmission system including communication system, incurred or projected to be incurred on the following counts after the cut-off date, may be admitted by the Commission, subject to prudence check:*
>
> *(i) Liabilities to meet award of arbitration or for compliance of the order or decree of a court of law;*
>
> *(ii) Change in law or compliance of any existing law;*

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

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

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

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

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

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

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

(x) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receiving system arising due to non-materialization of coal supply corresponding to full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station:

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

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

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

9. The projected capital additions claimed by the petitioner for the period 2014-19 is as under:

(₹ In lakh)

STAGE-I						
	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Total**
Common Asset Addition	240.00	240.00	240.00	240.00	240.00	1200.00
STAGE-II						
	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Total**
Direct Asset Addition	1600.00	1700.00	890.00	0.00	0.00	4190.00
Common Asset Addition	320.00	320.00	320.00	320.00	320.00	1600.00
Total Additional capital expenditure	**1920.00**	**2020.00**	**1210.00**	**320.00**	**320.00**	**5790.00**

10. The petitioner has not claimed any projected additional capital expenditure on direct assets in respect of Stage-I. However, the projected additional capital expenditure claimed on direct assets in respect of Stage-II of the generating station for the period 2014-17 is as under:

(₹ In lakh)

Sl. No			**Amount**
1.	Distributed Control System for Stage-II including Consultancy Services	2014-15	1600.00
2.	-do-	2015-16	1700.00
3.	-do-	2016-17	890.00

11. We now examine the claim of the petitioner based on the submissions and documents available on record in the subsequent paragraphs.

Proposed Direct Asset additions

12. The petitioner has claimed the projected additional expenditure on direct assets for Stage-II of the generating station as under:

(₹ In lakh)

2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
1600.00	1700.00	890.00	0.00	0.00

13. The petitioner vide affidavit dated 13.8.2014 has submitted the reasons for the proposed capital additions for the period 2014-19 in respect of Stages- I and II of the generating stations. However, vide ROP of the hearing dated 5.1.2016, the petitioner was directed to submit amongst others, the detailed justification for each direct assets along with

the relevant clauses of the 2014 Tariff Regulations under which the said expenditure has been claimed. In response, the petitioner vide affidavit dated 6.2.2016 has submitted the additional information along with the detailed justification for the expenditure claimed on these assets. However, the petitioner has not indicated the relevant regulations under which the said claims have been made for capitalization of the assets.

14. The petitioner has claimed additional capital expenditure of ₹1600.00 lakh in 2014-15, ₹1700.00 lakh in 2015-16 and ₹890.00 lakh in 2016-17 towards Distributed Control System (DCS) for Stage-II of the generating station including the Consultancy services. In justification of the same, the petitioner has submitted that the C&I system of Stage-II was erected during the period from 1984 to 1993 and the C&I systems are no more manufactured by the respective manufacturers due to obsolescence of technology used in them. It has further submitted that the cost of some of the spares, whenever procured ,are exorbitantly high as they are not in manufacturer's current product list and have to be tailor made for specific requirements. It has also submitted that there are various other constraints in the existing system such as non-availability of data for MIS, incompatibility to ABT software, non- availability of unit coordinated master control in Stage-I, no provision for Free Governor mode, etc. due to which the maintenance of existing C&I systems have become difficult. Accordingly, the petitioner has prayed that the expenditure is necessary for revamping the C&I system and for installation of DCS for all units of the generating station.

15. The respondent, KSEB vide affidavit dated 13.7.2015 has submitted that Stage-I of the generating has completed normal useful life of 25 years and that the said expenditure for a fully depreciated plant is not economical and beneficial. It has further submitted that the petitioner could meet such expenditure under Special allowance granted to the generating station and hence the prayer of the petitioner may be rejected. The respondent, TANGEDCO has submitted that the petitioner has neither submitted proper justification nor furnished the relevant provisions of the regulations under which the claim has been made and in absence of the same, the prayer of the petitioner may be negated.

16. We have examined the matter. It is observed that the total additional expenditure of ₹ 4190.00 lakh claimed by the petitioner includes expenditure towards DCS for units of Stage-II including Consultancy services. As stated, the petitioner has claimed the expenditure towards replacement of existing C&I system with the latest state of the art technology (DCS system) for all the units of the generating station, but has not furnished the relevant provisions of the regulations under which the said claims have been made.

17. In this connection, Regulation 15 of the 2014 Tariff Regulations provides as under:

> *15. Renovation and Modernisation: (1) The generating company or the transmission licensee, as the case may be, for meeting the expenditure on renovation and modernization (R&M) for the purpose of extension of life beyond the originally recognised useful life for the purpose of tariff of the generating station or a unit thereof or the transmission system or an element thereof, shall make an application before the Commission for approval of the proposal with a Detailed Project Report giving complete scope, justification, cost-benefit analysis, estimated life extension from a reference date, financial package, phasing of expenditure, schedule of completion, reference price level, estimated completion cost including foreign exchange component, if any, and any other information considered to be relevant by the generating company or the transmission licensee.*
>
> *(2) Where the generating company or the transmission licensee, as the case may be, makes an application for approval of its proposal for renovation and modernisation, the approval shall be granted after due consideration of reasonableness of the cost estimates, financing plan, schedule of completion, interest during construction, use of efficient technology, cost-benefit analysis, and such other factors as may be considered relevant by the Commission*
>
> *(3) In case of gas/ liquid fuel based open/ combined cycle thermal generating station, any expenditure which has become necessary for renovation of gas turbines/steam turbine after 25 years of operation from its COD and an expenditure necessary due to obsolesce or non-availability of spares for efficient operation of the stations shall be allowed :*
> *Provided that any expenditure included in the R&M on consumables and cost of components and spares which is generally covered in the O&M expenses during the major overhaul of gas turbine shall be suitably deducted after due prudence from the R&M expenditure to be allowed.*
>
> *4) Any expenditure incurred or projected to be incurred and admitted by the Commission after prudence check based on the estimates of renovation and modernization expenditure and life extension, and after deducting the accumulated depreciation already recovered from the original project cost, shall form the basis for determination of tariff.*

18. Regulation 16 of the 2014 Tariff Regulations provides as under:

> *16. Special Allowance for Coal-based/Lignite fired Thermal Generating station: (1) In case of coal-based/lignite fired thermal generating station, the generating company, instead of availing R&M may opt to avail a „special allowance" in accordance with the norms specified in this regulation, as compensation for meeting the requirement of expenses including renovation and modernisation beyond the useful life of the generating station or a unit thereof, and in such an event, revision of the capital cost shall not be allowed and the applicable operational norms shall not be relaxed but the special allowance shall be included in the annual fixed cost: Provided that such option shall not be available for a generating station or unit for which renovation and modernization has been undertaken and the expenditure has been admitted by the Commission before commencement of these regulations, or for a generating station or unit which is in a depleted condition or operating under relaxed operational and performance norms;*

(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.

(3) In the event of granting special allowance by the Commission, the expenditure incurred or utilized from special allowance shall be maintained separately by the generating station and details of same shall be made available to the Commission as and when directed to furnish details of such expenditure.

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 ₹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.

Proposed Common Asset additions

20. The petitioner has claimed projected additional capital expenditure on Common assets for Stages-I and II of the generating station as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Stage-I	240.00	240.00	240.00	240.00	240.00
Stage-II	320.00	320.00	320.00	320.00	320.00

21. In justification of the said claim, the petitioner has submitted that it is an Integrated Industrial complex with several mines and complex and a well laid township for the employees and a hospital with sophisticated medical facilities are available. It has further stated that these facilities are to be maintained as employee welfare measure in order to maintain cordial industrial relationship within the campus so as to achieve better productivity. The petitioner has also submitted that the expenses incurred for Common Asset addition pertaining to these and other allied activities which are apportioned have been allocated among the units of NLC. It has further stated that these assets are required for sustained power generation.

22. The respondent, KSEB has submitted that the Commission in order dated 25.6.2013 had observed that the Common assets of minor nature are required to be accounted under Corporate expenses and normative O & M expenses allowed to the generating station and hence the claim of the petitioner for additional capital expenditure for Common assets may be rejected.

23. The matter has been examined. It is observed that similar claim of the petitioner for Common Assets was considered in Petition No. 231/2009 and the Commission vide order dated 27.6.2011 had disallowed the claim of the petitioner for the period 2009-14 and had observed as under:

> *"The petitioner has submitted that it is an integrated utility, consisting of production units of mines and power stations and in order to augment the production units, the service units like the centralized material management, services, township administration, corporate office, hospital and regional offices are functioning and the asset additions are apportioned to the service units. As already discussed in para 15 above, the cost of common assets have been reimbursed through O&M cost norms in tariff. In view of this, the total expenditure claimed for the period 2009-14 under common assets is not allowed to be capitalized."*

23. It is noticed that the petitioner has not furnished any details of the Common assets claimed for Stage-I and II of the generating station for the period 2014-19. Accordingly, in line with the above decision and non- submission of any details/ information, we are not

inclined to allow the capitalization of expenditure claimed towards the Common Assets. We direct accordingly.

24. Based on the above discussions, the capital cost allowed for the purpose of tariff for 2014-19 is as under:

Stage-I

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	32023.21	32023.21	32023.21	32023.21	32023.21
Admitted additional capital expenditure	0.00	0.00	0.00	0.00	0.00
Capital Cost as on 31st March of the year	32023.21	32023.21	32023.21	32023.21	32023.21

Stage-II

(₹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
Admitted additional capital expenditure	0.00	0.00	0.00	0.00	0.00
Capital Cost as on 31st March of the year	118778.71	118778.71	118778.71	118778.71	118778.71

Compensation Allowance

25. The petitioner has not claimed Compensation Allowance for Stage- I of the generating station as the units of Stage-I have completed 25 years of useful life. However, the petitioner has claimed Compensation allowance for all units of Stage-II for the period 2014-19 as under:

(₹in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19	Total
735.00	840.00	840.00	630.00	210.00	3255.00

26. Regulation 17(1) of the 2014 Tariff Regulations provides for grant of Compensation Allowance to the generating units/ stations which are under commercial operation for more than 10 years from the COD(s) in order to meet expenses on new assets of capital nature, which are not admissible under Regulation 14 as under:

"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.

(1) 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 useful life:

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

27. The date of commissioning of Units- 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. Since all the units of Stage-II have completed 20 years of operation; they are eligible for compensation allowance. Accordingly, in terms of the above regulations, the Compensation allowance is worked out and allowed as under:

(₹.in lakh)

Sl. 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
	b) 15 years	25.1.2007	2.6.2007	17.3.2008	9.4.2009
	c) 20 years	25.1.2012	2.6.2012	17.3.2013	9.4.2014
	d) 25 years	25.1.2017	2.6.2017	17.3.2018	9.4.2019
	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

28. Regulation 16 of the 2014 Tariff Regulations provides for Special Allowance as under:

"*(1) In case of coal-based/lignite fired thermal generating station, the generating company, instead of availing R&M may opt to avail a „special allowance" in accordance with the norms specified in this regulation, as compensation for meeting the requirement of expenses including renovation and modernization beyond the useful life of the generating station or a unit thereof, and in such an event, revision of the capital cost shall not be allowed and the applicable operational norms shall not be relaxed but the special allowance shall be included in the annual fixed cost:*

Provided that such option shall not be available for a generating station or unit for which renovation and modernization has been undertaken and the expenditure has been admitted by the Commission before commencement of these regulations, or for a *generating station or unit which is in a depleted condition or operating under relaxed operational and performance norms.*

(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 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.

(3) In the event of granting special allowance by the Commission, the expenditure incurred or utilized from special allowance shall be maintained separately by the generating station and details of same shall be made available to the Commission as and when directed to furnish details of such expenditure.

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

(₹in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Total**
Stage-I	4364.88	4642.05	4936.82	5250.31	5583.70	24777.76
Stage-II	0.00	0.00	0.00	1894.41	6044.22	7938.63

30. The petitioner has submitted that it had claimed Special Allowance in 2013-14 in terms of the clause (4) of Regulation 10 of the 2009 Tariff Regulations in order to meet the expenditure on R&M for the purpose of extension of life beyond the useful life of the plant. It has also submitted that the Special allowance has been availed for Stage-I by escalating @6.35% every year for the period 2014-19. In respect of Stage-II units, the amount of ₹7.50 lakh/annum for 2014-15 has been escalated @6.35% in terms of Regulation 16(2) of the 2014 Tariff Regulations.

31. As stated, Units-I and II of Stage–I of the generating station was declared under commercial operation on 29.9.1986 and 8.5.1987 respectively and hence the useful life of 25 years was completed on 29.09.2011 and 8.5.2012 respectively. Accordingly, the Commission vide order dated 27.6.2011 in Petition No 231/2009 had allowed Special Allowance of ₹1240.68 lakh in 2012-13 for Unit-I and₹2623.30 lakh in 2013-14 for Unit-II of Stage-I of the generating station. The relevant portion of the order is extracted as under:

"69. The petitioner has sought permission to make an application for R&M for extension of the useful life of the generating stations in accordance with Regulation 10 of the 2009 regulations and withdrawal of the special allowance which has been allowed in this order. The petitioner is at liberty to approach the Commission as prayed for, which would be considered in accordance with law."

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:-

(₹in lakh)

	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**

33. The petitioner has been granted a total amount of ₹32716.61 lakh (i.e₹24777.75 lakh for Stage-I and ₹7938.86 lakh for Stage-II) during the period 2014-19 and a total amount of₹3863.98 lakh during the period 2009-14 as Special allowance for the generating station. Accordingly, the petitioner is directed to maintain separately the details of expenditure

incurred or utilized from Special allowance for the periods 2009-14 and 2014-19 and shall make the details available to the Commission at the time of truing- up of tariff of the generating station. The petitioner shall also furnish the plan of action for utilization balance amount of Special allowance recovered/ expected to be recovered at the time of truing- up of tariff of the generating station.

Return on Equity

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

> *"24. Return on Equity**:** (1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 19.*
>
> *(2) Return on equity shall be computed at the base rate of 15.50% for thermal generating stations, transmission system including communication system and run of the river hydro generating station, and at the base rate of 16.50% for the storage type hydro generating stations including pumped storage hydro generating stations and run of river generating station with pondage:*
>
> *Provided that:*
>
> *i) in case of projects commissioned on or after 1st April, 2014, an additional return of 0.50 % shall be allowed, if such projects are completed within the timeline specified in Appendix-I:*
>
> *ii) the additional return of 0.5% shall not be admissible if the project is not completed within the timeline specified above for reasons whatsoever:*
>
> *iii) additional RoE of 0.50% has been allowed if any element of the transmission project is completed within the specified timeline and it is certified by the Regional Power Committee/National Power Committee that commissioning of the particular element will benefit the system operation in the regional/national grid:*
>
> *iv) the rate of return of a new project shall be reduced by 1% for such period as may be decided by the Commission, if the generating station or transmission system is found to be declared under commercial operation without commissioning of any of the Restricted Governor Mode Operation (RGMO)/ Free Governor Mode Operation (FGMO), data telemetry, communication system up to load dispatch centre or protection system:*
>
> *v) as and when any of the above requirements are found lacking in a generating station based on the report submitted by the respective RLDC, RoE shall be reduced by 1% for the period for which the deficiency continues:*
>
> *vi) additional RoE shall not be admissible for transmission line having length of less than 50 kilometers.*

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

> *"Tax on Return on Equity:(1) The base rate of return on equity as allowed by the Commission under Regulation 24 shall be grossed up with the effective tax rate of the respective financial year. For this purpose, the effective tax rate shall be considered on the basis of actual tax paid in the respect of the financial year in line with the provisions of the relevant Finance Acts by the concerned generating company or the transmission licensee, as the case may be. The actual tax income on other income stream (i.e.,*

income of non-generation or non-transmission business, as the case may be) shall not be considered for the calculation of "effective tax rate".

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

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

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

36. Though the provisions of above regulations specify the computation of effective Tax rate on the basis of tax paid, we deem it proper to allow grossing up on MAT rate considering the fact that this petition is disposed of in the year 2016-17. Accordingly, the effective tax rate (MAT) of 20.961% has been considered for year 2014-15 and 21.342% for the year 2015-16 onwards up to the year 2018-19 for the purpose of grossing up of base rate of 15.5%. Based on the above, the rate of ROE works out to 19.610% for 2014-15 and 19.705% for 2015-16 and onwards. This is subject to truing up in terms of Regulation 8 of the 2014 Tariff Regulations. Accordingly, Return on Equity has been worked out as under:

Stage-I

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Average Equity	3720.00	3720.00	3720.00	3720.00	3720.00
Rate of ROE (pre-tax)	19.610%	19.705%	19.705%	19.705%	19.705%
Return on Equity	**729.49**	**733.03**	**733.03**	**733.03**	**733.03**

Stage-II

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Average Equity	17040.00	16065.00	15091.00	14116.00	13142.00
Rate of ROE (pre-tax)	19.610%	19.705%	19.705%	19.705%	19.705%
Return on Equity	**3341.54**	**3165.61**	**2973.68**	**2781.56**	**2589.63**

Interest on Loan

37. The normative 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

38. 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 and the additional capital expenditure allowed for the period 2014- 19 is "nil", the remaining depreciable value and depreciation for the period 2014-19 is "nil" for Stage-I. The balance depreciable value has been spread over the useful life of Stage-II of the generating station.

O&M Expenses

39. Regulation 29(1) (a) of the 2014 Tariff Regulations provides the following O&M expense norms for lignite fired generating stations as under:

(₹in lakh)

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

40. O & M expenses (annualized) claimed by the petitioner for this generating station is as under:

Stage-I

(₹in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
15057.00	16002.00	17010.00	18081.00	19221.30

Stage-II

(₹in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
20076.00	21336.00	22680.00	24108.00	25628.40

41. The O & M expenses claimed by the petitioner as above is in accordance with the norms and is therefore allowed.

Water Charges

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

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

43. In terms of the above regulation, water charges are to be allowed based on water consumption depending upon type of plant, type of cooling water system etc., subject to prudence check of the details furnished by the petitioner. The petitioner has claimed water charges (inclusive of water cess)in respect of Stages-I and II of the generating station for the period 2014-19 as under:

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19	Total
Stage-I	107.50	107.50	107.50	107.50	107.50	537.49
Stage-II	143.33	143.33	143.33	143.33	143.33	716.66

44. The respondents, TANGEDCO and KSEB have submitted that the petitioner has not submitted any details towards payment of water charges and hence may not be allowed.

45. The petitioner in compliance with the directions of the Commission vide ROP of the hearing dated 5.1.2016 has submitted vide affidavit dated 6.2.2016 the additional information as under:

	Remarks
Type of Plant	Coal/lignite
Type of cooling water system	Natural draft cooling tower
Contracted Quantum of water	Not applicable as water required are sourced from Mines and in house bore wells
Consumption of water during 2013-14	61310468 KL
Rate of water charges during 2013-14	₹0.5265 /KL
Total water charges in 2013-14	₹32282240

46. The petitioner has submitted that the contracted quantum of water is not applicable as the water required are sourced from Mines and in-house bore wells which includes 70% of

water pumped from mines with a pumping charges of ₹0.376/ KL. The petitioner has further submitted that all the turbines are condensing type with closed cycle cooling water system having Natural draft cooling tower. However, the petitioner has not submitted the cumulative actual water consumption and rate of water charges for Stages- I and II of the generating station. It is however noticed that the cumulative actual water consumption and the rate of water charges in respect of the generating station during the previous 5 years i.e 2009-14 are as under:

	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Actual Water Consumption(KL)	61391151	61207350	63280340	63927699	61310468
Total Water Charges (₹)	32604098	33150281	29877661	31956288	32282240
Rate of Water Charges (₹/KL)	0.5311	0.5416	0.4721	0.4999	0.5265

47. As stated, the petitioner has submitted that the contracted quantum of water is not applicable as the water required are sourced from Mines and in-house bore wells. In other words, the petitioner appears not to be paying any water charges based on any Water Agreement with the State Govt agency. However, it is observed the claim of the petitioner is on the basis of pumping charges, Water cess and Consent fee paid to the statutory body on the quantum of water the plant has consumed. It is observed that the petitioner is paying Pumping charges @ ₹0.376/ KL. Also the water cess paid is ₹22995.00 for the year 2014-15 and annual water consent fee of ₹143880.00 for the year 2014-15 in respect of the generating station. The water cess and water consent fees paid are in respect of Stages-I & II of the generating station.

48. It is observed from the submissions of the petitioner and the documents available on record that the petitioner has been paying Pumping charges at ₹0.376/KL, water cess at ₹22995.00 and water consent fee of ₹143880.00 in respect of the generating station for the year 2014-15. The petitioner had also submitted the cumulative actual water consumption and rate of water charges of the Stages-I &II of the generating station during the last 5 years (2009-14). It is further noticed that the average of actual water consumption for Stages-I &II during the last 5 years is 62.88 million KL per annum and the average of actual water consumption in case of TPS-I (Expansion) (2x210 MW) of the petitioner is 13.16 million KL

per annum. On a comparison of per unit actual water consumption for last 5 years of in respect of both the generating stations as above, it is noticed that the actual water consumption of this generating station is higher than that of TPS-I(Expansion). It appears that water consumption varies depending upon the availability of the plant and considering the seven smaller size units of 210 MW each in the present case, the water consumption may increase. The petitioner has however not submitted any justification for the increase in the water consumption. Accordingly, we direct the petitioner to submit the justification of variation of per unit water consumption for stages-I and II of the generating station as against TPS-I (Expansion) of the petitioner, at the time of truing- up of tariff in terms of Regulation8 of the 2014 Tariff Regulations.

49. The water charges for the period 2014-19 is allowed based on actual water consumption of 61310468 KL for the year 2013-14. Accordingly, the projected water charges for the Stages-I and II is worked out considering the following:-

(a) Rate of pumping charges @₹ 0.376/KL.
(b) Water cess of ₹ 22995 for the year 2014-15 (which is apportioned for seven units) and
(c) Annual water consent fee of ₹143880 for the year 2014-15 (which is apportioned for seven units).

	Projected Quantity Considered (KL) (1)	**Pumping Charges (0.376₹/KL) (2)=(1)x0.376**	**Water cess (3)= (22995/7)**	**Water Consent Fee (4)=** (143880/7)	**Projected Water charge Allowed (₹ in lakh) (5)= (2)+(3)+(4)**
2014-15	61310468	23052735.96	3285.00	20554.28	23.07
2015-16	61310468	23052735.96	3285.00	20554.28	23.07
2016-17	61310468	23052735.96	3285.00	20554.28	23.07
2017-18	61310468	23052735.96	3285.00	20554.28	23.07
2018-19	61310468	23052735.96	3285.00	20554.28	23.07

50. The water charges worked out as above is allowed and the same is subject to truing –up at the end of the tariff period. The petitioner is however directed to place on record all relevant information at the time of truing- up of tariff for consideration of the Commission.

51. Accordingly, the total O&M expenses, including water charges as allowed for the period 2014-19 is as under:

(₹ in lakh)

STAGE-I					
	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
O&M expenses allowed	15057.00	16002.00	17010.00	18081.00	19221.30
Water Charges allowed	23.07	23.07	23.07	23.07	23.07
Total O&M expenses allowed	**15080.07**	**16025.07**	**17033.07**	**18104.07**	**19244.37**

(₹ in lakh)

STAGE-II					
	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
O&M expenses allowed	20076.00	21336.00	22680.00	24108.00	25628.40
Water Charges allowed	23.07	23.07	23.07	23.07	23.07
Total O&M expenses allowed	**20099.07**	**21359.07**	**22703.07**	**24131.07**	**25651.47**

Statutory fees for General Hospital

52. The petitioner has submitted that in compliance with the provisions of the Bio Medical Waste Rules 1998, the petitioner has to dispose of the Bio medical waste and that the collection and disposal activities have been outsourced at the cost of₹830375 per annum. It has also submitted that the expenditure is not covered under O&M expense norms specified by the Commission and accordingly the petitioner has prayed that the Commission may allow the recovery of the same from the beneficiaries on pro rata basis.

53. The respondent, KSEB has submitted that the reimbursement of charges for disposal of biomedical waste are covered under normative O&M expenses and therefore, the claim for the petitioner for recovery may be disallowed. The respondent, TANGEDCO vide affidavit dated 17.6.2015 has submitted that the Commission vide order dated 7.6.2013 in Petition No 13/RP/2012 had disallowed the expenditure claim of the petitioner towards hospital purpose and hence the same may be disallowed.

54. The matter has been examined. The O&M expense norms considered under the 2014 Tariff Regulations is based on the actual O&M expenses incurred by the generating station during the period 2008-09 to 2012-13. In this background, we are not inclined to allow the claim of the petitioner over and above the O&M expense norms allowed to the generating station under the 2014 Tariff Regulations.

Interest on Working Capital

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

"28. Interest on Working Capital: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.

O&M expenses for 1 month

56. O&M expenses for 1 month claimed by the petitioner for the generating station for the purpose of working capital is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Stage-I	1254.75	1333.50	1417.50	1506.75	1601.78
Stage-II	1673.00	1778.00	1890.00	2009.00	2135.70

57. Regulation 28(a)(vi) of the 2014 Tariff Regulations provides for Operation and Maintenance expenses for one month for coal-based/ lignite fired generating station. The one month O&M expenses, including water charges, as allowed for purpose of tariff is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Stage-I	1256.67	1335.42	1419.42	1508.67	1603.70
Stage-II	1674.92	1779.92	1891.92	2010.92	2137.62

58. The difference in the O&M expenses (one month) as claimed by the petitioner and allowed by the Commission is on account of the fact that the petitioner has not considered

the computation of water charges in the claim, and the same has been considered by the Commission.

Maintenance spares

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

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Stage-I	3011.40	3200.40	3402.00	3616.20	3844.26
Stage-II	4015.20	4267.20	4536.00	4821.60	5125.68

60. Regulation 28(1)(a)(iv) of the 2014 Tariff Regulations provides for Maintenance spares @ 20% of the O & M expenses. The maintenance spares @ 20 % of the O&M expenses including water charges is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Stage-I	3016.01	3205.01	3406.61	3620.81	3848.87
Stage-II	4019.81	4271.81	4540.61	4826.61	5130.29

Rate of interest on working capital

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

"Interest on working Capital: (3) Rate of interest on working capital shall be on normative basis and shall be considered as the bank rate as on 1.4.2014 or as on 1st April of the year during the tariff period 2014-15 to 2018-19 in which the generating station or a unit thereof or the transmission system including communication system or element thereof, as the case may be, is declared under commercial operation, whichever is later."

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

Stage-I

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses	1257	1335	1419	1509	1604
Receivables	16217	16422	16563	16753	16955
Maintenance Spares	3016	3205	3407	3621	3849
Secondary Fuel oil cost	713	715	713	713	713
Fuel Stock	9017	9041	9017	9017	9017
Total Working Capital	**30220**	**30719**	**31119**	**31612**	**32137**
Interest Rate	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	**4080**	**4147**	**4201**	**4268**	**4339**

Stage-II

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
O&M expenses	1675	1780	1892	2011	2138
Receivables	22192	22434	22590	22810	23046
Maintenance Spares	4020	4272	4541	4826	5130
Secondary Fuel oil cost	951	953	951	951	951
Fuel Stock	12022	12055	12022	12022	12022
Total Working Capital	**40859**	**41494**	**41995**	**42620**	**43287**
Interest Rate	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	**5516**	**5602**	**5669**	**5754**	**5844**

Operational Norms

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

	Unit	Stage-I	Stage-II
Target Availability	%	75	75
Auxiliary Energy Consumption	%	10	10
Gross Station Heat Rate	kCal/kWh	2900	2900
Specific Fuel Oil Consumption	ml/kWh	2.00	2.00

Target Availability

64. Regulation 36(A) (b) of the 2014 Tariff Regulations provides the Target Availability of the generating station as under:

Normative Annual Plant Availability Factor

(a) All Thermal generating stations, except those covered under clauses (b) (c) (d) &(e) - 85%.

Provided that in view of the shortage of coal and uncertainty of assured coal supply on sustained basis experienced by the generating stations, the NAPAF for recovery of fixed charges shall be 83% till the same is reviewed.

The above provision shall be reviewed based on actual feedback after 3 years from 01.04.2014.
(b)Following Lignite-fired Thermal generating stations of Neyveli Lignite Corporation Ltd:

TPS-I	72%
TPS-II Stage I & II	75%
TPS-I (Expansion)	80%

65. Accordingly, the Target Availability of 75 % considered by the petitioner for the period 2014-19 is in order and is allowed.

Auxiliary Power Consumption

66. Regulation 36(E)(d)(iii) of 2014 Tariff Regulations provides with the Auxiliary Power Consumption of the generating station as under:-

(E) Auxiliary Energy Consumption
(d) Lignite-fired thermal generating stations:
(iii) TPS-I, TPS-I (Expansion) and TPS-II Stage-I&II of Neyveli Lignite Corporation Ltd.:

TPS-I	12.00%
TPS-II Stage I & II	10.00%
TPS-I (Expansion)	8.50%

67. Accordingly, the Auxiliary Energy Consumption of 10.00 % considered by the petitioner for the generating station is as per norms and is allowed.

Heat Rate (kcal/kwh)

68. Regulation 36(C)(a)(v) of the 2014 Tariff Regulations provides Gross Station Heat Rate for the generating station as under:-

(C) Gross Station Heat Rate
(a) Existing Thermal Generating Station
(v) TPS-I and TPS-II (Stage I & II) of Neyveli Lignite Corporation Ltd :

TPS-I	4000 kCal/kWh
TPS-II	2900 kCal/kWh
TPS-I (Expansion)	2750 kCal/kWh

69. Accordingly, the Gross Station Heat Rate of 2900 kCal/kWh considered by the petitioner for the generating station is as per norms and is allowed.

Specific Oil Consumption

70. Regulation 36(D)(b)(i) of the 2014 Tariff Regulations provides Secondary fuel oil Consumption of 2.00 ml/kWh for Lignite fired generating stations except stations based on CFBC technology and TPS-I. Accordingly, the Secondary fuel oil Consumption of 2.00 ml/kWh considered by the petitioner for the generating station is as per norms and is allowed.

Annual Fixed Charges

71. The annual fixed charges approved for the generating station for the period 2014-19 is summarized as under:

Stage-I

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	729	733	733	733	733
Interest on Loan	0	0	0	0	0
Depreciation	0	0	0	0	0
Interest on Working Capital	4080	4147	4201	4268	4339
O & M Expenses	15080	16025	17033	18104	19244
Special Allowance	4365	4642	4937	5250	5584
Total	**24254**	**25547**	**26904**	**28355**	**29900**

Stage-II

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	3342	3166	2974	2782	2590
Interest on Loan	0	0	0	0	0
Depreciation	975	975	975	975	975
Interest on Working Capital	5516	5602	5669	5754	5844
O & M Expenses	20099	21359	22703	24131	25651
Special Allowance	0	0	0	1894	6044
Separate Compensation Allowance	735	840	840	630	210
Total	**30666**	**31941**	**33161**	**36165**	**41314**

Fuel Component for working capital

72. The petitioner has claimed the cost of fuel component and 2 months Energy charges in the working capital as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
STAGE-I					
Cost of lignite for 45 days	10169.05	10169.05	10169.05	10169.05	10169.05
Cost of secondary fuel oil for 2 months	713.08	715.03	713.08	713.08	713.08
Energy charges for 2 months	14460.12	14462.08	14460.12	14460.12	14460.12
STAGE-II					
Cost of lignite for 45 days	13558.73	13558.73	13558.73	13558.73	13558.73
Cost of secondary fuel oil for 2 months	950.77	953.38	950.77	950.77	950.77
Energy charges for 2 months	19280.16	19282.77	19280.16	19280.16	19280.16

73. The Cost of lignite and Energy charges (2months) in working capital has been calculated by the petitioner based on weighted average price of ₹1819.64/tonne and GCV of 2624 kCal/Kg during the months of January, February, March, 2014. The cost of secondary oil is based on price & GCV of secondary oil for preceding three months (i.e. January, February, March 2014).

74. The respondent, TANGEDCO has submitted that the guidelines for fixation of transfer price of lignite in respect of NLC mines was notified by the Ministry of Coal (MoC) during January, 2015. It has also submitted that the weighted average transfer price of lignite claimed by the petitioner for the period 2014-19 based on the MoC guidelines is on the higher side and hence the petitioner may be directed to calculate the energy charges based on the weighted average price of lignite as on 31.3.2014 until finalization of pooled lignite price for the period 2014-19. The respondent, KSEB has submitted that till the guidelines for computation of lignite transfer prices issued by MoC, the lignite transfer price approved by the Commission for the year 2013-14 may be allowed for computation of interest on working capital and energy charges. In response, the petitioner has clarified that in terms of the MoC guidelines dated 2.1.2015 for the period 2014-19, the lignite transfer price has been worked out and claimed by the petitioner.

75. It is observed that the petitioner in Petition No.149/MP/2015 has sought for revision of Lignite transfer price for the period 2009-14 based on the Ministry of Coal, GOI guidelines dated 11.6.2009 and for truing up of additional capital expenditure for 2009-14, O&M expenses for mines, Income tax interest and ROE, FERV etc. as under:

	2009-10	**2010-11**	**2011-12**	**2012-13 Up to 9.5.2012**	**2012-13 From 10.5.2012**	**2013-14**
Mine-I (₹/Tonne)	1168	1245	1329	1443	1453	1535
Pooled Price including NLC Mine-II (Expansion) (₹/Tonne)	1383	1432	1543	1518	1530	1673

76. The prayer of the petitioner for revision of lignite transfer price in the said petition is yet to be disposed of by the Commission. However, the lignite transfer price as approved by the Commission in order dated 5.2.2014 in Petition No.167/MP/2011 is as under:

	2009-10	2010-11	2011-12	2012-13	2013-14
Mine-I (₹/Tonne)	1067	1140	1229	1326	1434
Pooled Price of Mines other than Mine-I (₹/Tonne)	1376	1443	1522	1535	1610

77. In case of the generating stations of the petitioner, the price of fuel for the preceding three months i.e. January, 2014, February, 2014 and March, 2014 would mean the price of lignite for the year 2013-14. It is noticed that the pooled lignite transfer price was determined as ₹1610/tonne for 2013-14 by the Commission in order dated 5.2.2014 in Petition No.167/MP/2011. Hence, the same is considered for computing the fuel components and 2 months energy charges in working capital subject to final decision in Petition No. 149/MP/2015. Accordingly, the price & GCV of lignite and secondary oil as adopted by the petitioner and considered by the Commission is as under.

	As considered by the petitioner	As allowed by the Commission
Price of Lignite (₹./Tonne)	1819.64	1610.00
GCV of Lignite (Kcal/kg.)	2624.00	2623.667
Price of Secondary fuel oil (₹./KL)	51683.70	51683.70
GCV of Sec. Fuel oil (Kcal./Kg)	10298.00	10298.00

78. The difference in lignite price is on account of the fact that the petitioner has considered the lignite transfer price of ₹1819.64/tonne based on the weighted average price of January, February, March, 2014 including the clean energy cess, excise duty & other taxes, while the lignite transfer price of ₹1610/tone allowed by the Commission is in terms of the order dated 5.2.2014 in Petition No.167/MP/2011.

79. In terms of the above regulation and based on the weighted average GCV and price of fuels and, cost for fuel components in working capital and 2 months Energy charge works out as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
STAGE-I					
Cost of Lignite for 45 days	9016.65	9016.65	9016.65	9016.65	9016.65
Cost of Secondary Fuel oil for 2 months	713.08	715.03	713.08	713.08	713.08
Energy Charges for 2 months	12902.26	12937.61	12902.26	12902.26	12902.26
STAGE-II					
Cost of Lignite for 45 days	12022.20	12022.20	12022.20	12022.20	12022.20

Cost of Secondary Fuel oil for 2 months	950.77	953.38	950.77	950.77	950.77
Energy Charges for 2 months	17203.01	17250.14	17203.01	17203.01	17203.01

This is however subject to the final decision of the Commission in Petition No. 149/MP/2015.

<u>Lignite Transfer Price and Energy Charges during 2014-19</u>

80. The petitioner in this petition has claimed year- wise energy charges for the period 2014-19 based on the weighted average lignite price of ₹1819.64/Ton and GCV of 2624 kCal/kg and oil procured and burnt for the preceding three months in accordance with the 2014 Tariff Regulations as under:

	2014-15	2015-16	2016-17	2017-18	2018-19
Stage-I					
Energy charges (ex-bus) ₹./kWh	2.329	2.329	2.329	2.329	2.329
Stage-II					
Energy charges (ex-bus) ₹./kWh	2.329	2.329	2.329	2.329	2.329

81. The petitioner vide affidavit dated 16.10.2015 has submitted that the guidelines for fixation of transfer price of Lignite for NLC mines for the period 2014-19 were issued by Ministry of Coal (MoC), GOI vide letter No.28012/1/2014-CA-I dated 2.1.2015 and that the year wise Lignite Transfer Prices has been fixed based on the MoC guidelines dated 2.1.2015 and the transfer price of lignite so computed has been certified by the statutory auditor. Accordingly, the petitioner in its affidavit dated 16.10.2015 has prayed for adoption of lignite transfer price in the computation of energy charges in respect of this generating station, including other generating stations of the petitioner wherein tariff for the period 2014-19 had been determined and/ or pending for determination of tariff by the Commission.

82. The Lignite Transfer Price based on MoC guidelines dated 2.1.2015 and certified by the auditor is as under:

	Lignite price (Standalone) ₹/Tonne*	**Lignite price (Pooled) (₹/Tonne)***
2014-15	1780	1814
2015-16	2077	2066
2016-17	2312	2329
2017-18	2577	2557
2018-19	2878	2821

** The above price is inclusive of Royalty @ 6%*

83. It is observed from the above table that the year wise increase in Standalone Lignite transfer price during the period 2014-19 is 16.68%, 11.31%, 11.46% and 11.68% and increase in Pooled lignite transfer price for the period 2014-19 is 13.89%, 12.73%, 9.79% and 10.32%. It is also observed that the lignite Transfer price computed as above consists of O&M cost, Over Burden (OB) removal through outsourcing, Interest on loan, Interest on working capital, Depreciation, Mine closure, Return on equity and Royalty @6%.The details of Overburden removal (outsourcing) furnished by the petitioner is as under:-

	OB removal (outsourcing) Standalone	**OB removal (outsourcing) Pooled**
2014-15	2785.71	1714.29
2015-16	8580.00	14184.00
2016-17	9438.00	16263.00
2017-18	10382.05	16371.95
2018-19	11420.19	20204.81

84. It is observed from the details of overburden removal (outsourcing) furnished by the petitioner that there is an increase of OB removal of 208% in 2015-16 from the previous year (2014-15) 10% in 2016-17 from 2015-16, 10% in 2017-18 from 2016-17 and 9.99% in 2018-19 from 2017-18 for Standalone mine and 727% in 2015-16 from 2014-15, 14.65% in 2016-17 from 2015-16, 0.675 in 2017-18 from 2016-17 and 23.41% in 2018-19 from 2017-18 for Pooled mines. Thus, there is substantial increase in the amounts in the year 2015-16 and as per MoC guidelines dated 2.1.2015 the said increase is on account of additional unfavorable stripping ratio. Though more OB outsourcing is required to be carried out due to adverse overburden-lignite ratio to excavate same quantity of lignite, the petitioner has not furnished details of stripping ratio and overburden computation in support of the variation in the overburden removal cost. In this background, the same has not been considered in this order. Therefore, only the pooled lignite transfer price as submitted by the petitioner for the period 2014-19 and referred in the table under para 82 above is considered for the computation and recovery of month to month Energy Charges for this generating station during the period 2014-19. This is subject to truing- up based on the justification for variation in the year to year lignite transfer price for the period 2014-19. The prayer of the petitioner in affidavit dated 16.10.2015 to allow the Standalone lignite transfer price from Mine-I and

Pooled lignite transfer price from Mine-I expansion, Mine- I A, Mine- II and Mine-II expansion (as referred in the table under 82 above) is disposed of in terms of the above decision.

85. The petitioner has also prayed that the Lignite Transfer Price as per MoC guidelines dated 2.1.2015 may be considered in respect of petitions where tariff had been determined by the Commission by its various orders for the period 2014-19. Based on the decision in para 84 above, we direct that Lignite Transfer Price as referred to in para 82 above shall be made applicable for computation of month to month Energy charges in respect of the generating station whose tariff has been determined by the Commission for the period 2014-19. Accordingly, the Lignite Transfer Price for the period 2014-19 as allowed at para 82 above shall also be applicable for computation of monthly energy charges during 2014-19 in case of Petition No. 253/GT/2014 and 254/GT/2014.

86. The Commission in its order dated 19.2.2016 in Petition No. 33/MP/2014 of NTPC (Dispute arising as a result of non-furnishing of details by NTPC and DVC in terms of Regulation 21 of the 2009 Tariff Regulations) had directed that generating stations shall introduce helpdesk to attend to the queries of the beneficiaries with regard to the Energy Charges. Accordingly, contentious issues if any, which arise regarding the Energy Charges should be sorted out by this petitioner with the beneficiaries at the Senior Management level.

Application Fee and Publication Expenses

87. The petitioner has sought the reimbursement of filing fee and also the expenses incurred towards publication of notices for application of tariff for the period 2014-19. The petitioner has deposited tariff filing fees of ₹ 6468000/- for the period 2014-17 in terms of the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012.The petitioner vide affidavit dated 21.10.2014 has submitted that it has incurred ₹ 947568/- as charges towards publication of the said tariff petition in the newspapers. Accordingly, in terms of Regulation 52 of the 2014 Tariff Regulations and in line with the decision in Commission's order dated 5.1.2016 in Petition No. 232/GT/2014, we direct that the petitioner shall be entitled to recover pro rata, the filing fees for the period 2014-17 and the expenses incurred on publication of notices directly from the respondents, on production

of documentary proof. The filing fees for the remaining years of the tariff period 2017-19 shall be recovered pro rata after deposit of the same and production of documentary proof.

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

89. Petition No. 256/GT/2014 is disposed of in terms of the above.

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