CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 255/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: 3.5.2017

In the matter of

Approval of tariff for Circulating Fluidized Bed Combustion (CFBC) technology based NLC Barsingsar Thermal Power Station (2 x 125 MW) for the period 2014-19.

In the matter of

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

Vs

1. Jodhpur Vidyut Vitaran Nigam Ltd,
New Power House, Heavy Industrial Area,
Jodhpur- 342003, Rajasthan

2. Jaipur Vidyut Vitaran Nigam Ltd.
Vidyut Bhavan, I floor, Janpath
Jaipur- 302005, Rajasthan

3. Ajmer Vidyut Vitaran Nigam Ltd.
Old Power House, Hathi Bhata, Jaipur Road,
Ajmer- 305001, Rajasthan **……Respondents**

Parties present:

Ms. Anushree Bardhan, Advocate, NLC
Ms.Poorva Saigal, Advocate, NLC
Shri, J. Dhanasekaran , NLC
Shri S.K Agarwal, Advocate, Rajasthan Discoms
Shri G.L Verma, Advocate, Rajasthan Discoms
Ms. Neelam, Advocate, Rajasthan Discoms

ORDER

This petition has been filed by the petitioner, Neyveli Lignite Corporation (NLC) for approval of tariff of NLC Barsingsar Thermal Power Station (2 x 125 MW) (hereinafter referred to as “the generating station”) for the period 2014-19 based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2014, (hereinafter “the 2014 Regulations”).

2. The generating station with an installed capacity of 250 MW comprises of two units of 125 MW each with Circulating Fluidized Bed Combustion lignite fired boilers feeding to Turbines. The COD of the generating station is 20.1.2012. The Commission vide order dated 20.6.2011 in Petition No.171/2009 had determined the tariff of the generating station for the period 1.4.2009 to 31.3.2014. Thereafter, Petition No. 54/GT/2012 was filed by the petitioner for determination of tariff in respect of the generating station for the period from 29.12.2011 to 19.1.2012 and 20.1.2012 to 31.3.2014 and the Commission vide order dated 4.10.2012 had determined the annual fixed charges for the generating station for the said period. The Commission vide order dated 10.7.2015 in Petition No. 197/GT/2013 had determined the tariff of the generating station for the period 2009-14 under the 2009 Tariff Regulations. Aggrieved by the said order dated 10.7.2015, the petitioner had sought review of the said order in Review Petition No. 18/RP/2015 and the Commission vide order dated 14.3.2016 had disposed of the same. Thereafter the petitioner filed Petition No.130/GT/2016 for revision of tariff of the generating station for the period from 20.1.2012 to 31.3.2014 based on truing- up exercise and the same has been disposed of by order dated 25.4.2017. Accordingly, the annual fixed charges determined by the order dated 25.4.2017 are as under:

(₹in lakh)

	2011-12		2012-13	2013-14
	29.12.2011 to 19.1.2012	**20.1.2012 to 31.3.2012**		
Return on Equity	346.10	2163.60	9390.49	11404.48
Interest on Loan	340.52	2103.85	10103.68	9397.86
Depreciation	410.95	2568.61	12029.84	8244.07
Interest on Working Capital	45.69	292.14	1440.19	1412.54
O&M Expenses	201.52	1319.02	7090.00	7495.00
Secondary fuel oil cost	36.44	238.51	1209.11	1209.11
Fixed Charges	**1381.21**	**8685.72**	**41263.30**	**39163.06**

3. In response to the directions of the Commission, the petitioner has submitted the additional information and has served copies on the respondents. 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

4. 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;*

5. 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"*

6. The petitioner has claimed opening capital cost of ₹204124.52 lakh as on 1.4.2014. The Commission vide order dated 25.4.2017 in Petition No. 130/GT/2016 has revised the tariff of the generating station for the period from 1.4.2011 to 31.3.2014 after truing-up in terms of the 2009

Tariff Regulations and admitted the closing capital cost of ₹169081.03 lakh as on 31.3.2014. This has been considered as the opening capital cost as on 1.4.2014 for the purpose of determination of tariff of the generating station for the period 2014-19.

Additional Capital Expenditure

7. 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."

8. The projected additional capital expenditure claimed by the petitioner for the period 2014-19 is as under:

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Direct Asset Addition	304.90	1056.90	2252.00	4885.00	728.00
Total Additional capital expenditure	**304.90**	**1056.90**	**2252.00**	**4885.00**	**728.00**

9. The petitioner has not claimed any projected additional capital expenditure on Common Assets. However, it has claimed projected additional capital expenditure of ₹9262.80 lakh on direct assets for the period 2014-19. 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

10. The projected additional capital expenditure claimed on direct assets for the period 2014-19 is as under:

(₹in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
304.90	1056.90	2252.00	4885.00	728.00

11. The Commission vide ROP of the hearing dated 5.1.2016 directed the petitioner 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 expenditures have been claimed. In response, the petitioner vide affidavit dated 6.2.2016 had furnished the details in respect of 178 assets without any justification and without indicating the provisions of the regulation under which the said claims have been made for capitalization of the assets.

12. It is observed that the petitioner has claimed total additional capital expenditure of ₹304.90 lakh in 2014-15 towards phosphate dozing pump, vibration meter, battery operated trolley, cutting machine, ladders, pulling & lifting machines, pipe bending machines, shaft alignment device, torque wrenches, master level indicator, sump pump, effluent disposal pump, magnetic separators, portable fire extinguishers etc. Since the assets claimed by the petitioner are in nature of tools and tackles and is within the cut-off date of the generating station, the projected additional capital expenditure on direct assets amounts to ₹304.90 lakh in 2014-15 is allowed.

13. The petitioner has also claimed additional capital expenditure of ₹1056.90 lakh in 2015-16 towards hydraulic jack, main oil pump, emergency oil pump, HP IP Rotor, LP rotor, power hack saw machine, drilling machine, towards modification and up-gradation, vacuum cleaner, rotor for generator etc., and expenditure of ₹2252.00 lakh in 2016-17 towards drilling machine, HP IP rotor, tractor, dozer, transformer ratio meter, oil filled transformer, infra red camera, etc. It has also claimed additional capital expenditure of ₹4885.00 lakh in 2017-18 towards N pit pump, LP rotor, Compressor/DG set, weather monitoring system, transport air compressor, welcome fountain, civil structure, Rotor for generator, modification work, 1600 KVA dry type transformer, replacement of wireless system, photocopier etc. and additional capital expenditure of ₹728.00 lakh in 2018-19 towards phosphate dozing pump, hotwell makeup pump, ACW pump, MWCW pump, up-gradation of DCS software module, Instrument air compressor, building, four wheeler shed, RCC drain work, workshop machines & tools, generator tools, lab equipments, retrofitting of 33 KV SF6 bkr etc. the cut-off date of the generating station is 31.3.2015. From the submission of the petitioner it is observed that some of the assets claimed by the petitioner for the period 2015-19 are in nature of minor assets and Tools and tackles and falls beyond the cut-off date of the generating station. Accordingly, in terms of the first proviso to Regulation 14(3)(x) of the 2014 Tariff Regulations, we are not inclined to allow the additional capital expenditure claimed by the petitioner for the period 2015-19. However, in respect of the claim for additional capital expenditure towards HP IP rotor, LP rotor, hot well make up pump, ACW pump, MWCW pump, rotor for generator, transformer etc. during the period 2015-19, it is observed that the petitioner has not furnished any justification for

these high value assets. The petitioner has not indicated as to whether the assets like Generator Rotor, LP/HP rotor etc are in the nature of spares or whether these assets are required as replacement of the existing rotors, due to breakdown. In the absence of the any justification, we are not inclined to allow the additional capital expenditure claimed on assets like Rotors, Hot well make up pump, ACW pump etc. at this stage. The petitioner is however granted liberty to furnish proper justification along with details of these assets with relevant provisions of the regulations at the time of truing- up of the tariff of the generating station.

14. Based on the above discussions, the additional capital expenditure allowed in respect of direct assets for the period 2014-19 is as under:

(₹ in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
304.90	0.00	0.00	0.00	0.00

Capital Cost

15. Accordingly, the capital cost allowed for the generating station for the period 2014-19 is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Opening Capital Cost	169081.03	169385.93	169385.93	169385.93	169385.93
Additional Capital Expenditure allowed	304.90	0.00	0.00	0.00	0.00
Capital Cost as on 31st March of the year	**169385.93**	**169385.93**	**169385.93**	**169385.93**	**169385.93**

Debt-Equity

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

> *"19. Debt-Equity Ratio- (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."*

17. Accordingly, the debt-equity ratio of 70:30 has been considered for the purpose of tariff.

Return on Equity

18. 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.*

19. 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."

20. 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 getting 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 however subject to truing up in terms of Regulation 8 of the 2014 Tariff Regulations. Accordingly, Return on Equity has been worked out as under:

(₹ in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Gross Notional Equity	50724.31	50815.78	50815.78	50815.78	50815.78
Addition due to Additional Capitalization	91.47	0.00	0.00	0.00	0.00
Closing Equity	50815.78	50815.78	50815.78	50815.78	50815.78
Average Equity	50770.05	50815.78	50815.78	50815.78	50815.78
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Tax rate for the year	20.961%	21.342%	21.342%	21.342%	21.342%
Rate of Return on Equity (Pre Tax)	19.610%	19.705%	19.705%	19.705%	19.705%
Return on Equity (Pre Tax)	**9956.01**	**10013.25**	**10013.25**	**10013.25**	**10013.25**

Interest on Loan

21. 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 up to the date of de-capitalization of such asset

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

(5) The rate of interest shall be the weighted average rate of interest calculated on the basis of the actual loan portfolio after providing appropriate accounting adjustment for interest capitalized: Provided that if there is no actual loan for a particular year but normative loan is still outstanding, the last available weighted average rate of interest shall be considered: Provided further that if the generating station or the transmission system, as the case may be, does not have actual loan, then the weighted average rate of interest of the generating company or the transmission licensee as a whole shall be considered

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

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

(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."

22. The computation of Interest in loan allowed in the tariff is as under:

   a) The opening gross normative loan as on 1.4.2014 has been arrived at in accordance with Regulation 26 of the 2014 Tariff Regulations.

   b) The weighted average rate of interest has been worked out on the basis of the actual loan portfolio of respective year applicable to the project.

   c) The repayment for the year of the tariff period 2014-19 has been considered equal to the depreciation allowed for that year.

   d) The interest on loan has been calculated on the normative average loan of the year by applying the weighted average rate of interest.

23. Accordingly, Interest in loan during the period 2014-19 is as under:

(₹ in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Gross Normative Loan	118356.72	118356.72	118356.72	118356.72	118356.72
Cumulative Repayment up to Previous Year	23253.47	31680.28	40114.68	48549.09	56983.49
Net Loan-Opening	95103.25	86889.87	78455.47	70021.06	61586.66

Addition due to Additional Capitalization	213.43	0.00	0.00	0.00	0.00
Repayment during the year	8426.81	8434.40	8434.40	8434.40	8434.40
Net Loan-Closing	86889.87	78455.47	70021.06	61586.66	53152.26
Average Loan	90996.56	82672.67	74238.26	65803.86	57369.46
Weighted Average Rate of Interest on Loan	10.332%	10.300%	10.286%	10.273%	10.261%
Interest	**9401.76**	**8515.28**	**7636.15**	**6760.03**	**5886.68**

Depreciation

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

> ***"27. Depreciation:*** *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 on1.4.2014 shall be worked out by deducting the cumulative depreciation as admitted by the Commission up to 31.3.2014 from the gross depreciable value of the assets.*
>
> *(7) The generating company or the transmission license, as the case may be, shall submit the details of proposed capital expenditure during the fag end of the project (five years before the useful life) along with justification and proposed life extension. The Commission based on prudence check of such submissions shall approve the depreciation on capital expenditure during the fag end of the project.*

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

25. The weighted average rate of depreciation calculated as per above regulation 4.979% has been considered for the year 2014-15 to 2018-19. Accordingly, depreciation has been computed as follows:

(₹ in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
Gross Block as on 31-3-2014	169081.03	169385.93	169385.93	169385.93	169385.93
Additional capital expenditure during 2014-19	304.90	0.00	0.00	0.00	0.00
Closing gross block	169385.93	169385.93	169385.93	169385.93	169385.93
Average gross block	169233.48	169385.93	169385.93	169385.93	169385.93
Rate of Depreciation	4.979%	4.979%	4.979%	4.979%	4.979%
Depreciable Value	152156.23	152293.44	152293.44	152293.44	152293.44
Remaining Depreciable Value	128902.76	120613.16	112178.75	103744.35	95309.95
Depreciation	**8426.81**	**8434.40**	**8434.40**	**8434.40**	**8434.40**

O&M Expenses

26. Regulation 29(1) (a) of the 2014 Tariff Regulations provides the following O&M expense norms for the generating stations:

(₹ in lakh/MW)

2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
29.10	30.94	32.88	34.95	37.15

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

(₹ in lakh)

2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**
7275.00	7735.00	8220.00	8737.50	9287.50

28. Accordingly, O & M expenses claimed by the petitioner as above is in accordance with the norms and therefore is allowed.

Water Charges

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

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

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

30. The petitioner has not claimed water charges separately in terms of the above regulations. It has however submitted that it may be permitted to claim water charges from the beneficiaries based on demand note as it has been paying water charges once in every quarter, based on the demand notice issued by the authority (E.E., Indira Gandhi Nahar Pariyojana (IGNP) Bikaner). The petitioner has submitted the demand notice for the month of December, 2013 to February, 2014 in respect of water consumption and amount billed.

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

Description	Remarks
Type of Plant	Coal/lignite
Type of cooling water system	Closed Circuit cooling water system with induced draft cooling tower with counter flow type.
Contracted Quantum of water	45 Cusec
Consumption of water in 2013-14	5432452 KL
Rate of water charges in 2013-14	₹4.790 /KL
Total water charges in 2013-14	Rs. 26023360

32. The petitioner has furnished the details of actual water consumption along with the rate of water charges during the period 2011-14 as under:

	Consumption Quantity in KL (A)	Raw Water Charges (B)	Water Cess / Consent fee (C)	IVRCL (D)	Total Water charge (E)= (B)+(C)+(D)	Rate of Water Charges (F=E/A)
2011-12	1360264	960743.34	1169381.00	3750278.40	5880402.74	4.323
2012-13	5122315	3617850.12	1020988.00	18001336.40	22640174.52	4.420
2013-14	5432452	3836897.40	584859.05	21601604.00	26023360.45	4.790

33. It is observed that water charges are being paid quarterly, based on the demand notice issued by E.E.(IGNP). As stated, the petitioner has also furnished copy of demand notice in respect of the period of three months i.e December, 2013 to February,2014 pertaining to the year 2013-14. As per the demand notice water consumption during the said period of 3 months was 52461558 Cft.

Accordingly, water consumption for 12 months works out to 6295387m3 which is 2.87m^3/MW/hr and is less than the CEA norm of 3m^3/MW/hr for 500 MW units. However, the petitioner has submitted the actual water consumption of 5432452 m3 in 2013-14 and the same has been considered for allowing water charges on projected basis for the period 2014-19. As per demand notice, the water charges is ₹1049231 for 3 months. Accordingly the Raw water charges is worked out as ₹42.00 lakh for 12 months for the period 2013-14. However, the petitioner vide affidavit dated 25.5.2016 has submitted that the actual Raw water charges paid by the petitioner in 2013-14 is ₹38.37 lakh and the same is lower than the said amount of ₹42.00 lakh. In view of this, the amount of ₹38.37 lakh is allowed.

34. It is further observed that the petitioner has paid water cess of ₹584589 in 2013-14 in accordance with the directions of Rajasthan State Pollution Control Board (RSPCB). The petitioner has also furnished the copy of the letter through which water cess demand draft was paid to RSPCB. In view of this, water cess as paid by the petitioner has been allowed as part of water charge.

35. The Commission vide order dated 10.7.2015 in Petition No 197/GT/2013 had allowed an expenditure of ₹54604054 towards additional O&M for security and patrolling of water pipeline for three years (from 28.12.2011 and to 27.12 2014). The year wise breakup of contract price is as under:

For first year	₹15001113.60	@ ₹1250092.80/- month
For second year	₹18001336.40	@ ₹1500111.36/- month
For third year	₹21601604.00	@ ₹1800133.66/- month

36. It is evident from the above, that the petitioner has reimbursed an amount of ₹43353218 up to 31.3.2014 (in the tariff period 2009-14). Therefore, the balance amount of ₹11250835.20 up to 27.12.2014 has been considered as part of water charges in the year 2014-15. It is further observed that the petitioner had not submitted any document which suggests that the maintenance activities contract for water pipeline had been extended beyond 28.12.2014. In view of this, the expenses towards security/patrolling has not been considered for the period 2015-19 in the

projected water charges. In this background, the actual water consumption and water charges paid along with paid water cess for the year 2013-14 and outstanding amount of ₹11250835.20 beyond 31.3.2014 and up to 27.12.2014 towards security for patrolling water carrier system for allowing water charges in the year 2014-15 has been considered and the same is allowed without any escalation. For the remaining period from 2015-16 to 2018-19 water charges have been allowed as considered for 2014-15 excluding water carrier system contract charges of ₹11250835.20. However, water charges is to be allowed separately in terms of the provisions of Regulation 29(2) of the 2014 Tariff Regulations. The water charges thus allowed is subject to truing- up in terms of Regulation 8 of the 2014 Tariff Regulations and the petitioner is directed to place all the relevant information on record at the time of truing-up. Based on the above, water charges water charges allowed for the period 2014-19 are as under:

	Projected Quantity Considered (KL) (1)	**Raw Water Charges (₹) (2)**	**Water Cess (₹) (3)**	**IVRCL (₹) (4)**	**Projected Water charge Allowed (₹ in lakh) (4)=(2)+(3)+(4)**
2014-15	5432452	3836897.40	802923.53	11250835.2	158.91
2015-16	5432452	3836897.40	802923.53	0.00	46.40
2016-17	5432452	3836897.40	802923.53	0.00	46.40
2017-18	5432452	3836897.40	802923.53	0.00	46.40
2018-19	5432452	3836897.40	802923.53	0.00	46.40

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

(₹ in lakh)

	2014-15	**2015-16**	**2016-17**	**2017-18**	**2018-19**	**Total**
O&M Expenses allowed	7275.00	7735.00	8220.00	8737.50	9287.50	**41255.00**
Water Charges allowed	158.90	46.40	46.40	46.40	46.40	**344.50**
Total O&M Expenses allowed	**7433.90**	**7781.40**	**8266.40**	**8783.90**	**9333.90**	**41599.50**

Operational Norms

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

Target Availability	%	75 for 2014-15 and 80 for 2015-16 to 2018-19
Auxiliary Energy Consumption	%	11.50
Gross Station Heat Rate	kCal/kWh	2547.80
Specific Fuel Oil Consumption	ml/kWh	1.00

Target Availability

39. Regulation 36(A)(e) of the 2014 Tariff Regulations provides the Target Availability of Lignite fired generating stations using CFBC Technology and generating stations based on coal rejects as under:-

> ***"(A) Normative Annual Plant Availability Factor (NAPAF)***
> *(e) Lignite fired Generating Stations using Circulatory Fluidized Bed Combustion (CFBC) Technology and Generating stations based on coal rejects*
> *1. First Three years from COD- 75%*
> *2. For next year after completion of three years of COD-80%"*

40. The COD of the generating station is 20.1.2012. Accordingly, the Target Availability norm considered is 75% for the period from 1.4.2014 to 19.1.2015 and 80% for the period from 20.1.2015 to 31.3.2019.

Auxiliary Power Consumption

41. Regulation 36(E)(d)(ii) of the 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:*
> *(ii) Barsingsar Generating Station of NLC using CFBC Technology: 11.50%.*

42. Accordingly, the Auxiliary Energy Consumption of 11.50 % considered by the petitioner for the generating station is as per norms and is allowed.

Heat Rate (kcal/kwh)

43. Regulation 36(C)(c)(i) of the 2014 Tariff Regulations provides Gross Station Heat Rate for the generating station as under:-

> *"(C) Gross Station Heat Rate*
> *(c) Thermal Generating Station having COD on or after 1.4.2009 till 31.03.2014*
>
> *(i) Coal-based and lignite-fired Thermal Generating Stations= 1.045 X Design Heat Rate (kCal/kWh)*
>
> *Where the Design Heat Rate of a generating unit means the unit heat rate guaranteed by the supplier at conditions of 100% MCR, zero percent make up, design coal and design cooling water temperature/ back pressure.*
>
> *Provided that the heat rate norms computed as per above shall be limited to the heat rate norms approved during FY 2009-10 to FY 2013-14."*

44. The petitioner has furnished the design turbine cycle heat rate and boiler efficiency as 1994.60 kcal/kWh and 81.81% respectively. Accordingly the unit design heat rate is 1994.60/0.8181=2438.09 kcal/kWh. As per the above regulations, in respect of the lignite fired Thermal generating station achieving COD on or after 1.4.2009 till 31.3.2014, the Gross Station Heat Rate is 1.045 x Design Heat Rate (kcal/kWh) (i.e. 1.045x2438.09 =2547.80). It also provides that the heat rate norms computed as per above shall be limited to the heat rate norms approved during the period 2009-14. The heat rate norms approved by the Commission vide order dated 10.7.2015 in Petition No.197/GT/2013 for the period 2009-14 is 2596.56 kcal/kWh. The Heat rate norm of 2547.80 kcal/kWh computed for the period 2014-19 is lower than the norm of 2596.56 kcal/kWh, as allowed for the generating station for the period 2009-14. Accordingly, the heat rate norm of 2547.80 kcal/kWh considered by the petitioner is as per norms and hence allowed for the period 2014-19.

Specific Oil Consumption

45. Regulation 36(D)(b)(iii) of the 2014 Tariff Regulations provides for Secondary fuel oil Consumption of 1.00 ml/kWh for Lignite fired generating station based on CFBC technology. Hence, the Secondary fuel oil Consumption considered by the petitioner is as per norms and is allowed.

Cost of Lignite in Working Capital

46. Regulation 28(1)(a)(i) and (ii) of the 2014 Tariff Regulations provides that the Cost of lignite at the normative annual plant availability shall be 45 days. Accordingly, the same has been considered for the purpose of tariff.

Cost of Limestone for Working Capital

47. Regulation 36(E)(iv) of the 2014 Tariff Regulations provides that the cost of limestone considered for this generating station is 0.056 kg/kWh. Hence, the cost of limestone is considered as 0.056 kg/kWh for the purpose of determination of tariff.

Interest on Working Capital

48. 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

49. 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
606.25	644.58	685.00	728.13	773.96

50. 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
619.49	648.45	688.87	731.99	777.83

51. 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.

Receivables

52. Regulation 28 (1) (a)(v) of the 2014 Tariff Regulations provides for Receivables equivalent to two months of capacity charges and for sale of electricity calculated on the normative annual plant availability factor, which is as under:

(₹in lakh)

	2014-15 Upto 20.1.2015	2014-15	2015-16	2016-17	2017-18	2018-19
Fixed charges	4949.13	1195.20	6070.74	6006.54	5948.77	5897.23
Variable charges	1721.55	443.47	2286.03	2279.79	2279.79	2279.79
Total	**6670.69**	**1638.66**	**8356.77**	**8286.33**	**8228.56**	**8177.01**

Maintenance spares

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

(₹in lakh)

2014-15	2015-16	2016-17	2017-18	2018-19
1455.00	1547.00	1644.00	1747.50	1857.50

54. 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
1486.78	1556.28	1653.28	1756.78	1866.78

Fuel Component for working capital

55. The petitioner has claimed following cost for fuel component and 2 months Energy charges in the working capital :

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Cost of lignite towards stock	1907.00	2034.00	2034.00	2034.00	2034.00
Cost of limestone towards stock	124.63	132.94	132.94	132.94	132.94
Cost of secondary fuel oil for 2 months	184.31	197.13	196.59	196.59	196.59

56. The fuel component and 2 months energy charges in working capital has been calculated by the petitioner based on the lignite price of ₹988.00 and “as received” GCV of lignite of 2663

Kcal/kg and secondary fuel rates of ₹67326.53/ KL for the preceding three months of January, 2014, February, 2014 and March, 2014.

57. The Commission vide order dated 14.3.2017 in Petition No. 227/MP/2015 has revised and allowed the lignite transfer price for the period 2011-12 to 2013-14 after truing-up which is exclusive of clean energy cess w.e.f 1.7.2010 and excise duty on lignite and other taxes and duties including revision oof rates of royalty per tonne. The lignite transfer price of ₹755/MT as allowed by the Commission for the year 2013-14 after truing-up of the lignite price in order dated 14.3.2017 in Petition no. 227/MP/2015 hs been considered for computaion of fuel component in working capital.

58. The price & GCV of lignite and secondary oil as considered by the petitioner and as adopted by the Commission are as under:

Description	As adopted by NLC	As adopted by CERC
Price of Lignite (Rs./Tonne)	988.02	755.00
GCV of Lignite (Kcal/kg.)	2663.00	2664.00
Price of Secondary fuel oil (₹./KL)	67326.5329	67326.53
GCV of Sec. Fuel oil (Kcal./Kg)	10039.00	10040.00
Price of Limestone (₹./MT)	1099.00	1099.00

59. The difference in the Price of Lignite as adopted by the petitioner as against those adopted by the Commission is on account of the fact that the petitioner has adopted the lignite transfer price of ₹988/tonne based on the weighted average price of January 2014, February 2014 and March, 2014 including the clean energy cess, excise duty & other taxes and whereas the lignite transfer price of ₹755/tonne(excluding the clean energy cess, excise duty & other taxes) adopted by the Commission is based on the approved lignite transfer price vide order dated 14.3.2017 in Petition No. 227/MP/2015. Though the petitioner has not furnished any details of the Limestone in Form-15 of the petition. The petitioner has considered the rate of Limestone as ₹1099/ton in the petition which is considered for 45 days in terms of the 2014 Tariff Regulations. Accordingly, the cost for fuel component in working capital based on price and GCV of Lignite, Lime Stone & Oil for preceding three months have been worked out in this order. Based on the Availability, weighted average GCV and price of fuels as adopted by the Commission and in line with Regulation

28(1)(a) of the 2014 Tariff Regulations, the cost for fuel components in working capitals and 2 months Energy Charge is as under:

(₹in lakhs)

	2014-15 1.4.2014 to 19.1.2015	2014-15 20.1.2015 to 31.3.2015	2015-16	2016-17	2017-18	2018-19
Cost of Lignite for 45 days	1173.092	302.184	1553.48	1553.48	1553.48	1553.48
Cost of Limestone for 45 days	100.38	25.86	132.94	132.94	132.94	132.94
Cost of Secondary Fuel oil for 2 months	148.45	38.24	197.13	196.59	196.59	196.59
Energy Charges for 2 months	1870.01	481.71	2483.17	2476.38	2476.38	2476.38

Rate of interest on working capital

60. 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."*

61. 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:

(₹in lakh)

	2014-15		2015-16	2016-17	2017-18	2018-19
	1.4.2014 to 19.1.2015	20.1.2015 to 31.3.2015				
O&M expense	498.99	120.50	648.45	688.87	731.99	777.83
Receivables	6670.69	1638.66	8356.77	8286.33	8228.56	8177.01
Maintenance Spares	1197.57	289.21	1556.28	1653.28	1756.78	1866.78
Secondary Fuel oil cost	148.45	38.24	197.13	196.59	196.59	196.59
Fuel Stock-Lignite	1173.09	302.18	1553.48	1553.48	1553.48	1553.48
Fuel Stock-Limestone	100.38	25.86	132.94	132.94	132.94	132.94
Total Working Capital	**9789.18**	**2414.66**	**12445.05**	**12511.49**	**12600.34**	**12704.63**
Interest Rate	13.50%	13.50%	13.50%	13.50%	13.50%	13.50%
Interest on Working Capital	**1321.54**	**325.98**	**1680.08**	**1689.05**	**1701.05**	**1715.13**

Lignite Transfer Price & Energy Charges

62. The petitioner has claimed year- wise Energy Charges for the period 2014-19 based on Station Heat Rate of 2663.00 kCal/kWh, Weighted Average Lignite price of ₹988/Ton and GCV of ₹2664.00 kCal/kg for the generating station for the period 2014-19 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
Energy charges (ex-bus) ₹./kWh	**1.212**	**1.212**	**1.212**	**1.212**	**1.212**

63. 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.

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

	Lignite price (₹/Tonne)
2014-15	814
2015-16	757
2016-17	812
2017-18	875
2018-19	941

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

65. It is observed from the above table that there is decrease in lignite transfer price for the period 2015-16 as compared to the year 2014-15. This is due to the fact that there has been reduction in the O&M cost in the year 2015-16 as compared to the year 2014-15. However, the petitioner has not furnished any reason for the above variation. It is also observed that the lignite Transfer price computed above consists of O&M cost, Interest on loan, Interest on working capital, Depreciation, Mine closure, ROE and Royalty @6%. The lignite transfer price furnished by the petitioner in terms of the MOC guidelines dated 2.1.2015 for the period 2014-19. This has been 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 MoC

guidelines and detailed justification for the variation in the year to year lignite transfer price for the period 2014-19.

66. The petitioner shall compute and claim the Energy Charges on month to month basis during 2014-19 from the beneficiaries based on the year wise lignite transfer price as considered above and formulae given under Regulation 30(6)(a) of the 2014 Tariff Regulations read with Commission's order dated 25.1.2016 in Petition No. 283/GT/2014 due to monthly variation in actual GCVs and the Lignite Transfer Price for the period 2014-19 as allowed in this order.

67. The Commission in its order dated 19.2.2016 in Petition No. 33/MP/2014 (TPDDL v NTPC & anr) had directed as under:

> "*The respondents shall introduce help desk to attend to the queries and concerns of the beneficiaries with regard to the energy charges. The contentious issues regarding the energy charges should be sorted out with the beneficiaries at the senior management level, preferably at the level of Executive Directors.*"

Accordingly, in line with the above decision, help desk shall be introduced by the petitioner and contentious issues if any, which arise in respect of energy charges for this generating station shall be sorted out with the beneficiaries at the Senior Management level.

Annual Fixed Charges

68. Accordingly, the Annual fixed charges approved for the generating station for the period 2014-19 is summarized as under:

(₹in lakh)

	2014-15	2015-16	2016-17	2017-18	2018-19
Return on Equity	9956.01	10013.25	10013.25	10013.25	10013.25
Interest on Loan	9401.76	8515.28	7636.15	6760.03	5886.68
Depreciation	8426.81	8434.40	8434.40	8434.40	8434.40
Interest on Working Capital	1647.52	1680.08	1689.05	1701.05	1715.13
O & M Expenses	7433.90	7781.40	8266.40	8783.90	9333.90
Total	**36866.00**	**36424.42**	**36039.25**	**35692.63**	**35383.36**

Application Fee and Publication Expenses

69. 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 ₹1100000/- each for the period 2014-15, 2015-16 and 2016-17 in

terms of the provisions of the Central Electricity Regulatory Commission (Payment of Fees) Regulations, 2012. 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 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.

70. 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.

71. Petition No. 255/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**