

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 474/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 Hearing: 05.01.2016

Date of Order: 27.07.2016

In the matter of

Revision of tariff in respect of NLC Thermal Power Station Stage-I Expansion (420 MW) on account of actual additional capital expenditure incurred during the period 2009-14-Truing-up of tariff determined by order dated 31.8.2010 in Petition No.230/2009 and order dated 7.6.2013 in R.P. No. 6/2011.

Andin 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 Co. Ltd.
KR Circle, Bangalore – 560001

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

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

6. Hubli Electricity Supply Co. 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.
Thiruvananthapuram-695004

9. Puducherry Electricity Department
Puducherry – 605001

...Respondent

Parties Present:

Ms. AnushreeBardhan, Advocate, NLC
Ms.PoorvaSaigal, Advocate, NLC
Shri, J. Dhanasekaran , NLC
Shri S. Vallinayagam, Advocate, TANGEDCO
Shri R.Jayaprakash, TANGEDCO.
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, NLC for revision of tariff in respect of NLC, TPS-I Expansion (2 x 210 MW) (hereinafter referred to as “the generating station”) for the period 2009-14 in terms of Regulation 6(1) of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as “the 2009 Tariff Regulations”).

2. The generating station with a total capacity of 420 MW comprises of 2 units of 210 MW each. The date of commercial operation of Unit-I is 9.5.2003 and that of Unit II and the generating station, as a whole is 5.9.2003.

3. The Commission vide order dated 31.8.2010 in Petition No. 230/2009 had approved the annual fixed charges of the generating station for the period from 1.4.2009 to 31.3.2014 based on the capital cost of ₹144902.18 lakh as on 1.4.2009. Thereafter, the Commission by order dated 23.3.2011 in Petition No. 230/2009 revised the annual fixed charges for the period 2009-14 after correction of certain errors in the calculation of receivable component of working capital of the generating station. Aggrieved by the said order dated 31.8.2010, the petitioner filed Review Petition No. 6/RP/2011 and the Commission by order dated 7.6.2013 revised the annual fixed charges of the generating station for 2009-14 based on the capital cost of ₹144911.87 lakh as on 1.4.2009 as under:



(₹ in lakh)

	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	20979	19380	17776	16170	14564
Interest on Loan	424	409	393	378	363
Depreciation	7614	7615	7616	7616	7616
Interest on Working Capital	2224	2215	2210	2201	2196
O & M Expenses	7644	8081	8543	9034	9551
Cost of secondary fuel oil	1156	1156	1160	1156	1156
Total	40041	38856	37698	36555	35446

4. Aggrieved by the said order dated 7.6.2013, the petitioner filed Appeal No. 201/2013 before the Appellate Tribunal for Electricity ("the Tribunal") on the issue of "*Disallowance of the capital expenditure for the purchase of turbine rotor for the year 2013-14.*" The Tribunal by order dated 14.7.2014 allowed the said appeal and remanded the matter for consideration of the Commission.

5. In compliance with the above direction, Petition No. 6/RP/2011 was heard on the issue of 'capitalization of turbine rotor' and the Commission by order dated 10.6.2015 rejected the prayer of the petitioner. Against the said order dated 10.6.2015, the petitioner has filed appeal (Appeal No. 210/2015) before the Tribunal and the same is pending. Subject to the final decision of the Tribunal in the said appeal, we proceed to consider the claims of the petitioner in this petition as stated in the subsequent paragraphs.

6. Clause (1) of Regulation 6 of the 2009 Tariff Regulations provides as under:

"6. Truing up of Capital Expenditure and Tariff

(1) The Commission shall carry out truing up exercise along with the tariff petition filed for the next tariff period, with respect to the capital expenditure including additional capital expenditure incurred up to 31.3.2014, as admitted by the Commission after prudence check at the time of truing up.

Provided that the generating company or the transmission licensee, as the case may be, may in its discretion make an application before the Commission one more time prior to 2013-14 for revision of tariff."

7. The petitioner presently seeks revision of the annual fixed charges based on the actual additional capital expenditure incurred for the period 2009-14 in accordance with Regulation 6 (1) of the 2009 Tariff Regulations. Accordingly, the annual fixed charges and the capital cost claimed by the petitioner vide affidavit dated 29.10.2014 are as under:



Capital Cost

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening gross block	144912	145190	145668	145788	156214
Additions	278	478	120	10246	116
Closing gross block	145190	145668	145788	156214	156330

Annual fixed charges

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Interest on Loan	424	409	393	378	363
Interest on Working Capital	2189	2178	2171	2192	2225
Depreciation	7620	7639	7655	7932	8209
Return on Equity	21006	19260	17532	17131	17057
O & M Expenses	7644	8081	8543	9034	9551
Cost of secondary fuel oil	1156	1156	1160	1156	1156
TOTAL	40039	38723	37453	37825	38562

8. The petitioner in compliance of the directions of the Commission has filed the additional information with copy to the respondents. The respondents, TANGEDCO and KSEB have filed their replies in the matter and the petitioner has filed its rejoinder to the same. Based on the submissions of the parties and the documents available on record, we proceed to consider the claims of the petitioner for true-up of tariff of the generating station for the period 2009-14, on prudence check, as stated in the subsequent paragraphs.

Capital cost

9. The last proviso of Regulation 7 of the 2009 Tariff Regulations, as amended on 21.6.2011, provides as under:

"Provided also that in case of the existing projects, the capital cost admitted by the Commission prior to 1.4.2009 duly true up by excluding un-discharged liability, if any, as on 1.4.2009 and the additional capital expenditure projected to be incurred for the respective year of the tariff period 2009-14, as may be admitted by the Commission, shall form the basis for determination of tariff."

10. As stated, the capital cost of ₹144902.18 lakh as on 1.4.2009 in order dated 31.8.2010 has been revised to ₹144911.87 lakh as on 1.4.2009 in order dated 7.6.2013 in the Petition No. 6/RP/2011. This has been considered as the opening capital cost as on 1.4.2009 for the purpose of revision of tariff of the generating station for the period 2009-14.



Actual Additional Capital Expenditure

11. Regulation 9 (2) of the 2009 Tariff Regulations provides as under:

“9. (2) The capital expenditure incurred or projected to be incurred on the following counts after the cut-off date may, in its discretion, 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;*
- (ii) Change in law;*
- (iii) Deferred works relating to ash pond or ash handling system in the original scope of work;*
- (iv) 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) including due to geological reasons after adjusting for proceeds from any insurance scheme, and expenditure incurred due to any additional work which has become necessary for successful and efficient plant operation; and*
- (v) 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 of switchyard equipment due to increase of fault level, emergency restoration system, insulators cleaning infrastructure, replacement of damaged equipment not covered by insurance and any other expenditure which has become necessary for successful and efficient operation of transmission system:*

Provided that in respect sub-clauses (iv) and (v) above, any expenditure on acquiring the minor items or the assets like tools and tackles, furniture, air-conditioners, voltage stabilizers, refrigerators, coolers, 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. 1.4.2009.
- (vi) In case of gas/liquid fuel based open/ combined cycle thermal generating stations, any expenditure which has become necessary on renovation of gas turbines after 15 year of operation from its COD and the expenditure necessary due to obsolescence or non-availability of spares for successful and efficient operation of the stations.*

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.
- (vii) Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receipt system arising due to non-materialisation of full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station.*
- (viii) Any un-discharged liability towards final payment/withheld payment due to contractual exigencies for works executed within the cut-off date, after prudence check of the details of such deferred liability, total estimated cost of package, reason for such withholding of payment and release of such payments etc.*
- (ix) Expenditure on account of creation of infrastructure for supply of reliable power to rural households within a radius of five kilometers of the power station if, the generating company does not intend to meet such expenditure as part of its Corporate Social Responsibility.”*

12. The additional capital expenditure allowed for the period 2009-14 for the purpose of tariff in order dated 31.8.2010 in Petition No. 230/2009 is as under:



	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Direct Assets					
Regulation 9(2)(i)	0.00	0.00	0.00	0.00	0.00
Regulation 9(2)(iii)	42.13	14.19	0.00	0.00	0.00
Regulation 9(2)(iv)	0.00	0.00	0.00	0.00	0.00
Total	42.13	14.19	0.00	0.00	0.00
Allocated Common Assets	0.00	0.00	0.00	0.00	0.00
Total	42.13	14.19	0.00	0.00	0.00

13. The year-wise actual additional capital expenditure claimed for the period 2009-14 is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Direct Assets	278.53	477.38	119.90	10426.50	116.27
Common Assets	0.00	0.00	0.00	0.00	0.00
Total Additional Capital expenditure	278.53	477.38	119.90	10426.50	116.27

14. The detailed break-up of the actual additional capital expenditure claimed for the period 2009-14 in respect of the generating station is as under:

							(₹ in lakh)
Sl. No	Description	2009-10	2010-11	2011-12	2012-13	2013-14	Regulation
1	Work Station at Project Office At TPS-1 Expansion	1.37					-
2	RCC Concrete Road Platform Parking Fly Ash Vehicles/	42.89					9(2) (iii)
3	Piece Block Lining For Both Side of Roads	6.65					-
4	Platform Elect. Operated 12m Split Deck Type-BM	33.20					9(2)(ii)
5	Plasma Monitor(Display Unit)/	6.94					9(2)(ii)
6	Centralized Monitoring System-Elec. Maintenance	4.54					9(2)(ii)
7	'Sinha' make 5T Sin. Drum Bidir Elec Winch-BM	7.15					-
8	Genie USA make Aerial Platform-Pers Lift-EM	7.80					-
9	530030004:Motorola make VHF Walkie-Talkie Model G8	9.19					9(2)(ii)
10	VEL Induction Heater 25 KVA	5.53					-
11	Kirloskar Make Pump Model BHR 28-30 -Turbine MTCE	13.32					9(2)(ii)
12	Fire Alarm System 01 No	3.09					9(2)(ii)
13	Infrared Thermal Imaging Camera	18.29					9(2)(ii)
14	Inline Over Band Oil Cooled Magnetic Separators	54.55					9(2)(ii)



15	ICD Make Battery Charger 48V 100 Amps	1.01					-
16	Auma Actuators With Gear Box 8 Nos.	27.23					9(2)(vii)
17	Instrument Meter Measuring Signal Level Generator	4.31					9(2)(ii)
18	Flow Transmitter DP Type With Orifice Pipe 500 NB 1 no.	1.40					9(2)(ii)
19	Solar Water Heater System	1.63					9(2)(ii)
20	Automatic Transformer Test Set	7.43					-
21	Cap Exp -Develop. Install & Implement software for PMS	21.00					-
22	Construction of LP-HP Heater Coil Shed		25.72				9(2)(ii)
23	Boiler Maintenance Platform Electrically Operated		34.86				-
24	Chain Pulley 10 Ton 3 Nos.		1.10				-
25	New Air Compressor		42.61				9(2) (iii)
26	Electrically Operated Plate Bending Machine		12.33				-
27	Micro Processor Online CEMS Measuring So _x , No _x , CO		21.50				9(2)(ii)
28	Submersible Pump Set – 4 Nos.		2.98				-
30	Centrifugal Pump Five Stage With Bare Shaft		2.05				-
31	Electric Powered Hexagon Torque Wrench 36 to 65 mm		7.71				-
32	PAN Mixture for Mixing Refractory Castables 100 ltr.		2.91				-
33	Motorola VHF W/T Set Model GP 338- 30 Nos.		6.44				9(2)(ii)
34	Rotor Handling Car		309.32				9(2)(ii)
35	Personal Computer 10 Nos.		2.74				-
36	Personal Computer 10 Nos.		2.74				-
37	Providing 4 Nos. New Hydrants For 11 A/B Conveyor			4.98			9(2)(ii)
38	3 Digit and 5 Digit ISDN EPABX - 200 Lines Capacity			24.48			9(2)(ii)
39	Online Sodium Analyzer with Consumable Spares 2 nos			5.37			9(2)(ii)
40	CKP Electric Operated Drilling Machine			1.93			-
41	Electrically Operated Heavy Duty Grinder			1.11			-
42	Vulcanizing Machine For 2000 mm Conveyor Belt			28.10			9(2)(vii)
43	Supply, erection & Commissioning of Surveillance Camera			16.88			9(2)(ii)
44	Supply, erection & Commissioning of Centralized Energy Monitoring system			10.58			9(2)(ii)



45	Bentley Nevada Make TK3E Proximity Systems Test Kit			2.20			-
46	Hydrogen Purity Gas Density Analyser			6.60			9(2)(ii)
47	Portable Digital Conductivity Meter			1.50			9(2)(ii)
48	Pulling And Lifting Machine			3.01			-
49	Refrigeration Type Air Dryer 35 Normal Metre ³ /Min			12.04			9(2)(iii)
50	Automatic Power Factor Capacitor 12 KVAR			1.11			9(2)(ii)
51	Construction of shed for storing Gas Cylinders				3.80		9(2)(ii)
52	1000GPM 150M Head Submersible Pump Set-1 No				25.56		-
53	1000GPM 150M Head Submersible Pump Set-1 No				25.56		-
54	1000GPM 150M Head Submersible Pump Set-1 No				25.56		-
55	Online Phosphate Analyzer Range 0.05 to 5 PPM				5.10		9(2)(ii)
56	Dehumidifier - Air Flow Capacity: 1080-1440 NM ³ /hr				11.17		9(2)(ii)
57	Supply, erection & Commissioning of Siemens Makes 7-300 PLC System-4 Nos.				14.12		9(2)(vii)
58	Up-gradation of Network Communication in Plc (Lhs)				4.47		9(2)(ii)
59	Opacity Analyser in Flue Gas Range 0-300 mg/M ³				3.10		9(2)(ii)
60	Ultrasonic Flow Detector				5.66		9(2)(ii)
61	4 Wheeler Battery Operated Platform Trolley Equipment				3.62		-
62	Reciprocating Air Compressor 14-15 CFM 5 HP AC Motor				1.08		-
63	Pan Mixture 300 Ltrs. Capacity				6.93		-
64	LCD Projector of Higher Lumens USB Port RJ-45				1.12		-
65	Battery Discharge Load Bank- Voltage N220V DC				1.94		-
66	LCD Projector of Higher Lumens USB Port				1.17		-
67	Electronic Computerized Weigh Bridge 1 No.				105.70		9(2)(iii)
68	Low Pressure Calibrator				2.68		-
69	Opacity Analyser for measurement in Flue Gas				3.60		9(2)(ii)
70	Induction Heater SKF Part No TIH030 M/230V				2.46		-
71	GPS Clock System				8.04		9(2)(ii)



72	Hydraulic Square Drive Torque Wrench				6.48		9(2)(ii)
73	Drive Shaft for ABG				67.61		9(2)(iii)
74	IP/LP Rotor				4586.21		-
75	L1 Stationary Blade				120.37		-
76	HP Turbine Rotor				1990.25		-
77	Generator Rotor				3393.15		-
78	Installation and commissioning of Siemens PLC System Up-gradation					18.02	9(2)(vii)
79	Up-gradation of AHS PLC					1.12	9(2)(iii)
80	Portable Induction Heater					1.75	
81	Vibration Diagnostic System					2.54	9(2)(ii)
82	LED Display Board					13.87	9(2)(ii)
83	Siemens Make S7-300 PLC System Up-gradation					18.02	9(2)(vii)
84	Lift Scissor Platform					4.70	-
85	Siemens Make HMI KTP 6					7.70	9(2)(vii)
86	3 Ton Capacity Hydraulic Crane					2.01	-
87	Supply, Installation of 2 Kw Solar Panel.					4.85	9(2)(ii)
88	Disturbance Recorder					15.85	9(2)(ii)
89	Digital Conductivity Meter					0.88	-
90	Moisture Analyser					1.49	-
91	Insitu Type Online Flue Gas Analyser					18.91	9(2)(ii)
92	Cambium Make PTP250					4.58	9(2)(ii)
	Total Additional Capital Expenditure Claimed	278.53	477.38	119.90	10426.5	116.27	

Direct Assets

15. The petitioner's claim for capitalization of direct assets is discussed below:

Regulation 9(2)(ii)-Change in Law

16. The total additional capital expenditure of ₹702.30 lakh claimed by the petitioner for the period 2009-14 under Regulation 9(2)(ii) of the 2009 Tariff Regulations i.e Change in law, is in respect of the following items/assets:

Platform Elect. Operated 12M Split Deck Type-BM	Supply erection Commissioning of Surveillance Camera
Plasma Monitor(Display Unit)/	Supply, erection &Commissioning of Centralized Energy Monitoring system
Centralized Monitoring System-Elec. Maintenance	Hydrogen Purity Gas Density Analyser
530030004:Motorola Make VHF Walkie-Talkie Model G8	Portable Digital Conductivity Meter
Kirloskar Make Pump Model BHR 28-30 -Turbine MTCE	Automatic Power Factor Capacitor12KVAR



Fire Alarm System 01 No	Construction Shed Storing Gas Cylinders For Stores
Infrared Thermal Imaging Camera	Online Phosphate Analyser Range 0.05 to 5 ppm
Inline Over Band Oil Cooled Magnetic Separators	Dehumidifier Of Capacity Air Flow-1080-1440 m ³ /Hr
Instrument Meter Measuring Signal	Up gradation Of Network Communication In Plc (LHS)
Flow Transmitter DP Type With Orifice Pipe 500nb 1no.	Opacity Analyser In Flue Gas Range 0-300 mg/M ³
Solar Water Heater System/	Ultrasonic Flaw Detector
Construction of LP-HP Heater Coil Shed	Opacity Analyser in Flue Gas Range 0-300 mg/M ³
Micro Processor Online CEMS Measuring So _x , No _x , CO	GPS Clock System
Submersible Pump Set-4nos	Hydraulic Square Drive Torque Wrench
Submersible Pump Set-4nos	Vibration Diagnostic System
Motorola Vhf W/T Set Model GP 338- 30 Nos	LED Display Board
Rotor Handling Car	Supply, Installation of 2 KW Solar Panel.
Providing 4nos New Hydrants For 11a/B Conveyor	Disturbance Recorder
3 Digit and 5 Digit ISDN EPABX 200 Lines Capacity	In situ Type Online Flue Gas Analyser
Online Sodium Analyzer With Consumable Spares	

17. The respondent, TANGEDCO in its reply affidavit dated 13.1.2015 has submitted that the claim of the petitioner is not in line with Regulation 9(2)(ii) of the 2009 Tariff Regulations and the petitioner has also not enclosed any notification/ order or any document to show that it is entitled for the said expenditure under this head. In response, the petitioner vide rejoinder dated 3.3.2016 has submitted that most of the items mentioned are required for safety & statutory compliance and hence claimed under Regulation 9(2)(ii). It has also submitted that the actual cost incurred towards additional capitalization during the period has been claimed with necessary audit certificates. The respondent, KSEB in its reply affidavit dated 15.1.2015 has submitted that most of the capital additions made by the petitioner are minor in nature and the excess additional capital expenditure incurred by the petitioner is not in line with Regulation 9 of the 2009 Tariff Regulations. In response, the petitioner vide rejoinder affidavit dated 3.3.2016 has reiterated that the actual cost incurred towards additional capitalization during the period has been claimed with necessary audit certificates. It has also clarified that the capitalization has been claimed as per tariff regulations that are closely applicable to the items wherever not directly applicable.



18. We have examined the matter. It is observed that out of the total actual additional capital expenditure of ₹702.30 lakh claimed under Regulation 9(2)(ii) of the 2009 Tariff Regulations, the actual additional capital expenditure of ₹62.38 lakh incurred towards assets like Flow transmitter DP type with orifice pipe 500 NB, Microprocessor online CEMS measuring (So_x, No_x, CO), Opacity analyzer for flue gas measurement (to monitor So_x, No_x, CO and SPM), LED Display Board and INSITU type online flue gas analyzer are in compliance of directions/orders of the Tamil Nadu Pollution Control Board and is statutory in nature. In view of this, on prudence check, the actual expenditure of ₹62.38 lakh is allowed to be capitalized.

19. The petitioner has also claimed actual additional capital expenditure of ₹16.88 lakh in 2011-12 under Regulation 9(2)(ii) of the 2009 Tariff Regulations for Supply, Erection and Commissioning of surveillance camera for continuous supervision of critical equipments in the locations such as slag conveyors, compressor house, FOPH etc., and ₹8.04 lakh in 2012-13 for GPS clock system on the ground that the same is mandatory for timing used at 400 kV switch yard control room in coordination with SRLDC. Keeping in view the safety & security of the plant and equipments, the expenditure for ₹16.88 lakh in 2011-12 towards Surveillance camera is allowed. Similarly, the expenditure for ₹8.04 lakh in 2012-13 for GPS clock system is allowed as the said asset is a mandatory requirement at 400 kV switchyard control room.

20. The petitioner has also claimed actual additional capital expenditure of ₹11.17 lakh in 2012-13 towards Dehumidifier with Air flow Capacity-1080-1440 NM³/hr under this head. In justification of the same, the petitioner has submitted that the said asset is required for preservation of steam turbines during long shutdown as recommended by OEM. The Commission while examining the claim of the petitioner additional capitalization of Spare Turbine rotor in 2013-14 and the reason for the development of the crack in the Rotor of Unit-I & Unit-II in Petition No. 230/2009 & Petition No. 6/RP/2011 had observed from the report of the OEM that the recommendation for preservation of Steam turbine during shut down periods, based on instruction manual, had not been adhered to by the petitioner. It is noticed that in the context of development of cracks in the rotor, the OEM had recommended a suitable protection system during shutdown periods with air drying equipments. In



this background, we allow the claim of the petitioner for capitalization of ₹11.17 lakh on the said asset in 2012-13.

21. Except for the assets for which additional capitalization has been allowed as above for the reasons stated therein, the actual additional capital expenditure claimed in respect of other assets for the period 2009-14 under Regulation 9(2)(ii) of the 2009 Tariff Regulations has not been permitted to be capitalized on the ground that these assets are minor in nature.

22. Accordingly, out of the total actual additional capital expenditure of ₹702.30 lakh claimed during 2009-14, the actual additional capital expenditure of ₹98.47 lakh during 2009-14 [₹1.40 lakh in 2009-10, ₹21.50 lakh in 2010-11, ₹16.88 lakh in 2011-12, ₹25.91 lakh in 2012-13 and ₹32.78 lakh in 2013-14] is allowed under Regulation 9(2)(ii) of the 2009 Tariff Regulations.

Regulation 9(2)(iii)-Deferred works relating to ash pond or ash handling system in the original scope of work

23. The petitioner has claimed actual additional capital expenditure of ₹42.89 lakh towards RCC concrete road platform for parking fly ash vehicles during 2009-10 under Regulation 9(2)(iii) of the 2009 Tariff Regulations. In justification of the same, the petitioner has submitted that the said work is requirement to have a dust free atmosphere within the plant area and to avoid pollution. Considering the fact that these works are related to ash handling system and is within the original scope of work, the claim for actual additional capital expenditure of ₹42.89 lakh is allowed.

24. The petitioner has claimed actual additional capital expenditure of ₹42.61 lakh towards New Air Compressor in 2010-11 and ₹12.04 lakh towards Refrigeration type Air dryer in 2011-12 on the ground of improvement of performance of ash carrying system of AHS and for system improvement. The respondent, TANGEDCO has submitted that the claim for ₹42.61 lakh for New Air Compressor is in excess of the additional capital expenditure of ₹42.13 lakh allowed by Commission's order dated 31.8.2010 in Petition No.230/2009. It has further submitted that the petitioner has not furnished the reason for incurring the expenditure of ₹12.04 lakh towards Refrigerator type Air dryer in 2011-12 instead of the year 2010-11 for which the expenditure was



allowed by Commission's order dated 31.8..2010. The petitioner in its rejoinder has clarified that the expenditure has been claimed on actual basis.

25. The matter has been examined. In order dated 31.8.2010, the Commission had allowed the capitalization of this expenditure with the following observation:

“25. The petitioner vide its affidavit dated 30.4.2010 has filed the necessary information. It has been submitted by the petitioner that the dry ash transportation system was designed for an average ash content of 6-10% and the system was not able to cope with the sudden rise in ash content beyond 10% for shorter period which resulted in the failure of the conveyance pipes. Moreover, sudden rise in ash content between 10-23% was observed for at least 80-90 days in a year which resulted in the failure of the conveyance pipes, due to line choking. Hence, in order to cope up with the peak ash content effortlessly without affecting the power generation, the petitioner had to procure a new compressor and air-dryer. In view of this, the expenditure is justified and hence allowed to be capitalized. “

26. In line with the above decision, the claim for actual additional capital expenditure incurred for Compressor and Air dryer is allowed.

27. The petitioner has claimed actual additional capital expenditure of ₹105.70 lakh for Electronic computerized weigh bridge used for fly ash supply to cement and brick industries and ₹67.71 lakh for efficient functioning of After Burner Gate of Slag conveyor to ensure slag removal, the failure of which will result in loss of generation. Also, the petitioner has claimed actual additional capital expenditure of ₹1.12 lakh for Up-gradation of AHS PLC in 2013-14 due to obsolescence and to facilitate efficient operation of the generating station. The respondent, TANGEDCO has submitted that the petitioner is trying to pass on the irrelevant expenditure on the beneficiaries and the claim is not justifiable it does not give any direct benefit to the beneficiaries. In its rejoinder, the petitioner has clarified that the Electronic weigh bridge was required for weighing ash lorries and the Drive shaft for ABG was required for removal of bottom ash in boiler.

28. We have carefully examined the submission of the petitioner. It is observed that the Electronic weigh bridge has been installed for weighing of fly ash being transported through Lorries from the station to Cement companies/Brick Companies which were selected through e-bidding. The transportation of dry ash from the generating station to Cement companies/Brick Companies is to achieve the target of ash utilization as per statutory requirement of MOEF notification dated 3rd Nov 2009. We appreciate the measure taken by the petitioner for utilization of ash. However



we are of the considered view that the expenditure incurred for purchasing/ installing Electronic Weigh should be met from the revenue earned by selling ash to the Cement companies/Brick Companies in terms of the notification of MOEF, GOI. The relevant portion of the MOEF notification dated 3.11.2009 is extracted as under:-

“The amount collected from sale of fly ash and fly ash based product by coal and/or lignite based thermal power stations or their subsidiary or sister concern unit, as applicable should be kept in a separate account head and shall be utilized only for development of infrastructure or facilities, promotion and facilitation activities for use of fly ash until 100 percent fly ash utilization level is achieved; thereafter as long as 100% fly ash level are maintained, the thermal power station would be free to utilize the amount collected for other development programmes also and in case, there is a reduction in fly ash utilization levels in the subsequent year(s), the use of financial return from fly ash shall get restricted to development of infrastructure or facilities and promotion or facilitation activities for fly ash utilization until 100 percent fly ash utilization level is again achieved and maintained.

29. In line with the above, the claim of petitioner for actual additional capital expenditure of ₹105.70 lakh towards Electronic Weigh Bridge is disallowed.

30. As regards the claim of the petitioner for Rs 67.71 lakh towards After Burner Gate (ABG) it is observed from the justification furnished by the petitioner that the existing ABG's are worn out due to normal wear & tear and the same are not available in the mandatory spares procured for the station. In our view, these assets are in the nature of spares. Moreover, the petitioner was allowed to capitalize initial spares up to the cut-off date, over and above the ceiling norm of 2.5% for coal/lignite based stations. Any capital spares required due to wear & tear after cut-off date can be booked under O&M expense as and when consumed. In view of above, the claim for actual additional capital expenditure of ₹67.71 lakh in 2012-13 for ABG system is not allowed.

31. As regards the additional capital expenditure of Rs 1.12 lakh incurred for modification of AHS PLC system, it is observed that the work involved is a change of software and is a communication nature of asset. In our view, the expenditure incurred is minor in nature. S the provisions of the 2009 Tariff Regulations do not permit capitalization of minor assets after the cut-off date of the generating station, the claim of the petitioner for additional capital expenditure of Rs 1.12 lakh in 2013-14 for AHS PLC system is not allowed.



Regulation 9(2)(vii)-Any capital expenditure found justified after prudence check necessitated on account of modifications required or done in fuel receipt system arising due to non-materialisation of full coal linkage in respect of thermal generating station as result of circumstances not within the control of the generating station.

32. The petitioner has claimed actual additional capital expenditure of ₹27.23 lakh towards Auma Actuator with gear box (8 nos) for regulation of coal isolating dampers and ABG Gate, Indigenization of Russian make actuators in 2009-10, ₹28.10 lakh for Vulcanizing machine for 2000 mm conveyor belt in 2011-12 for vulcanizing the belts for conveyors, Expenditure of ₹14.12 lakh in 2012-13 and ₹43.74 lakh in 2013-14 towards Supply, installation & commissioning of Siemens PLC system for up gradation of thyristor panel of lignite feeding conveyors to have better speed control. The respondent, TANGEDCO has submitted that the petitioner has not furnished the details of approved estimate of the above said expenditure. It has also submitted that the claim of the petitioner be negated and the petitioner should meet the expenses out of the O&M expenses allowed in the tariff regulations. In response, the petitioner has clarified that it is already spending more than the allowed O&M charges for ensuring smooth running of the plant and thereby providing uninterrupted power supply to the grid.

33. We have examined the matter. Regulation 9(2)(vii) of the 2009 Tariff Regulations provides for capitalization of actual expenditure necessitated on account of modification required or done in fuel receipt system arising due to non-materialization of full coal linkage in respect of thermal generating station as a result of circumstances not within the control of the generating station. However, the petitioner has not submitted any justification as to how these assets fall within the scope of the provision of Regulation 9(2)(vii) of the 2009 Tariff Regulations. Further, adequate O&M expenses are provided to the generating station for meeting some expenditure which cannot be capitalized, but required for the operation and maintenance of the generating station. The petitioner shall meet the expenditure from O&M expenses of the generating station. In view of this, the actual additional capital expenditure claimed in respect of the said items are not allowed.



Other items/works

34. The petitioner has further claimed total actual additional capital expenditure of ₹241.14 lakh during the period 2009-14 in respect of 36 other items/works and has mentioned that these assets cannot be categorized under the 2009 Tariff Regulations. These items/works include Work station at project office, Piece block lining for both sides of road, Sinha make 5T sin. drum, Genie USA make aerial platform, VEL induction heater, ICD make battery charger, Automatic Transformer test set, Software for PMS, Boiler maintenance platform, Chain pulley, Electrically operated plate bending machine, Submersible pump, Reciprocating air compressor, Battery discharge load bank voltage etc. The provisions of Regulation 9(2) of the 2009 Tariff Regulations do not permit the capitalization of these items/works, after the cut-off date of the generating station. Moreover, these assets are either in the nature of Tools & tackles required for the purpose of maintenance or Communication equipment's which are of minor nature. Hence, on prudence check, the actual additional capital expenditure in respect of these items/works has not been allowed.

35. The petitioner has claimed total actual additional capital expenditure of ₹10089.98 lakh in 2012-13 towards assets like IP/LP rotor (₹4586.21 lakh), L1 Stationary blade(₹120.37 lakh), HP Turbine rotor (₹1990.25 lakh) and Generator rotor (₹3393.15 lakh). In justification of the same, the petitioner has submitted that the petition is pending before the Commission for admitting these items. In respect of the claim for Generator rotor, the petitioner has submitted that this item was claimed in the Review Petition No 6/RP/2011 for review of the order dated 31.8.2010 in Petition No.230/2009 and the same was not allowed.

36. It is noticed that the Commission in its order dated 7.6.2013 in Petition No.6/RP/2011 had rejected the claim of the petitioner with regard to the capital expenditure towards Purchase of Spare Turbine rotor (which includes IP/LP rotor and HP rotor) amounting to ₹4000 lakh. Aggrieved by the said order dated 7.6.2013, the petitioner filed Appeal No. 201/2013 before the Tribunal and by order dated 14.7.2014 the Tribunal remanded the matter to the Commission to consider afresh the issue of disallowance of the purchase of Spare Turbine rotor. The relevant portion of the judgment is extracted as under:



"...But we are not able to accept the submissions made by the learned counsel for the Commission since the perusal of the entire impugned order would make it clear that the Commission has neither referred to Affidavit filed by the Appellant on 6.1.2012 nor analyzed the contents of the same in justification of their claim given in the relevant portions of the order on this issue. Therefore, we deem it appropriate to remand the matter for fresh consideration on this issue. Both the parties are at liberty to raise their respective contentions in regard to their issue".

37. In compliance with the above direction, Petition No. 6/RP/2011 was heard and the Commission by order dated 10.6.2015 had rejected the prayer of the petitioner. The relevant portion of the order dated 10.6.2015 is extracted as under:

"13. It is observed from the submission of the petitioner that the reason for the development of the crack in Unit I & II Rotor could not be concluded either by NLC or by the OEM. In the above background and since the actual reasons for the development of crack is yet to be reported by the OEM, we are of the considered view that the petitioner has not made out a case that the damage to existing rotors was beyond its control. In the circumstances, we do not find any merit in the claim of the petitioner for capitalisation of expenditure towards spare turbine rotor. Accordingly, the claim of the petitioner is rejected.

14. One more submission of the petitioner is that even if the claim is not covered under any of the provisions of the 2009 Tariff Regulations, necessary relief can be granted by the Commission in exercise of the 'Power to relax' under Regulation 44 of the 2009 Tariff Regulations. The petitioner has also referred to the judgments of the Hon'ble Supreme Court in P.K. Palanisamy Vs N. Arumugham & anr (2009 9 SCC 173), Ram Sunder Ram Vs Union of India (2007 13 SCC 255). The respondent TANGEDCO while objecting to the above has submitted that the prayer of the petitioner is not permissible since there are definitive limits to the scope of review and no formal prayer had been made by the petitioner in the original petition or in the affidavit dated 6.1.2012. We have considered the submissions. As already stated, the petitioner in support of its claim for capitalisation of spare turbine rotor has not made out a case on merits for consideration of the same by the Commission. Since there is no basis for considering the claim of the petitioner, there is no reason for us to grant the prayer in exercise of the 'Power to relax' under Regulation 44 of the 2009 Tariff Regulations. In other words, the petitioner having not justified the need for Spare turbine rotor cannot seek the capitalisation of the said claim in exercise of the Power to relax".

38. As stated, against the said order dated 10.6.2015, the petitioner has filed Appeal No. 210/2015 and the same is pending before the Tribunal. No stay has been granted by the Tribunal. The Commission having disallowed the expenditure for purchase of Spare Turbine rotor by a conscious decision in order dated 10.6.2015, there is no reason to allow the claim of the petitioner, in this order in respect of Turbine rotor i.e. IP/LP rotor of ₹4586.21 lakh and H.P. rotor of ₹1990.25 lakh. Hence, the claim has been disallowed. The claim of the petitioner for other items namely L1 Stationary blade, and Generator rotor which are of spare in nature and as per provisions of Tariff Regulations, 2009, spares are not allowed after the cutoff date of the station. Accordingly, the capitalization of Rs 120.37 lakh for L1 stationary blade and Rs 3393.15 lakh for Generator rotor have been disallowed.



39. Based on the above discussions, the actual additional capital expenditure allowed for the period 2009-14 are summarized as under:-

Sl. No	Description	(₹lakh)				
		2009-10	2010-11	2011-12	2012-13	2013-14
1	Work Station at Project Office	0.00	0.00	0.00	-	0.00
2	RCC Concrete Road Platform Parking Fly Ash Vehicles/	42.89	0.00	0.00	0.00	0.00
3	Piece Block Lining For Both Side of Roads	0.00	0.00	0.00	0.00	0.00
4	Platform Elect. Operated 12m Split Deck Type-BM	0.00	0.00	0.00	0.00	0.00
5	Plasma Monitor(Display Unit)/	0.00	0.00	0.00	0.00	0.00
6	Centralized Monitoring System-Elec. Maintenance	0.00	0.00	0.00	0.00	0.00
7	'Sinha' make 5T Sin. Drum Bidir Elec Winch-BM	0.00	0.00	0.00	0.00	0.00
8	Genie USA Make Aerial Platform-Pers Lift-EM	0.00	0.00	0.00	0.00	0.00
9	530030004:Motorola Make VHF Walkie-Talkie Model G8	0.00	0.00	0.00	0.00	0.00
10	VEL Induction Heater 25 KVA	0.00	0.00	0.00	0.00	0.00
11	Kirloskar Make Pump Model BHR 28-30 -Turbine MTCE	0.00	0.00	0.00	0.00	0.00
12	Fire Alarm System 01 No	0.00			0.00	0.00
13	Infrared Thermal Imaging Camera	0.00	0.00		0.00	0.00
14	Inline Over Band Oil Cooled Magnetic Separators	0.00	0.00	0.00	0.00	0.00
15	ICD Make Battery Charger 48V 100 Amps	0.00	0.00	0.00	0.00	0.00
16	Auma Actuators With Gear Box 8	0.00	0.00	0.00	0.00	0.00
17	Instrument Meter Measuring Signal Level Generator	0.00	0.00	0.00	0.00	0.00
18	Flow Transmitter DP Type With Orifice Pipe 500 NB 1 no.	1.40	0.00	0.00	0.00	0.00
19	Solar Water Heater System	0.00	0.00	0.00	0.00	0.00
20	Automatic Transformer Test Set	0.00	0.00	0.00	0.00	0.00
21	Cap Exp -Develop. Install & Implement software for PMS	0.00	0.00	0.00	0.00	0.00
22	Construction of LP-HP Heater Coil Shed	0.00	0.00	0.00	0.00	0.00
23	Boiler Maintenance Platform Electrically Operated	0.00	0.00	0.00	0.00	0.00
24	Chain Pulley 10 Ton 3 Nos.	0.00	0.00	0.00	0.00	0.00
25	New Air Compressor	0.00	42.61	0.00	0.00	0.00



26	Electrically Operated Plate Bending Machine	0.00	0.00	0.00	0.00	0.00
27	Micro Processor Online CEMS Measuring So _x , No _x , CO	0.00	21.50	0.00	0.00	0.00
28	Submersible Pump Set –	0.00	0.00	0.00	0.00	0.00
29	Submersible Pump Set –	0.00	0.00	0.00	0.00	0.00
30	Centrifugal Pump Five Stage With Bare Shaft	0.00	0.00	0.00	0.00	0.00
31	Electric Powered Hexagon Torque Wrench 36 to 65 mm	0.00	0.00	0.00	0.00	0.00
32	PAN Mixture for Mixing Refractory Castables 100 ltr.	0.00	0.00	0.00	0.00	0.00
33	Motorola VHF W/T Set Model GP 338- 30 Nos.	0.00	0.00	0.00	0.00	0.00
34	Rotor Handling Car	0.00	0.00	0.00		0.00
35	Personal Computer 10 Nos.	0.00	0.00	0.00	0.00	0.00
36	Personal Computer 10 Nos.	0.00	0.00			
37	Providing 4 Nos. New Hydrants For 11 A/B Conveyor	0.00	0.00	0.00	0.00	0.00
38	3 Digit and 5 Digit ISDN EPABX - 200 Lines Capacity	0.00	0.00	0.00	0.00	0.00
39	Online Sodium Analyzer with Consumable Spares 2 nos	0.00	0.00	0.00	0.00	0.00
40	CKP Electric Operated Drilling Machine	0.00	0.00	0.00	0.00	0.00
41	Electrically Operated Heavy Duty Grinder	0.00	0.00	0.00	0.00	0.00
42	Vulcanizing Machine For 2000 mm Conveyor Belt	0.00	0.00	0.00	0.00	0.00
43	Supply, erection & Commissioning of Surveillance Camera	0.00	0.00	16.88	0.00	0.00
44	Supply, erection & Commissioning of Centralized Energy Monitoring	0.00	0.00	0.00	0.00	0.00
45	Bentley Nevada Make TK3E Proximity Systems Test Kit	0.00	0.00	0.00	0.00	0.00
46	Hydrogen Purity Gas Density Analyser	0.00	0.00	0.00	0.00	0.00
47	Portable Digital Conductivity Meter	0.00	0.00	0.00	0.00	0.00
48	Pulling And Lifting Machine	0.00	0.00	0.00	0.00	0.00
49	Refrigeration Type Air Dryer 35 Normal Metre ³ /Min	0.00	0.00	12.04	0.00	0.00
50	Automatic Power Factor Capacitor 12 KVAR	0.00	0.00	0.00	0.00	0.00
51	Construction of shed for storing Gas Cylinders	0.00	0.00	0.00	0.00	0.00
52	1000GPM 150M Head Submersible Pump Set-1 No	0.00	0.00	0.00	0.00	0.00



53	1000GPM 150M Head Submersible Pump Set-1 No	0.00	0.00	0.00	0.00	0.00
54	1000GPM 150M Head Submersible Pump Set-1 No	0.00	0.00	0.00	0.00	0.00
55	Online Phosphate Analyzer Range 0.05 to 5 PPM	0.00	0.00	0.00	0.00	0.00
56	Dehumidifier - Air Flow Capacity:1080-1440 NM ³ /hr	0.00	0.00	0.00	11.17	0.00
57	Supply, erection & Commissioning of Siemens Makes 7-300 PLC System-4 Nos.	0.00	0.00	0.00	0.00	0.00
58	Up-gradation of Network Communication in Plc (Lhs)	0.00	0.00	0.00	0.00	0.00
59	Opacity Analyser in Flue Gas Range 0-300 mg/M ³	0.00	0.00	0.00	3.10	0.00
60	Ultrasonic Flow Detector	0.00	0.00	0.00	0.00	0.00
61	4 Wheeler Battery Operated Platform Trolley Equipment	0.00	0.00	0.00	0.00	0.00
62	Reciprocating Air Compressor 14- 15 CFM 5 HP AC Motor	0.00	0.00	0.00	0.00	0.00
63	Pan Mixture 300 Ltrs. Capacity	0.00	0.00	0.00	0.00	0.00
64	LCD Projector of Higher Lumens USB Port RJ-45	0.00	0.00	0.00	0.00	0.00
65	Battery Discharge Load Bank- Voltage N220V DC	0.00	0.00	0.00	0.00	0.00
66	LCD Projector of Higher Lumens USB Port	0.00	0.00	0.00	0.00	0.00
67	Electronic Computerized Weigh Bridge 1 No.	0.00	0.00	0.00	0.00	0.00
68	Low Pressure Calibrator	0.00	0.00	0.00	0.00	0.00
69	Opacity Analyser for measurement in Flue Gas	0.00	0.00	0.00	3.60	0.00
70	Induction Heater SKF Part No TIH030 M/230V	0.00	0.00	0.00	0.00	0.00
71	GPS Clock System	0.00	0.00	0.00	8.04	0.00
72	Hydraulic Square Drive Torque Wrench	0.00	0.00	0.00	0.00	0.00
73	Drive Shaft for ABG	0.00	0.00	0.00	0.00	0.00
74	IP/LP Rotor	0.00	0.00	0.00	0.00	0.00
75	L1 Stationary Blade	0.00	0.00	0.00	0.00	0.00
76	HP Turbine Rotor	0.00	0.00	0.00	0.00	0.00
77	Generator Rotor	0.00	0.00	0.00	0.00	0.00
78	Installation and commissioning of Siemens PLC System Up- gradation	0.00	0.00	0.00	0.00	0.00
79	Up-gradation of AHS PLC	0.00	0.00	0.00	0.00	0.00
80	Portable Induction Heater	0.00	0.00	0.00	0.00	0.00
81	Vibration Diagnostic System	0.00	0.00	0.00	0.00	0.00
82	LED Display Board	0.00	0.00	0.00	0.00	13.87



83	Siemens Make S7-300 PLC System Up-gradation	0.00	0.00	0.00	0.00	0.00
84	Lift Scissor Platform	0.00	0.00	0.00	0.00	0.00
85	Siemens Make HMI KTP 6	0.00	0.00	0.00	0.00	0.00
86	3 Ton Capacity Hydraulic Crane	0.00	0.00	0.00	0.00	0.00
87	Supply, Installation of 2 Kw Solar Panel.	0.00	0.00	0.00	0.00	0.00
88	Disturbance Recorder	0.00	0.00	0.00	0.00	0.00
89	Digital Conductivity Meter	0.00	0.00	0.00	0.00	0.00
90	Moisture Analyser	0.00	0.00	0.00	0.00	0.00
91	Insitu Type Online Flue Gas Analyser	0.00	0.00	0.00	0.00	18.91
92	Cambium Make PTP250	0.00	0.00	0.00	0.00	0.00
	Total Additional Capital Expenditure allowed	44.29	64.11	28.92	25.91	32.78

Capital cost for 2009-14

40. As stated, the opening capital cost of ₹144911.87 lakh as on 1.4.2009 has been considered for revision of tariff for 2009-14. Accordingly, the capital cost approved for the period 2009-14 is as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Gross Block	144911.87	144956.16	145020.27	145049.19	145075.10
Admitted additional capital expenditure	44.29	64.11	28.92	25.91	32.78
Closing Gross Block	144956.16	145020.27	145049.19	145075.10	145107.88

Debt- Equity Ratio

41. Regulation 15 of the 2009 Tariff Regulations amended on 31.12.2012 provides as under:

“(1) Return on equity shall be computed in rupee terms, on the equity base determined in accordance with regulation 12.

(2) Return on Equity shall be computed on pre-tax basis at the base rate of 15.5% for thermal generating stations, transmission system and run of the river generating station, and 16.5% for the storage type generating stations including pumped storage hydro generating stations and run of river generating station with pondage and shall be grossed up as per clause (3) of this regulation

(3) The rate of return on equity shall be computed by grossing up the base rate with the Minimum Alternate/Corporate Income Tax Rate for the year 2008-09, as per the Income Tax Act, 1961, as applicable to the concerned generating company or the transmission licensee, as the case may be.

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

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

Where t is the applicable tax rate in accordance with clause (3) of this regulation.



(5) The generating company or the transmission licensee, as the case may be, shall recover the shortfall or refund the excess Annual Fixed Charge on account of Return on Equity due to change in applicable Minimum Alternate/Corporate Income Tax Rate as per the Income Tax Act, 1961 (as amended from time to time) of the respective financial year directly without making any application before the Commission:

Provided further that Annual Fixed Charge with respect to the tax rate applicable to the generating company or the transmission licensee, as the case may be, in line with the provisions of the relevant Finance Acts of the respective year during the tariff period shall be tried up in accordance with Regulation 6 of these regulations.”

42. The respondent, KSEB vide affidavit dated 15.1.2015 has raised issues with respect to NFA methodology and funding of entire additional capitalization through equity. In response, the petitioner vide affidavit dated 3.3.2016 has submitted that NFA methodology has been adopted by NLC as per order of the Commission dated 4.6.2008 and since funding of additional capitalization is from internal resources, 100% equity has been considered for such additional capital expenditure. As the Commission has considered Net Fixed Asset(NFA) method in the case of the generating stations of the petitioner, the actual source of funding has been considered for calculating debt-equity ratio. Accordingly, return on equity for the period 2009-14 is worked out as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Average Equity	89345	82560	75764	68948	62132
Return on Equity (Base Rate)	15.500%	15.500%	15.500%	15.500%	15.500%
Tax rate for the year	33.990%	33.218%	32.445%	32.445%	33.990%
Rate of Return on Equity	23.481%	23.210%	22.944%	22.944%	23.481%
Return on Equity	20979	19162	17383	15819	14589

Interest on loan

43. As NFA methodology has been considered in case of the generating station, the actual loan, actual repayment and the actual rate of interest has been considered for the purpose of calculation of interest on loan. The weighted average rate of interest on loan for the period 2009-14, has been considered@ 1.95%, for working out interest on loan as under:

	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Net Loan-Opening	22119	21343	20567	19791	19015
Repayment during the year	776	776	776	776	776
Net Loan-Closing	21343	20567	19791	19015	18238
Average Loan	21731	20955	20179	19403	18626
Weighted Average Rate	1.95%	1.95%	1.95%	1.95%	1.95%



of Interest					
Interest on Loan	424	409	393	378	363

Depreciation

44. Regulation 17 of the 2009 Tariff Regulations provides as under:

“(1) The value base for the purpose of depreciation shall be the capital cost of the asset admitted by the Commission.

(2) 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 stations, the salvage value shall be as provided in the agreement signed by the developers with the State Government for creation of the site.

Provided further that the capital cost of the assets of the hydro generating station for the purpose of computation of depreciable value shall correspond to the percentage of sale of electricity under longterm power purchase agreement at regulated tariff.

(3) 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.

(4) Depreciation shall be calculated annually based on Straight Line Method and at rates specified in Appendix-III 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 date of commercial operation shall be spread over the balance useful life of the assets.

(5) In case of the existing projects, the balance depreciable value as on 1.4.2009 shall be worked out by deducting the cumulative depreciation including Advance against Depreciation as admitted by the Commission upto 31.3.2009 from the gross depreciable value of the assets.

(6) 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.”

45. Based on the weighted average rate of depreciation of 5.253% calculated in terms of the above regulation, the computations in support of depreciation are worked out as under:

	<i>(₹ in lakh)</i>				
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening Gross Block	144911.87	144956.16	145020.27	145049.19	145075.10
Admitted additional capital expenditure	44.29	64.11	28.92	25.91	32.78
Closing gross block	144956.16	145020.27	145049.19	145075.10	145107.88
Average gross block	144934.02	144988.22	145034.73	145062.15	145091.49
Rate of Depreciation	5.253%	5.253%	5.253%	5.253%	5.253%
Depreciation	7614	7617	7619	7621	7622

Operation & Maintenance Expenses

46. O&M expenses as considered in order dated 31.8.2010 in Petition No.230/2009 has been considered as under:



(₹ in lakh)				
2009-10	2010-11	2011-12	2012-13	2013-14
7644	8081	8543	9034	9551

47. The petitioner has claimed Foreign Exchange Rate Variation on guarantee fee, interest and loan repayment. As such, FERV on interest on loan and repayment loan shall be recoverable from the respondent in accordance with Regulation 40 of Tariff Regulation, 2009.

Interest on Working Capital

48. Sub-clause (a) of clause (1) of Regulation 18 of the 2009 regulations provide as under:

“18 (1) The working capital shall cover:

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

(i) Cost of coal or lignite and limestone, if applicable, for 1½ months for pithead generating stations and two months for non-pit-head generating stations, for corresponding to the normative annual plant availability factor;

(ii) 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.

(iii) Maintenance spares @ 20% of operation and maintenance expenses specified in regulation 19.

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

(v) Operation and maintenance expenses for one month.

Fuel component in working capital

49. The Commission in its order dated 7.6.2013 in Petition No. 6/RP/2011 had allowed the cost for fuel component in working capital as under:

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of Lignite for 1.5 months	5185	5428	5734	5762	6034
Cost of secondary fuel oil for 2 months	193	193	193	193	193

50. The petitioner has claimed the following cost for fuel component in working capital:-

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of Lignite for 1.5 months	3789	3789	3799	3789	3789
Oil stock (2 months)	193	193	193	193	193

51. It is observed that the revision in the claim of the petitioner in Lignite cost is on account of the consideration of revised lignite transfer price of ₹1031/MT in the year 2008-09 as approved by the



Commission in order dated 5.2.2014 in Petition No. 167/MP/2011, wherein the pooled lignite transfer price for the period from 1.4.2004 to 31.3.2014 was revised based on the actual mine closure cost as approved by Ministry of Coal, GOI. Thus, on account of the revision in the pooled lignite transfer price for the year 2008-09 to ₹1031/MT from ₹1064/MT (as considered in the order dated 31.8.2010 and 7.6.2013), the fuel component in working capital is required to be revised. Based on this, the lignite cost in the working capital as claimed by the petitioner is found to be in order and is allowed.

52. The Commission in its order dated 12.5.2015 in Petition No. 65/MP/2013 had allowed expenditure due to wage revision of NLC employees employed in the mines and for CISF security personnel and staff of Kendiya Vidyalaya. The relevant portion of the order dated 12.5.2015 is extracted as under:

“Accordingly, the petitioner is directed to calculate the impact on variable charge for the tariff period 2006-09 and capacity charge and variable charge in 2009-14 for its different generating stations due to increase in wage revision for Mines and accordingly, adjust tariff as approved by the Commission for NLC TPS-I, NLC TPS-II (Stage-I and Stage-II) and NLC TPS-I (Expansion).”

53. In terms of the above observations, the fuel component in working capital allowed for the period 2009-14 shall be revised and adjusted by the petitioner.

Maintenance Spares

54. In terms of Regulation 18(1)(a)(iii), the maintenance spares for the generating station has been worked out @ 20% of the Operation & Maintenance expenses as specified in regulation 19, and allowed as under:

<i>(₹ in lakh)</i>				
2009-10	2010-11	2011-12	2012-13	2013-14
1529	1616	1709	1807	1910

Receivables

55. In terms of Regulation 18(1)(a)(iv), receivables equivalent to two months of capacity charges and energy charges for sale of electricity calculated on the normative annual plant availability factor, has been computed and allowed as under:



	(₹ in lakh)				
	2009-10	2010-11	2011-12	2012-13	2013-14
Fixed Charges	6668	6433	6211	6028	5907
Variable Charges	5052	5052	5065	5052	5052
Total	11719	11485	11276	11079	10959

Operation & Maintenance expenses

56. In terms of Regulation 18(1)(a)(v), operation & maintenance expenses for one month is worked out and allowed as under:

(₹ in lakh)				
2009-10	2010-11	2011-12	2012-13	2013-14
637	673	712	753	796

Rate of interest on working capital

57. In terms of clause (3) of Regulation 18 of the 2009 regulations, SBI PLR of 12.25% as on 1.4.2009 has been considered in the computation of interest on working capital.

58. Based on the above, the interest on working capital allowed for the period 2009-14, is as under:

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
O&M expenses -1 month	637	673	712	753	796
Receivables -2 months	11719	11485	11276	11079	10959
Maintenance Spares	1529	1616	1709	1807	1910
Cost of Secondary Fuel oil	193	193	193	193	193
Fuel Stock -1.5 months	3789	3789	3799	3789	3789
Total Working Capital	17866	17756	17689	17620	17646
Interest Rate	12.25%	12.25%	12.25%	12.25%	12.25%
Interest on Working Capital	2189	2175	2167	2159	2162

Annual Fixed charges for 2009-14

59. The annual fixed charges approved for the generating station period 2009- 14 is summarized as under:

(₹ in lakh)					
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	20979	19162	17383	15819	14589
Interest on Loan	424	409	393	378	363
Depreciation	7614	7617	7619	7621	7622
Interest on Working Capital	2189	2175	2167	2159	2162
O & M Expenses	7644	8081	8543	9034	9551
Cost of Secondary fuel oil	1156	1156	1160	1156	1156
Total	40006	38600	37265	36167	35443



Energy Charge Rate (ECR)

60. The petitioner vide affidavit dated 6.2.2016 has prayed that the petitioner may be permitted to revise Energy Charges based on the actual secondary oil consumption and has submitted as follows:-

“(a) NLC had computed ECR for the tariff period 2009-14 in accordance with Regulation 21(6) of CERC 2009-14 Tariff Regulations adopting the normative Secondary Fuel Oil Consumption (SFC) as specified in Regulation 26(iii) of the 2009 Tariff Regulations and recovered the same from the beneficiaries.

“(b) The petitioner seeks permission of the Commission for substitution of the actual SFC in lieu of normative SFC, hitherto applied by NLC in the ECR determination under Regulation 21(6) for the period 2009-14, in accordance with the Para 12 of the order in Petition No. 285/MP/2013 and to recover from the beneficiaries along with interest, the differential amount due to revision of ECR consequent to application of actual SFC in lieu of Normative SFC in the algorithm.”

61. The matter has been examined. In Petition No. 285/MP/2013 filed by KSEB, it was contended by KSEB that the normative value of SFC has to be adopted for arriving at the Energy Charge Rate as against the methodology adopted by NTPC in adjusting the Energy Charge at the end of a year by taking average of (normative SFC+ actual SFC)/2 a year. The Commission after interpretation of the provisions of Regulation 21 (6) of the 2009 Tariff Regulations by order dated 10.7.2015 held that the methodology adopted by the NTPC was wrong. However, based on the fact that NTPC was charging less by applying this methodology as compared to the energy charge considering normative specific fuel oil consumption 1ml/kWh, the prayer of KSEB was rejected by the said order. It was also clarified in the said order that the decision in this case shall not be used to reopen the settled cases. The relevant portion of the order dated 10.7.2015 is extracted as under:

“16. Perusal of billing data given in the petition reveals that the respondent is adjusting Energy Charge at the end of a year by taking average of (normative SFC+ actual SFC)/2 of a year. This methodology has been adopted by NTPC to share the savings in the consumption of actual SFC in comparison to normative SFC. However, the said methodology is in deviation to Regulation 21 (6) of the Tariff Regulations. However, NTPC is charging less by applying this methodology as compared to the energy charge considering normative specific fuel oil consumption 1ml/kW.

17. In view of the above discussions, there is no merit in the contention of the petitioner. It is clarified that the decision in this case shall not be used to reopen the settled cases”



62. The petitioner in this petition has sought for substitution of the actual SFC in lieu of normative SFC, in the ECR determination under Regulation 21(6) for the period 2009-14, in terms of the order dated 10.7.2015. The Commission in its order dated 10.7.2015 while holding that the methodology adopted by NTPC was not in conformity to the Regulation 26(a) of the 2009 Tariff Regulations had observed that NTPC was charging less by applying the said methodology. Accordingly, the decision in the case of NTPC cannot be made applicable to the instant case of the petitioner. The petitioner has also prayed for recovery from the beneficiaries along with interest, the differential amount due to revision of ECR consequent to application of actual SFC in lieu of normative SFC. It is noticed that the Commission in the said order had clarified that the said decision cannot be used to reopen settled cases. In the light of the above discussions, the submissions of the petitioner are not acceptable and the prayer of the petitioner for substitution of the actual SFC in lieu of normative SFC in the ECR determination is accordingly rejected.

63. The difference between the annual fixed charges determined by order dated 30.8.2010 and 7.6.2013 and the annual fixed charges determined by this order shall be adjusted in terms of the proviso to Regulation 6 (6) of the 2009 Tariff Regulations, as amended on 21.6.2011.

64. Petition No. 474/GT/2014 is disposed of in terms of the above.

Sd/-
(Dr. M.K.Iyer)
Member

Sd/-
(A.S Bakshi)
Member

Sd/-
(A.K.Singhal)
Member

Sd/-
(Gireesh B Pradhan)
Chairperson

