CENTRAL ELECTRICITY REGULATORY COMMISSION NEW DELHI

Petition No.6/RP/2011 in Petition No.230/2009

Coram: Dr. Pramod Deo, Chairperson Shri V. S. Verma, Member Shri M. Deena Dayalan, Member

Date of Hearing:3.11.2011Date of Order:7.6.2013

In the matter of

Review of Order dated 31.8.2010 in Petition No. 230/2009 pertaining to fixation of tariff in respect of NLC TPS-I Expansion (2x210 MW) for the period from 1.4.2009 to 31.3.2014.

And

In the matter of

Neyveli Lignite Corporation Ltd, Chennai

Vs

- 1. Tamil Nadu Electricity Board, Chennai
- 2. Power Company of Karnataka Limited, Bangalore
- 3. Kerala State Electricity Board, Thiruvananthapuram
- 4. Puduchery Electricity Department, Puducherry

.....Respondents

.....Petitioner

Parties present:

- 1. Shri R.Suresh, NLC
- 2. Shri S.Vallinayagam, Advocate, TNEB

2. Shri S.Balaguru, TNEB

<u>ORDER</u>

Petition No. 230/2009 was filed by the petitioner, NLC for determination 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, based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2009 (hereinafter referred to as "the 2009 Tariff Regulations") and the Commission by order dated 31.8.2010 determined the annual fixed charges for the generating station for the period 2009-14. Thereafter, the Commission by its order dated 23.3.2011 revised the annual fixed charges for the generating station for

the period 2009-14 after correction of errors in the calculation of receivable component of working capital, as stated hereunder:

					(₹in lakh)
	2009-10	2010-11	2011-12	2012-13	2013-14
Return on Equity	20977	19378	17774	16168	14562
Interest on Loan	424	409	393	378	363
Depreciation	7613	7615	7615	7615	7615
Interest on Working Capital	2596	2658	2739	2741	2816
O&M Expenses	7644	8081	8543	9034	9551
Cost of secondary fuel oil	1156	1156	1160	1156	1156
Compensation allowance	-	-	-	-	-
Total	40410	39296	38224	37093	36063

2. Aggrieved by order dated 31.8.2010, the petitioner has sought review of the said order on the following issues:

- (i) Additional Capitalization for the period 2007-09 and 2009-14 for Common Assets;
- (ii) Capital cost as on 1.4.2009; and
- (iii) Projected Additional Capital Expenditure of direct assets for the period 2009-14.

3. Also, the respondent, TANGEDCO filed Appeal No. 38/2011 before the Appellate Tribunal for Electricity challenging the said order on the issue of allowing additional capitalization of ₹42.13 lakh towards the Air Compressor and ₹14.19 lakh towards the Air dryer aggregating to ₹56.32 lakh under Regulation 9(2)(iii) of the 2009 Tariff Regulations.

4. The review petition was heard on 28.6.2011 and the Commission by its order dated 1.7.2011 admitted the review petition after condonation of the delay in the filing the review petition and ordered notice on the respondents. Replies have been filed by the respondent, No.1, TANGEDCO (*erstwhile* TNEB) and the petitioner has filed its rejoinder to the said replies. Meanwhile, the Tribunal by its judgment dated 16.12.2011 in Appeal No. 38/2011 has dismissed the said appeal.

5. Heard the parties in review petition. We now proceed to examine the issues raised by the petitioner as discussed in the subsequent paragraphs.

Additional Capitalization of Common Assets for 2007-09

6. In terms of the liberty granted by the Commission in its order dated 18.12.2009 in Petition No.14/2009, the petitioner had claimed additional capitalization of ₹18.34 lakh in Petition No. 230/2009 towards Common Assets under the head "Furniture & Equipments' and 'Office Equipments' in terms of Regulation 9(2)(ii) of the 2009 Tariff Regulations. Since the additional capitalization relate to the tariff period 2004-09, the Commission after considering the said claim in terms of the provisions of the 2004 Tariff Regulations disallowed the additional capitalization of ₹18.34 lakh for the period 2007-09 by its order dated 21.8 2010 observing as under:

dated 31.8.2010 observing as under:

"14. From the details submitted, it is observed that the assets are either minor in nature or in the nature of O&M. In terms of clause (3) of Regulation18 of the 2004 regulations, any expenditure on minor assets is not admissible. Moreover, these Common Assets are generally booked under corporate assets and the normative O&M expenses also include corporate expenses. These, expenses are recovered by the petitioner through O&M cost. In view of this, the claim of the petitioner for ₹18.34 lakh for additional capitalization in respect of Common Assets for the period 2007-08 and 2008-09 is disallowed"

7. The petitioner, in the instant petition has submitted that the observations of the Commission classifying the disallowed portions of additional capitalization for Common Assets as either minor in nature or in the nature of O&M needs to be reviewed taking into

consideration the following relevant facts:

(a) The Commission in its order dated 28.5.2008 in Petition No.126/2007 pertaining to additional capitalization for the period 2004-07 in respect of this generating station had allowed the claim of the petitioner for capitalization of expenditure for Common Assets based on the justification submitted by the petitioner, but has adopted a different yardstick in respect of the claim of the petitioner for capitalization of Common Assets for the period 2007-09 based on similar justification, in its order dated 31.8.2010. Hence capital additions of the same nature under the same regulations have to be viewed in the same manner.

(b) The expenditure which is revenue in nature is only claimed through O&M expenses while these Common Assets are capital in nature and hence not claimed under O&M.

(c) Categorization of additions as specified under Regulation 18 of the 2004 Tariff Regulations are applicable to direct assets and not Common Assets.

Accordingly, the petitioner has submitted that it is an integrated utility having mines

and thermal stations along with services units and medical facilities to cater to the needs of

the company and Common Assets occur and gets assigned to the generating station after

duly getting distributed among various plants. The petitioner has therefore prayed that additional capitalization due to Common Assets has to be considered in full only as done in the earlier order for the generating station for which regulatory tool cannot be applied as such. Based on the above submissions, the petitioner has prayed that the error in the order dated 31.8.2010 be corrected.

8. The respondent, TANGEDCO in its reply vide affidavit dated 30.6.2011 has submitted that review on merit is not permissible and the person aggrieved by the reasoning in the order has to file an appeal in the higher forum and not a review of the said order. It has also submitted that no ground has been made by the petitioner for review of order dated 31.8.2010 and the same is liable to be summarily rejected. It has further submitted that capitalization of expenses incurred on furniture, computers, refrigerators, air conditioners etc are not permissible under the 2004 Tariff Regulations and the Commission may limit the additional capitalization that go directly to power house irrespective of the owner of the generating company. Accordingly, it has prayed that the claim of the petitioner be rejected.

9. Pursuant to the hearing of the matter on 4.8.2011, the petitioner was directed to segregate the expenses pertaining to different assets under the nomenclature of Assets of minor nature, Capital nature of assets, Assets required for hospital purposes and O&M assets, along with their cost claimed in the Common Assets for the period 2007-09 and 2009-14, and to ensure that there was no duplicity in the claim of Common Assets and direct assets. In response, the petitioner vide its affidavit dated 30.8.2011 has submitted the details of the Common Assets after segregation for the period 2007-09 as under:

	(₹in lakh	ı)
	2007-08	2008-09
Assets of minor nature other than hospital	18.92	0.00
Assets of Capital nature other than hospital	51.56	484.91
Assets for hospital purposes	2.21	5.10
O&M assets	0.00	0.00
Total	72.69	490.01
Percentage allocation for the generating station @ 3% (approx)	2.18	16.16

10. The respondent, TANGEDCO in its reply vide affidavit dated 16.9.2011 has reiterated it earlier submissions and has pointed out that there is no apparent error on the face of the order. It has also submitted that in terms of Regulation 18(3) of the 2004 Tariff Regulations, assets of minor nature, tools and tackles etc., bought after the cut-off date shall not be considered for capitalization.

11. The submissions of the parties have been considered. The petitioner has submitted that the Commission in its order dated 28.5.2008 in Petition No.126/2007 had allowed the capitalization of Common Assets for the period 2004-07 in respect of this generating station, but has disallowed the same for the period 2007-09 on similar grounds. According to the petitioner, capitalization of assets of same nature under the same regulations cannot be considered in a different manner and hence the order of the Commission requires to be reviewed. We agree with the submissions of the petitioner. The Commission having allowed the capitalization of Common Assets for 2004-07 under the provisions of the 2004 Tariff Regulations by order dated 28.5.2008, the same should have been considered at the time of considering the claims of the petitioner for capitalization of Common Assets for the period 2007-09 in Petition No. 230/2009, specially considering the fact that the petitioner was given the liberty to claim the same along with detailed justification. The non-consideration of the order dated 28.5.2008 in Petition No.126/2007 as regards the capitalization of Common Assets at the time of passing of the order dated 31.8.2010 in Petition No.230/2009, is in our view an error apparent on the face of the order, which needs to be reviewed. We order accordingly. In this view, the details of the segregated Common Assets submitted by the petitioner in Annexure –I of the petition has been examined along with its justification and on prudence check, the capitalization of those assets which are necessary for successful and efficient operation of the generating station, is allowed to be capitalized as discussed below:

(A) Assets for hospital purposes

12. The details of Common Assets for hospital purposes as claimed by the petitioner and allowed after prudence check for the years 2007-08 and 2008-09 are as follows:

	•	(in ₹)	
	2007-08		
	Claimed	Allowed	
Storage water heater	57735	0.00	
Pedestal fan-2 Nos	9639	0.00	
Water dispenser – 15 Nos	94485	0.00	
Needle destroyer – 2 Nos	2900	2900	
BP apparatus	6300	6300	
Pulmo Aid Neumaliser system – 10 Nos	35000	35000	
Micro peak flow meter	11336	11336	
Digital weighing machine – 2 Nos	7000	7000	
Total	224395	62536	
Total (in lakh)	2.24	0.63	
Percentage allocation for generating station	0.07	0.02	
[@ 3%] (in lakh)		•	
	2008-0	9	
Diatherapy machine ENT – 2 Nos.	10== 111		
Tata motors Ambulance	1377411	1377411	
Dermatology equipment	39000	39000	
Spiral binding	8750	8750	
Print/scan/fax machine	21440	0.00	
Godrej 3 nos fire resisting	218400	218400	
Projector light	58500	0.00	
Cordless hand mike model	6300	0.00	
Cordless hand mike model	18900	0.00	
Fax machine	5150	0.00	
Digital temperature controller	46940	46940	
X-ray machine	2035000	2035000	
Mobile 660 MA X-ray unit	245000	245000	
Fully automated haematology Analyser	498488	498488	
Blood donor coach	140400	140400	
Automatic BP monitor with monitor	150850	150850	
Pulse Oxymeter 2 Nos	90480	90480	
Oracle software for IHMA	9990000	9990000	
Laying of Oxygen pipe line in various Department	169546	169546	
Total	15151755	15041465	
Total (₹ in lakh)	151.52	150.41	
Percentage allocation for generating station @ 3.2969% (₹in lakh)	4.995	4.96	

13. Expenditure on assets like Storage water heater for ₹0.58 lakh, pedestal fans for ₹0.09 lakh, Water dispensers for ₹0.94 lakh during 2007-08 and Print/scan/fax machine for ₹ 0.21 lakh, projector light for ₹ 0.59 lakh, cordless hand mike model for ₹0.25 lakh and fax machine for ₹0.05 lakh claimed during 2008-09 are not in the nature of hospital equipments. Hence the expenditure on these assets totalling ₹1.61 lakh during 2007-08 and ₹1.10 lakh during 2008-09 have not been allowed for capitalization. Accordingly, expenditure of ₹0.63 lakh during 2007-08 and ₹150.41 lakh during 2008-09 is justified and is allowed to be capitalised in terms of Regulation 18(2)(iv) of 2004 Tariff Regulations towards successful and efficient operation of the generating station. Based on this, the apportioned amount of ₹0.02 lakh (3%

of ₹0.63 lakh) during 2007-08 and ₹4.96 lakh (3.2969% of ₹150.41 lakh) during 2008-09 allocated to this generating station are allowed to be capitalised.

(B) Assets of minor nature

14. It is observed that some of the assets, other than hospital equipments, claimed by the petitioner during 2007-08 such as office furniture, water coolers, slotted angle rack, pedestal fan, water heater, fax machine, photocopier machine, mobile phone, exhaust fan, steel dining table, chairs, TV cabinet, shoe rack, table with drawers, vacuum cleaner etc., are in the nature of minor assets. Hence, in terms of Regulation 18(3) of the 2004 Tariff Regulations, the capitalisation of these assets has not been allowed.

(C) Assets of capital nature

15. It is observed that the Common Assets claimed during 2008-09 include some assets of capital nature like 16 mtr high mast light for ₹6.07 lakh, Capacitor bank for ₹0.96 lakh, 700 litres HDPE tanks for ₹123.46 lakh, 660 Volts LT panel for ₹1.49 lakh, School bus for ₹1.00 lakh, Ultra sonic cleaner card for ₹0.44 lakh and Carbon dioxide analyser for ₹9.49 lakh. Since these assets are considered necessary for successful and efficient operation of the generating station, the total expenditure of ₹142.91 lakh is allowed to be capitalised in terms of Regulation 18(2)(iv) of the 2004 Tariff Regulations. Based on this, the apportioned amount of ₹4.71 lakh (3.2969% of ₹142.91 lakh) for 2008-09 allocated to this generating station is allowed to be capitalised.

16. Based on the above discussions, the expenditure on Common Assets allowed during the years 2007-08 and 2008-09, in terms of Regulation 18(2)(iv) of the 2004 Tariff Regulations, is summarised as under:

		(₹ in lakh)
	2007-08	2008-09
Assets for Hospital purposes (a)	0.02	4.96
Assets of Capital nature (b)	0.00	4.71
Total (a+b)	0.02	9.67

Capital cost for 2007-09

17. In view of the above, the capital cost as on 31.3.2009 after considering the capitalisation of ₹0.02 lakh during 2007-08 and ₹9.67 lakh during 2008-09 towards Common Assets, stands revised as under:

	(₹i	n lakh)
	2007-08	2008-09
Opening Capital cost as on 1 st April of the financial year (a)	144908.75	144848.65
Additional capital expenditure allowed in the order dated	(-) 60.12	53.55
18.12.2009 in Petition No. 14/2009. (b)		
Additional Capitalization allowed now (c)	0.02	9.67
Closing Capital cost as on 31 st March of the financial year	144848.65	144911.87
(a+b+c).		

18. Based on the above, the annual fixed charges of the generating station for the period

2007-09 stands revised as under:

		(₹in lakh)
	2007-08	2008-09
Interest on Loan	567	439
Interest on Working Capital	1518	1521
Depreciation	5291	5291
Advance against Depreciation	0	0
Return on Equity	13744	13295
O&M Expenses	4914	5111
Total	26035	25658

19. The marginal difference between the fixed charges approved vide order dated 18.12.2009 in Petition No. 14/2009 and those approved now shall be adjusted by the parties.

20. As stated, the closing capital cost as on 31.3.2009 is ₹144911.87 lakh. The same is considered as the opening capital cost as on 1.4.2009, for the purpose of tariff for the period 2009-14.

Additional Capitalization of Common Assets for 2009-14

21. In response to the directions of the Commission during the hearing on 4.8.2011, the petitioner vide its affidavit dated 30.8.2011 has submitted the details of the segregated Common Assets in Annexure –IA of the petition as under:

					(₹in lakh)
	2009-10	2010-11	2011-12	2012-13	2013-14
Assets of minor nature	873	0	0	0	0
Assets of capital nature other than hospital	3697	5012	5307	5619	5950
Assets for hospital purpose	600	658	697	738	781
O&M nature	0	0	0	0	0
Total	5170	5670	6004	6357	6731
Percentage allocation for generating station @ (3% approx)	170	187	198	210	222

22. It is observed that the normative O&M expenses allowed to the generating station contain corporate office expenses which would also include expenditure on Common Assets. In addition, the provisions of the 2009 Tariff Regulations do not provide for capitalisation of expenditure on hospital equipments etc. In terms of Regulation 19(e) of the 2009 Tariff Regulations, only Compensation Allowance is permissible after a period of 10 years up to 25 years of the generating station. In view of this, the expenditure incurred towards Common Assets as claimed by the petitioner for the period 2009-14 is not allowed to be capitalised.

Projected Additional Capital Expenditure for direct assets for 2009-14

23. The Commission in its order dated 31.8.2010, while disallowing the claims of the

petitioner under Regulation 9(2) (iv) of the 2009 Tariff Regulations had observed as under:

"26. The petitioner has claimed amounts of ₹472.18 lakh, ₹271.50 lakh, ₹314.00 lakh, ₹275.70 lakh and ₹430.10 lakh for the years 2009-10, 2010-11, 2011-12, 2012-13 and 2013-14, respectively, under this regulation, in respect of assets which include hydraulic torque wrench, induction heater, up-gradation of telephone exchange, transformer/ instrument ratio meter, micrometer, wireless equipments, battery operated truck, system up-gradation of loud speaker, high voltage test kit, rotor removing cars and spares, sky climber, portable pulling & lifting machines , jacks and lifting tackles, fork lift, DCS–O net modernization, server/ client modernization, CCTV camera, vacuum pump, chain pulley block, drilling / grinding machines, weighing machines, tube bundle etc.

27. Sub-clause (iv) of Clause (2) of Regulation 9 pertains to expenditure incurred by hydrogenerating stations (on account of damage caused by natural calamities (etc) and has no application in respect of coal/lignite based generating stations, like the petitioner. In view of this, the expenditure incurred under this head, is not allowed.

24. The petitioner, in this petition has submitted that as per definition of Regulation 3(3) read with Regulation 5(2) of the 2009 Tariff Regulations, it is clear that the Commission can admit additions after prudence check. It has also submitted that since there is no other category available in the 2009 Tariff Regulations, for booking capital additions that are capitalised after cut-off date for efficient and successful operation, it was constrained to

categorize such additions under Regulation 9(2) (iv). It has also submitted that if all additions capitalised proposed for efficient operation by thermal generating company is disallowed for the sole reason that categorisation is not in line with specified clause in Regulation 9 and taking into consideration that there is no category available under Regulation 9 for capitalising the additions, then Regulation 5(2) also becomes pointless. The petitioner has further submitted that disallowing the entire direct assets claimed under Regulation 9(2)(iv) of the 2009 Tariff Regulations when there is no compensatory allowance for the generating station is an error apparent on the face of the record. The respondent, TANDEGCO in its reply dated 30.6.2011 has submitted that Regulation 9(2) does not apply to the above claim of the petitioner as stated in the order dated 31.8.2010. The Commission having applied prudence check and rejected the claim of the petitioner, there is no reason for review of the said order as prayed for by the petitioner. The submissions have been examined. As per the scheme of the 2009 Tariff Regulations, additional capital expenditure incurred or projected to be incurred prior to the cut-off date and the additional capital expenditure incurred after the cut-off date is admissible under Regulations 9(1) and 9(2) of the 2009 Tariff Regulations. Regulation 9(2) provides for the different provisions for admissibility of the additional capital expenditure. Regulation 9(iv) provides for expenditure which has become necessary for successful and efficient operation of the hydro generating stations and similar provisions have been made under Regulation 9(v) in respect of the transmission systems. Since Regulation 9(2)(iv) of the 2009 Tariff Regulations do not provide for capitalization of expenditure in respect of generating stations like the petitioner, the same was not allowed by the Commission by its order dated 31.8.2010. The Commission in its order dated 31.8.2010 has taken a conscious decision not to allow the said expenditure under Regulation 9(2)(iv) of the 2009 Tariff Regulations, keeping in view the above. Hence, there is no reason to reconsider the same in this petition. The petitioner has sought to reopen the case on merits, which is not permissible in review. In view of this, there is no error apparent on the face of the order and the submissions of the petitioner are rejected. Therefore, review on this ground fails.

25. One more issue raised by the petitioner is the claim for ₹4000 lakh towards the procurement of spare turbine rotor for the year 2013-14 under Regulation 9(2)(i) i.e. Liabilities to meet award of arbitration or for compliance of the order or decree of a court, which was not allowed by the Commission in its order dated 31.8.2010. The Commission while disallowing the said claim had observed in its order as under:

"The petitioner has claimed an amount of ₹4000 lakh, for the year 2013-14 under this head, towards the procurement of spare turbine rotor, for the generating station. Since procurement of spares after the cut-off date does not fall under the provisions of the regulations, the same is not allowed."

26. The petitioner, in its petition has submitted that the Commission had firmed up the original project cost along with spares and awarded the initial tariff after COD, on 5.9.2003 without Turbine Rotor as spare as the OEM had not supplied the same at that time. It has also submitted that the importance of having a spare rotor to avoid unpleasant condition in future was felt and the OEM was pressurised to arrange for rotor which had been agreed in principle. The petitioner has further submitted that a spare rotor is absolutely necessary for any power station for smooth and uninterrupted operation irrespective of the procurement initially or after few years of operation and is beneficial to the beneficiaries also for getting optimum and uninterrupted power supply. It has also been submitted that the OEM after a series of NDT examination at site confirmed the presence of cracks and had strongly recommended the replacement of the rotor by a new one as soon as possible and that the present rotor cannot be used for ever without attending to the defects. Thus, the petitioner has submitted that rotor procurement now has become the replacement of rotor in operation and the necessity of procurement of spare as originally projected has been established beyond doubt. The present estimated value of one composite TG rotor is about ₹100 crore (original projected cost being ₹40 crore) based on the January, 2010 offer of OEM. In view of this, the rejection of spare rotor by the Commission in its order dated 31.8.2010 is an error apparent on the face of the record, which require to be reviewed.

27. The Commission in its record of the proceedings held on 4.8.2011 directed the

petitioner to submit information/ documents in respect of Turbo-Generator Rotor, as under:

- (a) Whether in the specification for tender documents, the spare rotor was included and clearly indicated? If yes, the documentary proof in support;
- (b) The detailed findings of the rotor inspections by M/s Ansaldo Energia (the OEM) elaborating the reason of crack development;
- (c) iii) The operating range of frequency of the units specified in the tender documents and the details of operation of Units i.e. unit loading and grid frequencies since the COD of Unit-I & Unit-II and the deviation of such operation beyond the operating range;
- (d) Whether the replacement of rotor is only for L.P. Turbine or for full Turbo-generator? If it is for full rotor covering HP, IP & LP, justification for the procurement;
- (e) The cost of rotor and 4th stage blade of LP turbine, separately.
- 28. In response, the petitioner vide its affidavit dated 30.8.2011 has submitted the required

information clarifying as under:

- (a) Procurement of turbine rotor was planned earlier and envisaged in the original scope of the project. However, while finalizing the project the spare rotor was not included in the specification for tender documents.
- (b) When unit-I was released for major overhaul for the 1st time on 6.10.2009 after COD, several defects on the steeples of row L1 of LP turbine have been detected which was informed to OEM M/s Ansaldo Energia. After conducting fluorescent test and detailed mapping of some of the defects, OEM has given the following consideration for future operation.
- (c) Considering that a material characterization is not available today, it is not possible to state the actual strength of the order on a scientific basis. Most likely reasons of the cracks are stress corrosion cracking and corrosion fatigue. M/s Ansaldo Energia has given two options for running the unit.

(i) To operate the unit at full load without sudden load variation and frequent tripping and again inspect the rotor after 12 months.

(ii) To remove the 4th stage blades of LP turbine and operate the unit at reduced load of 205 MW.

- (d) In both cases, the OEM has recommended for the replacement of rotor by a new one as soon as possible. As of now reason for the development of the crack in Unit-I & II Rotor could not be concluded either by the Petitioner or by the OEM. The actual reason for crack development is yet to be firmed up by the OEM.
- (e) Operating Range of frequency of units was between 47.5 Hz to 51.5 Hz as per the tender documents and the units were operated with in this range.
- (f) Turbo-generators were not overloaded at any point of time since COD.
- (g) The cost of rotor and 4th stage fixed blade of LP Turbine separately is as follows:

IP-LP rotor (welded rotor)	-	5315200 Euros	(₹35.09 cr).
HP rotor	-	230600 Euros	(₹15.23 cr)

Generator rotor 4the fixed blades

(h) The cost of LP and IP turbine (welded) alone along with 4the stage blade can be safely approximated to Rs 40 Cr.

29. Subsequently, the Commission in its record of the proceedings held on 3.11.2011, directed the petitioner *inter alia* to furnish the detailed reasoning of the cause of development of cracks in the rotors of Unit-I and Unit-II and the findings of OEM in this regard. In response, the petitioner vide its affidavit dated 30.8.2011 has submitted the report of the OEM M/s Ansaldo.

30. It could be observed from the summary of the recommendations of the OEM in its report that the investigations carried out on the cracked parts on rotors did not show any evidence of abnormal material or geometrical properties and cracking pattern is typical of inter granular stress corrosion cracking which is consistent with the fact that cracking exactly matches with the phase transition zone. It has also been indicated that the information received was of a general nature lacking the detail needed to develop a clear understanding of the chemistry in the turbine phase transition zone and the origin of crack. It has further been mentioned that inspite of OEM recommendations no preservation procedures have been put in place by the petitioner during shutdown periods and in consideration of this, a suitable protection during shutdown periods with air drying equipment has been recommended for future operations. In view of the above discussions, the replacement of spare rotor is attributable to the petitioner for which the beneficiaries cannot be burdened on this count. Hence, additional capital expenditure of ₹4000 lakh projected to be incurred during 2013-14 for replacement of rotor is not permissible. Hence, there is no error apparent on the face of the order and the review on this count fails.

Capital Cost for 2009-14

31. Consequent upon the revision of capital cost as on 1.4.2009 as stated above, the capital cost for the period 2009-14 is revised as under:

					(₹ in lakh)
	2009-10	2010-11	2011-12	2012-13	2013-14
Opening capital cost	144911.87	144954.00	144968.19	144968.19	144968.19
Additional capital	42.13	14.19	0.00	0.00	0.00
expenditure allowed					
Closing capital cost	144954.00	144968.19	144968.19	144968.19	144968.19

32. It has come to notice of the Commission that in order dated 31.8.2010, an error had crept in the computation of Cost of lignite for 1.5 months and variable charges for 2 months allowed in Working capital, in as much as the cost of lignite and variable charges in working capital had been allowed based on the yearly lignite price during the period 2009-14 as under:

				(₹in la	akh)
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of lignite for 1.5 months	5185	5428	5734	5762	6034
Variable charges for 2 months	7106	7429	7838	7875	8238

33. The lignite cost in the generating stations of the petitioner are determined year wise and hence there is no variation in the lignite cost in a particular year. Accordingly, as per Regulation 18(1) and 18(2) of the 2009 Tariff Regulations, the cost of lignite in the working capital shall be the actual landed cost of lignite for three months preceding the first month for which tariff is to be determined and no fuel price escalation shall be provided during the tariff period. In case of the generating stations of the petitioner, the price of fuel for preceding three months i.e. March, 2009, February, 2009 and January, 2009 means the price of lignite for the year 2008-09. The lignite price for the year 2008-09 as allowed by the Commission in order dated 28.5.2008 in Petition No.126/2007 is ₹1064/MT. Based on the weighted average price of lignite for preceding three months i.e. from January, 2009 to March, 2009 as ₹1064/MT, the cost of lignite for 1.5 months and variable charges for 2 months in the working capital is worked out as under:

				(₹	in lakh)
	2009-10	2010-11	2011-12	2012-13	2013-14
Cost of lignite for 1.5 months	3909.90	3909.90	3920.61	3909.90	3909.90
Variable charges for 2 months	5213.20	5213.20	5227.48	5213.20	5213.20

34. Accordingly, the cost of lignite and variable charges as worked out based on lignite price of ₹1064/MT is allowed in the computation of working capital.

Annual Fixed Charges

35. Based on the above discussions, the annual fixed charges of the generating station for

the period 2009-14 is revised 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
Separate Compensation	-	-	-	-	-
Allowance					
Total	40041	38856	37698	36555	35446

36. The difference between the annual fixed charges determined as above and those approved by order dated 23.3.2011 in Petition No. 230/2009 shall be adjusted by the parties in terms of the proviso to Regulation 5(3) of the 2009 Tariff Regulations.

37. Except the above, all other terms contained in orders dated 31.8.2010/23.3.2011 remains unchanged.

38. Review Petition No. 6/2011 is disposed of in terms of the above.

Sd/-[M. Deena Dayalan] Member Sd/-[V. S. Verma] Member Sd/-[Dr. Pramod Deo] Chairperson