

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

1. **Shri Bhanu Bhushan, Member**
2. **Shri R. Krishnamoorthy, Member**

Petition No. 126/2007

In the matter of

Approval of revised fixed charges considering the impact of additional capital expenditure incurred during the period 2004-05 to 2006-07 and impact of year-wise pooled lignite price for the period 2004-09 determined on energy charges and capacity charges for NLC TPS –I (Expansion) (2x210 MW).

And in the matter of

Neyveli Lignite Corporation Limited

.....**Petitioner**

vs

1. Tamil Nadu Electricity Board, Chennai
2. Karnataka State Power Purchase Coordination Centre, Bangalore.
3. Kerala State Electricity Board, Thiruvananthapuram.
4. Pondicherry Electricity Department, Pondicherry.

.**Respondents**

The following were present:

1. Shri. R.Suresh, NLC
2. Shri. A.Ganesan, NLC
3. Ms. Ratna Choudhury, NLC
4. Shri. Soumyanarayanan, TNEB
5. Ms. Ayillium Jayamary, TNEB
6. Shri. R.Krishnaswami, TNEB

ORDER

(Date of Hearing: 22.11.2007)

This application has been filed by the petitioner, a generating company owned and controlled by the Central Government, for approval of revised fixed charges considering the impact of additional capital expenditure incurred during the period 2004-05 to 2006-07 and impact of year-wise pooled lignite price for the period 2004-09 determined on energy charges and capacity charges for NLC TPS –I

(Expansion) (2x210 MW), (hereinafter referred to as “the “generating station”) based on the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations, 2004, (hereinafter referred to as “the 2004 regulations”). The revised annual fixed charges claimed by the petitioner are as under:

(Rs in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	1825	1369	915	567	439
Interest on Working Capital	1457	1493	1530	1581	1595
Depreciation	5296	5375	5404	5287	5287
Advance Against Depreciation	0	0	0	0	0
Return on Equity	13900	14054	14235	13726	13276
O & M Expenses	4368	4544	4725	4914	5111
TOTAL	26846	26834	26809	26075	25708

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

3. The tariff for the generating station for the period ending 31.3.2009 was approved by the Commission vide its order dated 23.3.2007 in Petition No. 68/2005, based on the capital cost of Rs.144748.40 lakh, (including FERV of Rs 9247.76 lakh) as on 31.3.2004. The annual fixed charges approved by the Commission for the period 2004-09 are as under:

(Rs. in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	1825	1369	915	567	439
Interest on Working Capital	1497	1503	1509	1518	1521
Depreciation	5287	5287	5287	5287	5287
Advance Against Depreciation	0	0	0	0	0
Return on Equity	13883	13875	13865	13726	13276
O & M Expenses	4368	4544	4725	4914	5111
TOTAL	26860	26578	26300	26011	25634

4. Also, the Commission by its said order dated 23.3.2007 worked out the energy charges at 114 paise/kWh based on the pooled lignite transfer price of Rs.977/MT for the year 2003-04, arrived at in Petition No. 5/2002, pertaining to tariff of TPS-II, another generating station owned by the petitioner.

5. The first respondent has filed its reply.

ADDITIONAL CAPITALISATION

6. Regulation 18 of the 2004 regulations provides for considering the additional capital expenditure for tariff purposes as under:

(1) The following capital expenditure with in the original scope of work actually incurred after the date of commercial operation and up to the cut off date may be admitted by the Commission, subject to prudence check:

- (i) Deferred liabilities;*
- (ii) Works deferred for execution;*
- (iii) Procurement of initial capital spares in the original scope of work, subject to ceiling specified in regulation 17:*
- (iv) Liabilities to meet award of arbitration or for compliance of the order or decree of a court: and*
- (v) On account of change in law.*

Provided further that a list of the deferred liabilities and works deferred for execution shall be submitted along with the application for final tariff after the date of commercial operation.

(2) Subject to the provisions of clause (3) of this regulation, the capital expenditure of the following nature actually incurred after cut off date may be admitted by the commission, subject to prudence check:

- (i) Deferred liabilities relating to works/services with in the original scope of work;*

(ii) *Liabilities to meet award of arbitration or for compliance of the order or decree of a court;*

(iii) *On account of change in law;*

(iv) *Any additional works/services which have become necessary for efficient and successful operation of the generating station, but not included in the original project cost; and*

(v) *Deferred works relating to ash pond or ash handling system in the original scope of work.*

(3) *Any expenditure on minor items/assets like normal tools and tackles, personal computers, furniture, air-conditioners, voltage stabilizers, refrigerators, fans, coolers, TV, washing machine, heat-convectors, carpets, mattresses etc. brought after the cut off date shall not be considered for additional capitalization for determination of tariff with effect from 1.4.2004.*

(4) *Impact of additional capitalization in tariff revision may be considered by the Commission twice in a tariff period, including revision of tariff after the cut off date.*

Note 2

Any expenditure on replacement of old assets shall be considered after writing off the gross value of the original assets from the original project cost, except such items as are listed in clause (3) of this regulation.

7. The expression “cut off date” has been defined in Clause (ix) of Regulation 14 of the 2004 regulations as the date of first financial year closing after one year of the date of commercial operation of the generating station.

8. The year-wise details of the additional capital expenditure claimed by the petitioner as per the books of accounts and certified by the auditors are as follows:

(Rs.in lakh)

Year	Direct assets	Common services assets	Total
2004-05	211.23	39.83	251.06
2005-06	2058.98	96.37	2155.35
2006-07	738.65	47.17	785.82
Total (2004-05 to 2006-07)	3008.86	183.37	3192.23

9. The Commission vide order dated 14.1.2008 had directed the petitioner to furnish the detailed categorization and consolidation of amount for each asset with proper justification for additional expenditure incurred under different clauses of Regulation 18 of the 2004 regulations since cut off date in the case of generating station expired on 31.3.2005. The petitioner by its affidavit dated 31.1.2008 has submitted the categorization of additional expenditure in accordance with Regulation 18 of the 2004 regulations.

10. On scrutiny, it has been observed that the asset values claimed by the petitioner as per para 8 above is the net value of the additional capital expenditure after accounting for deletion of assets and addition of cumulative depreciation on deleted assets. The necessary details are as under:

(Rs in lakh)

	2004-05	2005-06	2006-07
Gross asset value	293.77	2059.14	738.65
Deletion of assets	88.77	0.16	-
Cumulative depreciation of assets deleted	6.23	-	-
Net direct assets	211.23	2058.98	738.65

11. The cumulative depreciation of assets deleted cannot be allowed to be capitalized as the assets decapitalized, form part of the capital cost. However, the amount of cumulative depreciation of assets deleted is to be deducted from the cumulative depreciation recovered, for the purpose of determination of tariff.

12. The year-wise and category-wise break-up of the additional expenditure claimed by petitioner is as follows:

Year	Category		(Rs. in lakh)
	Liabilities to meet award of arbitration or for compliance of the order or decree of a court	Additional works/services necessary for efficient and successful operation of the generating station, but not included in the original project cost	Total
2004-05	23.07	270.69	293.77
2005-06	20.45	2038.69	2059.14
2006-07	31.52	707.13	738.65
Total	91.04	3032.51	3091.56

13. The generating station was commissioned on 3.9.2003 and as such, the cut off date is 31.3.2005, as already noted. The petitioner has claimed additional capitalization for the year 2004-05, in terms of Regulation 18(2) of the 2004 regulations instead of Regulation 18 (1) of the 2004 regulations since this period was within the cut-off date. Hence, it is presumed that the claim for additional capitalization does not pertain to the original scope of works.

14. On prudence check of the additional expenditure incurred for the years 2004-05, 2005-06 and 2006-07 it is observed that the petitioner has claimed the expenditure under the head “liabilities to meet award of arbitration or for compliance of the order or decree of a court” in terms of Regulation 18(2) (ii) and “additional works/services, necessary for efficient and successful operation of the generating station, but not included in the original project cost” in terms of Regulation 18(2) (iv) of the 2004 regulations. However, the expenditure considered by the petitioner under the head “liabilities to meet award of arbitration or for compliance of the order or decree of a court” has been considered in terms of Regulation 18 (2) (iv) of the

2004 regulations, in which category it correctly falls. Accordingly, the additional expenditure for different years has been segregated under the following heads:

(Rs in lakh)				
Description	2004-05	2005-06	2006-07	Total
Expenditure on assets in the nature of initial spares	228.45	2023.41	721.97	2973.83
Expenditure on assets in the nature of canteen facility, furniture & fitting & on minor assets	24.22	10.24	14.18	48.64
Expenditure on other assets	41.10	25.49	2.50	69.09
Total	293.77	2059.14	738.65	3091.56

15. After examining the asset-wise details and justification of additional capital expenditure claimed by the petitioner under various categories and by applying prudence check, the admissibility of additional capitalization for the years 2004-05, 2005-06 and 2006-07 is discussed in the subsequent paragraphs.

Expenditure on assets in the nature of initial spares

16. The additional expenditure on assets of the nature of initial spares on purchase of mandatory spares totaling Rs.2973.83 lakh, is over and above the initial spares within the original scope of work amounting to Rs.5962 lakh, capitalized in the capital cost of Rs.144748 lakh (as on 1.4.2004) admitted by the Commission in Petition No. 68/2005. The initial spares capitalized are 4.12% of the capital cost and is beyond the ceiling norm of 2.5% of the capital cost, as specified in the 2004 regulations. In view of this, further capitalization of initial spares over and above the spares already capitalized, has not been permitted.

Expenditure on assets in the nature of canteen facility, furniture & fitting & on minor assets

17. The additional expenditure on canteen items, furniture and fittings and on minor assets totaling Rs.48.64 lakh is on the minor assets and is not allowed to be capitalized, in terms of Regulation 18(3) of the 2004 regulations.

Expenditure on other assets

18. Against the additional expenditure on other assets totaling Rs.69 lakh, and sought to be capitalized, amounts of Rs.41.10 lakh for the year 2004-05, Rs.23.80 lakh for the year 2005-06 and Rs.1.41 lakh for the year 2006-07 are found to be justified and are allowed to be capitalized. No justification has been furnished by the petitioner for expenditure on a number of items for the year 2006-07 and hence the expenditure has not been considered for capitalization.

19. Based on the above, the following additional expenditure has been allowed to be capitalized for the respective year:

(Rs.in lakh)

Description	2004-05	2005-06	2006-07	Total
Expenditure on assets in the nature of initial spares	-	-	-	-
Expenditure on assets in the nature of canteen facility, furniture & fitting & on minor assets	-	-	-	-
Expenditure on other assets	41.10	23.80	1.41	66.31
Total	41.10	23.80	1.41	66.31

20. Considering the above, the additional capitalization allowed for the purpose of tariff is as under, after accounting for deletion of assets:

(Rs in lakh)

Description	2004-05	2005-06	2006-07
Gross asset value	41.10	23.80	1.41
Deletion of assets	88.77	0.16	-
Cumulative depreciation of assets deleted	-	-	-
Net direct assets	(-) 47.67	23.64	1.41

21. The following amount has been claimed by the petitioner for common assets and services for the period 2004-05, 2005-06 and 2006-07:

(Rs. in lakh)

Description	2004-05	2005-06	2006-07	Total
Common assets/service	39.83	96.37	47.17	183.37

22. The petitioner has stated that it is integrated utility, consisting of production units of mines and power stations and in order to augment the production units, the service units like the centralized material management, services, township administration, corporate office, hospital and regional offices are functioning and the asset additions are apportioned to the service units. The justification furnished by the petitioner for expenditure on common assets and services is in order. Accordingly, the expenditure thereon is allowed to be capitalized.

23. Since for computation of capital cost for determination of tariff, undischarged liabilities are to be excluded, the petitioner was directed by order dated 14.1.2008 to furnish, *inter alia*, the undischarged liability in the gross block as on 1.4.2004, 1.4.2005, 1.4.2006 and 1.4.2007. The petitioner by its affidavit dated 31.1.2008 has certified that there is no undischarged liability.

24. After segregation and reconciliation, the additional capital expenditure claimed by the petitioner and being allowed is as follows:

(Rs in lakh)

Additional capital expenditure claimed				
	2004-05	2005-06	2006-07	Total
Gross asset value	293.77	2059.14	738.65	3091.56
Deletion of assets	(-) 88.77	(-) 0.16	-	(-) 88.93
Cumulative depreciation of assets deleted	6.23	-	-	6.23
Net direct assets	211.23	2058.98	738.65	3008.86
Common assets/service	39.83	96.37	47.17	183.37
Net additional capitalisation	251.06	2155.35	785.82	3192.23
Additional capital expenditure allowed				
Gross asset value	41.10	23.80	1.41	66.31
Deletion of assets	(-) 88.77	(-) 0.16	0.00	(-) 88.93
Cumulative depreciation of assets deleted	0.00	0.00	0.00	0.00
Net direct assets	(-) 47.67	23.64	1.41	(-) 22.62
Common assets/ services	39.83	96.37	47.17	183.37
Net additional capitalisation	(-)7.84	120.01	48.58	160.75

Cumulative depreciation recovered

25. The cumulative depreciation recovered in tariff up to 31.3.2004, as per order dated 23.3.2007 in Petition No.68/2005 for the tariff period 2004-09, was Rs.3620 lakh. Further, cumulative depreciation on deleted assets amounting to Rs.6.23 lakh during the year 2004-05 has been deducted from the cumulative depreciation recovered in the respective year.

26. In line with the above discussion, the following has been considered for working out the gross block/net block in the respective year, for the purpose of tariff:

(Rs.in lakh)

Particulars	Amount
Gross block (as on 31.3.2004) as per order dated 23.3.2007	144748.40.00
Cumulative depreciation recovered up to 31.3.2004 as per order dated 23.3.2007	3620.00
Additional capitalization for the period 2004-07	
2004-05	(-)7.84
2005-06	120.01
2006-07	48.58
Total	160.75
Cumulative depreciation on deleted assets for the period 2004-07	
2004-05	6.23
2005-06	0.00
2006-07	0.00
Total	6.23

27. The Commission vide its order dated 23.3.2007 in Petition No. 68/2005, has considered the capital cost of Rs.144748.40 lakh, (including FERV of Rs.9247.76 lakh) as on 31.3.2004, for determination of tariff for the period 2004-09. Accordingly, the revised capital cost, for the purpose of tariff for the period 2004-09, after accounting for additional capitalization, is worked out under:

(Rs. in lakh)

Particulars	2004-05	2005-06	2006-07	2007-08	2008-09
Opening Capital cost as on 1 st April of the financial year	144748.00	144740.16	144860.17	144908.75	144908.75
Additional capitalisation	(-)7.84	120.01	48.58	0	0
Discharged liability as on 31 st March of the financial year	0	0	0	0	0
Capital cost as on 31 st March of the financial year	144740.16	144860.17	144908.75	144908.75	144908.75

REVISION OF ANNUAL FIXED CHARGES

28. Consequent upon revision of capital cost, the annual fixed charges are being revised.

DEBT-EQUITY RATIO

29. As the Commission has considered NFA method in the case of the petitioner's generating stations, actual source of funding has been considered for calculating debt-equity ratio as on date of commercial operation. Further, debt-equity loses relevance once the repayment is allowed on actual basis. The petitioner has submitted that the entire additional expenditure incurred has been funded out of equity. The average equity every year has been considered, after adjusting average loan against the average NFA.

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Average Equity	99160	99164	99172	98198	94983

TARGET AVAILABILITY

30. As stated in the order dated 23.3.2007, target availability of 75% has been considered for recovery of full fixed charges and computation of fuel element in the working capital for the period from 1.4.2004 to 31.3.2009.

RETURN ON EQUITY

31. As per the 2004 regulations, return on equity has been worked out @ 14% per annum on the normative average equity. Accordingly, the return on equity for the period 2004-09 works out as follows:

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Average equity (Rs. in lakh)	99160	99164	99172	98198	94983
Rate of return on equity	14%	14%	14%	14%	14%
Return on Equity (Rs. in lakh)	13882	13883	13884	13748	13298

INTEREST ON LOAN

32. Interest on loan as worked out in the order dated 23.3.2007 has been considered.

DEPRECIATION

33. As stated in para 25 above, the cumulative depreciation recovered up to 31.3.2004 is Rs.3620 lakh and the cumulative depreciation on deleted assets amounting to Rs.6.23 lakh during the year 2004-05 has been deducted from the cumulative depreciation recovered in the respective year. The weighted average rate of depreciation of 3.65%, considered earlier has been considered. The necessary computations in support of depreciation allowed are as under:

(Rs. in lakh)

		2004-05	2005-06	2006-07	2007-08	2008-09
Rate Of Depreciation		3.65%	3.65%	3.65%	3.65%	3.65%
Depreciation		5287	5289	5292	5293	5293
Advance against Depreciation (AAD)		0	0	0	0	0
Total Depreciation and AAD		5287	5289	5292	5293	5293
Cumulative Depreciation/AAD recovered in tariff	3620	8907	14195	19487	24780	30072
Depreciation to be written back against deleted assets		6	0	0	0	0
Adjusted Cumulative Depreciation/AAD recovered in tariff	3620	8901	14189	19481	24773	30066

O&M EXPENSES

34. The O&M expenses considered earlier have been adopted in the present computation.

INTEREST ON WORKING CAPITAL

35. For the purpose of calculation of working capital, the operating parameters including the price of fuel components considered in the order dated 23.3.2007 has been kept unaltered except the “receivables”.

36. The revised annual fixed charges on the above basis in respect of the generating station for the period from 1.4.2004 to 31.3.2009 are summarized as under:

Particulars	(Rs. in lakh)				
	2004-05	2005-06	2006-07	2007-08	2008-09
Interest on Loan	1825	1369	915	567	439
Interest on Working Capital	1497	1503	1509	1518	1521
Depreciation	5287	5289	5292	5293	5293
Advance Against Depreciation	0	0	0	0	0
Return on Equity	13882	13883	13884	13748	13298
O & M Expenses	4368	4544	4725	4914	5111
TOTAL	26859	26588	26325	26040	25661

ENERGY/VARIABLE CHARGE

Lignite Transfer Price

37. The year-wise energy charges (ex-bus) claimed by the petitioner for the tariff period 2004-09 are as under:

Year	2004-05	2005-06	2006-07	(paise./kWh)		
				2007-08 (upto 31.7.2007)	2007-08 (from 1.8.2007)	2008-09
Energy charges (ex-bus)	108.62	112.10	115.69	121.30	122.99	123.77

38. The petitioner has submitted that the year-wise lignite transfer price for the period 2004-09 is based on Ministry of Coal guidelines and the transfer price of lignite has been certified by the auditors. Accordingly, the year-wise pooled lignite transfer price adopted by the petitioner for working out the energy charges is as under:

Year	Lignite price (Rs/Tonne)
2004-05	929
2005-06	960
2006-07	992
2007-08 (upto 31.7.07)	1042
2007-08 (from 1.8.07)	1057
2008-09	1064

39. The petitioner was directed to furnish the details with all workings in respect of lignite transfer price as calculated on the basis of order dated 23.3.2007 in Petition No. 5/2002 and the parameters and principles spelt out by Ministry of Coal in its letter dated 30.1.2006. In response, the petitioner has furnished the details by affidavit dated 7.3.2008. The petitioner has included the cost of mine-closure in addition to the components considered for computing lignite transfer price on the basis of the said order dated 23.3.2007. The explanation furnished by the petitioner for inclusion of the cost of mine-closure in determining the lignite transfer price year-wise is given in the succeeding paras.

40. The petitioner has explained that In terms of the Mineral Conservation and Development Rules, 1988, as amended in April 2003, it is obligatory on the part of

the user of mines to submit progressive mine closure plan every five years. Coal Regulatory Bill which is in final stage, in the regulatory framework, provides for mine-closure and land restoration. The petitioner has stated that in terms of the Bill, any cost for mine-closure should be built into the price and certain amount be set apart for final mine-closure. The petitioner has sought to re-assure that mine-closure expenditure will be spent after closure of the mine and there will not be any matching revenue. As such, provisions are to be made for such expenses and accordingly mine-closure expenditure is calculated provisionally for inclusion in the lignite price. The petitioner has further submitted that any variance of provisional cost with the actual shall be adjusted later.

41. Considering the fact that the mine-closure is obligatory on the part of the petitioner, as user of mines, the cost of mine-closure considered in the lignite transfer price is allowed, subject to adjustment as and when the actual expenditure is incurred.

42. In terms of the 2004 regulations, the base energy charge shall be calculated on the basis of actual lignite transfer price for preceding three months i.e. January, February and March, 2004. Since the lignite transfer price for the year 2003-04 has been determined by the Commission as Rs.977/MT, in Petition No. 5/2002, the same has been taken for computation of the base energy charge of 114.01 paise/kWh. This base energy charge shall be considered for computation of interest on working capital, as well as the datum for applying the fuel price adjustment.

43. Any variation in the fuel price or GCV is adjustable on month-to-month basis on the basis of cost and GCV of fuel received and burnt as per formula given in the order dated 23.3.2007. The lignite transfer price worked out by the petitioner for the respective years of the tariff period as indicated in para 38 above, shall be taken as the actual lignite price for applying the fuel price adjustment on month-to-month basis, with the energy charge of 114.01 paise/kWh sent out, in terms of the order dated 23.3.2007, as the datum.

44. The arrears on account of revision of annual fixed charges and energy charges in terms of this order shall be recovered by the petitioner within three months from the date of issue of this order.

45. This disposes of Petition No. 126/2007.

Sd/-
(R. KRISHNAMOORTHY)
MEMBER

Sd/-
(BHANU BHUSHAN)
MEMBER

New Delhi dated the 28th day of May, 2008