

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

1. Dr. Pramod Deo, Chairperson
2. Shri R. Krishnamoorthy, Member
3. Shri S.Jayaraman, Member
4. Shri V.S.Verma, Member

Petition No. 83/2006

In the matter of

Determination of transmission tariff for the transmission system associated with Loktak HEP in North Eastern Region for the period from 1.4.2004 to 31.3.2009.

And in the matter of

Power Grid Corporation of India Ltd.,Gurgaon **Petitioner**

Vs

1. Assam State Electricity Board, Guwahati
2. Meghalaya State Electricity Board, Shillong
3. Government of Arunachal Pradesh, Itanagar
4. Power and Electricity Department, Govt. of Mizoram, Aizawl
5. Electricity Department, Govt. of Manipur, Imphal
6. Department of Power, Govt. of Nagaland, Kohima
7. Tripura State Electricity Corporation Limited, Agartala**Respondents**

Following were present:

1. Shri M.G.Ramachandran, Advocate, PGCIL
2. Shri U.K.Tyagi, PGCIL
3. Shri M.M.Mondal, PGCIL
4. Shri R.Prasad, PGCIL
5. Ms. Sangeeta Edwards, PGCIL
6. Shri Sanjay Sen, Advocate, ASEB
7. Shri H.M.Sharma,ASEB
8. Shri R.K.Kapoor, ASEB
9. Ms. Mallika Sharma Bezbaruah, Consumer,
10. Shri A.K. Datta, representative of Ms. Mallika Sharma Bezbaruah

**ORDER
(DATE OF HEARING: 28.5.2009)**

The petitioner, Power Grid Corporation of India Limited, filed this petition for approval of transmission tariff in respect of transmission system

associated with Loktak HEP (the transmission system) in North Eastern Region for the period from 1.4.2004 to 31.3.2009 after accounting for additional capitalization of Rs.12.60 lakh on works during 1992-2004 and de-capitalization of Rs. 0.51 lakh during 2004-05. After examination of the pleadings and hearing the parties, the Commission, vide its order dated 10.3.2008 awarded transmission tariff for the years 2007-08 and 2008-09. The summary of tariff awarded vide said order dated 10.3.2008 is given as under:

(Rs. in lakh)

	2007-08	2008-09
Depreciation	18.93	18.93
Interest on Loan	0.00	0.00
Return on Equity	59.56	59.56
Advance against Depreciation	0.00	0.00
Interest on Working Capital	5.08	5.27
O & M Expenses	61.96	64.54
Total	145.52	148.29

2. The petitioner filed Appeal No. 75/2008 before the Appellate Tribunal for Electricity (the Appellate Tribunal) against order dated 10.3.2008. The Appellate Tribunal vide its judgment dated 4.11.2008 set aside the said order dated 10.3.2008 and directed that the transmission tariff be re-determined for the period from 1.4.2004 to 31.3.2009 in accordance with Central Electricity Regulatory Commission (Terms and Conditions of Tariff) Regulations 2004 (the 2004 regulations).

3. In view of the decision of the Appellate Tribunal, the petition was re-heard.

4. Learned counsel for ASEB submitted that the petition had not been filed as per the 2004 regulations. It was pointed out that the Commission vide

its order dated 2.1.2007 had directed the petitioner to submit Forms 5B, 5C and 5D, duly completed in all respects. According to him this was not complied with by the petitioner.

5. The representative of ASEB, Shri Sharma submitted that 33 kV distribution feeders were additionally included by the petitioner to claim tariff, though as per the Grid Code specified by the Commission, such distribution feeders were not to be included for the purpose of the transmission tariff. He further submitted that certain expenditure costs capitalized, had not been actually incurred. He requested the Commission to look into the cost escalation aspects as well.

6. Contradicting the petitioner's submission that it had not actually recovered cumulative depreciation considered in the earlier order, the representative of Tripura stated that the petitioner had recovered the entire depreciation. According to him, UCPTT, which was in vogue up to 31.3.2004, resulted in increase in energy transmitted and consequently in increase in revenue, which also led to recovery of entire depreciation. He also raised the issue of inclusion of 33 kV bays for tariff computation and further submitted that the petitioner should furnish the information in Forms 5B, 5C and 5D before the process of tariff determination was undertaken by the Commission.

7. The representative of the consumer, Ms. Mallika Sharma Bezbaruah submitted that she was not made a party before the Appellate Tribunal by the petitioner. He requested that the petitioner be directed to submit the information in Forms 5B, 5C and 5D.

8. In response to the respondents' submissions, learned counsel for the petitioner clarified that the petitioner had filed the petition seeking approval of tariff for the period 2004-09 under the 2004 regulations. However, the Commission had awarded tariff under the UCPTT scheme up to 31.3.2007 and in accordance with the 2004 regulations with effect from 1.4.2007. All the objections and submissions made by the respondents ought to have been and were in fact raised when the Commission initially awarded tariff vide its order dated 10.3.2008. On the rejection of their submissions by the Commission, the respondents ought to have preferred an appeal as per law. According to him, the respondents were precluded from agitating the same issues when the Commission was considering the limited issue of making the 2004 regulations applicable with effect from 1.4.2004 instead of from 1.4.2007.

9. Learned counsel explained that the petitioner had filed the tariff petitions as per the 2004 regulations and the information as per Forms 5B, 5C and 5D, introduced in the regulations was to be furnished for the projects commissioned on or after 1.4.2004. Therefore, these Forms were not furnished with the petitions, he explained. These Forms had been furnished for the assets declared under commercial operation on or after 1.4.2004, he informed. The representative of the petitioner further submitted that there were a number of assets on which expenditure was incurred after the date of commercial operation and for such assets the petitioner had submitted the auditor's certificates. It was stated that NERPC had agreed to capitalization of certain expenditure. He further submitted that the petitioner took over the transmission network from NTPC, NHPC, NLC and NEEPCO w.e.f 1.1.1992 which included 33 kV transmission lines in NER. In NER, the transmission

lines were of 132 kV level and outgoing feeders were of 33 kV level with 132/33 kV ICTs. These transmission lines were being used for evacuation of Central Sector power. Thus, 33 kV transmission lines were also included for O&M purpose.

10. The representative of the petitioner further stated that the Commission had approved tariff from 1.4.2007 based on certain capital cost. At this stage, there could be no question of going back on capital cost since what was true for 1.4.2007, is also true for 1.4.2004.

11. We are generally in agreement with the submissions made by the petitioner and proceed to determine the tariff for the transmission system for the period from 1.4.2004 to 31.3.2009 as per the 2004 regulations, as discussed in the succeeding paras.

CAPITAL COST

12. As per clause (1) of Regulation 52 of the 2004 regulations, subject to prudence check, the actual expenditure incurred on completion of the project shall form the basis for determination of final tariff. The final tariff shall be determined based on the admitted capital expenditure actually incurred up to the date of commercial operation of the transmission system and shall include capitalized initial spares subject to a ceiling norm as 1.5% of original project cost. The regulation is applicable in case of the transmission system declared under commercial operation on or after 1.4.2004.

13. The petitioner has claimed the capital expenditure of Rs. 779.37 lakh as on the date of transfer of assets i.e. 1.4.1992. This is supported by the auditor's certificate dated 22.7.2006. Further, the cumulative depreciation up to 31.3.1992 has been computed as Rs. 59.19 lakh. Based on the above, the gross block as on 1.4.1992 has been taken as 838.56 lakh.

14. The petitioner has submitted that there was de-capitalization amounting to Rs. 1.08 lakh during 1992-93 and additional capital expenditure of Rs. 13.68 lakh during 2002-03. Thus, the net additional capital expenditure claimed by the petitioner is 12.60 lakh. Taking into account the above details of additional capital expenditure, capital cost as on 1.4.2004 has been computed as Rs. 851.16 lakh. This is also supported by the auditor's certificate dated 22.7.2006.

TOTAL CAPITAL COST

15. Against the above background, gross block of Rs. Rs. 851.16 lakh as on 1.4.2004 has been worked out for the purpose of tariff. The petitioner has submitted de-capitalization amounting to Rs. 0.51 lakh during 2004-05. Based on this, the capital cost as on 1.4.2005 has been taken as Rs. 850.65 lakh.

DEBT- EQUITY RATIO

16. Clause (2) of Regulation 54 of the 2004 regulations *inter alia* provides that,-

“(2) In case of the transmission system for which investment approval was accorded prior to 1.4.2004 and which is likely to be declared under

commercial operation during the period 1.4.2004 to 31.3.2009, debt-equity in the ratio of 70:30 shall be considered:

Provided that where deployment of equity is less than 30%, the actual equity deployed shall be considered for the purpose of determination of tariff.

Provided further that the Commission may in appropriate case consider equity higher than 30% for the purpose of determination of tariff, where the transmission licensee is able to establish to the satisfaction of the Commission that deployment of equity more than 30% was in the interest of general public;"

17. The Note 1 below Regulation 53 lays down that any expenditure on account of committed liabilities within the original scope of work is to be serviced in the normative debt-equity ratio specified in Regulation 54

18. The petitioner has considered debt-equity ratio of 50:50 in respect of the gross block as on 1.4.1992 and the additional capital expenditure up to 31.3.2005.

19. The approved debt-equity ratio is not available in the present case. Therefore, the additional capital expenditure during 1992-2004 has been segregated in the ratio of 50:50. It is also significant that in respect of the tariff petitions pertaining to other regions, the Commission had allowed tariff for the period 2001-04 by dividing assets as on 1.4.1997 into notional loan and notional equity on 50:50 basis.

20. As regards the additional capital expenditure beyond 1.4.2004, the Commission, vide its order dated 15.10.2007 in Review Petition No. 77/2007, in Petition No. 128/2006 (TNEB Vs. PGCIL) has already taken a conscious decision that the additional capital expenditure made during 2004-09,

irrespective of the source of financing, is to be apportioned between debt and equity in the normative ratio of 70:30.

21. Based on the above, for the purpose of tariff, an amount of Rs. 425.58 lakh has been considered as equity as on 1.4.2004 and Rs. 425.43 lakh as on 1.4.2005.

RETURN ON EQUITY

22. As per clause (iii) of Regulation 56 of the 2004 regulations, return on equity shall be computed on the equity base determined in accordance with regulation 54 @ 14% per annum. Equity invested in foreign currency is to be allowed a return in the same currency and the payment on this account is made in Indian Rupees based on the exchange rate prevailing on the due date of billing.

23. For the reasons already recorded, equity as given in para 21 above has been considered. Accordingly, return on equity allowed each year is given as under:

(Rs. in lakh)

Return on equity				
2004-05	2005-06	2006-07	2007-08	2008-09
59.57	59.56	59.56	59.56	59.56

INTEREST ON LOAN

24. The petitioner has stated that no loan was outstanding as on 31.3.2004. Accordingly, there is no claim towards interest on loan.

DEPRECIATION

25. Sub-clause (a) of clause (ii) of Regulation 56 of the 2004 regulations provides for computation of depreciation in the following manner, namely:

(a) The value base for the purpose of depreciation shall be the historical cost of the asset.

(b) Depreciation shall be calculated annually based on straight line method over the useful life of the asset and at the rates prescribed in Appendix II to these regulations. The residual value of the asset shall be considered as 10% and depreciation shall be allowed up to maximum of 90% of the historical capital cost of the asset. Land is not a depreciable asset and its cost shall be excluded from the capital cost while computing 90% of the historical cost of the asset. The historical capital cost of the asset shall include additional capitalisation on account of Foreign Exchange Rate Variation up to 31.3.2004 already allowed by the Central Government/Commission.

(c) On repayment of entire loan, the remaining depreciable value shall be spread over the balance useful life of the asset.

(d) Depreciation shall be chargeable from the first year of operation. In case of operation of the asset for part of the year, depreciation shall be charged on pro rata basis.

26. As stated above, the entire loan has been re-paid before the commencement of the tariff period on 1.4.2004. Accordingly, the remaining

depreciable value has been spread over the balance useful life of the asset. Further, the cumulative depreciation recovered up to 31.3.2004 has been considered as per the petition and depreciation for 2004-05 onwards has been considered on the capital expenditure as per para 16 above.

27. Depreciation allowed has been worked out as below:

(Rs. in lakh)					
	2004-05	2005-06	2006-07	2007-08	2008-09
Gross Block	851.16	850.65	850.65	850.65	850.65
Rate of Depreciation	2.556%	2.556%	2.556%	2.556%	2.556%
Depreciable Value	760.45	760.22			
Balance Useful life of the asset	19	18	17	16	15
Remaining Depreciable Value	359.85	340.68	321.75	302.83	283.90
Depreciation	18.94	18.93	18.93	18.93	18.93
Cumulative Depreciation/ Advance against Depreciation	419.54	438.47	457.39	476.32	495.25

ADVANCE AGAINST DEPRECIATION

28. The petitioner has not claimed Advance Against Depreciation.

OPERATION & MAINTENANCE EXPENSES

29. In accordance with clause (iv) of Regulation 56 the 2004 regulations, the following norms are prescribed for O & M expenses

	(Rs. in lakh)				
	Year				
	2004-05	2005-06	2006-07	2007-08	2008-09
O&M expenses (Rs in lakh per ckt-km)	0.227	0.236	0.246	0.255	0.266
O&M expenses (Rs in lakh per bay)	28.12	29.25	30.42	31.63	32.90

30. The petitioner has claimed O & M expenses for 118.94 ckt km and 1 bay, which has been allowed. Accordingly, the petitioner's entitlement to O&M expenses has been worked out as given hereunder:

(Rs. in lakh)

	Year				
	2004-05	2005-06	2006-07	2007-08	2008-09
O&M expenses for 118.94 ckt kms line length	27.00	28.07	29.26	30.33	31.64
O&M expenses for 1 bay	28.12	29.25	30.42	31.63	32.9
Total	55.12	57.32	59.68	61.96	64.54

INTEREST ON WORKING CAPITAL

31. The components of the working capital and the interest thereon are discussed hereunder:

(i) Maintenance spares

Regulation 56(v)(1)(b) of the 2004 regulations provides for maintenance spares @ 1% of the historical cost escalated @ 6% per annum from the date of commercial operation. In the present case, the capital expenditure on the date of commercial operation is Rs. 838.56 lakh, which has been considered as the historical cost for the purpose of the present petition and maintenance spares have been worked out accordingly by escalating 1% of the historical cost @ 6% per annum. In this manner, the value of maintenance spares works out to Rs. 23.02 lakh as on 1.4.2004.

(ii) O & M expenses

Regulation 56(v)(1)(a) of the 2004 regulations provides for operation and maintenance expenses for one month as a component

of working capital. The petitioner has claimed O&M expenses for 1 month of the respective year in the petition. This has been considered in the working capital.

(iii) Receivables

As per Regulation 56(v)(1)(c) of the 2004 regulations, receivables will be equivalent to two months average billing calculated on target availability level. The petitioner has claimed the receivables on the basis of 2 months' transmission charges. In the tariff being allowed, receivables have been worked out on the basis 2 months' transmission charges.

(iv) Rate of interest on working capital

As per Regulation 56(v)(2) of the 2004 regulations, rate of interest on working capital shall be on normative basis and shall be equal to the short-term Prime Lending Rate of State Bank of India as on 1.4.2004 or on 1st April of the year in which the project or part thereof (as the case may be) is declared under commercial operation, whichever is later. The interest on working capital is payable on normative basis notwithstanding that the transmission licensee has not taken working capital loan from any outside agency. The petitioner has claimed interest on working capital @ 10.25% based on SBI PLR as on 1.4.2004, which is in accordance with the 2004 regulations and has been allowed.

32. The necessary computations in support of interest on working capital are appended hereinbelow.

(Rs. in lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Maintenance Spares	16.87	17.89	18.96	20.10	21.30
O & M expenses	4.59	4.78	4.97	5.16	5.38
Receivables	23.03	23.42	23.84	24.25	24.72
Total	44.50	46.08	47.78	49.51	51.40
Rate of Interest	10.25%	10.25%	10.25%	10.25%	10.25%
Interest	4.56	4.72	4.90	5.08	5.27

TRANSMISSION CHARGES

33. The transmission charges being allowed for the transmission system are summarised below:

(Rs. In lakh)

	2004-05	2005-06	2006-07	2007-08	2008-09
Depreciation	18.94	18.93	18.93	18.93	18.93
Interest on Loan	0.00	0.00	0.00	0.00	0.00
Return on Equity	59.57	59.56	59.56	59.56	59.56
Advance against Depreciation	0.00	0.00	0.00	0.00	0.00
Interest on Working Capital	4.56	4.72	4.90	5.08	5.27
O & M Expenses	55.12	57.32	59.68	61.96	64.54
Total	138.19	140.53	143.06	145.52	148.29

34. The petitioner has been paid UCPTT for the period up to 31.3.2007 based on various order of the Commission, and thereafter the transmission charges in accordance with the order dated 10.3.2007. The petitioner shall recover from the beneficiaries the additional transmission charges in three monthly installments. The petitioner has also sought reimbursement of filing fee paid. The Commission by its separate general order dated 11.9.2008 in Petition No. 129/2005 has decided that the petitioner shall not be allowed reimbursement of the petition filing fee.

35. In addition to the transmission charges, the petitioner shall be entitled to other charges like income-tax, incentive, surcharge and other cess and taxes in accordance with the 2004 regulations.

36. This order disposes of Petition No.83/2006.

Sd/= (V.S.VERMA) MEMBER	Sd/= (S.JAYARAMAN) MEMBER	Sd/= (R.KRISHNAMOORTHY) MEMBER	Sd/= (DR.PRAMOD DEO) CHAIRPERSON
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New Delhi dated the 8th September 2009