

**Before the Appellate Tribunal for Electricity  
Appellate Jurisdiction**

**Appeal No. 118 of 2006**

**Dated: 11<sup>th</sup> March, 2008.**

**Present: Hon'ble Mr. A. A. Khan, Technical Member**

**Hon'ble Mrs. Justice Manju Goel, Judicial Member**

**IN THE MATTER OF:**

North Eastern Electric Power Corporation Ltd.

...Appellant

Versus

1. Power Grid Corporation of India Limited,  
B-9, Qutab Institutional Area,  
Katwaria Sarai, New Delhi-110 016.
2. Assam State Electricity Board,  
Bijulee Bhawan, Paltanbazar,  
Guwahati-781 001., Assam.
3. Meghalaya State Electricity Board,  
Meter Factory Area, Short Round Road,  
Shillong-793 001, Meghalaya.
4. Department of Power,  
Govt. of Arunachal Pradesh, Itanagar-791 111.
5. Electricity Department, Govt. of Manipur,  
Imphal-796 001.
6. Electricity Department, Govt. of Mizoram,  
Aizawl -796 001.
7. Department of Power, Govt. of Nagaland,  
Kohima- 797 001.
8. Department of Power, Govt. of Tripura,  
Agartala-799 001.
9. North Eastern Regional Power Committee,  
Shillong-793 006.

10. Central Electricity Regulatory Commission,  
6<sup>th</sup> Floor, Core-3, Scope Complex,  
Lodhi Road, New Delhi-110 003. ....Respondents

Counsel for the Appellant : Mr. Rana S. Biswas & Ms. Ruchika Rathi.  
Mr. Mridul Chakravarty  
Mr. Sanjay Sen  
Mr. Vishal Anand  
Mr. M.R. Karmakar, Ex (Comm.), NEEPCO  
Mr. P.K. Borah, GM (Comm.), NEEPCO  
Ms Debjani Dey, DGM(E), NEEPCO.

Counsel for the Respondents : Mr. Nemi Nath Chaturvedi,  
Mr. M.G. Ramachandran,  
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Mr. Anand Ganesan,  
Mr. M.M. Patnaik, Chief Manager,  
Mr. A.K. Nagpal, DGM &  
Mr. R.P. Padi for PGCIL.  
Mr. B. Sreekumar, Asstt.Chief (Legal), CERC.  
Mr. T. Rout, Jt. Chief, (Legal), CERC.  
Mr. N. Bhandari, DC(E), CERC.

## **JUDGMENT**

### **Per Hon'ble Mr. A.A. Khan, Member Technical**

1. M/s North Eastern Electric Power Corporation Ltd., NEEPCO in short, (the Appellant) is a company formed under the provisions of the Companies Act, 1956 and is a Government of India Enterprise. The Appellant is in the business of-generation and sale of electricity. The generating stations owned, managed and operated by NEEPCO are Inter State Generating Stations (ISGS). Its tariff for sale of power to the power utilities/departments of the 7 State Governments in the north-east region (NER) are determined by the Central Electricity Regulatory Commission (CERC or the Commission) at ex-bus of its power stations. The transmission of power beyond ex-bus is under the jurisdiction of the Central or State Transmission Utility, as the case may be. Tariff for transmission of electricity transmitted through the network of Power Grid

Corporation of India Ltd. (in short PGCIL, which is the Central Transmission Utility) is determined by the CERC.

2. Prior to the setting up of the CERC, the transmission tariff in the North Eastern Region was being charged on Uniform Common Pooled Transmission Tariff (UCPTT) since 01 April 1998. The transmission charge is apportioned amongst PGCIL and state utilities, whose assets form part of common pooled transmission assets.

3. Through Petition no. 40/2000 and Review Petition No. 110/2000 before the CERC, PGCIL proposed for determination of transmission tariff based on a Notification dated 16 Dec 97 issued by the Government of India. Based on this Notification, the tariff worked out to be about 90 paise per kWh. After considering views of the stakeholders and prevailing transmission tariff of 35 paise per kWh, amongst other things, the CERC in its order of 1 January 2002 observed that:

*"12. The transmission schemes in respect of which tariff approval has been sought were approved by the Central Government to match with the future generation of power by NEEPCO. It is on record that except Kathalguri Gas plant, no other generating plant connected with these transmission schemes had been put to commercial operation by 1.2.2000, the date from which tariff has been claimed by the petitioner. There is thus an excess of transmission capacity and the respondents are not deriving any benefit out of such excess capacity. Under these circumstances, the respondents cannot be made liable to pay the transmission charges for the excess capacity. In fact from the petition itself, we find that PIB, while approving the revised cost estimates for . Kathalguri transmission system, advised the petitioner to enter into a back-to-back commercial agreement with the generating utility and seek grant/compensation in case of delay or non-commissioning of the unit as per schedule. It becomes evident that even PIB did not intend the respondents to be burdened with extra' tariff because of non-availability of generation commensurate with the*

*transmission capacity. Therefore, tariff of these transmission schemes cannot be fixed under the notification dated 16.12.1997.*

*13. In the light of the foregoing, we direct that the respondents shall be liable to pay the transmission charge @ 35 paise/kWh of the power transmitted in the region. This tariff shall be applicable from 1.2.2000 to a period up to 31 March 2004 or till such time the power generation matching the transmission capacity is available, whichever is earlier. However, we wish to advise the Central Government to finalize an appropriate relief package for the NE Region. If the Central Government finalizes relief package, then the difference between the actual tariff and the tariff of 35 paise/kWh, which we have ordered, shall be provided from the relief package to the Petitioner. If this does not happen, the Petitioner would have to bear the difference”.*

4. Subsequently, PGCIL through its petition No. 13/2004 before the CERC sought, inter-alia, for calculation of transmission charges based on ex-bus design/target energy of the central generating stations instead of the actual energy drawn by the beneficiaries in the north east region.

5. The CERC deliberating on the above issue framed a question '*as to how the regional transmission charges should be paid*' and gave the following example to illustrate the issue:

*“12. Suppose a beneficiary schedules a drawal of X units from/central stations during a month (as per its entitlement in Central station energy availability). Suppose the beneficiary actually draws only Y units during the month, and its under drawal (X-Y) gets exported from NER as UI. In the earlier UCPTT scheme (Pre-ABT), the beneficiary had to pay 35paise/kWh on Y units, the only recognizable figure since X had little relevance. Now, with structured, scheduling process in place, it could be*

*said that the beneficiary is using the regional transmission system first for drawing X units and then for exporting (X-Y) units; so he should pay transmission charges corresponding to (2X-Y). This would not be fair. Nor would it be equitable to charge only for Y units. It is therefore directed that with effect from 01.11.2003, and till the date UCPTT concept continues, regional transmission charges in NER shall be paid by the under-drawing beneficiaries according' to their respective scheduled energy drawal (X) from Central generating stations.*

*The over-drawing beneficiaries and those importing power from outside NER under an agreement (that is, where Y exceeds X shall pay the regional transmission charges according to their actual energy drawal (Y). Both X and Y shall be in terms of ex-power plant energy quantum. **Further, in case a central generating station injects energy into the NER grid in excess of that scheduled by NER beneficiaries (that is, summation of X), either on account of a bilateral or as UI, the central generating stations shall pay the UCPTT rate on such excess energy.***"  
(Emphasis supplied)

6. NEEPCO filed a review petition before the CERC against the above, which was disposed off by the Commission through its order dated 07 Apr 06 against NEEPCO. Aggrieved by the order of the Commission, NEEPCO has filed the present appeal on the following grounds:

A. That CERC has acted contrary to the Tariff Regulations, 2001 and Tariff Regulations, 2004, as these Regulations provides for payment of transmission tariff only by the beneficiaries receiving the energy unless the central sector generating stations sells the power to someone on bilateral agreement;

- B. Payment of transmission charges on UI energy (injection of excess energy than scheduled, as per the Tariff Regulations, 2004) not applicable to generating stations in other regions of the country;
  - C. The CERC order defeats the true spirit of the UI mechanism aimed at maintaining grid frequency in a pre-determined range;  
and
  - D. Both the generator and the beneficiary would have to pay transmission charges on the same quantum of energy leading to double payment.
7. We take up the above issues one by one as follows:

**A. Tariff Regulations, 2001 and 2004.**

8. On perusal of Tariff Regulations, 2001 and Tariff Regulations, 2004 we observe that after introduction of availability based tariff, transmission charges are based on allocation of capacity in megawatt terms. Before we proceed further, we would like to refer to some of the definitions given in the Tariff Regulations, 2004 (Chapter 4 "Inter-State Transmission) as under:

*“(iii) 'Allotted Transmission Capacity' means the power transfer in MW between the specified point(s) of injection and point(s) of drawal allowed to a long-term customer on the inter-state transmission system under the normal circumstances and the expression "allotment of transmission capacity" shall be construed accordingly;*

*Allotted Transmission Capacity to a long-term transmission customer shall be sum of the generating capacities allocated to the long term transmission customer from the ISGS and the contracted power, if any;(emphasis supplied)*

(vii) '**Contracted Power**' means the power in MW which the transmission licensee has agreed to carry or which the transmission licensee is required to carry as per firm allocation from ISGS outside the region or the long term agreement between the importing and exporting utility;

(xii) '**Inter-State Generating Station' or 'ISGS'** has the meaning as assigned in the Indian Electricity Grid Code approved/notified by the Commission;

(xiii) '**Long-Term Transmission Customer**' means a person availing or intending to avail access to the inter-state transmission system for a period of twenty five years or more;

(xviii) '**Short- Term Transmission Customer**' means a transmission customer other than the long-term transmission customer”

The Allotted Transmission Capacity is the sum of generating capacity allocated to the long term transmission customer from the ISGS and the contracted power. Essentially at least two entities are envisaged; firstly the long-term transmission customer and secondly the ISGS. Therefore, the ISGS cannot itself be the long-term transmission customer. Further, Clause 58 of the Tariff Regulations, 2004 regarding 'Sharing of charges for intra-regional assets' (as substituted vide Regulation 14 of the Central Electricity Regulatory Commission (Terms and Conditions of Tariff) (First Amendment) Regulations, 2006 published in the Gazette of India (Extraordinary) Part III, Section 4 (No.98) on 8.6.2006.) provides as under:

**“58. Sharing of charges for intra-regional assets:** In case of more than one long term transmission customer of the regional transmission system, the transmission

*charges leviable on each long-term transmission customer shall be computed in accordance with the following formula:*

*Transmission Charges for intra-regional system payable for a month by a long term transmission customer of that transmission system*

$$= \frac{\sum_{i=1}^n \{ \frac{TC_i}{12} \} - ARSC}{SCL} \times \frac{CL}{SCL}$$

*Where*

*TC<sub>i</sub> = Annual Transmission Charges for the project in the region.*

*n = Number of projects in the region*

*ARSC = Adjustable part of the recovery of transmission charges for the month from Short-term transmission customers for the regional transmission system used for reduction in transmission charges payable by long-term transmission customers in accordance with the Central Electricity Regulatory Commission (Open Access in Inter-State Transmission) Regulations, 2004 as amended from time to time.*

*CL = Allotted Transmission Capacity to the long-term transmission customer*

*SCL = Sum of the Allotted Transmission Capacities to all the long term transmission customers of the regional transmission system.”*

9. The scheme of payment of transmission charges in respect of intraregional assets as contained in the above provisions is that the long term transmission customers pay for the aggregate annual transmission charges applicable for these assets, as reduced by the adjustable charges recovered from the short-term transmission customers.

10. NEEPCO as an ISGS supplying energy to constituent beneficiaries is not a 'long-term transmission customer' in the north east region (NER). This is so because for the NEEPCO capacity allocated to the beneficiaries in the NER, the beneficiaries are being treated as long term transmission customers. Hypothetically, NEEPCO may acquire the

status of a short-term transmission customer\if it seeks to avail the 'open access' facility in case it enters into a contract for sale of its unallocated capacity.

11. The Central Electricity Regulatory Commission (Open Access in Interstate Transmission) Regulations, 2004 (in short, the Open Access Regulations), provides that long-term transmission customers bear the entire transmission tariff based on the allotted transmission capacity after deducting a specified portion of the charges recovered, if any, from short-term transmission customers. Excerpts of Clause 16 of the Open Access Regulations dealing with 'Transmission Charges' is reproduced below:

*“Transmission Charges*

*16. The transmission charges for use of the transmission system of the transmission licensee for inter-state transmission shall be regulated as under, namely:-*

*(i) The annual transmission charges shall be determined by the Commission in accordance with the terms and conditions of tariff notified by the Commission from time to time and after deducting the adjustable revenue from the short-term customers, these charges shall be shared by the long-term customers;*

*(ii) (a) The charges payable by a short-term customer shall be calculated in accordance with the following methodology:*

$$ST\_RATE = 0.25 \times [TSCfAv\_CAP]f365$$

*Where:*

*ST\_RA TE is the rate for short-term open access customer in Rs. per MW per day.*

**Note**

*ST\_RA TE shall be calculated and applied for each - (a) regional system; (b) inter-regional link, and (c) system of the State Transmission Utility or the State Electricity Board or any other transmission licensee forming part of the inter-state system.*

*"TSC" means the Annual Transmission Charges of the transmission licensee for the previous financial year determined by the Appropriate Commission.*

*"Av\_CAP" means the average capacity in MW served by the transmission system of the transmission licensee in the previous financial year and shall be the sum of the generating capacities connected to the transmission system and contracted capacities of other transactions handled by the system of the transmission licensee.*

*(b) The transmission charges payable by a short-term customer shall be for one day and in multiples of whole number of days.*

*(c) Non-availability of TSC for the transmission system shall not be reason for delay in providing transmission access and where TSC for any transmission licensee are not available, the per MW per day charge applicable for the system owned by the Central Transmission Utility of the region in which the system of transmission licensee is situate, shall be used.*

*(d) Every transmission licensee shall declare rate in Rs per MW per day, which shall remain fixed for a period of one year:*

***Provided that in case of north-eastern region, where the Uniform Common Pooled Transmission Tariff (UCPTT) of 35 paise/KWh is***

*applicable, the Central Transmission Utility shall notify ST\_RATE as 25% of the UCPTT in Rs/MW/Day.” (Emphasis Supplied)*

12. The above clause providing for linking the transmission tariff for short-term transmission customer in the NER to the UCPTT recognized the special status of applicability of UCPTT and not the concept of capacity charges which is applicable in other regions of the country. The provision was subsequently deleted while amending Open Access Regulations in February 2005 by the Commission.

13. PGCIL (Respondent no. 1) in their submissions have brought out that the situation in the NER is different from other regions as the transmission charges in the NER have been stipulated in kWh terms and not in terms of MW capacity. In other regions of the country, the Respondent has submitted, the beneficiaries enter into long term bulk transmission services agreement with PGCIL and pay entire transmission charges proportionate to the generating capacity contracted by them.

14. It is true that the methodology adopted for recovery of transmission charges in the NER is different from other regions of the country but the basic concept of recovery of the aggregate transmission charges remains the same. The Tariff Regulations and the Open Access Regulations provide that the long term customers would be contributing for the annual transmission charges, as reduced by the adjustable charges recovered from the short-term transmission charges. Hence, we are of the opinion that NEEPCO not being a long term transmission customer would not be required to contribute towards the annual transmission charges applicable to a long-term customer.

**B & C. Payment of transmission charges on UI energy and spirit of UI mechanism.**

15. The Appellant has contended that payment of transmission charges on UI energy (injection of excess energy than scheduled, as per the Tariff Regulations 2004) is not applicable to generating stations in other regions of the country and if the generators

injecting UI energy are required to pay transmission charges, the true spirit of the UI mechanism aimed at maintaining grid frequency in a pre-determined range is defeated.

16. PGCIL in their submissions have emphasized that in other regions, as PGCIL recovers the entire annual capacity charges corresponding to the entire generating installed capacity connected to the system from the beneficiaries (long term transmission customers), there is no extra charges recoverable for variation in supply of energy in kWh terms on daily basis and therefore actual energy supplied in kWh terms has no relevance. The Respondent No. 1 further submitted that since there was conscious decision not to apply the Tariff regulations providing for transmission charges on MW capacity basis, the transmission charges are recoverable on the basis of actual energy delivered. Hence, the Respondent No. 1 concluded, that this would logically mean that none of the other associated incidents of MW capacity recovery as applicable in other regions, can be applied to NER.

17. The CERC in their submissions clarified that out of various options available, *the Commission adopted a programmatic approach and decided that the central generating stations should be liable to pay the UCPTT charges for the energy injected into the grid in excess of the energy scheduled by the NER beneficiaries. The decision in the consideration of the Commission was more rational and equitable as the Commission has a statutory responsibility to ensure recovery of cost of electricity in a reasonable manner.*

18. The Commission highlighted the following contained in its order of 07April 2006:

*In our opinion, sharing of transmission charges based on actual energy drawal is not a fair proposition. The transmission system in the NER and in other regions as well, is primarily created for conveyance of electricity corresponding to the installed capacity in the region and to facilitate delivery of entitlements (allocation in MW) of each beneficiary from*

*central sector generating stations. Ideally the owner of the transmission system, the first respondent in the present case, deserves to be compensated for the investment made, irrespective of the energy flows. This is precisely the manner in which transmission charges are shared by the beneficiaries in other regions. However this requires determination of total transmission charges, that is, total transmission charges payable to the first respondent based on the investment made. Instead, in the NER, transmission charge liability of the individual beneficiary is determined first and these liabilities are then added to arrive at the total amount recoverable. This special dispensation was made in view of the excess transmission capacity available in the region. Prior to implementation of ABT, actual usage by individual beneficiary was judged by the energy drawn by that beneficiary. The continuance of this system is unfair to the first respondent, if actual drawal of a beneficiary is less than its scheduled drawal, because the transmission system has to be kept in readiness by the first respondent to deliver the scheduled energy.*

19. The Commission in its order dated 6 September 2004 stipulated that *the central sector generating stations will have to pay the transmission charges on energy injected in excess of the generation scheduled by the beneficiaries in the NER. This was stipulated mainly to take care of bilateral sale by the central sector generating stations to the entities outside the NER.* The Commission observed that while application of UCPTT on ISGS injecting power through UI mechanism effectively brings down the UI rate by 35 paise per kWh, *over generation by central sector generating stations increases transmission losses in ER and overloading of ER-WR link, and therefore should not be unduly encouraged.*

20. In our opinion, application of transmission charges based on energy supplied in kWh terms instead of based on the capacity allocated in MW terms is not an adequate reason to recover transmission tariff on ISGS injecting power through the mechanism of UI. Admittedly, UI mechanism was introduced to bring in grid discipline and it

prescribed penalty/incentive on under/over drawl than the schedule depending upon the prevailing grid frequency. The mechanism provides that over drawl of energy when the grid frequency is less than 50.5 Hz, would attract penalty in the form of UI rate, which increase with every 0.02 Hz drop in the grid frequency. The UI rate has been modified from time to time to send necessary signals to the stakeholders. Recently, the Commission has upwardly revised the UI rates to encourage grid discipline. The UI mechanism in a way considers 50.5 Hz as the ideal grid frequency calling for no penalty or incentive at this level. Therefore, nothing should be done to disturb this basic premise: By introducing levy of transmission charges of 35 paise per kWh on energy injected as part of the UI mechanism, the Commission has effectively taken away the incentive for the generators to inject much needed power into the grid when the frequency starts dropping from 50.5 Hz. Here we agree with the contention of the Appellant that the threshold frequency at which it is commercially viable for a generator to inject UI energy would be lowered by around 0.12 Hz (if rate of 8 paise per unit for every 0.02 Hz drop upto 49.80 Hz is taken into consideration). This does not augur well for grid discipline.

21. Similarly, recovery of transmission charges based on energy supplied in kWh terms instead of based on the capacity allocated in MW terms is not an adequate reason to distinguish between ISGS in NER from other regions of the country. The right approach would be to levy transmission charges on the beneficiaries as is applicable in other parts of the country.

**D. Both the generator and the beneficiary would have to pay transmission charges on the same quantum of energy leading to double payment.**

22. The Appellant has submitted that both the generators as well as the beneficiaries have to pay transmission charges on the same quantum of energy injected into the system.

23. PGCIL have sought to justify the above transmission charges saying that when a generating station injects energy, which is not a contracted energy, generators are using

the transmission system to get the power into grid and should accordingly pay for the same. Similarly the beneficiaries drawing such power are also availing the transmission system. In their view under UI there are two persons seeking and availing access to the system independent of each other and therefore, each of them have to pay the Charges applicable per kWh.

24. Admittedly, the electricity flows on displacement basis. Therefore, it is difficult to accept that when the ISGS injects energy into the grid and beneficiary draws the same, in excess of their schedule, two persons independent of each other are availing two transmission facilities. As far as usage of transmission facilities is concerned, there is only one transaction, as is applicable in other regions of the country.

25. On the issue of double charging, the Commission observed *that application of charges in terms of its order of 6 September 2004 is not unfair to any individual beneficiary or the central generating stations in the NER. It is also a fact that the first respondent is not getting revenues commensurate with the investment, and therefore, the perception that the directions contained in the order dated 6.9.2004 are leading to over recovery by the first respondent is misplaced.*

26. We feel that the real issue is the excess investment made by the Respondent in the NER. We agree with the observations of the Commission in this regard in its order of 1 January 2002, which we have referred to earlier, that *there is thus an excess of transmission capacity and the respondents are not deriving any benefit out of such excess capacity. Under these circumstances, the respondents cannot be made liable to pay the transmission charges for the excess capacity It becomes evident that even PIB did not intend the respondents to ,be burdened with extra tariff because of non-availability of generation commensurate with the transmission capacity.*

27. We are of the firm opinion that something which is not straightaway justified cannot be made justifiable in a circuitous way. The Commission had rightly concluded that the beneficiaries cannot be made liable to pay for the excess investment made by

PGCIL. Therefore, the plea that the first respondent is not getting revenue commensurate with the investments is of no relevance.

28. The Commission has ordered for payment of transmission charges by central generating station injecting excess energy into the NER grid in excess of that scheduled by NER beneficiaries (that is, summation of X), either on account of a bilateral or as UI, the central generating stations shall pay the UCPTT rate. This in our opinion amounts to double charging as the entity drawing such power from the grid is also required to pay transmission charges.

29. We therefore, allow the Appeal as above and set aside the order dated 07 Apr. 06 and allow the review petition No. 2 of 2005 thereby reviewing the order dated 06 Sept. 2004 in Petition No. 13 of 2004 and grant the exemption to the appellant from paying any regional transmission charges on energy injecting into the grid as UI in excess of the schedule.

**Pronounced in the open court on 11<sup>th</sup> March, 2008.**

**( A.A. Khan )  
Technical Member**

**(Mrs. Justice Manju Goel)  
Judicial Member**