

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Coram

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

Petition No. 32/2008

In the matter of

Application for grant of transmission licence to Parbati Koldam Transmission Company Limited.

And in the matter of

Parbati Koldam Transmission Company Limited

....**Applicant**

Vs

1. Power Grid Corporation of India Limited, Gurgaon
2. Northern Regional Power Committee, New Delhi
3. Ajmer Vidyut Vitaran Nigam Ltd., Ajmer
4. Jaipur Vidyut Vitaran Nigam Ltd, Jaipur
5. Jodhpur Vidyut Vitaran Nigam Ltd, Jodhpur
6. Himachal Pradesh State Electricity Board, Shimla
7. Punjab State Electricity Board, Patiala
8. Haryana Power Generation Corporation Limited
9. Haryana Vidyut Prasaran Nigam Ltd, Panchkula
10. Power Development Deptt., Govt. of J&K, Jammu
11. Uttar Pradesh Power Corporation Ltd, Lucknow
12. BSES Yamuna Power Limited, Delhi
13. BSES Rajdhani Power Limited, New Delhi
14. North Delhi Power Ltd., Delhi
15. Chandigarh Administration, Chandigarh
16. Uttaranchal Power Corporation Ltd., Dehradun
17. North Central Railway, Allahabad
18. National Thermal Power Corporation Ltd., New Delhi
19. National Hydro Power Corporation Ltd., Faridabad
20. Central Electricity Authority, New Delhi
21. State Government of Himachal Pradesh, Shimla

...Respondents

The following were present:

1. Shri Amit Kapur, Advocate, PKTCL
2. Shri Apoorva Misra, PKTCL
3. Shri Subroto Bhattacharya, PKTCL
4. Shri Prasoon, PKTCL

5. Shri Krishnan, PKTCL
6. Shri L N Mishra, PKTCL
7. Shri Alok Roy, PKTCL
8. Shri Himinder Lal, Advocate, State of HP
9. Shri Rajni Lal, State of HP
10. Shri Gautom Roy, CEA
11. Shri R.Bahri, PGCIL
12. Shri Mukesh Khanna, PGCIL
13. Shri Vijay Kumar, PGCIL
14. Shri Keshav Singh Attri, HPSEB
15. Shri Sandeep K Sharma, HPSEB
16. Shri D P Sethi, PSEB

ORDER
(DATE OF HEARING: 24.6.2008)

The application has been made under sub-section (1) of Section 15 of the Electricity Act, 2003 (the Act) for grant of transmission licence to undertake the business of establishing, commissioning, operation and maintenance of 400 kV transmission lines for evacuation of power from Parbati-II Hydro-electric Project and Koldam Hydro-electric Project in State of Himachal Pradesh for its onward transmission to the beneficiary States in the Northern Region, comprising the following elements, and hereinafter collectively referred to as “the transmission system”:

- (a) 400 kV S/C Parbati-Koldam transmission line-I (Quad Moose conductor) – 75 KM
- (b) 400 kV S/C Parbati-Koldam transmission line-II (Quad Moose conductor) – 75 KM
- (c) 400 kV D/C Parbati-Koldam transmission line (Quad Moose conductor) – 3.5 KM
- (d) 400 kV D/C Koldam-Ludhiana transmission line (Triple Snowbird conductor) – 150 KM

2. The applicant is a joint venture company promoted by Reliance Energy Limited (REL) and Power Grid Corporation of India Ltd. (PGCIL), also notified as the Central Transmission Utility (CTU) by the Central Government, with equity participation of 74% and 26% respectively.

3. The applicant sent a copy of its application to the Central Transmission Utility (CTU) as required under sub-section (3) of Section 15 of the Act and also published notices in accordance with sub-section (2) of Section 15 thereof. The CTU vide its letter dated 23.4.2008 has recommended grant of licence to the applicant. In response to the public notice, no objection has been received.

4. The application was initially heard on 8.5.2008 after notice. During the course of proceedings it came on record that Government of Himachal Pradesh, who will be entitled to 12% free power from the above-named two generating stations whose power will be evacuated through the transmission system, has not been made a party to the proceedings. Therefore, by order dated 9.5.2008, the applicant was directed to implead the State Government of Himachal Pradesh as party-respondent. The CTU was directed to file following documents/clarifications with copy to parties:

- (a) Copy of 'Bid Documents' and 'Evaluation Report' leading to selection of REL as a joint venture partner;
- (b) Procedure and criterion adopted for selection of JV partner; and

(c) Documents relating to approval of its Board of Directors, in selection of REL as successful bidder.

5. The CTU has filed the above documents vide its affidavit dated 13.5.2008, the copies of which were served on the parties. The State of Himachal Pradesh is also impleaded as party-respondent.

6. Learned counsel for the petitioner recounted that Parbati-II HEP, 800 MW (4x200 MW) in Kullu District and Koldam HEP, 800 MW (4x200 MW) in Bilaspur District in the State of Himachal Pradesh are being developed by NHPC and NTPC respectively and the petitioner, has applied for grant of transmission licence for evacuation of power from these generating stations.

7. Learned counsel for the petitioner, narrated the evolution of the need for the transmission system, as under:

(a) The need for the transmission system was decided in 14th meeting of the Standing Committee on Transmission System Planning of Northern Region (consisting of CEA, the beneficiaries and others) held on 30.12.2002 and modified in 15th and 16th Standing Committee meetings held on 30.5.2003 and 24.3.2004 respectively;

(b) The CTU (PGCIL) invited bids on 2.2.2004 for selection of a joint venture partner for establishing the transmission system. Reliance Energy

Ltd. (REL) was selected as a JV partner and selection letter was issued on 26.12.2005;

(c) There was some delay in completing the process on account of change of the transmission system structure from BOOT (Build, Own, Operate and Transfer) to BOO (Build, Own and Operate) and the IA (Implementation Agreement), SHA (Shareholders Agreement) and OIA (Operational Interface Agreement) were signed on 23.11.2007, wherein the transmission system configuration as indicated in the opening para of this order was confirmed; and

(d) The applicant company has been promoted jointly by REL and PGCIL (Power Grid Corporation of India Limited).

8. The petitioner brought out that Himachal Pradesh State Electricity Board (HPSEB) in its letter dated 27.5.2008 had agreed to grant transmission licence to the petitioner, subject to the following assurances, also sought in the reply filed by HPSEB in the affidavit filed before the Commission:

(a) Neither transmission system associated with Parbati-III i.e. pooling sub-station and pooling sub-station-Amritsar 400 kV D/C transmission line, nor 400 kV Koldam-Ludhiana D/C transmission line can be deferred.

(b) Two single circuit 400 kV Quad Moose transmission lines from Parbati-II to Koldam cannot be routed on D/C towers in most terrains even when tower outage probabilities in the area are not significantly

(more than 25%) higher than those for other D/C transmission lines in similar terrains in the State of Himachal Pradesh.

(c) Necessary load flows under normal as well as credible contingency conditions are furnished by the planner (CEA) and the executors. The probability of contingencies, recovery time as well as loss of energy/generation likely to be suffered by the beneficiaries under best, worst and average cases may also be brought to the notice of the beneficiaries.

9. Responding to the comments made by HPSEB, on two single circuit lines between Parbati-II HEP and Koldam HEP, learned counsel for the petitioner stated that this was an ISTS project evolved by the CTU and approved by Standing Committee of Northern Region Transmission Planning in its 16th meeting held on 24.3.2004 which was attended, by HPSEB, among others. On the question of the change in completion schedule due to likely delay in commissioning of Parbati-II HEP, learned counsel observed that it was contractually bound to implement the transmission system as per provisions of Implementation Agreement (IA) signed with the CTU, failing which liquidated damages would be leviable on the petitioner. He submitted that the petitioner had no discretion to change the implementation schedule unilaterally. Regarding necessary load flows under normal as well as credible conditions to be carried out and firming up of the arrangement for evacuation of power from Beas and Chenab basin projects as envisaged by CEA, learned counsel submitted that

scope of applicant under the licence sought does not include any aspect related to system planning.

10. Representative of CEA stated that the transmission system was evolved as a composite scheme and it was proposed to establish a pooling station at Panarsa where power from Allain Duhangan HEP (ADHEP) and Malana-II HEP was also proposed to be pooled. But, Parbati-II and Parbati-III HEPs got delayed whereas ADHEP and Malana-II HEP were progressing. In view of this, CEA wanted part of Parbati-II transmission system i.e. one of the transmission lines from Panarsa to Koldam be advanced matching with ADHEP but this could not be done as PGCIL had proposed Parbati-II transmission system to be taken up through JV route and it took very long time to finalize the matter. To take care of evacuation system from ADHEP and Malana-II HEP, a 220 kV D/C transmission line from ADHEP, which was earlier proposed to be terminated at Panarsa, was extended upto Nalagarh. This transmission line is said to be under construction and is likely to be commissioned by December 2008 and will evacuate power from ADHEP and Malana-II HEP upto Nalagarh. This, according to CEA, necessitates review of the transmission system, planned in 2002-03 for evacuation of power from Parbati-II HEP and Koldam HEP. Another development necessitating review at this stage, as narrated by the representative of CEA, is that HPSEB has indicated that a generation capacity to the tune of about 2400 MW would be available at Chandrabhaga basin in the timeframe of 2015-16. To evacuate this power, CEA has suggested optimal utilization of the available corridor in the Beas valley by constructing 400 kV Parbati-Koldam transmission

line in its route between Panarsa-Koldam as a D/C Quad instead of 2 x S/C Quad transmission lines. It was urged that the right of way saved through this could be utilized for taking another 400 kV D/C transmission line for evacuation of power from Chandrabhaga basin.

11. HPSEB in its objection has raised the issue similar to that raised by Government of Himachal Pradesh, which, according to them, would facilitate minimal dependence on the forest land and thereby enhance the prospects of easy clearance from environmental angle. On enquiry, the representative of the HPSEB informed that DPRs of hydro stations linked to Chandrabhaga basis were not ready.

12. The representative of the CTU stated that the issue raised by CEA was never discussed in the past at any of the fora and that this aspect was not covered even in the National Electricity Plan, notified by CEA on 3.8.2007. He informed that recently, on 10.4.2008, Chairman, CEA took a meeting to discuss the evacuation arrangement from Malana-II HEP but even in this meeting the question of the proposed re-arrangement for evacuation of power from Parbati-II HEP was not raised, and the issue was being raised by CEA in the present proceedings for the first time. In this regard, the representative of the CTU informed that Koldam HEP, Parbati-III HEP and Parbati-II HEP were likely to be completed by March 2010, November 2010 and March 2012, respectively. Regarding transmission systems associated with these HEPs, it was informed that Koldam ATS consisted of Koldam-Nalagarh D/C transmission line (PG) and

Koldam-Ludhiana D/C transmission line (JV), Parbati-II ATS had Parbati-Koldam 2 x S/C transmission line (JV), Parbati-III ATS consisted of LILO of Parbati-II-Koldam at Parbati-III, establishment of switching station (pooling point) at Panarsa by LILO of Parbati-Koldam transmission lines and Panarsa-Amritsar D/C transmission line. Accordingly, the representative of the CTU did not agree with the proposal of CEA.

13. In response to various issues raised at the hearing, learned counsel for the petitioner emphasized the fact that considerable investment and preliminary works had been done by way of the following steps:

- (a) detailed route survey for the transmission lines,
- (b) tower design and testing for single circuit Quad Moose,
- (c) Bids [4 nos. Tower package, 3 nos. conductor packages and 3 nos. insulator package] opened and evaluated ,
- (d) Stage-I forest clearance for 2 nos. S/C transmission lines in Parbati-Koldam section obtained; and
- (e) Action for forest clearance for Koldam-Ludhiana D/C transmission line is in advance stage and amount of Rs. 3 crore (approximately.) was deposited with one of the forest divisions.

14. Learned counsel also intimated that total amount claimed by the CTU as development charges for the above works was Rs 21 crore. He also pointed out that CEA, as the convener of all the meetings, had approved the system and also participated in PIB meetings for investment approvals. However, no objection

was ever raised in the past while planning and approving the project in the Standing Committee or at any subsequent stage. Learned counsel further stated that the pooling point at Panarsa was associated with transmission system planned for Parbati-III HEP evacuation and may not be linked to evacuation of power from Parbati-II and Koldam HEPs. This pooling point was under construction by the CTU and would be linked to the Parbati-Koldam transmission system eventually to provide for evacuation of all generation envisaged in that region. Finally, learned counsel urged that any review of the transmission system at this stage would call for defining new routes for the transmission lines, their survey, development of new tower designs, invitation of fresh tenders for construction of lines etc. which would result in delay of at least 24 months, affecting evacuation of power from the generating stations. He also pointed out that the objections raised by HPSEB in this case are similar to those raised by them in the petition earlier filed by M/s Jaypee Powergrid Ltd., a JV Company for construction of transmission system associated with Karcham Wangtoo hydro station and the same have been addressed by the Commission in its order dated 17.8.2007 in Petition No. 44/2007.

15. We have very carefully considered the whole matter. There is a divergence in the views expressed by CEA and the CTU respectively. While CEA has endorsed the HPSEB's insistence on converting 2 x S/C Parbati-Koldam transmission lines to one D/C transmission line, the CTU has endorsed the petitioner's contention that such a change at this stage would cause a serious delay in the completion of transmission system, which may eventually

cause bottling up of Parbati-II and Parbati-III HEPs. We would normally expect CEA and the CTU to resolve such matters, so that the Commission is not required to get into them while considering an application for grant of transmission licence of an applicant, who is not responsible for deciding what transmission lines are to be constructed.

16. During the hearing, a copy of the summary record of discussions held in the meeting taken by Chairperson CEA at Shimla on 23.7.2007 was handed over to the Commission. In this record of discussion (issued by CEA on 13.8.2007), we find the following statement:

“Evacuation from Koldam, Parbati-II and Parbati-III was planned through Koldam-Nalagarh 400 kV D/C Quad, Parbati-II-Koldam 400 kV 2X S/C Quad and Koldam-Ludhiana 400 kV D/C Triple lines. With Parbati-III, a pooling station at Panarsa was proposed and Panarsa-Amritsar 400 kV D/C twin Moose line had been planned”

17. It is clear from this that CEA had contemplated only 2 x S/C Parbati II-Koldam transmission lines till as late as July-August 2007, although Chenab basin development was already in sight. A pertinent statement in the same record of discussions is “However, in the master plan for Beas Basin, power injection from Chenab Basin was also considered.”

18. During the hearing on 24.6.2008 and through subsequent communications to the Commission, Shri K.S.Atri of HPSEB has strongly objected to the 2xS/C Parbati II-Koldam transmission lines on two counts i.e. ROW problem and cost reduction. He apprehends that these transmission lines would interfere with a

future transmission line from Panarsa area to Nalagarh, which does not figure in CEA's plan presented in the meeting held on 23.7.2007. In our view, settled matters being proceeded with should not be unsettled on account of possibilities with little certainty. Further, it would not be prudent to have only one transmission line (D/C) in hilly areas for power evacuation from two hydro projects with a total capacity of 1300 MW, from reliability angle. As for cost reduction, a D/C transmission line in hilly terrain is not likely to be much cheaper than 2 x S/C transmission lines. In any case, both these factors (which are generally valid) are supposed to have been taken into account while arriving at the transmission system presented on 23.7.2007. There has been no new development since then. In view of the above, we do not find any merit in the suggestions made or objections raised, at this stage in the present case.

19. The issue of change of configuration of Panarsa-Koldam section from two single circuit lines to a double circuit line could have been settled much earlier by CEA which is the planning agency, in consultation with the CTU. A joint venture transmission company who is to build the transmission lines according to specified scope has no role in this. We are also of the view that construction of Quad conductor on a D/C transmission line in hilly terrain may not be an easy task and further flow of power of the order of 1300 MW over a D/C transmission line in hilly terrain may pose reliability problems. Right of way problem anticipated by HPSEB, CEA and Government of Himachal Pradesh is 6-7 years down the line and lacks clarity, without mapping of future transmission elements in the

region. It would be advisable to precisely locate the congested section through route mapping, but even the DPRs of these generation projects are not yet ready. There is no justification for withholding licence to the petitioner on these grounds.

20. An objection dated 31.3.2008 was received from North Central Railway on sharing of transmission charges for the transmission system. The Commission, in its orders dated 2.7.2007 and 28.3.2008 in Petition No. 85/2007 on the subject, allowed flexibility about sharing of transmission charges by the beneficiaries. It should be possible to address the concerns of North Central Railway in terms of para 23 of the order dated 2.7.2007 and para 13 of the order dated 28.3.2008, in due course.

21. During the hearing on 8.5.2008, a question had been raised regarding the payment security mechanism. In the order dated 29.10.2007 in Petition No. 8/2007 (suo motu), the Commission had stated as follows:

“We are reserving our views on the payment security mechanism (PSM) recommended in para 4 (iv) of the A. K. Khurana Committee’s report. While the parties may presently proceed with finalization of Implementation Agreement and Power Transmission Agreement as per modifications proposed in the Annexure-VIII and IX to the PGCIL letter dated 4.10.2007, we expect a more appropriate PSM to emerge before the projects get commissioned. This should not hold up the progress on these projects, since the question of PSM can arise only after the projects get to the commercial operation stage.”

22. We reiterate our views with a further clarification that till such time a better mechanism is agreed to and placed in position, the payment security mechanism as per A.K. Khurana Committee’s recommendation shall be adopted for

proceeding with the project. It would be totally counter-productive to delay taking up of a transmission system for want of a better mechanism which is yet to be evolved.

23. On the above considerations, we are satisfied that the applicant prima facie qualifies for grant of licence for the transmission system. Accordingly, we propose to grant licence to the applicant. We direct that a public notice under clause (a) of sub-Section 5 of Section 15 of the Act be published to invite further suggestions or objections, if any, to the above proposal for grant of licence.

24. List this petition on 7.8.2008 for further directions, when a final view on grant of licence shall be taken.

Sd/
(R KRISHNAMOORTHY)
MEMBER
New Delhi dated 11th July 2008

sd/-
(BHANU BHUSHAN)
MEMBER