

**CENTRAL ELECTRICITY REGULATORY COMMISSION  
NEW DELHI**

**Coram:**

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

**Petition No.44/2007**

**In the matter of**

Application for grant of transmission licence to Jaypee Powergrid Limited.

**And in the matter of**

Jaypee Powergrid Ltd., New Delhi

**..Applicant**

Vs

1. Power Grid Corporation of India Limited, New Delhi
  2. Jaypee Karcham Hydro Corporation Ltd., Kandaghat
  3. PTC India Ltd., New Delhi
  4. Punjab State Electricity Board, Patiala
  5. Haryana Vidyut Prasaran Nigam Ltd., Panchkula
  6. Uttar Pradesh Power Corporation Ltd., Lucknow
  7. Rajasthan Power Procurement Centre, Jaipur
  8. Jaipur Vidyut Vitaran Nigam Ltd., Jaipur
  9. Ajmer Vidyut Vitaran Nigam Ltd., Ajmer
  10. Jodhpur Vidyut Vitaran Nigam Ltd., Jodhpur
  11. Govt. of Himachal Pradesh, Shimla
  12. Central Electricity Authority, New Delhi
  13. Power Development Department, Govt. of J&K, Jammu
- ..Respondents**

**The following were present:**

1. Shri Amit Kapoor, Advocate, Jaypee
2. Shri Mansoor Ali, Advocate, Jaypee
3. Shri Rajiv Bhardawaj, Jaypee
4. Shri R.B.Mishra, Jaypee
5. Shri G.P.Singh, Jaypee
6. Shri Amit Sharma, Jaypee
7. Shri Avijeet K.Lala, Jaypee
8. Shri Rajiv Mohan, PGCIL/CTU
9. Shri V.M.Kaul, PGCIL/CTU
10. Shri Avinash M.Pangi, PGCIL/CTU
11. Shri S.S.Sharma, PTC
12. Shri M.G. Ramachandran, Advocate, HPSEB
13. Shri J.P.Kalha, HPSEB
14. Shri R.L.Gupta, HPSEB
15. Shri S.K. Sharma, HPSEB

16. Ms. Swapna Seshadri, HPSEB
17. Shri R.N.Kaul, HPSEB
18. Shri Suryanarayan Singh, Advocate, Govt. of H.P.
19. Shri A.R.Gupta, Brakel Kinnaur Power Pvt .Ltd
20. Shri Ramji Srinivastava, Advocate, Brakel Kinnaur Power Pvt .Ltd
21. Ms. Mandakini Singh, Advocate, Brakel Kinnaur Power Pvt .Ltd.
22. Shri A.K.Asthana, CEA

**ORDER**  
**(DATE OF HEARING: 24.7.2007)**

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, setting up, operating and maintaining the proposed “dedicated” 400 kV D/C transmission system (the transmission system) comprising of the following elements, namely:

- (a) LILO of 400 kV D/C Baspa - Nathpa Jhakri transmission line at Wangtoo;
- (b) 400 kV D/C Karcham-Wangtoo-Abdullapur transmission line (Quad conductor); and
- (c) 400/220 kV sub-station (Extension) (PGCIL) at Abdullapur.

2. The applicant is a joint venture company promoted by Jaiprakash Hydro Power Limited (JHPL) and Power Grid Corporation of India Ltd (PGCIL). The applicant , as well as JHPL are group companies of Jaiprakash Associates Ltd (JAL). A hydroelectric project, namely Karcham-Wangtoo HEP is being developed by a group company of the applicant. The applicant has proposed the transmission system primarily for evacuation of power from Karcham-Wangtoo HEP to Abdullapur sub-station located in the State of Haryana for its onward

transmission to the beneficiary States in the Northern Region and perhaps for this reason, the transmission system has been termed “dedicated”.

3. During the course of proceedings it has come on record that Government of Himachal Pradesh had approved construction of two other hydro-electric projects, one each at Jangi-Thopan (480 MW) and Thopan-Powari (480 MW) in Kinnaur district on build, own, operate and transfer basis, by Brakel Kinnaur Power Pvt. Limited. It has been informed that presently, the two projects are combined into one project known as Jangi-Thopan-Powari HEP (960 MW) situated upstream of Karcham-Wangtoo HEP. Similarly, some other hydroelectric projects, which includes Shongtong-Karcham HEP (402 MW) are also being set up in the Satluj river basin, upstream of Karcham-Wangtoo HEP.

4. 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 23.4.2007 has recommended grant of licence to the applicant. In response to the public notice published by the applicant, M/s. Brakel Corporation NV, the parent company of Brakel Kinnaur Power Pvt. Ltd (collectively referred to as “Brakel”) and Himachal Pradesh State Electricity Board (HPSEB) have filed their objections. Reply to the petition has been filed by the State Government of Himachal Pradesh, Respondent No.11 herein. Central

Electricity Authority (CEA), Respondent No.12 has also placed on record its views. None of the other respondents has filed any reply.

5. The application was initially heard on 14.6.2007 after notice to the parties as also the objectors namely, Brakel and HPSEB. In the light of submissions made at the hearing, by our order dated 29.6.2007, we, inter alia, directed the applicant to confirm that it would facilitate inter-connection of Jangi-Thopan-Powari HEP and Shongtong-Karcham HEP at Karcham-Wangtoo HEP bus bar when so required and would provide non-discriminatory open access to its transmission system. CEA and CTU were also asked to confirm that the transmission system was in conformity with the overall transmission plan and that other projects coming up in the vicinity of Karcham-Wangtoo HEP were considered in the transmission plan process. The concerned authorities have filed their responses and we propose to refer to them in the later part of this order.

6. Brakel in its objections has stated that considering the geographical topography of the area where Karcham-Wangtoo HEP and Jangi-Thopan-Powari HEP are situated, two separate corridors for evacuation of power generated at these generating stations was not possible. It was, therefore, proposed on its behalf that a joint dedicated transmission system for the projects coming up at the Satluj river upstream of Karcham-Wangtoo HEP be undertaken so that the transmission corridor was available to all concerned. Brakel undertook to share

the cost of the joint dedicated transmission system proposed by it. It was pointed out that unless the issue with respect to availability of corridor for evacuation of power generated at Jangi-Thopan-Powari HEP was settled, the licence to the applicant may not be granted.

7. HPSEB in its objections has raised the issue similar to that raised by Brakel. HPSEB has pointed out that grant of licence to the applicant would be inappropriate and against public interest in view of the transmission constraints because of which separate dedicated EHT transmission lines cannot be allowed to be established in the hilly areas of the State of Himachal Pradesh. HPSEB has stated that the transmission system for evacuation of power generated at various projects coming up in the area is to be planned after taking into account the load capacity of the generating stations and outage contingencies as per the established transmission criteria of CEA. Thus, HPSEB has emphasized the need for development of an integrated transmission system considering the limitation of right-of-way and the need for evacuation of power at the projects coming up in the area. It has been urged on behalf of HPSEB (as also Brakel) that the transmission system should preferably be executed by the CTU.

8. The reply filed by the State Government of Himachal Pradesh more or less reiterates the objections received on behalf of HPSEB.

9. Before dealing with the objections on merits, we consider it appropriate to examine a preliminary objection raised on behalf of HPSEB and the State Government of Himachal Pradesh. It has been stated that the applicant has not consulted HPSEB which is the State Transmission Utility, even though the major portion of the transmission system is to fall within the territory of the State of Himachal Pradesh. In these circumstances, it has been prayed the application should be rejected and the applicant should be directed to approach HPSEB and the State Government for appropriate consultation to work out the most appropriate course to be adopted.

10. We do not find any merit in the preliminary objection. In response to the public notice issued by the applicant, HPSEB has filed its objections, which have been taken on the Commission's file. Similarly, the reply of the State Government who has supported HPSEB in this regard is also on record. Thus, both, HPSEB and the State Government have had the full opportunity to place their views before the Commission, which are being considered. In these circumstances, non-impleadment of HPSEB, for whatever motive, cannot be a ground for outright rejection of the application, particularly so when no legal provision requiring a person making application for grant of inter-State transmission licence to consult the State Government or the State Transmission Utility concerned has been brought to our notice. Under the law, the applicant is to publish notice in the newspapers and the objections can be filed by any person feeling aggrieved by

the proposal made in the application for grant of licence. HPSEB has availed of this opportunity.

11. Now we deal with the merits of the objections raised. On consideration of the objections received as also the reply of the State Government, the following issues arise for our consideration, namely:

(a) Whether the transmission system is sufficient for evacuation of power from the hydro electric projects coming in the Satluj river basin;

(b) Whether the applicant can be denied licence on the ground that the transmission system should be established by the CTU or jointly by those proposing to establish generating stations in the area.

12. It has been noted that primary objection to grant of licence to the applicant is on the ground of 'right-of-way' constraints, which, in the view of the objectors, will adversely affect the evacuation of power from other projects located in the upstream of Karcham-Wangtoo HEP. It has been submitted by the CTU on affidavit that it was assigned the work relating to development of Master Plan for evacuation of power from the hydroelectric projects located in the State of Himachal Pradesh. During the course of study, HPSEB had indicated the details of three such projects namely, Karcham-Wangtoo HEP, Shontong-Karcham HEP, Thopan-Powari HEP in the Satluj river basin. Based on the data provided by HPSEB, the CTU suggested a 400 kV triple conductor D/C line from Karcham-

Wangtoo to Abdullapur. Subsequently, based on certain additional inputs made available by HPSEB, it transpired that generation projects totaling above 3300 MW were envisaged in the upstream of Karcham-Wangtoo HEP. Based on this, the total capacity to be evacuated from the area was estimated to be 6000 MW (new projects - 3300 MW, Nathpa-Jhakri-1500 MW, Baspa-300 MW and Karcham-Wangtoo-1000 MW). Accordingly, the transmission requirements were studied by the CTU afresh. Keeping these requirements in view, the conductor configuration was proposed to be changed from the earlier proposed triple bundle to Quad bundle, which provides the highest power transfer capacity at 400 kV level. The CTU has clarified that establishment of Karcham-Wangtoo-Abdullapur 400 kV Quad line would facilitate evacuation of 1000 MW power from Karcham-Wangtoo HEP and provide additional spare capacity of about 1200-1400 MW, depending upon the system conditions. The CTU has further confirmed that no major constraint is envisaged in the availability of corridor for establishment of additional transmission lines, if need arises in future.

13. CEA vide its letter No. 8/9/SPEA-07/685 dated 2.8.2007 has brought out that the transmission system proposed by the applicant is in conformity with the overall transmission plan prepared for the region. According to CEA, the following projects envisaged in the Satluj river basin have been considered while formulating the overall transmission plan for evacuation of power:



Sl.No.	Name of the Project	Capacity (MW)	Tentative Schedule
1.	Bhava	120	Existing
2.	Nathpa Jhakri	1500	Existing
3.	Baspa	300	Existing
4.	Rampur	434	2011
5.	Karcham Wangtoo	1000	2011
6.	Janghi Thopan Powari	960	2012-13
7.	Shongtong Karcham	402	2012-13
8.	Tidong I & II	190	2012-13
9.	Kasang I, II & III	243	2013
10.	Sorang	100	2013
11.	Luhri	700	2015
12.	Khab Pooch Spllio	636	2016
13.	Ropa	60	2016-17
14.	Yangthang Khab	261	2016-17
15.	Chango Yangthang	140	2016-17
16.	Sumte Kothang	130	2017-18
17.	Lara Sumte	104	2017-18
18.	Mane Nadang	70	2017-18
19.	Lara	60	2017-18
20.	Kuling Lara	40	2017-18
	Total MW	7450	

14. CEA has stated that it has shared the Master Plan with HPSEB on a number of occasions and has been under active discussion with the State Government for the past three years. The Master Plan is being reviewed from time to time after taking into account the changes in the schedule of commissioning of the generation projects. It is further stated that the planned transmission system for evacuation of power from Karcham-Wangtoo HEP was discussed and agreed to in the 22nd meeting of the Standing Committee on Power System Planning of Northern Region held on 12.3.2007 and the master plan has remained unaltered even after a fresh review subsequent to raising of issues by HPSEB and Brakel.

15. CEA has listed the present availability of the following transmission systems in the Satluj river basin for evacuation of power:

Ser No	Name of Project	Transmission systems	Capacity
1	Bhava HEP (120 MW)	Bhava-Kotla-Kunihar 200 kV DC (one ckt LILLOed at Kotla substation)	400 MW
2	Nathpa Jhakri(1500MW)	1. .Nathpa Jhakri -Nalagarh 400 kV D/C with triple conductor 2. Nathpa Jhakri -Abdullapur 400 kV D/C with triple conductor 3. .Baspa -Nathpa Jhakri 400 kV D/C with triple conductor	1.Gross transmission capacity of 4200 MW, 2. 'N-1' contingency capacity of 3150 MW 3. Tower outage capacity of 2100 MW
3	Baspa HEP (300MW)		

16. According to CEA, evacuation of power from Rampur HEP (432 MW) in the down stream of Nathpa-Jhakri HEP is planned through LILLO of both circuits of Nathpa Jhakri –Nalagarh 400 kV D/C line at Rampur and with commissioning of the transmission system, additional transmission capacity of 2800 MW would be available in the Satluj river basin. This would take the gross transmission capacity of 400 kV system to 7000 MW, 'N-1' contingency capacity to 5600 MW and tower outage capacity to 4200 MW. It has been affirmed by CEA after evacuation of 3234 MW of power of Nathpa-Jhakri HEP, Baspa HEP, Rampur HEP and Karcham-Wangtoo HEP, sufficient margin would be available which could be utilized for power evacuation from Jangi-Thopan-Powari (960 MW) and Shongtong-Karcham (402 MW), envisaged to be commissioned in 2012-13

timeframe. The proposed evacuation system, according to CEA would be as under:

Jangai-Thopan-Powari (980 MW)

- (a) Establishment of 400 kV Pooling station at Sherpa Colony near Karcham
- (b) Wangtoo by LILO of Baspa-Nathpa Jhakri 400 kV D/C line and re-LILO of Karcham Wangtoo LILO line
- (c) Powari -Sherpa Colony 400 kV D/C with triple snow-bird conductor
- (d) Powari -Baspa 400 kV D/C with triple snow-bird conductor LILoed in to one circuit of Baspa-Sherpa Colony 400 kV D/C

Shongtong Karcham (402 MW)

- (a) Shongtong Karcham -Baspa 400 kV D/C with triple snow-bird conductor LILoed in to one circuit Baspa -Sherpa Colony 400 kV D/C
- (b) Both the Powari -Baspa and Shongtong Karcham- Baspa lines should be LILoed in to same circuit of Baspa-Sherpa Colony line.

17. It has been stated that HPSEB is extending its 220 kV line from Bhava to upstream for establishing a 220 kV sub-station at Bogtu and has planned to extend this line up to Kasang to evacuate power from their Kasang-I, II & III HEPs (243 MW). It has also started works on 220 kV line since 2006 and most part of 220 kV line between Bhava and Bogtu has already been erected. The line would need to be extended downstream upto Kotla and thereon to

Kunihar. The Engineers of HPSEB are stated to have held discussions with the representatives of CEA, when it was suggested on behalf of HPSEB that as the right-of-way was very difficult between Bhava and Kotla, for about 18 kms of stretch, 400 kV Karcham Wangtoo - Abdullapur 400 kV D/C line under the transmission system proposed to be built by the applicant, may be built on multi-circuit towers accommodating their 220 kV line on the same towers. However, the representatives of the CTU are stated to have opined that since separate corridor for 220 kV line of HPSEB is feasible, it would be better if the 220 kV line remains on separate towers. As such, before deciding on mutli-circuit towers vis-a-vis separate towers, detailed route survey should be under taken.

18. CEA has also brought out that for evacuation of upstream generation, 400/220 kV pooling station at Jangi which is upstream of Powari, and 220 kV pooling station at a suitable place at some distance from Yangthang has been proposed and for evacuation of full power from the Satluj river basin, there would be three 400 kV triple D/C lines between Jangi and Sherpa Colony and one more 400kV quad D/C line from Sherpa Colony downwards. Additional corridors, feasibility of which has been identified by the CTU, would be utilized for this purpose.

19. It is clearly established from submissions of CEA that after accounting for evacuation of power generated at Karcham-Wangtoo HEP, enough margin would be available on the transmission system to facilitate evacuation of power

generated at Jangi-Thopan-Powari (960 MW) and Shongtong-Karcham (402 MW), being envisaged to be commissioned in 2012-13 timeframe. The CTU's planning also reveals that various route arrangements/corridors for construction of 400 kV transmission line are available from Wangtoo to Abdullapur through the mountain ranges on either side of the Satluj river upto Rampur and thereafter on either side of existing 400 kV D/C Nathpa Jharkri-Abdullapur transmission line for which walk over survey of total three alternatives was also carried out by the CTU. This clearly indicates that it would be possible to construct transmission system for projects likely to be commissioned beyond 2012-13 timeframe. Right-of-way constraint envisaged by CEA for 18 km route between Bhava and Kotla for 220 kV line to be constructed by HPSEB can be taken care of by doing detailed survey before deciding on the issue of multi-circuit towers vis-à-vis separate towers as suggested by CEA. The Act has provisions for mandatory non-discriminatory open access and this will ensure that other projects like Jangi-Thopan-Powari (960 MW) and Shongtong Karcham (402 MW) envisaged to be commissioned in 2012-13 timeframe, would be able to transfer power through the proposed transmission system.

20. It would thus be seen that the CTU and CEA who are the statutory authorities entrusted with the responsibility of transmission planning in the country do not envisage any transmission constraints in evacuation of power from the generating stations upstream Karcham-Wangtoo HEP. We do not find any plausible reason to overlook their advice. Therefore, in our opinion the

transmission system proposed by the applicant will be able to meet all the future requirements to the extent presently envisaged. Further, the applicant under its affidavit dated 19.7.2007 as confirmed that “it shall facilitate interconnection of the Jangi-Thopan-Powari and Shogtong-Karcham HEPs to its licensed transmission system, when so required, and shall provide non-discriminatory open access to its transmission system in accordance with the applicable legal and regulatory framework”. Also, the applicant cannot be denied licence on the objectors’ demand that the transmission system should be executed by the CTU or jointly with other persons setting up the projects in the Satluj river basin.

21. We note that CEA as well as CTU have confirmed that the transmission system proposed in the application for transmission licence is in conformity with the overall transmission plan. Moreover, since the generating company executing Karcham-Wangtoo HEP is one of the group companies of the major joint venture company applying for the transmission licence, it is expected that the transmission system will be completed matching with the completion of generation project. Since PGCIL is the other partner in the joint venture company and is also the CTU, the Commission expects that PGCIL would take care of the technical aspects like detailed design, optimum routing, competitive procurement of materials and equipment etc.

22. At the hearing learned counsel for State Government of Himachal Pradesh pointed out that in the recent past, some accidents took place in the area

involving the defence helicopters and he suggested that the transmission plan in the region should be firmed up after concurrence of the Defence authorities.

23. We do not find any merit in the suggestion made by the learned counsel. Sub-section (2) of Section 15 of the Act, provides that the license shall not be granted until, in the case of an application for a licence for an area including the whole or any part of any cantonment, aerodrome, fortress, arsenal, dockyard, camp, or of any building, or place in occupation of the Government for Defence purposes, the Commission has ascertained that there is no objection to the grant of licence on the part of the Central Government. On perusal of the route proposed for the transmission system, we do not find that any part of it falls in any of the categories referred in sub-section (2). Further, the applicant has already published notices in the newspapers. The concerned authorities could have raised objections to the grant of licence on the ground urged by the learned counsel for the Government of Himachal Pradesh. Since no such objections have been received, it is not necessary for us to defer grant of licence.

24. On the above considerations, we are satisfied that the applicant prima facie fulfills the requirements of law for grant of licence for the assets noted in para 1 above. 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 any further suggestions or objections, if any, to our proposal for grant of licence. The final view on grant of licence shall be taken on

consideration of the suggestions/objections, if any, received to the public notice now sought to be published and any other valid consideration.

25. Before parting, we propose to make some observations, considered essential in the context of the applicant's proposal. The applicant had made application for grant of licence for the "dedicated" transmission lines. The term "dedicated transmission lines" is defined under sub-section (16) of the Section 2 of the Act as under:

"dedicated transmission lines" means any electric supply-line for point to point transmission which are required for the purpose of connecting electric lines or electric plants of a captive generating plant referred to in Section 9 or generating station referred to in section 10 to any transmission lines or sub-stations or generating stations, or the load centre, as the case may be;"

26. As the transmission system proposed by the applicant will be available for evacuation of power from other generating stations located in the Satluj river basin, the proposed transmission system shall not be treated as the "dedicated" transmission system.

27. List this petition on 20<sup>th</sup> September 2007 for further directions.

Sd/-  
**(R. KRISHNAMOORTHY)**  
**MEMBER**

Sd/-  
**(BHANU BHUSHAN)**  
**MEMBER**

New Delhi dated the 17<sup>th</sup> August 2007