Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Petition No. 32 of 2015

In the Matter of: Approval of Capital Investments under Para 11 of the Transmission and Bulk Supply Licence for investment for Increasing capacity of 220 kV Substation Chamba from 2x25 MVA (220/33 kV) to 1x50 MVA +1x25 MVA (220/33 kV).

In the Matter of:

Power Transmission Corporation of Uttarakhand Limited (PTCUL) ……**Petitioner**

Coram

Shri Subhash Kumar Chairman

Date of Order: May 17, 2016

ORDER

This Order relates to the Petition filed by Power Transmission Corporation of Uttarakhand Ltd. (hereinafter referred to as "PTCUL" or "the Petitioner") seeking approval of the Commission for the investment for increasing capacity of 220 kV substation Chamba from 2x25 MVA (220/33 kV) to 1x50 MVA +1x25 MVA (220/33 kV).

Background

2. The Petitioner submitted its Petition for approval of Capital investment under Regulations of UERC (Conduct of Business) Regulations, 2014 and Para 11 of Transmission and Bulk Supply Licence [Licence No. 1 of 2003] vide letter No. 1894/Dir./(Projects)/PTCUL/Investment Approval dated 06.11.2015.

3. The estimated cost of work proposed by the Petitioner through the DPR submitted alongwith the Petition is as follow:

Particulars	Transformer Capacity MVA	Project Cost as per DPR		Project cost considered by PFC for funding the debt (Rs. Crore)
		Excluding IDC (Rs. Crore)	Including IDC (Rs. Crore)	
Increasing capacity of 220 kV Substation Chamba from 2x25 MVA (220/33 kV) to 1x50 MVA +1x25 MVA (220/33 kV).	2x25 MVA to 1x50 MVA +1x25 MVA	10.01	10.28	7.67

4. The Petitioner has submitted copy of extracts of the Minutes of Board Meetings of PTCUL wherein the Petitioner's Board has approved the Corporation's aforesaid proposal with a funding plan of 70% through loan assistance by financial institutions and balance 30% as equity proposed to be funded by GoU.

5. To justify the need of the works proposed in the Petition, the Petitioner has submitted that:

   (1) 220 kV Chamba substation caters the power requirements of District Tehri Garhwal and is presently having 2x25 MVA, 220/33 kV transformers. The substation meets the load requirement of domestic, commercial & agricultural consumers of Chamba, New Tehri Town, Bhagirathi Puram, Koteshwar, Thatyur, Tapovan & Jakhanidhar areas.

   (2) The details of total load connected from 2x25 MVA, 220/33 kV Transformers at Chamba are as follows:

Sl. No.	Name of Feeder	Connected Load (MVA)
1.	33 kV Chamba	10
2.	33 kV NTT-I	18
3.	33 kV NTT-II	08
4.	33 kV BP-I	10
5.	33 kV BP-II	05
6.	33 kV Koteshwar	05
7.	33 kV Thatyure	06
8.	33 kV Tapovan	12.50
9.	33 kV Jakhanidhar	21
10.	33 kV Power Grid (proposed)	03
	Total Connected load	**98.5**

   At present, the above load is being catered by the supply from the sub-station as well from small hydro-generators connected to the network.

   (3) PTCUL has submitted that during winter season 2x25 MVA, 220/33 kV transformers get loaded upto approximately 95% of their total capacity, due to which rostering of 10-20 MVA load is needed. Further, PTCUL has submitted that the small hydro-power generators, in the area namely Swasti & Gunsola

power plants, also supply approximately 27 MVA power to 33 kV Jakhnidhar feeder, NTT-II feeder and balance power is transferred to 33 kV Bus of 220 kV S/s Chamba. PTCUL has proposed to augment the 220/33 kV Chamba substation from 2x25 MVA to 1 x 50 MVA + 1 X 25 MVA considering the future load growth.

6. On examination of the Petition, the Commission observed following deficiencies which were communicated to the Petitioner vide letter No. 1575 dated 18.01.2016 and letter No. 1643 dated 02.02.2016:

"…

a. PTCUL in its petition has submitted that the running load on 2x25 MVA transformers during winter season is approx. 95% of the total capacity and rostering/load shedding of 10-20 MVA is being carried out on the feeders connected down the line to the 220/33 kV Chamba S/s. The Commission has observed that the total load in the area during winter season would be approx. 47.5+20 MVA (load shedding)=67.5 MVA. Whereas, the proposed capacity of the S/s is only 75 MVA. Therefore, the loading of the augmented S/s would be approx. 90% of its rated capacity. Further, the Commission has observed that no future load growth provisioning has been taken into consideration while planning for augmentation of 220/33 kV Chamba S/s.

PTCUL is required to submit the clarification for the proposed augmentation of the S/s in light of the above.

b. No details/approval letter of funding agency has been provided for the investment approval pertaining to 220 kV Chamba S/s."

"….

1. Funding Agency for the proposed investment pertaining to the works of Chamba."

7. In response to the Commission's observations, PTCUL vide letter dated 25.01.2016 submitted its reply clarifying that at present load on Chamba S/s (without rostering) is 46.67 MVA and the proposed additional 25 MVA transformer would be sufficient for catering the future load growth of next 3 years. PTCUL has also submitted that for catering the upcoming load after 3 years, transformer No. 2 would be augmented from 25 MVA to 50 MVA for meeting the load demands.

Besides above, PTCUL has submitted that after completion of 220 kV S/s Ghansali approx. 14.3 MVA load would be distributed among Chamba and Ghansali which will reduce the load on Chamba S/s.

8. Further, with regard to the funding agency for the proposed investment, PTCUL vide its letter dated 05.02.2016 has submitted that the debt funding agency for the aforesaid works would be Power Finance Corporation Limited (PFC) and the equity would be funded by GoU.

Commission's observations, views and decision

9. On examination of the proposal and subsequent submissions/clarifications, the Commission observed that:

   (1) The existing 2x25 MVA, 220/33 kV transformers at 220 kV Chamba substation are loaded upto approximately 95% of their rated capacity and foreseeing the load growth, PTCUL has proposed to augment the transformation capacity at 33 kV level from 2x25 MVA to 1x50 MVA+1x25 MVA.

   (2) The Commission has observed that the small hydro-power generators in the area namely Swasti & Gunsola Hydro-power Plants also supply approximately 27-32 MVA power to 33 kV Jakhnidhar feeder, NTT-II feeder emanating from 220/33 kV S/s Chamba. Therefore, load reflected on 2x25 MVA transformers would be less when SHPs are running and in the event of breakdown or during winter season with decrease in SHPs generation, the demand of the area would be catered through 220/33 kV Chamba substation only. Thus, during winters the load to be catered by 220/33 kV Chamba substation would be approximately 65-75 MVA which is just equal to the proposed transformation capacity of 1x50 +1x25 MVA=75 MVA.

   (3) PTCUL in its submission has also clarified that at present rostering of 10-20 MVA load from Chamba S/s is being done during the low hydro conditions during winters which would be compensated with the proposed augmentation of 25 MVA and would be sufficient for catering the future load growth for next 3 years.

   Besides above, PTCUL has also submitted that after completion of 220 kV S/s Ghansali in coming years approx. 14.3 MVA load would be distributed

between Chamba and Ghansali which would reduce the load on Chamba S/s and in case of any delay in commissioning of Ghansali S/s, the upcoming load would also be catered by augmenting the transformation capacity of transformer no. 2 at 220 kV S/s Chamba from 25 MVA to 50 MVA.

(4) Based on the submissions made by the Petitioner, the Commission is of the view that the augmentation of 220 kV Substation Chamba from 2x25 MVA (220/33 kV) to 1x50 MVA+1x25 MVA (220/33 kV) is needed.

(5) The Petitioner has submitted a letter dated 18.03.2016 of PFC, wherein, a loan of Rs. 5.40 Crore against the total estimated cost of Rs. 7.67 Crore has been sanctioned by PFC. However, the Petitioner has not submitted any letter from the Government or any such documentary evidence entailing Government's commitment towards equity funding for the proposal.

10. Further, on examining the financial aspects of the proposal, it has been observed that while preparing the estimate the Petitioner in addition to contingency, cost of establishment and audit & accounting has included quantity variation, cost escalation @ 20% and IDC in the estimate. In absence of any justified reasons for including the said quantity variation and cost escalation, the Commission is not considering the same as of now in the Order.

11. Thus, the Commission hereby grants approval for the investment of Rs. 7.18 Crore only against the proposed amount of Rs. 10.28 Crore (including IDC) as presented in the Table given below and directs the Petitioner to go ahead with the aforesaid work subject to the fulfillment of the conditions mentioned below:

Capital Cost approved by the Commission

Particulars	Project Cost As per DPR		Project cost considered by PFC for funding the debt (Rs. Crore)	Project Cost considered by the Commission (Rs. Crore)
	Excluding IDC (Rs. Crore)	Including IDC (Rs. Crore)		
Increasing capacity of 220 kV Substation Chamba from 2x25 MVA (220/33 kV) to 1x50 MVA +1x25 MVA (220/33 kV).	10.01	10.28	7.67	7.18

(1) All the loan conditions as may be laid down by the funding agency in their detailed sanction letter are strictly complied with. However, the Petitioner is

directed to explore the possibility of swapping this loan with cheaper debt option available in the market.

(2) The Petitioner shall, within one month of the Order, submit letter from the State Government or any such documentary evidence in support of its claim for equity funding agreed by the State Government or any other source in respect of the proposed scheme.

(3) After completion of the aforesaid scheme, the Petitioner shall submit the completed cost and financing of the scheme.

(4) The cost of servicing the project cost shall be allowed in the Annual Revenue Requirement of the petitioner after the assets are capitalized and subject to prudence check of cost incurred.

(Subhash Kumar)
Chairman