

Before

UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

Petition No. 31 of 2014

In the Matter of:

Approval of Capital Investment under Para 11 of the Transmission Licence [Licence No. 1 of 2003].

In the Matter of:

Power Transmission Corporation of Uttarakhand Limited (PTCUL) ...Applicant

AND

In the Matter of:

Investment Approval for construction of well foundations and tower protection work at different locations of 220 kV double circuit twin Zebra transmission line from 220 kV sub-station Dehradun (PTCUL) to 400 kV sub-station Sherpur, Dehradun of PGCIL.

Coram

Shri Subhash Kumar	Chairman
Shri C.S. Sharma	Member
Shri K.P. Singh	Member

Date of Order: 22nd January, 2015

ORDER

The Petitioner, Power Transmission Corporation of Uttarakhand limited (PTCUL) vide their application No. 747/Dir (Projects)/PTCUL/UERC dated 19.09.2014 under Para 11 of Transmission Licence [Licence No. 1 of 2003] has sought approval of the Commission for

construction of well foundations and tower protection work at different locations of 220 kV double circuit twin Zebra transmission line from 220 kV sub-station Dehradun (PTCUL) to 400 kV sub-station Sherpur, Dehradun of PGCIL.

2. The Commission had earlier vide its Order dated 28.02.2014 given investment approval for the said line for ₹ 20.84 Crores. The approval of the Commission did not include tower protection work presently being sought by PTCUL. Of total 20 towers, PTCUL has proposed well foundations for 12 towers and wire mesh protection for 5 towers of the aforesaid line.

3. PTCUL in its Petition has stated that:

(i) *“Initially, the proposed route of this line was aligned along the banks of river Tons flowing adjacent to 220 kV s/s Dehradun (PTCUL) and seasonal river near 400 kV s/s Sherpur, Dehradun (PGCIL) at seemingly safe locations far away from the flow of rivers.*

(ii) *It has been observed that due to meandering of river Tons during the heavy flood discharge encountered in the month of July & August 2014, the river has changed its course and has been subsequently splitted into several interlaced channels having significant discharges. Meandering has caused the river to leave its original course and has forced it abruptly to flow along new courses. Due to this phenomenon, the majority of proposed tower locations which were planned at safe locations were inundated during high flood flow. In addition to this, present scouring of banks near tower locations has also been noticed.*

(iii) *Almost similar phenomenon, as explained above, has been observed in the seasonal river near 400 kV S/s, Sherpur, Dehradun (PGCIL) during the heavy rains in the month of July & August 2014. The river has slightly changed its course. The meandering of river has resulted in shifting of outer bank due to its erosion and has led to the formation of successive bends of reverse order in form of shape “S”. The area in vicinity of proposed tower has now become vulnerable to erosion.*

(iv) *It is further to say that the residential and commercial buildings are being constructed near river banks etc. and as such no alternative route for the above transmission line is available except through the river catchments. The situation that has arisen due to meandering of river*

and constraints in re-alignment of tower due to unavoidable factors has compelled to review the safety of proposed towers in view of prevailing river flow conditions and probable scouring especially during the devastating flood.

(v) Under purview of facts narrated above, it is necessary that either towers be got erected on well foundations or wire mesh crate protection be got provided around the towers depending upon their locations in the river catchment to ensure the safety of towers of 220 kV DC twin zebra line under discussion."

4. The Commission observed that the cost of the proposed work (about ₹ 21.30 Crores as per the Delhi Schedule of Rates) is equal to the cost of the entire line, earlier approved by the Commission (₹ 20.84 Crores). The Commission in order to ascertain the necessity of the proposed work directed its senior consultant to visit the proposed site and give a comprehensive report.
5. The senior consultant visited the site of the proposed line on 31.10.2014 and submitted that:

"...It appears that PTCUL did not study the heavy water flow of the river and behavior of change of river course during monsoon season. It is to bring to the notice of the Commission that very heavy water flow exists in the river during rainy season. The proposed normal foundations may topple due to scouring of the river bed due to heavy water flow in rainy season.

The proposal of PTCUL for construction of well foundation is justified, assessing the irregular behavior of heavy water flow during monsoon season of the river (Tons) having its catchment area of the hills. The construction of well foundation shall confirm the reliability and stability of the said proposed line in future..."

6. A motion hearing was fixed in the Commission's office on 27.11.2014 to decide admissibility of the Application. The Petitioner informed the Commission that the 220 kV D/C Twin Zebra line is a very important line as it shall connect 220 kV sub-station, Dehradun of PTCUL to 400 kV sub-station Sherpur, Dehradun of PGCIL. The Petitioner further submitted that since 400 kV sub-station, Sherpur is proposed to be connected to

400 kV sub-station Abdullapur, 400 kV sub-station Baghpath and 400 kV sub-station, Saharanpur, the stability of the transmission grid of Uttarakhand shall increase resulting in improved reliability of power in Dehradun area. Apart from the above the proposed line shall also be used for evacuation of power from Lakhwar (300 MW) and Vyasi (120 MW). Therefore, in order to ensure the safety of the towers of this very important line, well foundations and wire mesh crate protection work around the towers to be erected in the bed of river Tons, have been proposed. The Petition of PTCUL was admitted by the order of the Commission of the same date.

7. The Petitioner was directed vide Commission's letter dated 11.12.2014 to submit information regarding sanction of loan assistance in respect of the proposed work.
8. The Commission vide its letter dated 26.12.2014 pointed out following deficiencies with regard to the preparation of the estimate by PTCUL for the proposed work:

1. *Rates of DSR (Delhi Schedule of Rate) have been adopted in construction of well foundation and protection work for towers. PWD Uttarakhand schedule of rate 2014 should be adopted in place of Delhi schedule of rate.*

2. *Rates of sinking of well for 8m, 6m, and 4.5 m external diameter have been calculated on MORTH (Ministry of Road Transport and Highways) rates. The rates for sinking of well should be adopted from PWD, Uttarakhand schedule of rate 2014.*

3. *In the estimated cost, following provisions are also added in the estimate:*

- a. *10% quantity variation.*
- b. *20% cost escalation*
- c. *4.944% service Tax*
- d. *3% contingency*
- e. *15% centage charges*

Above additional charges are not allowed except 3% contingency.

4. *In all item of works of the estimate, only abstract of quantities are given while the basis for arriving at these quantities has not been provided. PTCUL is requested to submit the detail of quantities of all the items of the estimate.*

9. PTCUL vide letter No. 58/MD/PTCUL/D.Dun/UERC dated 07.01.2015 submitted revised estimate for the proposed work based on PWD, Uttarakhand scheduled of rates 2014. The cost of work has been estimated as ₹ 11.99 Crores. Further, PTCUL justified the provisions of 10% quantity variation, 20% cost escalation, 3% contingency, 4.944% service tax and 15% centage charges made in the revised estimate.
10. According to the petitioner the proposed work is of utmost importance and the work is to be started within few months, therefore, the Commission is of the view that the provision of 20% cost escalation in the estimate is not justified and hence is not admissible. The provision of 4.994% service tax is also not admissible as the rates of PWD, Uttarakhand includes all taxes payable by the contractor to the respective departments i.e. income tax, sales tax etc. The provision of 10% quantity variation and 15% centage is also denied, however, the Commission allows provision of 3% contingency in the estimate and accordingly approves the project cost of ₹ 12.35 Crores.
11. The Petitioner has vide their letter dated 13.01.2015 submitted that the sanction of loan from PFC is in advance stage and is likely to be sanctioned within 15 to 20 days and has requested the Commission to accord investment approval for the said work. The Commission hereby grants in principal approval to the Petitioner for going ahead with the aforesaid work at a project cost of ₹ 12.35 Crores subject to the fulfillment of the following conditions:
- (a) The Petitioner should submit financial linkage for the proposed work as soon as it is tied up.
 - (b) All the loan conditions as may be laid down by the financial institution in their detailed sanction letter be strictly complied with. However, the Petitioner is directed to explore the possibility of swapping this loan with cheaper debt option available in the market.
 - (c) 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.

- (d) After completion of the project, the Petitioner shall submit the completed cost and financing of the scheme. The petitioner must endeavor to shorten the period of completion of project.
- (e) The cost of servicing project cost shall be allowed in the Annual Revenue Requirement of the petitioner after the assets are capitalised and subject to prudence check of cost incurred.

(K.P. Singh)
Member

(C.S. Sharma)
Member

(Subhash Kumar)
Chairman