## **Before**

## UTTARAKHAND ELECTRICITY REGULATORY COMMISSION

## Petition No. 01 of 2018

#### In the Matter of:

Approval of Capital Investments under Para 11 of the Transmission Licence for laying of OPGW cable under the project "Reliable Communication & Data Acquisition System for 132 kV & above Substations" in PTCUL under PSDF Scheme.

#### And

## In the Matter of:

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

## Coram

Shri Subhash Kumar Chairman

Date of Order: March 8, 2018

## **ORDER**

This Order relates to the Petition filed by Power Transmission Corporation of Uttarakhand Limited (hereinafter referred to as "PTCUL" or "the Petitioner" or "the licensee") seeking approval of the Commission for Capital Investment for the works covered partially under centrally funded Power System Development Fund (PSDF) of Ministry of Power, Govt. of India as grant and rest through internal resources/loan from Financial Institutions.

# **Background**

- 2. The Petitioner vide its letter No. 2679/MD/PTCUL/UERC dated 29.12.2017 submitted Petition for approval of Capital investment under the provisions of UERC (Conduct of Business) Regulations, 2014 and under Para 11 of Transmission Licence [Licence No. 1 of 2003].
- 3. The proposed works involves laying of OPGW cable under the project "Reliable Communication & Data Acquisition System for 132 kV & above Substations" under PSDF scheme.
- 4. According to the Petitioner, the scope of the project involves only procurement and installation of OPGW and accessories equipments in place of older and obsolete equipments and doesn't involve any kind of power system expansion.
- 5. The summary of the project wise Supply and Erection/civil work cost as proposed by the Petitioner is as per the table 1 given below:

Table 1: Summary of Project wise cost proposed by the Petitioner

| Sl.<br>No. | Project                                    | Length of line (Km.) | Supply<br>Cost<br>(Rs.) | Erection/Civil<br>Work Cost<br>(Rs.) | Total<br>Cost<br>(Rs.) |
|------------|--|----------------------|-------------------------|--------------------------------------|------------------------|
| 1.         | 132 kV Ranikhet-Almora                     | 25                   | 7346793                 | 3787255                              | 11134043               |
| 2.         | 132 kV Kashipur-Bazpur                     | 16                   | 5080950                 | 2441837                              | 7522787                |
| 3.         | 132 kV Majra-Bindal                        | 9                    | 5039390                 | 1650889                              | 6690279                |
| 4.         | 220 kV Maneri Bhali-II Chamba              | 38                   | 7616089                 | 5287425                              | 12903514               |
| 5.         | 220 kV Khodri-Chibro                       | 6                    | 3145845                 | 1145797                              | 4291642                |
| 6.         | 132 kV Kichha-CPP (Lalkuan)                | 19                   | 4689984                 | 2790749                              | 7480733                |
| 7.         | 132 kV Dehradun-Majra                      | 16                   | 5059952                 | 2558117                              | 7618069                |
| 8.         | 132 kV Kulhal-Dehradun                     | 42                   | 7368917                 | 5791156                              | 13160073               |
| 9.         | 132 kV Khodri-Dhakrani                     | 22                   | 4663990                 | 3159176                              | 7823166                |
| 10.        | 132 kV Dhakrai-Dhalipur                    | 7                    | 2870841                 | 1255016                              | 4125857                |
| 11.        | 132 kV Jwalapur-SIDCUL                     | 4                    | 2467793                 | 866204                               | 3333997                |
| 12.        | 132 kV Chilla-Jwalapur                     | 17                   | 4073514                 | 2551056                              | 6624570                |
| 13.        | 132 kV Jaspur-Kalagarh                     | 33                   | 6567683                 | 4701100                              | 11268783               |
| 14.        | 132 kV Kashipur-Kashipur (400)             | 5                    | 2957373                 | 1112088                              | 4069461                |
| 15.        | 132 kV KVS- Kashipur                       | 5                    | 2018935                 | 987150                               | 3006085                |
| 16.        | 132 kV Kalagarh-Kamangar                   | 69                   | 13014557                | 9440944                              | 22455501               |
| 17.        | 132 kV Ramnagar-Kashipur                   | 20                   | 6604124                 | 3073248                              | 9677372                |
| 18.        | 132 kV Sitarganj-Khatima                   | 33                   | 8381008                 | 4735300                              | 13116308               |
| 19.        | 132 kV Dhalipur-Kulhal                     | 6                    | 2575619                 | 1125412                              | 3701031                |
| 20.        | 132 kV Roorkee-Laksar                      | 27                   | 5169476                 | 3847096                              | 9016572                |
| 21.        | 220 kV Manari Bhali-I-Manari<br>Bhali-II   | 25                   | 4877737                 | 3582188                              | 8459925                |
| 22.        | 132 kV Haldwani-Pantnagar                  | 37                   | 6345040                 | 5103236                              | 11448276               |
| 23.        | 132 kV Pithoragarh-Pithoragarh<br>220 (PG) | 15                   | 3687272                 | 2291848                              | 5979120                |
| 24.        | 132 kV Majra-Purkul                        | 23                   | 4675408                 | 3328680                              | 8004088                |
| 25.        | 132 kV Dhalipur-Purkul (2 Km               | 48                   | 10038249                | 6899468                              | 16937717               |

Table 1: Summary of Project wise cost proposed by the Petitioner

| Sl.<br>No. | Project                                       | Length of line (Km.) | Supply<br>Cost<br>(Rs.) | Erection/Civil<br>Work Cost<br>(Rs.) | Total<br>Cost<br>(Rs.) |
|------------|---|----------------------|-------------------------|--------------------------------------|------------------------|
|            | LILO at Jhajra)                               |                      |                         |                                      |                        |
| 26.        | 132 kV Manglore-Roorkee                       | 14                   | 3559596                 | 2162244                              | 5721840                |
| 27.        | 132 kV Pantnagar-Rudrapur                     | 8                    | 2814880                 | 1373220                              | 4188100                |
| 28.        | 220 kV Jhajra-Rishikesh                       | 55                   | 9074345                 | 7556717                              | 16631062               |
| 29.        | 220 kV Uttarkashi-Dharasu                     | 25                   | 4877737                 | 3582188                              | 8459925                |
| 30.        | 132 kV Satpuli-Srinagar                       | 20                   | 4266331                 | 2892897                              | 7159228                |
| 31.        | 132 kV Satpuli -Kotdwar                       | 47                   | 7660896                 | 6432105                              | 14093001               |
| 32.        | 132 kV Kotdwar-Nazibabad                      | 23                   | 4696488                 | 3321609                              | 8018097                |
| 33.        | 132 kV Nazibabad-Chilla                       | 50                   | 8031447                 | 6820917                              | 14852364               |
| 34.        | 132 kV Bhagwanpur-Roorkee (LILO at Chudiyala) | 20                   | 6500621                 | 3289424                              | 9790045                |
| 35.        | 220 kV Mahuakheraganj-Kashipur                | 10                   | 3053835                 | 1642457                              | 4696292                |
| 36.        | 132 kV Bhupatwala-Jwalapur                    | 10                   | 3061914                 | 1632428                              | 4694342                |
| 37.        | 132 kV Eldeco (Sitarganj)-Sitarganj           | 22                   | 4544118                 | 3187676                              | 7731794                |
| 38.        | 132 kV Chandak-Pithoragarh                    | 8                    | 2803793                 | 1373220                              | 4177013                |
| 39.        | 132 kV Almora-Pithoragarh                     | 115                  | 16153131                | 15503048                             | 31656179               |
|            | Total   |                      | 217435671               | 144282585                            | 361718251              |
|            | Rs Cr.  |                      | 21.74                   | 14.43                                | 36.17                  |

6. The total estimated cost proposed for reliable communication and data acquisition system for 132 kV sub-stations & above by the Petitioner is as follows:

Table 2: Total Project cost proposed by the Petitioner

| S. No. | Description                               | Amount (Cr.) |
|--------|---|--------------|
| 1.     | Supply                                    | 21.74        |
| 2.     | Erection Testing and commissioning        | 14.43        |
| 3.     | Training Charges                          | 0.01         |
| 4.     | Inland Freight and Insurance @4% (Sl. No. | 0.87         |
|        | 1&2)                                      |              |
| 5.     | Taxes and Duties                          | 1.32         |
|        | Sub Total                                 | 38.37        |
| 6.     | Overheads (Engg. & Administration Etc.)   | 4.12         |
|        | @ 10.75%)                                 |              |
| 7.     | Contingency @3%                           | 1.15         |
| 8.     | IDC                                       | 3.07         |
|        | Grand Total                               | 46.72        |

7. The Petitioner has submitted copy of extract of the Minutes of Board Meeting of PTCUL held on 19.07.2017 wherein the Petitioner's Board has approved the estimated cost of Rs 47.14 Cr. with a funding plan of 70% through loan assistance by financial institutions and balance 30% funding from PSDF. However, in letter No. NLDC-PSDF/CERC/PTCUL/2017-18/106 of Power System Operation Corporation Ltd. dated 31.07.2017 it has been stated that on the recommendations of the Appraisal Committee constituted by Ministry of Power, Government of India for the purpose of scrutiny (techno-economic appraisal) and prioritization of

- various project proposals for funding from PSDF the Monitoring Committee in its 11<sup>th</sup> Meeting held on 01.05.2017 approved 50% PSDF grant for establishing reliable communication system in the State.
- 8. The Appraisal Committee accepted the project cost amounting to Rs. 37.46 Cr. against the estimate of Rs. 47.14 Cr. submitted by the Petitioner. 50% of the accepted project cost i.e. Rs 18.73 Cr. will be the total grant which PTCUL shall receive through PSDF.
- 9. The funding pattern proposed by the Petitioner is as follows:
  - i. 25% of the Approved fund at 1st stage (issuance of Letter of Award).
  - ii. 50% of the approved Fund at second Stage (after utilisation of the grant disbursed in 1st installment and consumption of self contribution of the entity).
  - iii. 25% of the Approved Fund at Final Stage (on completion of the scheme).
- 10. The Petitioner has proposed to arrange the balance fund through borrowing from Financial Institutions. However, the Petitioner has not submitted any documentary evidence regarding the same.
- 11. According to the Petitioner the duration of completion of the Project shall be 30 months from the receipt of approval of PSDF funding and is likely to be completed by June 2021.
- 12. PTCUL has submitted that Power System in the State is expanding very fast with increased number of interconnections between Regions. In addition State Grid usually experiences wide variation of power flow due to variation in demand/generation during day/season, further expectations of today's consumers for quality and reliable power system is increasing with the result need for robust/reliable communication is being felt. PTCUL further submitted that reliable communication system is also required for new technological requirements of power system operation such as Special Protection Scheme, Grid Security Expert System, Load Management, Advance Protection System and Substation Automation System.
- 13. The Petitioner further submitted that with new evolving technologies and constantly expanding transmission network, the old PLCC based communication

system due to its limitations has become outdated and further implementation of ABT based metering shall be strengthened by OPGW based communication. The Petitioner further stated that it is in the process of automating its substations and also envisages remote controlling which is not possible without OPGW based communication network.

# Commission's observations, Views & directions

- 14. On examination of the proposal it has been observed that the total DPR cost submitted by the Petitioner amounts to Rs. 46.72 Cr. The Appraisal Committee, constituted by MoP, GoI has approved the project cost amounting to Rs. 37.46 Cr. Taking cognizance of the same the Commission has considered Rs. 37.46 Cr. as the project cost as of now, however, the same would be subject to prudence check based on the actual executed cost.
- 15. The Commission is of the view that the work proposed by the Petitioner is an initiative to bring reliable communication & data acquisition system for 132 kV & above Substations which would help in providing reliable and quality power supply in an efficient and sustainable manner to the consumers of the State. Moreover, since 50% of the estimated cost approved by the Appraisal Committee shall be available to the Petitioner in the form of a grant from PSDF scheme. Hence, the Commission hereby grants in principle approval to the Petitioner for going ahead with the work proposed for the amount of Rs. 37.46 Cr. out of which Rs. 18.73 Cr. shall be in the form of grant from GoI under PSDF scheme and the rest from internal resources/Financial Institutions subject to fulfillment of the following conditions:
  - (i) The Petitioner should strictly comply with all the terms and conditions mentioned in the guidelines of PSDF approved by Ministry of Power vide order dated 18.9.2014.
  - (ii) The Petitioner should go for the competitive bidding for obtaining most economical prices from the bidders.
  - (iii) All the loan conditions as may be laid down by the funding agency in their detailed sanction letter are strictly complied with.

- (iv) After completion of the aforesaid schemes, the Petitioner shall submit the completed cost and financing of the schemes.
- (v) 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.

Ordered accordingly.

(Subhash Kumar) Chairman