

**PUNJAB STATE ELECTRICITY REGULATORY COMMISSION
SITE NO. 3, BLOCK B, SECTOR 18-A MADHYA MARG, CHANDIGARH**

**Petition No. 14 of 2019
Date of Hearing: 15.10.2019
Date of Order: 18.10.2019**

Petition under Regulation-9 of PSERC (Terms and Conditions for Determination of Generation, Transmission, Wheeling and Retail Supply Tariff) Regulations, 2014 and Section 40 of the Electricity Act, 2003-seeking Regulatory Approval for system improvement initiatives to be taken up for 400 KV Transmission Network for the year 2019-20.

AND

In the matter of: Punjab State Transmission Corporation Ltd. (PSTCL), PSEB Head Office, The Mall, Patiala.

.....Petitioner

Present: Ms. Kusumjit Sidhu, Chairperson
Sh. S.S. Sarna, Member

For PSTCL: Sh. Sanjeev Gupta, CE, TS, PSTCL
Sh. Ravi Luthra, Addl. SE, PSTCL

ORDER

PSTCL has filed the present petition seeking approval of the following schemes for system improvement initiatives to be taken up for 400 KV Transmission Network for the year 2019-20 as emergent works as per the provisions of Regulation 9.9 of the PSERC (Terms and Conditions for Determination of Generation, Transmission, Wheeling and Retail Supply Tariff) Regulations, 2014:

- i) 400 kV substation Rajpura
- ii) 400 kV substation Nakodar
- iii) 400 kV substation Dhanansu

2. The Petitioner has made the following prayer(s) to the Commission:

- a) To admit and take on record the present petition filed by PSTCL on the system improvement measures pertaining to 400 KV system during the year 2019-20
- b) To Provide guidance on the 400 KV system strengthening, measures proposed by PSTCL as detailed herein above and make such modifications in the proposal of PSTCL as the Commission may deem just.
- c) To pass such other further order(s) as the Commission may deem just in the facts of the present case.

3. The petition was taken up for hearing on admission on 05.07.2019. During the hearing, it emerged that neither the emergency nature of the scheme has been approved by the Board of Directors of PSTCL nor does the petition contain all relevant information and reasons justifying the emergent nature of the proposed work as required as per Regulation 9.9 of the PSERC (Terms and Conditions for Determination of Generation, Transmission, Wheeling and Retail Supply Tariff) Regulations, 2014. The petitioner requested for an adjournment to submit the necessary details. Accordingly, vide Order dated 11.07.2019,

PSTCL was directed to file the necessary details as soon as possible.

4. In compliance to the Commission's Order dated 11.07.2019, PSTCL filed its submissions vide Memo No. 2860 dated 12.09.2019. The submissions made by PSTCL in the petition are summarized as under:

4.1 400 kV Substation Rajpura:

- i) During previous paddy season 2018, a higher loading (as high as 80%) was observed on 400 kV S/s Rajpura, due to less generation from GGSSTP end. Furthermore NRLDC in its study in respect of TTC/ATC calculations for Punjab Area for Paddy 2019, also found 400 kV Rajpura is non-compliant of (N-1) contingent condition. 400 KV S/s Rajpura being non compliant of N-1 contingent conditions is a hurdle for approval of TTC/ATC limit of Punjab. Punjab was allowed ATC/TTC limit of only 6200/6800 MW against a requirement of 7000/7600, MW. To avoid a situation of non-compliance, another 1X500 MVA, 400/220 kV Interconnecting Transformer (ICT) at 400 kV S/s Rajpura has been planned. The estimated cost of the project is Rs. 24.5 crore to be incurred during FY 2019-20 and FY 2020-21.
- ii) The emergent nature of the project was approved by the BoDs vide Agenda No.111/P-1/224 dated 21.11.2018.

4.2

400 kV Substation Nakodar:

- i) During the paddy season 2018, a higher loading (as high as 76-80%) was observed on 400 kV S/s Nakodar ICTs. The case was studied on the basis of load flow studies, conducted as per the loading conditions of Paddy 2018. It was observed that in case of outage of 400 kV Jalandhar -220 KV Kartapur-220 kV Kotla Janga link, loading on 400 kV Nakodar ICTs increases. This loading would further increase in case of less generation from Bhakra and/or from GGSSTP. In such a situation, the ICTs at 400 kV Nakodar become non compliant of (N-1) contingent conditions. With the commissioning of the 220 kV Nakodar Ladowal line in August, 2019 and further plans of PSTCL to shift more load on 66 kV side and commissioning of Gaunsgarh – Ladowal line, the load at 400 kV substation Nakodar is bound to rise. Therefore, early completion of augmentation of 315 MVA autotransformer with 500 MV autotransformer is required. Accordingly, augmentation of 1x315 MVA, 400/220 KV with 1x500 KVA, 400/220 kV has been planned. The estimated cost of the project is Rs. 15 crore to be incurred during FY 2019-20 and FY 2020-21.
- ii) The emergent nature of the project was approved by the BoDs vide Agenda No. 51/P-I/224 dated 18.07.2019.

4.3 400 kV Substation Dhanansu:

- i) The Punjab State Industrial Export Corporation (PSIEC) is developing Cycle valley in Dhanansu village of Ludhiana. PSTCL has proposed a new 400 kV sub-station for this project. The projection of load of Cycle Valley is only 4 MVA required upto 31.12.2019, 14 MVA upto 31.12.2022 and 35 MVA upto 31.01.2023 and onwards. The estimated cost of the project (Phase-I) is Rs. 127.87 crore to be incurred during FY 2019-20 to FY 2021-22
- ii) The BoDs of PSTCL has approved the tendering of work of 400 kV Dhanansu on open tender basis vide Agenda No. 22/TS-III dated 01.03.2019 which was approved by GoP vide Memo No. 1/12/2018-EB (RR)/385 dated 25.04.2019.
- iii) The reasons for executing the work through open tender instead of Tariff Based Competitive Bidding (TBCB) mode are as under:
 - The earlier experience of Patran Transmission Company proved to be very costly affair. Also, a number of litigations has arisen due to evacuation issue.
 - In the present case evacuation is to take place in phased manner. In Tariff Based Competitive Bidding, PSTCL will be burdened with fixed charges of surplus transmission capacity.

Execution of the project in one go on TBCB mode will lead to blockage of funds and will not be commercially viable.

- LILO (Loop in loop out) of 400 kV Jalandhar-Kurukshetra line at 400 kV substation Dhanansu has been approved by the standing committee of NR planning and PSTCL shall attract Bay charges from PGCIL which shall be an additional sources of revenue to PSTCL.
- The maintenance gang for 400 kV system is already in place in PSTCL. Accordingly, PSTCL shall not be burdened with any additional maintenance expense, which is about 5 to 8% of the bid.
- Usage of spare/surplus transformers shall be a major saving in the project and the saving can only be done in case the project is taken at PSTCL's level rather than the TBCB mode.

In view of the above PSTCL has revised its prayer(s) which are as under:

- a) To admit and take on record the present petition filed by PSTCL on the system improvement measure pertaining to 400 kV system during the year 2019-20.
- b) To approve the above works as capital works to strengthen the PSTCL 400 kV system and to accord ex-post facto approval to take these

works in hand as per Regulation - 9.9 as the works have already been approved as emergent works by BoDs of PSTCL and has also been approved/noted by members of NRSTC which is the apex body to approve the requirement of 400 kV elements.

c) To approve to undertake the work of 400 kV substation Dhanansu through open tender mode instead of TBCB mode as per the reasons explained above keeping in view the decision of BoD's to undertake this project through open tender and the approval of the same by Government of Punjab.

d) Pass such other further order(s) as the Commission may deem just in the facts of the present case.

5. Upon receipt of the aforementioned submission, the Commission heard the matter on 15.10.2019.

6. Decision of the Commission:

After careful consideration of the submissions made in the Petition and during the hearing dated 15.10.2019, the Commission admitted the petition and decides as under:

i) The Commission observes that the aforesaid schemes have been approved by BoDs as emergent works as required under Regulation 9.9 of the PSERC Tariff Regulations, 2014. Thus, the Commission decides to grant approval to the aforesaid schemes

to be initiated in FY 2019-20. However, the capital expenditure for the same shall be considered during the true up of the respective control periods subject to prudence check by the Commission.

- ii) Further, in view of the GoP's concurrence and the justification given by PSTCL, the Commission also decides to relax the provisions of notification No. PSERC/Secy/132 dated 05.11.2018 to allow PSTCL to undertake construction of 400 kV sub-station at village Dhanansu through open tender instead of TBCB mode as a special case and as a one time measure.

The petition is disposed of accordingly.

Sd/-

(S.S. Sarna)
Member

Sd/-

(Kusumjit Sidhu)
Chairperson

Chandigarh

Dated: 18.10.2019