

PUNJAB STATE ELECTRICITY REGULATORY COMMISSION
SCO 220-21, SECTOR – 34-A, CHANDIGARH

Petition No. 16 of 2014
Date of Order: 09.5.2014

In the matter of: Regulation 22 of the Punjab State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2005 as amended by Punjab State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff), second amendment Regulations, 2012 notified vide Notification dated 17th September, 2012.

AND

Approval of Capital Expenditure exceeding Rs. 20 Crore for the Transmission Schemes to be executed by PSTCL for system improvement and power disposal.

In the matter of : Punjab State Transmission Corporation Limited, The Mall, Patiala-147001.

Present: Smt. Romila Dubey, Chairperson
Er. Virinder Singh, Member
Er. Gurinder Jit Singh, Member

ORDER:

Punjab State Transmission Corporation Limited (PSTCL) filed this petition for seeking approval of the Commission for investment in its proposal of a Transmission Scheme, with Capital Expenditure exceeding Rs. 20 Crore, in terms of Regulation 22 (6) (ii) of Punjab State Electricity Regulatory Commission (Terms and Conditions for Determination of Tariff) Regulations, 2005 as amended vide second amendment notified vide Notification dated 17th September, 2012. The scheme required for System Improvement and Power Dispersal is as under:-

Up gradation of existing 132 kV Naraingarh substation to 220 kV substation with 1x160 MVA, 220/66 kV Transformer along with 22 KM, Double Circuit (DC) 220 kV line from 400 kV substation Balachak to 220 kV substation

Naraingarh and allied works. The scheme has been planned for additional power evacuation from 400 kV substation PGCIL Amritsar (Balachak), where an additional 1 x 500 MVA, 400/220 KV ICT has been installed by PGCIL under the regional system strengthening scheme. In addition to it, it will also provide relief to 132 kV ringmain system of Amritsar.

2. The petition was admitted vide Order dated 09.04.2014. After scrutinizing the petition, the Commission observed as under;

- (i) The loading position of the existing 132 kV Naraingarh sub-station and its nearby substations has not been provided. These details may be submitted.
- (ii) The data and year taken for load flow study may be mentioned and study for the relevant year be included.
- (iii) The names and distances of 400 kV / 220 kV substations which are near to Naraingarh substation may be given along with map.

PSTCL was directed vide Order dated 09.04.2014 to file reply to the above observations by 17.04.2014. PSPCL was made respondent in this petition and was directed to file its response to the petition by 17.04.2014 with advance copy to PSTCL.

3. PSTCL filed reply dated 16.04.2014 to the observations of the Commission and submitted as under:-

- “(i) Loading position of existing 132 kV substation Naraingarh and its nearby sub-stations along with the connecting 66 kV lines including their length, conductor size, installed capacity and current M.D. recoded on these grids is attached herewith as annexure – 1. As already intimated that this grid has been planned for the additional evacuation of power from 400 kV substation Amritsar (PGCIL), where one additional 500 MVA, 400/220 kV ICT has been installed recently. With the commissioning of this grid, all the loads of its connected 66 kV grids (which was earlier being fed through 132 kV transmission system) will be shifted on 220/66 kV transformer, and thus will provide considerable relief to 132 kV system of the area.
- (ii) System study has been done for “Without 220 kV substation Naraingarh” (i.e. present system) and “With 220 kV substation

Naraingarh” (i.e. corresponding to 2016-17 system conditions). MW & MVAR flows for both the systems have also been marked on the maps already supplied, vide letter no. 211 dated 27.03.2014.

- (iii) Approximate distance of proposed Naraingarh from nearest 400 kV grid PGCIL Amritsar is about 13 Km. However line lengths of its associated 220 kV grids have also been marked on the sketch already supplied”.

4. PSPCL also filed its reply vide CE/ARR&TR memo no. 5516 dated 21.04.2014 and has submitted that the proposal of upgradation of 132 KV substation Naraingarh to 220 KV has been planned in view of additional power evacuation of 400 KV substation, Amritsar (Bala Chak) where an additional 1 x 500 MVA, 400/220 KV ICT has been installed by PGCIL under regional system strengthening scheme. It was aimed to provide relief to 132 KV system of Amritsar as the existing system is almost fully loaded. The consumers fed from 3 nos. 66 KV sub-stations i.e. 66 KV OCM, 66 KV Hall Gate and 66 KV Gowal Mandi (Amritsar) as well as the system of 2 no. private consumers i.e. VXL and MES fed from 132 KV substation Naraingarh, to be upgraded to 220 KV, will get improved voltage and power supply. Thus for providing reliable supply to the area and strengthening the system of neighbouring 66 KV sub-stations, expenditure worth Rs. 31.89 crore is fully justified.

5. After hearing the arguments of the parties on 22.04.2014, further hearing was closed vide Order dated 23.04.2014 and Order was reserved.

6. The Commission examined the submissions made in the case by PSTCL as well as PSPCL and observed that the proposed scheme is generally in order except that presently, as only one no. 160 MVA, 220/66 kV transformer has been proposed at 220 kV substation Naraingarh (U/G from 132 kV), there is need of only one 220 kV single circuit line instead of double circuit as proposed in the scheme. The single circuit line can be erected on double circuit towers keeping in view the future expansion plans of adding one more circuit at a later stage when the need arises of putting additional 220/66 kV transformer at proposed 220 kV Naraingarh substation. Accordingly, approval is accorded for laying 220 kV single circuit line on Double Circuit Towers from 400 kV substation Balachak (Amritsar) of PGCIL to proposed 220 kV substation at Naraingarh with 1x160 MVA, 220 kV/66

kV Transformer. Multi Circuit Towers may be used only in highly congested / populated areas where the possibility of right of way constraint for laying future 220 kV lines is very high. Length of line on Multi-Circuit Towers be kept minimum as far as possible to avoid unproductive expenditure. However, PSTCL will ensure proper implementation of the scheme by following the laid down procedure for procurement of material/award of work and all the statutory clearances be obtained wherever required.

The petition is disposed of accordingly.

Sd/-

(Gurinder Jit Singh)
Member

Sd/-

(Virinder Singh)
Member

Sd/-

(Romila Dubey)
Chairperson

Chandigarh

Dated: 09.05.2014