pstcl
PUNJAB STATE TRANSMISSION CORPORATION LIMITED,
Regd Office: PSEB Head Office, The Mall, Patiala.147001.
Office of: SE/Planning,PSTCL, Patiala, Punjab, India
Tele-0175-2205502 email: se-planning@pstcl.org
CIN - U40109PB2010SGCO33814

Memo No. 25 /P-1/275 Dated: 21-01-2022

To

CAO/F&A,
PSTCL, Patiala

Subject: **PSERC Directives in the Tariff Order for FY-2020-21: Quarter ending December - 2021**

Reference:- **Your Office memo no: 08/FA/Comml.-23/Vol.11 Dated:- 03.01.2022**

Enclosed please find herewith compliance status of PSERC directives Sr. Nos. 5.3(Loading Status of PSTCL Transmission Lines and sub-stations) and 5.5(Reactive Compensation) as Annexure-A & B respectively. Annexure A & B shall be uploaded on PSTCL website www.pstcl.org.

This issues with the approval of Director/Technical.

21/1/22

DA: As Above.

Sr.XEN/Planning-1,
PSTCL, Patiala.

26/27
21-01-2022

CC:

1. Chief Engineer/TS, PSTCL, Patiala.
2. Sr.XEN(Tech. to Director/Tech., PSTCL, Patiala

Annexure-A

PSERC Directives Sr. No. 5.3 (Loading Status of PSTCL Transmission lines and sub-stations)

Sr. No.	P&M Circle	Name of Transmission Line	% loading as compared with the standard design Parameters of conductors i.e. 45° C ambient temperature and 75°C conductor temperature	Remarks of P&M Organization	Proposal/Remedial Action by Planning
A) Loading status of PSTCL Transmission Lines					
1.	**Patiala**	**220kV Faggan majra-Bahadurgarh**	573 A at 26°C Ambient temperature (102.32 %)	**Regular loading during Paddy/ Peak load**	High loading is within permissible thermal limit corresponding to ambient temperature (i.e. 733.02 A at 26°C). Also the loading is expected to reduce with the augmentation of 220kV Faggan majra-Bahadurgarh with HTLS of suitable rating is being planned.
		220Kv Rajpura-Faggan majra	570 A at 20°C Ambient temperature (101.79 %)	**Temporary Load**	High loading is within permissible thermal limit corresponding to ambient temperature (i.e. 771.6 A at 20°C). Also the loading is expected to reduce with the augmentation of 220kV Faggan majra-Bahadurgarh with HTLS of suitable rating is being planned
2.	**Jalandhar**	**132 KV Hamirpur-Chohal**	470A at 12°C Ambient temperature (123.35%)	**Temporary Load** Due to feeding lines to 132 kv Hamirpur sub station, load of line temporary increasing	High loading is within permissible thermal limit corresponding to ambient temperature (i.e. 542.2833 A at 12°C). Augmentation of conductor of this line is under consideration.
		132 KV Chohal-Hoshiarpur	541 A at 12°C Ambient temperature (141.99%)	**Temporary Load** Due to feeding lines to 132 kv Hamirpur sub station, load of line temporary increasing	High loading is within permissible thermal limit corresponding to ambient temperature (i.e. 542.2833 A at 12°C). **No Remedial Action required.**

3.	**Ludhiana**	**220 kV Sahnewal-PGCIL-1**	650A at 34°C Ambient temperature (103.01%)	**Regular Loading pattern**	High loading is within permissible thermal limit corresponding to ambient temperature (i.e. 898.88 A at 34°C). Further LILO of 220 kV Sahnewal-Kohara transmission line at 400 kV Dhanansu has been planned which will give relief to 220 kV Sahnewal-PGCIL transmission line..
		220 kV Sahnewal-PGCIL-2	670A at 16°C Ambient temperature (106.18%)	**Regular Loading pattern**	High loading is within permissible thermal limit corresponding to ambient temperature (i.e. 1079.867 A at 16°C). Further LILO of 220 kV Sahnewal- Kohara transmission line at 400 kV Dhanansu has been planned which will give relief to 220 kV Sahnewal-PGCIL transmission line.
4.	**Bathinda**	**NIL**			
5.	**Amritsar**	**NIL**			

B) Loading status of Power Transformers of PSTCL Sub-stations					
Sr. No.	**P&M Circle**	**Name of Substation/Transformer Identification**	**% loading as compared with the standard design Parameters**	**Remarks of P&M Organization**	**Proposal/Remedial Action by Planning**
1.	**Patiala**	**NIL**			
2.	**Jalandhar**	**NIL**			
3.	**Ludhiana**	**NIL**			
4.	**Bathinda**	**NIL**			
5.	**Amritsar**	**NIL**			

Annexure-B

PSERC Directive Sr. No. 5.5 (Reactive Compensation)
System Study for Capacitor requirement in NR for the year 2019-20.

It is submitted that as per the agenda of 49th meeting of NRPC & 47th meeting of TCC, CPRI submitted the system study report, which was circulated among all SLDCs and STUs vide email dated 02.11.2020. Based on the preliminary comments, CPRI submitted the revised report on 24.02.2021. The report brought out the additional requirement of 137MVar for Punjab.

The matter was reviewed in meeting held under the chairman MS, NRPC on 06.08.2021. After weighing the merits of the original & revised reports, the following was decided:

- The first report submitted by CPRI in Sep 2020 shall be considered as reference report.
- Comments from all utilities and NRLDC on September 2020 report must be submitted to NRPC sect. latest by 24.08.2021.

CPRI September 2020 report was emailed to all sub-group members on 10.08.2021 requesting to submit comments/observations thereon latest by 24.08.2021. Till 27.08.2021, comments of Punjab, Himachal Pradesh and Rajasthan have been received by NRPC Sectt.

The matter has been deliberated in the 49th NRPC & 47th meeting of TCC held on 23, 24 & 27 Sept., 2021 . As per the minutes of the meeting inputs received from states was submitted to NRLDC on 21.09.2021 for tuning of base-case. NRLDC will tune the base case and will ensure that regional generators shall not absorb reactive power in base-case

NRLDC intimated that base case file after tuning can be submitted by 30th September, 2021. It was discussed that after receipt of tuned base-case file, same may be forwarded to CPRI along with comments of States.

Further, the PSTCL has started the installation/planning of available 132kV Capacitor Banks at the various S/Stns. of PSTCL.