Observations of POSOCO on Project Inception Report: Transmission System for Evacuation of power from potential Solar Energy Zone (SEZ) in Madhya Pradesh (Chhatarpur & Neemuch Solar Parks) and their treatment

Comments of POSOCO vide letter dated 24.12.2020 (enclosed)	Treatment
Regarding Rajgarh/Pachora (2500MW) scheme	
Augmentation planned at Shujalpur S/s (1x500 MVA, 400/220 kV ICT and reconductoring of 220 kV downstream lines) shall be completed in matching time-frame or before	• Noted. The planned augmentation at Shujalpur S/s is being taken up for approval in the 4 th National Committee Meeting on Transmission as a separate System Strengthening Scheme on account of operational constraints (n-1 non compliance) of Shujalpur ICTs as agreed in the 2 nd WRPC(TP) meeting held on 04.09.2020.
Regarding Chhatarpur (1500MW) scheme	
Rewa (MP) – Rewa (PG) 220 kV D/C line shall be commissioned in matching time-frame or before to avoid over-loading of 400/220 kV ICTs at Satna.	 Load flow studies indicate that the ICTs at Satna remain N-1 compliant even after considering the scheme for evacuation of power from Chhatarpur (1500MW) SEZ. However, considering the high loadings observed on Satna ICTs, the matter of expediting the works on Rewa (PG) – Rewa (MP) 220 kV D/C as well as Rewa (PG) – Sidhi (MP) 220kV D/C lines may be taken up with the implementing agency i.e. MPPTCL.
Regarding Neemuch (1000MW) scheme	
The issue of N-1 non-compliance of 2x315 MVA ICTs at Kota may be addressed at the earliest and any augmentation, if planned, shall be implemented in matching time-frame or before.	• Noted. The matter was also discussed in the 2 nd WRPC(TP) meeting and it was decided that the issue would be studied further in coordination with NR group. The scheme would also be discussed in the meeting of NRPC(TP). Any additional requirement arising out of Kota 400/220 ICT overloading, would be included in the scheme. The same would be intimated to the WRPC(TP) in the next meeting.

पावर सिस्टम ऑपरेशन कॉपरिशन लिमिटेड

(भारत सरकार का उद्यम)



(A Govt. of India Enterprise)



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संदर्भः NLDC/SO/RE/MPREZ/

दिनांक: 24th Dec 2020

To,

Chief Operating Officer, CTU

Power Grid Corporation of India Limited Saudamini, Plot No.2, Sector 29 Near IFFCO Chowk Gurgaon (Haryana) - 122001

विषय: Observations on Transmission Schemes for Solar Energy Zones in Madhya Pradesh - Regarding

Dear Sir,

This is in reference to the transmission system planned for evacuation of power from potential Solar Energy Zones (SEZs) in Madhya Pradesh (Chhattarpur, Neemuch and Rajgarh Solar Parks). The details of the scheme along with study assumptions, results and estimated cost were shared by CTU vide email dated 25th Nov 2020 and the comments/observations of stakeholders on the same were sought by 10th Jan 2021. In this regard, the observations on behalf of NLDC/RLDCs are attached for you kind perusal.

Thanking you,

Yours sincerely,

(Debasis De)

Executive Director, NLDC

Encl: As above

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Observations of POSOCO on Transmission System for Potential Solar Energy Zones (SEZs) in Madhya Pradesh (Chhattarpur, Rajgarh & Neemuch Solar Parks)

a) Rajgarh/Pachora (2500 MW)

In the 2nd WRPC (TP) meeting, the following scheme was finalized for Pachora SEZ:-

Phase-I (1500 MW)

- Establishment of 400/220 kV, 3X500 MVA at Pachora SEZ along with 125 MVAR B/R
- Pachora SEZ PP Bhopal (Sterlite) 400 kV D/c line (Quad/HTLS) along with 80 MVAR L/R at Pachora end

Phase-II (1000 MW)

- 400/220 kV, 2x500MVA ICT augmentation at Pachora PS
- Rajgarh SEZ PP Shujalpur 400 kV D/c line (Quad/HTLS) (80 kMs)

Further, in order to address overloading of ICTs at Shujalpur and downstream network in the proposed scheme, following was agreed under system strengthening (loading of ICTs observed to be high in current time-frame also): -

- 1x500MVA, 400/220kV ICT augmentation at Shujalpur (PG)
- Reconductoring of Shujalpur (PG)-Shujalpur (MP) 220kV D/c line (conductor with ampacity equivalent to ACSR twin moose at nominal voltage) under Intra–state by MPPTCL.

POSOCO Observations: - Augmentation planned at Shujalpur S/s (1x500 MVA, 400/220 kV ICT and reconductoring of 220 kV downstream lines) shall be completed in matching time-frame or before.

b) Chhattarpur (1500 MW):

In the transmission scheme approved for Chhattarpur SEZ, loading of 1x500 MVA and 2x315 MVA 400/220 kV ICTs at Satna was observed to be high. In this regard, it was informed that the load of Rewa area is currently being fed from Satna leading to high loading of ICTs. 220 kV Rewa (RUMS) – Rewa (PG) D/C is already planned to feed load of Rewa area and with the commissioning of this line, 400/220 kV ICTs at Satna would get relieved.

<u>POSOCO Observations:</u> Rewa (RUMS) — Rewa (PG) 220 kV D/C line shall be commissioned in matching time-frame or before to avoid over-loading of 400/220 kV ICTs at Satna.

c) Neemuch (1000 MW):

In the transmission scheme approved for Neemuch SEZ, the loading of 2x315 MVA ICTs at Kota was observed to be on the higher and ICTs are N-1 non-compliant in case of low generation at KTPS. In this regard, it was informed that the issue would be studied further in coordination with NR group and will be taken up in NRPC (TP) meeting also.

POSOCO Observations: The issue of N-1 non-compliance of 2x315 MVA ICTs at Kota may be addressed at the earliest and any augmentation, if planned, shall be implemented in matching time-frame or before.

