

BRIEF SCOPE OF WORK FOR “33KV/400KV, 1260 MVA POOLING SUB STATION AT BIKANER and 33KV/400KV,945MVA POOLING SUB STATION AT FATEHGARH (excluding Power transformer supply) FOR POWER EVACUATION FROM SOLAR PV PROJECTS AT BIKANER AND FATEHGARH, RAJASTHAN”

The scope includes the following:

1. Design, Engineering, Supply, Erection (including Civil and Structural works), Testing & Commissioning of:

At Bikaner:

- a. 400 kV AIS Pooling Sub Station (08 AIS Bays) along with associated Substation Automation System, Protection, Metering, and all auxiliary systems.
- b. 08 no.s of 33 kV Indoor Pooling Switchgear of 157.5 MVA (+10%) Capacity each and having minimum 16 no. of feeders as per tender drawing. Control and Monitoring system for 33KV Pooling switchgear integrated with Substation Automation System along with additional provision to control and monitor 33kV Solar Plant incoming feeders in the Pooling switchgear through third party supplied SCADA (SPV Plant SCADA).
- c. Installation of Common Power Plant Controller and Grid Compliance Study for Solar plants associated with the Pooling Substation.
- d. Erection, testing and commissioning along with civil works of 04 No. 400/33 KV 315 MVA transformers that shall be provided by Owner
- e. CMCS building as per the tender drawing.
- f. Metering arrangement shall be provided on both HV and LV side of the owner's transformer as per tender drawing. Additionally sub-metering shall be provided in all Solar Plant incoming feeders in 33kV Pooling Switchgear.
- g. Solar Power Plant Data telemetry and communication system up to RLDC through OPGW supplied by owner. However, the work like termination along with required hardware like approach cable etc. from take-off gantry to bidder's supplied FOTE system shall be in bidder's scope.
- h. Construction of 400kV DCSS transmission line including OPGW from existing dead end double circuit transmission tower near 945MVA PSS of NTPC REL up to the 1260MVA PSS gantry (Approx. 6km) as per tender drawing. Interconnection of OPGW with existing OPGW junction box at 945MVA PSS gantry shall also be done.
- i. O&M of Pooling Substation, associated equipment and the 400kV DCSS transmission system for a period of 3 years from the date of Project Commissioning.

At Fatehgarh:

- a. 400 kV AIS Park Pooling Station (06 AIS Bays) along with associated Substation Automation System, Protection, Metering and all auxiliary systems.

- b. 06 no.s of 33 kV Indoor Pooling Switchgear of 157.5 MVA (+10%) Capacity each and having minimum 16 no. of feeders as per tender drawing. Control and Monitoring system for 33KV Pooling switchgear integrated with Substation Automation System along with additional provision to control and monitor 33kV Solar Plant incoming feeders in the Pooling switchgear through third party supplied SCADA (SPV Plant SCADA).
- j. Installation of Common Power Plant Controller and Grid Compliance Study for Solar plants associated with the Pooling Substation.
- k. Erection, testing and commissioning along with civil works of 03 No. 400/33 KV 315 MVA transformers that shall be provided by Owner
- l. CMCS building as per the tender drawing.
- m. Metering arrangement shall be provided on both HV and LV side of the owner's transformer as per tender drawing. Additionally sub-metering shall be provided in all Solar Plant incoming feeders in 33kV Pooling Switchgear.
- n. Solar Power Plant Data telemetry and communication system up to RLDC through OPGW supplied by owner. However, the work like termination along with required hardware like approach cable etc. from take-off gantry to bidder's supplied FOTE system shall be in bidder's scope.
- o. O&M of Pooling Substation and associated equipment for a period of 3 years from the date of Project Commissioning.

2. Supply of Mandatory Spares.