SALIENT TECHNICAL FEATURES (R1)

"Salient Technical Features of the systems /equipment/ services are mentioned below. These Salient Technical Features are mentioned only to facilitate the prospective bidders to prima-facie understand the requirements under the tender and shall not in any way limit or alter the scope of work and technical features/specification of equipment/ systems/ services covered in the Bidding Documents. Detailed provisions in regard of scope of work and technical features/specification of equipment/ systems/ services, contained in the Bidding Document shall be final and binding."

Salient technical features of the proposed project are as follows:

Name of the Project	Development of **BALANCE OF SYSTEM PACKAGE (EXCLUDING LAND & TRANSMISSION SYSTEM) OF 1x500MW STU CONNECTED SOLAR PV PROJECT AT BHADLA, RAJASTHAN**
Project Capacity	**1x500MW, Timeline ~8 Months for Commissioning & 9 months for COF.** (2x315MVA Transformers can be provided by Owner against Replenishment – As detailed out in Detailed Specifications)

1. Single project of 1x500MW capacity Solar Photovoltaic Power Project in Single Package for Balance of System (Excluding Land & Tr. System and Supply of Modules).
2. Complete Design, engineering, manufacturing, supply, packing and forwarding, transportation, unloading storage, installation, testing and commissioning of 1x500MW Solar Photo Voltaic Plant **excluding** supply of Solar PV Modules.
3. **MMS** – Single Axis Tracker based Module Mounting Structure
4. String / Central Inverter with minimum cumulative capacity of 500 MW with Maximum Power Point Tracking technology along with associated cables, cabling, Transformer & Switchgears.
5. SCADA & Weather Monitoring System.
6. Electrical works and associated switchgear equipment as per technical specification.
7. **Evacuation of power up to take-off gantry of PSS.**
8. Supply and Installation of necessary Reactive Power compensation Equipment including associated civil work as per requirements.
9. Bidder shall propose solar modules cleaning system made of Robotic cleaning system (Dry Cleaning). Design, supply, and installation of Module cleaning system (Robotic Dry Method) including supply and installation of all accessories.
10. Design, Supply and Installation of Security cameras and all necessary accessories for surveillance wherever required will be in Bidder's Scope.

Project Specific Attributes - This being a short time period project, following must be noted by the Bidder while submitting their bids:

1. Land would be made available in 4-7 plots as demarcated in Tender Drawing. Physical handover of 50% of total land would be done initially (likely by June 2024) and balance 50% of land would be physically handed over in next 1 to 2 months' time.
2. While there would be few encumbrances that would be removed by the Owner (such as 11kV Tr. Line, Local Huts, few ground structures etc.), such local issues would happen in parallel i.e. along with BOS Package work progress. All such parallel activities would not be considered as hinderance to the BOS Package work progress unless specifically recorded and approved by EIC.
3. Boundary fencing would be done by the Owner, but some would be completed by the time of Project Commissioning and during construction, all temporary arrangements w.r.t protection of Bidder's own resources shall be in Bidder scope.
4. Module for 625MWp have been procured by Owner (~575Wp average), same have been stored at NTPC REL's Bhainsara Project (Approx. 160kms from Bhadla Site).
5. Best efforts would be made to provide the bidder with leveled land having average slope of 10% (Local Slope can be up to 15%). However, area has sand dunes and even after initial levelling / compaction etc., it is likely that there would be requirement of further leveling & grading (including any compaction / soil improvement / foundation design etc.), considering sandy strata etc. for overall Tracker based MMS System and same shall be considered in Bidder scope.
6. PSS location is marked in the Tender drawing along with other land related features. Any changes / adjustment in detailed Engg. & design would be mutually discussed during post award stage as per project timelines as per technical feasibility (subject to approval of EIC) but there will not be any financial implications to the owner in this regard. Levelled Land for PSS is readily available and work would be required to begin immediately after award to meet the project timelines.
7. 2x315MVA Transformers are to be procured by the Bidder as part of this package. However, on account of time constraints, same can be provided by Owner against Replenishment, as detailed out in Detailed Specifications.
8. In the given project, Steel Piles using Ramming is optional (Bidder Choice). However, same shall be designed during Detailed Engineering & Geotechnical Investigation including Reference to Flood Levels. Further, If the Steel Ramming pile is opted as MMS foundation, then all the necessary resources, material, other special equipment considering installation, execution of the foundation should be taken care of by agency. Responsibility for the successful execution of such works shall rest with Bidder only.