SALIENT TECHNICAL FEATURES

"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	**Battery Energy Storage System (BESS) for Solar PV Based Construction Power at NTPC REL's Khavda RE Park.**
Type of Project	**Battery Energy Storage Project**
Project capacity	**1200 kWh, 250 KW**
Project Location	**Khavda RE Park, Rann of Kutch, Gujarat**

1. Design, engineering, manufacturing, supply, packing and forwarding, transportation, unloading storage, installation, testing and commissioning of "Battery Energy Storage System for Solar PV Based Construction Power" for standalone application at NTPC REL's Khavda RE Park.

2. Battery storage of minimum capacity 250KW, 1200 kWh till the end of 3rd year.

3. PCS (with total capacity of at least 250 KW) with black start facility for bidirectional inversion/charging of Batteries and providing voltage reference for solar inverters. Coupling with Solar PV System shall be at AC output bus (ACDB which will be provided by the Owner) and the entire system shall be capable of standalone operation (off-grid) delivering power to variable loads including motors without interruption.

4. Containerized storage for BESS for protection of equipment from environmental factors equipped with air conditioning and fire detection and clean agent based fire suppression system.

5. Battery Management System (BMS) for monitoring healthiness and optimized charging of batteries and Energy Management System (EMS) for Load management, Control of PCS and Solar Inverter based on load. Remote operation of Incomer feeder of Solar PV System as well as outgoing load feeders in the 415V ACDB shall also be possible from BESS.

6. Associated Electrical system, AC and DC Wiring, earthing, lightening protection for BESS up to owner's 415 V AC bus.

7. Comprehensive Operation & maintenance of Battery Energy Storage System for a period of Three years from the date of commissioning of full Project capacity.