

SALIENT TECHNICAL FEATURES

EPC PACKAGE FOR DEVELOPMENT OF 550 MW/2200 MWh ISTS CONNECTED BESS AT NTPC REL Shimbhoo Ka Burj SOLAR PLANT

“Salient Technical Features of the equipment/ systems/ services covered in IFB No. **NREL-CS-5823-004(BESS1)-9** 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.”

Name of the Project	EPC PACKAGE FOR DEVELOPMENT OF 550 MW/2200 MWh ISTS CONNECTED BESS AT NTPC REL Shimbhoo Ka Burj SOLAR PLANT
Project capacity	Project is in a single block as follows: Block-1: 550 MW / 2200 MWh (Single cycle 4-hour discharge) at NTPC REL SKB Solar Plant.
BESS Service Life	Design life of BESS (with degraded capacity) shall be of 25 years for daily single cycle operation. Comprehensive O&M along with augmentation for 15 years to meet performance parameters as mentioned in Technical specifications is included in the scope of this project.
Degradation	As mentioned in Technical Specifications

- Design, Engineering, Supply, Packing and Forwarding, Transportation, Unloading, Storage, Installation and Commissioning of grid connected Battery Energy Storage System (BESS) on turnkey basis.
- Unloading at respective site, Erection, Testing, Commissioning, Integration of above equipment with existing 33 kV System to commission a complete BESS integrated with owner’s Solar plant and grid shall be included in scope of bidder.
- Comprehensive Operation and Maintenance (O&M) works of BESS system for period of 15 years from the date of commissioning shall be included in scope of bidder.

- Augmentation of BESS required for meeting performance criteria mentioned in Technical Specifications shall be included in scope of bidder.
- BESS shall be handed over to owner at the end of period of 15 years in working condition meeting the requirement mentioned in technical specifications.
- The BESS shall comprise of BESS containers with Battery Racks, Battery Management System (BMS), Energy Management System (EMS) and SCADA, Power Conversion System (PCS), Inverter Duty Transformers , Protection system, Power Evacuation system upto owner's 33 KV pooling switchgear, Cables, Communication System, HT & LT System, Auxiliary power system, Monitoring & Control system, Fire Fighting, remote control and monitoring, any other associated materials and services necessary for trouble free operation and maintenance of the BESS.