

SALIENT TECHNICAL FEATURES OF EPC PACKAGE FOR DEVELOPMENT OF 1100 MW/3300 MWh ISTS CONNECTED BESS AT NTPC REL Khavda SOLAR PLANT

“Salient Technical Features of the equipment/ systems/ services covered in IFB No. **NGEL-CS-5779-004(BESS1R)-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 1100 MW/3300 MWh ISTS CONNECTED BESS AT NTPC REL Khavda SOLAR PLANT		
Project capacity	Complete 1,100 MW / 3,300 MWh BESS capacity to be developed as a single EPC package , comprising four independently evaluable blocks as under:		
	Block BESS Capacity Energy Capacity		
	Block-1	300 MW	900 MWh
	Block-2	300 MW	900 MWh
	Block-3	300 MW	900 MWh
	Block-4	200 MW	600 MWh
	Total	1,100 MW	3,300 MWh
BESS Service Life	Design life of BESS (with degraded capacity) shall be of 25 years for daily single cycle operation. Comprehensive O&M 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.
- 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.