Salient Technical Features

Tender ID. No: 2026_NTPC_104283_1
Bidding Document No.: CS-6401-001-2
Project – Great Nicobar Island Gas Engine Power Project (108 MW ±5 MW)
Package Name – EPC Package
Employer Name: NTPC Ltd

"Salient Technical Features of the equipment/systems/services covered in the Bidding Document 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 Documents shall be final and binding."

Brief Scope of Work

The scope of the proposal for design, Engineering, Supply, Erection, Testing & Commissioning works for Great Nicobar Island Engine based Gas Power Project (108 ±5 MW) shall be on the basis of a single point responsibility for complete EPC package including civil, covering the following activities and services in respect of all the equipment specified and covered under the specifications.

1. Engines (compatible to fire 20 to 25% Hydrogen by volume)
2. Generator with excitation system
3. Engine exhaust system including chimney & continuous emission monitoring system.
4. NOx Control system (if required) to maintain Nox level less than 80ppm (dry volume basis corresponding to 15% excess oxygen in Engine exhaust)
5. Engine lube oil system
6. All galleries, walkways and platforms
7. Thermal Insulation
8. Intake gas system
9. Intake air system/ Starting air system
10. Engine cooling water system including radiator.
11. Control System
12. Erection and Commissioning of complete plant
13. Arrangement to make gas available at required parameters as per engine requirement
14. Raw Water Pumps with drive near Reservoir (Inside Plant Boundary) and associated water system.
15. Compressed air system for Instrument air & Service air.
16. Fire detection & Protection system
17. Fire Extinguisher & Fire Tenders
18. Air Conditioning System
19. Ventilation System
20. Elevator, crane, hoist & Forklift.
21. Complete Control & instrumentation system with all required measuring, controlling & monitoring Instruments.
22. Generator & Auxiliary system.

23. Power Transformers, Auxiliary Transformer & their maintenance testing & monitoring equipment.
24. 132/33 KV Indoor GIS
25. MV Switchgear, LV Switchgear & LV Busduct
26. DC System – Battery & battery Charger.
27. HT power cable/ LT Power & Control cables.
28. Station Lighting & DG Sets.
29. Rooftop Solar.
30. Cabling, Earthing, lighting protection
31. Training of Employer's Personnel
32. Basic Engineering of the plant including preparation of plant design manuals for the power project.
33. Detailed design of all the equipment and system(s) including civil, structural steel works included in bidder's scope for the Project.
34. Providing engineering drawings, equipment sizing & performance data, instruction manuals, as built drawings, O&M manuals and other information for Employer's approval.
35. Compliance with statutory requirements and obtaining clearances from statutory authorities, wherever required.
36. Complete manufacturing including shop testing/type testing.
37. Complete civil, structural and Architectural works, including topographical survey, providing construction offices, field laboratory, construction equipment, construction power and construction water.
38. Packing and transportation from the manufacturer's work to the site including customs clearance/port clearance, port charges, if any.
39. Receipt, storage, preservation and conservation of equipment at the site.
40. Fabrication, pre-assembly, if any, erection, testing and putting into satisfactory operation all the equipment including successful completion of facilities.
41. Reliability tests and owner acceptance including the tests for performance demonstration after successful completion of facilities.
42. Furnishing of spares on FOR (Freight on Road) site basis.
43. Reconciliation with customs authorities, in case of foreign bidders.
44. Satisfactory conclusion of the Contract.
45. Insurance and other requirements for the complete Power plant package in accordance with the provisions of general conditions of contract of the bidding document.
46. One year supervision during operation and maintenance with deputation of 1 operation and 1 maintenance expert post successful completion of initial/trial operations & Performance guarantee tests including Demonstration tests (whichever occurs later).
47. Execution and completion of civil, structural, architectural, and electrical works for the enabling township.

The Power plant is expected to run for its life on RLNG as fuel for the project along with its compatibility to fire 20 to 25% Hydrogen by volume.