

EXPRESSION OF INTEREST
Projects for Alumina Refinery
at Lanjigarh - Odisha

Vedanta Limited is the world's 6th largest diversified natural resources conglomerate with business operations in India, South Africa, Namibia and Australia. It is a leading producer of Oil & Gas, Zinc, Lead, Silver, Copper, Iron Ore, Steel, Aluminium & Power.

Vedanta contributes 1% towards India's GDP, as per IFC. We are investing 9 Bn\$ in capital projects over the next 2 – 3 years to double our revenues from current levels of 15 Bn\$.

Vedanta operates a world-class Alumina Refinery with the production capacity of 2 MTPA at Lanjigarh, Odisha, in eastern India. Vedanta is planning to expand the refinery capacity to 6 MTPA including associated power plant and infrastructure.

Capacity expansion project has following major packages:

- A. Construction of refinery including Red Mud Filter and bauxite unloading and handling system.
- B. Power Plant construction on Engineering Procurement and construction (EPC) basis.
- C. Railway Infrastructure on Engineering Procurement and construction (EPC) basis.
- D. Raw Water System on Engineering Procurement and construction (EPC) basis.
- E. Red Mud Pond (Bauxite Residue Disposal Area)
- F. Township Engineering Procurement and construction (EPC) basis

Details of individual package are as follows:

A. Construction of Refinery:

Engineering is being done by technology provider for the refinery. The Technology provider will integrate all the packages along with the respective technology packages and the utility facilities.

We are looking for an experienced partner to complete the construction of the refinery. Scope includes supplying and installing all the required equipment and parts for overhauling as per the basic engineering provided by the Technology Provider for expansion to 6 MTPA. Most of the equipment are already available at site.

Bidder shall have following scope of work:

1. Site services like civil work, structures, tankages, piping, electrical & instrumentation works, pre-assembly & assembly, pre-testing.
2. Supply of all new equipment like ball mills, pumps, valves, motors, agitators disc filters, cyclone separation, PHEs, digester vessels, heaters, diastar filter, electrical equipment's, automation system etc.
3. Engineering, supply and execution of packages like Calciner, evaporation, bauxite handling system, red mud filtration unit, cooling tower, water/ effluent treatment unit, alumina handling system, firefighting system, lime slacker unit, etc.

4. Refurbishment of existing equipment including supply of required spares from respective OEMs.
5. Supply of prefabricated steel structure, pipes, pipefittings, sheets, steel plates for tankages, paint and insulation, fasteners, gaskets, lubricants, cables, termination kits etc.
6. This scope of work shall involve residual engineering, interpretation, manufacturing, pre-assessment of balance works.
7. Commissioning of the plant
8. All statutory approvals required.

Project to be completed within 18 months from date of ordering.

B. Power Plant:

We are looking for a partner to complete the construction of the 210 MW Power Plant (3X50MW and 2x30 MW) including Balance of plant on EPC model. Most of the equipment are already available at site and construction is in advanced stage. Design already done by M/s SSNP, China.

Bidder shall have following scope of work:

1. Review and modification/ upgradation of existing design.
2. Services like civil, structures, tankages, pressure parts, piping, electrical, C&I works, pre-assembly & assembly, pre-testing, special testing, refurbishment, overhauling, upgradation of all existing equipment/ software/ hardware to the latest models in a cost-effective manner.
3. Supply of all steel, insulation, equipment, parts, paint, pipes and fittings, fasteners, gaskets, lubricants, electrical panels, instrumentation, cables, termination kits etc.
4. Assessment of plant & equipment, Residual Engineering, refurbishment, overhauling, supply spare parts from respective OEMs, supply of balance items as required.
5. Erection, Commissioning, Reliability test & PG Test of complete 210 MW Co-generation Power Plant in all respects with all good engineering practices, high quality and adherence to Vedanta's Safety standards.
6. Design, supply and execution of SPM, FGD, SCR/SNCR unit to meet new environmental norms for SPM, SOx, NOx, Hg as per MOEF notification of December 2015 and its subsequent revisions.
7. Grid connectivity with 132KV switchyard
8. All statutory approvals required.

Project to be completed within 15 months from date of ordering.

C. Railway Infrastructure:

Presently the plant has a single Railway track line from the plant premises to nearby town of Ambodala, connected to the Indian Railway line. A mid-station was developed between Ambodala and the plant. The total length of the line from the plant to Ambodala is ~16Km

We are looking for a potential partner who can design, get approvals, and construct Railway infrastructure on EPC basis required to support the 6 MTPA alumina refinery at Lanjigarh. In-principle FSR approval for infrastructure required for up to 4 MTPA Alumina refinery is in place and 4 MTPA DPR approval is in the process of being received.

Bidder shall have the following scope of work:

1. Obtain Feasibility Study Reports (FSR) and Detail Project Reports (DPR) for ramping up from 4 MTPA to 6 MTPA, in line with the DPR approved upto 4 MTPA with required optimisation.
2. Supply and construction of ~ 40 Track Kilo Meter (TKM) Railway line. This includes Y connection, doubling of line, removal of Level Crossings, major & minor bridges, laying in-plant yard lines, modifications, additional loop & shunting lines.
3. Rail infra shall connect Indian Railways line at Anjodi in Rayagada district of Odisha.
4. Commissioning and all approvals.

Project to be completed within 18 months from date of ordering.

D. Raw Water System:

We are looking for a potential partner who can design and construct raw water system on EPC basis required to support the 6 MTPA alumina refinery. The water required for 6 MTPA expanded capacity is ~65 MLD. Design for new intake well is available.

Bidder shall have following scope of work:

1. Review of available design and engineering for optimization for cost, capacity and construction timeline.
2. Upgradation/modification of existing 30 MLD raw water system,
3. Pipeline (approximately 67 KM) with its intake and intermediate pumping system
4. Upgradation of existing raw water reservoir, construction of new reservoir at plant and its interconnection with existing reservoir.
5. The work will be executed on EPC/Turnkey Basis.
6. All statutory approvals for construction.
7. Commissioning and demonstration of PG.

Project to be completed within 15 months from date of ordering

E. Red Mud Pond (BRDA):

We are looking for a potential partner who can design and construct Red Mud Pond required to support 6 MTPA alumina refinery at Lanjigarh. The construction area of Red mud pond is ~130 Acres. Basic design is ready.

Bidder shall have following scope of work:

1. Review of available design for optimisation of cost, capacity and construction timeline.
2. Construction of Red Mud Pond (BRDA) including construction of embankment, filter & toe drain, laying of HDPE Geo-membrane & HDPE Liner, development of catchment / clean water pond, piping and pumping system for rain water diversion, seepage water collection system, primary & secondary underdrain system, diversion of nallas /natural storm drain, green belt development between property line and end of new Red Mud Pond embankment, procurement, construction, site management, testing and completion of the entire New Red Mud Pond.
3. Obtaining all requisite statutory approvals from the concerned authorities.
4. The work will be executed on EPC/Turnkey Basis.
5. Construction shall be carried out in phases.

F. Township:

We are looking for a potential partner who can design and construct additional infrastructural requirement of township on EPC basis required to support 6 MTPA alumina refinery at Lanjigarh. Additional Multistoried Towers (G+8) shall be constructed in our existing township. Concept design is already developed by M/s Khan Global Design. Land for the new township is ~ 10 acre.

Bidder shall have following scope of work:

1. Design, engineering, procurement and construction of civil, structural and MEP work with adherence to latest norms of National Building Code (NBC).
2. Develop peripheral infrastructure like roads, drains, landscaping, sewage treatment plant (STP) etc. and connecting them with our existing utilities.
3. Total 400 new flats to be constructed in the existing colony at separate space earmarked for the same.
4. All statutory approvals

Project to be completed within 18 months from date of ordering

Submission of EOI:

Interested and competent parties can submit their expression of interest giving details of their organization, statutory registration licenses, recent 3-year audited balance sheets, offices, major clientele, performance certificates and other necessary data ., within 7 days from the date of advertisement by submitting the documents through **e-mail to:**

Expansion.EOIresponses@vedanta.co.in