

Detailed Brief for EOI Requirements

1. Finished Goods Packaging Services:

Partner required for end-to-end packaging solution contract for Sterlite Copper, Silvassa for packaging of finished goods, copper coils, copper cathode, anode and lashing services and technology solution to optimize cost and offer environment friendly packaging solution.

2. Rail transportation services for finished goods (Copper Coils):

One stop solution is sought for movement of finished goods from plant premise to various warehousing locations (pan India) / direct customer location through rail movement.

3. Parking Area Development & Front Office Construction at Silvassa:

Development of existing parking area to accommodate storage facility which includes, lashing/tarpaulin tank station, loading/unloading point, maintenance workshop, security office, weigh bridge, green belt, liquid unloading station plant for new plant.

4. Copper material digital tracking system within plant premises at Silvassa:

Technology offering for real time tracking of copper material from raw material gate in up to Fujairah Gold dispatch. This includes counting of stock at each location, tracking material movement and feeding data to SAP and FG location tracking to facilitate faster retrieval

5. Supply of hydrogen analyser equipment supply works for copper metal analysis:

Supply, installation & commissioning of hydrogen analyzer equipment to CCR plant laboratory for the analysis hydrogen in copper metal. specifications are:

Analyzer, type: hydrogen analyzer, application: non-dispersive infrared absorption, material: -, enclosure type: -, mounting type: -, measuring range: 0.1ppm to 2500 ppm for 1 gm sample, accuracy: 0.05ppm, display type: -, process connection type: -, process connection size: -, temperature rating: 15 to 35c, frequency rating: -, current rating: -, voltage rating: -, power rating: 230 v, 50a, output: -, instrument range 0.0001 to 2.5 mg (0.1 ppm to 2500 ppm for a 1 g sample) precision* 0.00005 mg (0.05 ppm) or 2% rsd, whichever is greater calibration standards (single or multi-point); manual; gas dose analysis time 90 seconds (including outgas, purge, and analysis delay) cycle time: 180 seconds (nominal) sample size 1 g (nominal) detection method non-dispersive infrared absorption chemical reagents • anhydrous magnesium perchlorate (mgclo) • sodium hydroxide on an inert base • oxygen/moisture indicating tube 4 • copper oxide, copper turnings gas requirements carrier: helium (99.99% pure), 22 psi (1.5 bar) ±5% pneumatic: compressed air, 40 psi (2.8 bar) ±10%,

6. Supply and erection of gas burners for furnace:

Design, engineering, supply, manufacturing, erection, inspection and testing, Commissioning and Supply of Manuals, drawings for conversion of ACP both furnace of 20MT & 30MT capacity to PNG operations with modifications at burners & burner chain with all safety precautions at Chinchpada Silvassa.

Design and Engineering, and Supply of 1 No Existing Copper Melting Furnace to convert to Gas fired system Complete with Furnace Combustion system like Gas Burners and Burner accessories like Burner Blocks, Limiting Orifice Valves, Combustion Air Butterfly Valves, Combustion Air

Blower with Motor with Variable speed drive, Pilot Burners, Gas Regulators for Pilot Burners, Main Gas Solenoid Valves and for Pilot, Spark Plug, H T Transformers, U V sensors. Furnace Automatic Temperature Control system complete with Micro-processor based P I D Temperature Controller, Air Controlled by Combustion Air motor with the help of Variable Speed Drive, Supply of Air and Gas pipe line with valves and fittings, Supply of electrical panels and Control panels, Cable with Cable accessories, Cable tray, Installation of the Combustion system, Auto Ignition system, Air and Gas pipe lining laying job carried out with our skilled technicians under supervision of our engineers and there after commissioning of the Furnace. The Scope of service includes unloading of materials at site, inspection & certification for quality of the materials received as per requirement. Storage at designated by Vedanta. Fabrication & erection at Vedanta desired site as per P & I Diagram with safety precaution as per Vedanta standards. After completion of erection as per P & I Diagram, proper commissioning of system in presence of Vedanta Representative is in vendor scope. Once commissioning is completed, Vendor must undergo performance guarantee test to achieve consistent deliverables as per design for 15 Days from the date of commissioning

7. Services for weighing sampling and moisture determination (WSMD) for Copper at Silvassa:

Weighing sampling and drilling and sample preparation for secondary materials like blister, spent anode, cathode, off grade cathode, lumps, ingots, cathodes, anodes, etc. The scope shall include supervision of unloading, weighing, minimum 10 % of primary sampling from every container, sampling and sample preparation/distribution. coordinate for drilling as per standard procedure, and further size reduction, quality sample preparation, packing, sealing and sample distribution as per instruction by siil supervisor, joint report shall be submitted to siil. TLD badge required for chest

8. Annual Rate Contract for Mechanical, Civil, Electrical & Instrumentation services for Project works at Silvassa:

Looking for renowned Mechanical, Civil, Electrical & Instrumentation partners with turnkey basis for annual rate contracts for Silvassa site

9. Supply and Commissioning of 8 MT capacity Steam Boiler:

Design, engineering, supply, installation and commissioning of three pass saddle mounted fully fusion welded boiler shell, design pressure - 10.54 kg/cm², capacity: 8 mt/ hour, material of construction: boiler drum: shell plate: SA515/516 GR.70, TUBES: - BS 3059 ERW, MANHOLE / MUDHOLE- SA515/516 GR.70, PIPES: SA106 GR.B.

FURNACE: PLATE: SA515/516 GR.70, HEADER PIPES: SA106 GR.B, TUBES: BS 3059 ERW 320 WEISHUAPT MAKE DUAL FUEL BURNER, MODEL: RGMS70/1-B, VER.ZM-NR, DETAILS AS PER ANNEXURE. Objectives are Ensuring better reliable supply and availability of steam to user departments and to Improve Steam to Fuel ratio & thereby reducing operating costs in steam generation. Boiler shall be made as per IBR Act and design code. Henceforth the set of relevant documents and drawings needs to be certified by Chief inspectorate of Boilers. Soft copy of the certified document/drawing along with 2 copies of hardcopy of certified document and drawing must be shared to customer by vendor while material supply itself. Vendor shall co-ordinate with customer for all Liaison activities for Hydro-test, Open general testing / inspection, firing & subsequent commissioning of the boiler.

10. Supply of Copper Cathode Corrugation Unit:

Design, engineering, supply, commissioning, performance testing and guarantee of cathode corrugation unit (750 plates/Hr). Cathodes are stacked into bundle of 2.5-3T and charged in CCR shaft furnace. Since the flat sheets are stacked close to each other the area exposed to direct heat is less and melting time is high. So, it was proposed to charge the cathode bundle in form of corrugated sheets to increase the heat transfer area and thereby the melting rate. Scope of work covers the Design, engineering, supply, manufacturing, Scope Matrix, battery limit, Exclusions, inspection and testing, Commissioning, Performance Guarantee and documentation of the Cathode corrugation machine of capacity 750 plates/hour. Desired Capacity, Input & output Parameters:

Capacity – 750 plates per hour, Input: 2 – 2.5 MT cathode bundle of flat plate , Output – 3 MT cathode bundle (in sequence of 2 corrugated plate for every 4 flat plates)

11. Supply of Electric forklift (3MT & 5MT) for plant operations at Silvassa:

5Ton Lithium Battery Forklift (BRAND NEW)

1. Capacity: 5000 kg;
2. Load Center: 500mm,
3. Fork Length:1070mm,
4. Triplex Mast,
5. Lift Height 4500 mm,
6. 2 Hydraulic Valves & Levers,
7. AC Driving Motor and AC Pump Motor,
8. ZAPI Controller,
9. 80V/540ah Lithium-Ion Battery with 200A Charger (Tentative),
10. LED Front Working Light, Rear Combination Light, Horn & Rear View Mirrors, Tool Kit, Solid Rubber Tires, Telematics System.

Operation:

1. Availability - 8 Hours X 3 Shifts X 30.5 Days/Month
2. With Operators Round the clock.
3. Indoor/ Outdoor operation.
4. Charging duration & Running hours shall be specified.
5. Maintenance of the Equipment shall be in supplier scope.
6. In case of non-availability/breakdown of forklift for conditions not attributable to the client an hourly penalty would be applicable (which shall be determined & agreed upon).
7. Industry standard safety features need to be incorporated. (Norms on Forklift safety check sheet shall be complied)

12. Transportation (Electric Bus, MUV, Van) services for employee transportation at Silvassa

- Details of Number/Type of vehicles with capacity and operating range are mentioned in the table 1 below:

S No	Type of Vehicle	Capacity	No of vehicles	Kms/day	Kms/month	Operating hours
1	Bus	36-Seater	1	150-200	5000	16-18 hrs
2	Bus	54-Seater	1	150-200	5000	16-18 hrs
3	Cab	7-Seater	3	100-125	3500	16-18 hrs
4	Van/Cab	11-14-Seater	1	100-125	3500	16-18 hrs

- Charging facility for all the vehicles in parallel/ most optimum way.
- Safety features to be incorporated are listed below (& not limited to);
 - a. Three-point seat belt for all seats
 - b. CCTVs
 - c. PA system
 - d. Fire extinguishers
 - e. Any other standard road safety tools or EV/Battery specific tools.

13. Supply of SS mother blanks & refurbishment services for existing mother blanks -

- a. Supply of SS mother blanks – The SS316 Mother blanks is being used in Copper Refinery as Cathode Plate for Copper deposition. It must withstand all electrolyte parameters and with low contact voltage. Same needs to be manufactured and supplied as per drawing.
- b. Refurbishment services for existing mother blanks – Existing mother blanks needs to be refurbished with following activities.
 - Edge strip removal
 - High-Pressure Cleaning
 - Buffing
 - Levelling
 - Bar Straightening
 - Verticality Check and correction
 - Edge strip installation