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Expression of Interest (EOI) from Global
consulting firm for Project Management
Consultancy for efficient execution of 2000TPD
Coal to Ammonium Nitrate Project of BCGCL.

**BHARAT COAL GASIFICATION & CHEMICALS
LIMITED**

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SECTION – I

DISCLAIMER

The information contained in this **Expression of Interest (EoI)** document provided to the consultant(s), by or on behalf of BHARAT COAL GASIFICATION & CHEMICALS LIMITED (BCGCL) or any of its employees or advisors, is provided to the OEM on the terms and conditions set out in this EoI document and all other terms and conditions subject to which such information is provided.

1. The purpose of this EoI document is to provide the Consultant with information to assist the formulation of their proposal. This EoI document does not purport to contain all the information each CONSULTANT may require. This EoI document may not be appropriate for all persons, and it is not possible for BCGCL, its employees or advisors to consider the business/investment objectives, financial situation and particular needs of each Consultant who reads or uses this EoI document. Each consultant should conduct his own investigations and analysis and should check the accuracy, reliability and completeness of the information in this EoI document and where necessary obtain independent advice from appropriate sources.
2. BCGCL, its employees and advisors make no representation or warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the EoI document.
3. BCGCL may, in its absolute discretion, but without being under any obligation to do so, modify, amend or supplement the information in this EoI document.
4. The issue of this EoI does not imply that BCGCL is bound to select and shortlist any or all the consultant(s). Even after selection of suitable consultant BCGCL is not bound to proceed ahead with the Consultant and in no case be responsible or liable for any commercial and consequential liabilities in any manner whatsoever.
5. The Consultant shall bear all costs associated with the preparation, business/technical discussions/presentation and submission of response against this EoI. BCGCL shall in no case be responsible or liable for these costs regardless of the conduct or outcome of the EoI process.
6. Canvassing in any form by the consultant or by any other agency on their behalf shall lead to disqualification of their EoI.
7. Notwithstanding anything contained in this EoI, BCGCL reserves the right to accept or reject any application and to annul the EoI process and reject all applications, at any time without any liability or any obligation for such acceptance, rejection or annulment and without assigning any reasons, thereof. In the event that BCGCL rejects or annuls all the applications, it may at its discretion, invite all eligible consultant(s) to submit fresh applications.
8. BCGCL reserves the right to disqualify any applicant during or after completion of EoI process, if it is found there was a material misrepresentation by any such applicant or the applicant fails to provide within the specified time, supplemental information sought by BCGCL.

9. BCGCL reserves the right to verify all statements, information and documents submitted by the applicant in response to the EoI. Any such verification or lack of such verification by BCGCL shall not relieve the applicant of his obligations or liabilities hereunder nor will it affect any right of BCGCL.

SECTION-II

SCHEDULE OF EoI PROCESS & CONTACT DETAILS

A. SCHEDULE OF EoI PROCESS

The schedule of activities during the EoI Process shall be as follows –

S No.	Description	Date
1	Issue of EoI document	25.06.2025
2	Pre Bid Meeting	30.06.2025 at 3:00pm
3	Submission of EoI by	07.07.2025

In case any amendment/corrigendum to this EoI is issued, it shall be notified only at www.bhel.com

B. CONTACT DETAILS:

Mr. Vivek kumar Gupta M/s Bharat Heavy Electricals Ltd., Corporate Office, BHEL House, Siri Fort, New Delhi - 110049, India, E-MAIL: vivek21@bhel.in Ph. No. :+91 7055500242	Mr. Varun Kumar Panghal M/s Coal India Ltd., Coal to Chemicals Division, BD Coal Bhawan, Premise No-04 MAR, Plot No-AF-III, Action Area-1A, Newtown, Rajarhat, Kolkata-700156 E-MAIL: vk.panghal@coalindia.com Ph. No. :+91 7782926495
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SECTION-III

INTRODUCTION

Bharat Coal Gasification and Chemicals Limited (BCGCL), a joint venture company formed by CIL and BHEL is currently implementing a coal gasification-based Ammonium Nitrate production project of 0.66 MMTPA capacities. BCGCL was incorporated on 21.05.2024.

The project would essentially consist of Coal Gasification, Gas Purification, Ammonia Synthesis and Nitric Acid and Ammonium Nitrate plants and related offsite and utility facilities. Coal gasification technology of M/s BHEL has been finalized for the project. BHEL shall be the executing agency for Coal Gasification and Gas purification island. The plant shall be designed for production of followings products with Ammonium Nitrate as main product.

S. No	Name of the Project	2000TPD Coal to Ammonium Nitrate Plant
1	Location	Lakhanpur Open cast mines, Lakhanpur Tehsil, Jharsuguda district, Odisha, Nearest Railway station: Belpahar (~10Kms) Nearest Airport: Jharsuguda (~38 Kms)
2	Source of coal	Lakhanpur Coal Washery
3	Source of water	Backwaters of Hirakud Reservoir
4	Power supply	From OTPCL'S Grid at Budhipadhar through 132 KV double circuit overhead line.
5	End Product	2000 TPD Ammonium Nitrate
6	Plant Capacity	
	- Gasification Island	Eff. Synthesis Gas (CO+H ₂) – 85000 Nm ³ /hr,
	- Gas Purification Section	Shifted Synthesis Gas – 180000 Nm ³ /hr,
	- Ammonia Synthesis Plant	920 TPD
	- Nitric Acid Plant	1650 TPD
	- Ammonium Nitrate - Melt Plant	1600 TPD

	- Ammonium Nitrate - Prill Plant (Solid)	400 TPD
7	Steam generating plant	(2+1) × 140 TPH

The objective of the EOI is to:

- Arrive at details of specification meeting technical requirements, including terms of payment for Project Management Consultancy to BCGCL for the Project.
- Shortlist interested parties for further processing through open tender.
- Through this Expression of Interest (EOI), BCGCL seeks responses from interested engineering consultants/ parties.
- BCGCL wishes to engage Project Management Consultant (PMC) for the scope of work detailed in the subsequent sections of this document.

SECTION-IV

INSTRUCTION TO INTERESTED PARTIES

1. Scope of Interested parties shall be limited to response and suggestions to this EOI only.
2. Scope of work, Deliverables, Terms and Conditions, Eligibility / Qualification Criteria, defined in this EOI may get modified / improved at the time of Tender. However, in response to EOI, Interested Party may suggest improvement wherever necessary.
3. Interested parties should submit their response with detailed concept note / approach paper to address scope of work by email within 15 days from publication of this EOI.
4. The details submitted by the Interested Party shall be complete in all respects and BCGCL may seek clarifications/additional information as considered necessary. Such clarifications/additional information must be provided within 3 days of BHEL request.
5. The Interested parties may be called for interaction and presenting their proposal, if required.
6. Any request for further information or clarification on the EOI document may be submitted to the above-mentioned officials by 30.06.2025.
7. Duly authorized representative(s) of the Interested Party shall send document over e-mail to above mentioned recipient. Response to EOI should be prepared in such a way so as to provide a straight forward, detailed proposal for scope of work and concise description on interested party's organization, manpower capabilities and resources required.
8. The EOI process shall be governed by, and construed in accordance with, the laws of India and the Courts at New Delhi shall have exclusive jurisdiction over all disputes arising under, pursuant to and/ or in connection with the EOI process.
9. Interested parties should provide following details:
 - I. Detail concept note and approach paper to address scope of work, technical specification of the proposed solution.
 - II. Details as per format for Expression of Interest in Annexure -I.
 - III. Documentary proof for Eligibility Criteria in Annexure- I.

SECTION-V

PROJECT DETAIL

The entire Project Facilities of the BCGCL Project shall be executed as follows:

1. LSTK-1 PACKAGE: COAL GASIFICATION ISLAND

The following plants and facilities of this Project shall be executed on Lump-Sum Turnkey (LSTK) basis and shall be under the scope of the LSTK Contractor (BHEL) for Coal Gasification Island:

- a) Coal Handling inside Plant battery limit from the Washed & Washery Reject silos and conveying to Gasifier & SGP (Steam Generation Plant)
- b) Ash Handling & transportation for Gasifier & SGP, including Ash Silo inside Plant Battery Limit.
- c) Coal Gasification and Raw Gas cleaning
- d) Air Separation Unit (ASU)
- e) Steam Generation Plant (3X140 TPH CFBC boiler and Auxiliaries) including Chimney, Coal conveying to SGP, Ash Handling from SGP to Ash silos.
- f) Cooling tower for Coal Gasification Island, Gas purification Island (LSTK-2) and offsite and Utilities.
- l) Common Control Room for LSTK 1 & LSTK 2 Island Package
- m) Misc. Mechanical, Electrical & C&I Systems required for LSTK 1 Island Package
- n) Pre-Treatment of effluent generated within LSTK-1 B/L, as applicable.
- o) First fill of all catalyst, chemicals & consumables and requirement during Pre-Commissioning, Commissioning, Sustained Load Test Run and Guarantee Test Run (GTR).
- p) Supply of chemicals, consumables and spares for a period of 24 calendar months
- q) Firefighting & safety system for LSTK scope of work.
- r) Sewage transfer within LSTK B/L, at common point.
- s) Instrument Air piping for LSTK's scope of work
- t) Procedure for safe disposal of hazardous solid waste, if any.

- u) Laboratory instruments & chemicals.
- v) Emergency DG for LSTK-1.
- w) Civil work for inside LSTK-1 B/L.
- x) After PGTR- Sixty (60) Months of Operation & Maintenance.

2. LSTK-2 PACKAGE: Gas Purification Island

The following plants and facilities of this Project shall be executed on LSTK basis and shall be under the scope of the LSTK Contractor (BHEL) for Gas purification Island:

- a) Receiving of Syngas (automatic system shall be considered) - (1 train)
- b) Carrier CO₂ System-(1 train) for other consumer (LSTK -1) as per the required quality.
- c) Gas purification unit to produce Ammonia Syn. Gas (N₂ + 3H₂).-(CO shift, Rectisol Wash and LN₂W).
- d) Sulphur Recovery Unit (SRU) (1 trains) and Storage.
- e) Quench Column
- f) Cooling Water requirement to be furnished.
- g) Electrical Sub-station.
- h) Control System shall be supplied by LSTK-2 contractor. However, Panels shall be installed in LSTK-1 Control Room.
- i) Chemical laboratory instruments & laboratory chemicals.
- j) Procedure for safe disposal of hazardous solid waste, if any.
- k) Pre-Treatment of effluent generated within LSTK-2 B/L, as applicable.
- l) Transfer of Nitrogen from LSTK-1 and Ammonia from LSTK-3.
- m) First fill of all catalyst, chemicals & consumables and requirement during Pre-Commissioning, Commissioning, Sustained Load Test Run and Guarantee Test Run (GTR).
- n) Supply of chemicals, consumables and spares for a period of 24 calendar months
- o) After GTR, 60 calendar month operation and maintenance.
- p) Firefighting & safety system for LSTK's scope of work as per requirement of NFPA.
- q) Instrument Air piping for LSTK's scope of work
- r) Civil work inside LSTK-2 B/L.
- s) Sewage transfer within LSTK B/L, at common point

3. LSTK-3: Ammonia Synthesis Plant

The following plants and facilities of this Project shall be executed on LSTK basis and shall be under the scope of the LSTK Contractor for Ammonia Synthesis Plant:

- a) Ammonia Synthesis Unit including hot flare stack.
- b) Ammonia Storage Tanks including separate hot flare stack for each ammonia storage tank. Provision shall be kept for complete isolation of one tank from other during statutory inspection/ maintenance etc. All lines (liquid/ Vapor) entering & leaving each tank shall have positive isolation with block and bleed arrangement along with spectacle blind. Flare shall be dedicated for each tank. All other equipment/ machinery shall be common for both the Ammonia storage tank system. Any other required item other than said above for safe isolation of ammonia storage tanks shall be considered by LSTK Contractor.
- c) Cooling water requirement for Ammonia Synthesis Unit to be furnished. Cooling Water will be made available at battery limit of the plant at one point.
- d) Dedicated Cooling Tower for Ammonia Storage Area
- e) Effluent from Ammonia/Ammonia Storage
- f) Electrical Sub-station for Ammonia & Ammonia Storage.
- g) First fill of all catalyst & chemicals
- h) CONTRACTOR shall supply Consumables solvents, adsorbents, lubricants chemicals and spares for 24 calendar months operation
- i) Fire fighting & safety system for LSTK's scope of work as per requirement of NFPA.
- j) Control System shall be supplied by LSTK-3 contractor
- k) Chemical laboratory instruments & laboratory chemicals.
- l) Procedure for safe disposal of hazardous solid waste, if any.
- m) Pre-Treatment of effluent generated within LSTK-3 B/L, as applicable..
- n) First fill of all catalyst, chemicals & consumables and requirement during Pre-Commissioning, Commissioning, Sustained Load Test Run and Guarantee Test Run (GTR).
- o) Instrument Air piping for LSTK's scope of work
- p) Civil work inside LSTK-3 B/L.
- q) Sewage transfer within LSTK B/L, at common point.
- r) Supervisory assistance for 6 months after PGTR

4. LSTK-4, Nitric acid and Ammonium Nitrate Plant

The following plants and facilities of this Project shall be executed on LSTK basis and shall be under the scope of the LSTK Contractor for Nitric Acid and Ammonium Nitrate Plant:

- a) Transfer of Ammonia from tie-in point.
- b) Nitric acid & ammonium Nitrate Plant along with Flare system, if required.
- c) Nitric Acid storage of capacity.(2 x 5000 MT)
- d) AN melt storage of capacity (1 day) with pumping arrangement to AN prilling section and also provision of truck loading of AN melt.
- e) Bagging facility along with truck loading provision of Bagged and AN melt product.
- f) AN Prill Product storage as per AN rule 2012 and its amendment.
- g) Cooling Towers with Side stream filter and dosing system related to, Ammonium Nitrate and Nitric Acid plant along with Ammonia, Water requirement for Ammonia plant shall be shared with the LSTK Contractor.
- h) Central Control room
- i) Electrical Sub-station for Ammonium Nitrate Plant, Nitric Acid Plant & Cooling Towers
- j) Chemical laboratory instruments & laboratory chemicals.
- k) Supply of Consumables solvents, adsorbents, lubricants, chemicals spares for initial period of 2 years.
- l) Goods cum Passenger Lift in AN Prilling section (Minimum capacity shall be 1000 kg)
- m) Control System shall be supplied by LSTK-4 contractor
- n) Procedure for safe disposal of hazardous solid waste, if any.
- o) Pre-Treatment of effluent generated within LSTK-4 B/L, as applicable.
- p) First fill of all catalyst, chemicals & consumables and requirement during Pre-Commissioning, Commissioning, Sustained Load Test Run and Guarantee Test Run (GTR).
- q) Supervisory assistance for 6 months after PGTR
- r) Firefighting & safety system for LSTK's scope of work as per requirement of NFPA.
- s) Instrument Air requirement to be furnished.
- t) Civil work inside LSTK-4 B/L
- u) Sewage transfer within LSTK B/L, at common point.
- v) Weigh Bridge
- w) Supervisory assistance for 6 months after PGTR

5. OFFSITES & UTILITIES

Following Offsites & Utilities shall be executed on Engineering, Procurement Assistance & Construction Management (EPCM) basis:

- i. Water transmission Line from Reservoir to Plant Battery Limit along with power supply to water intake pumps.
- ii. "Supply, Design Engg., Erection, Testing and Commissioning at Site of the complete 132 kV Gas Insulated Metals Enclosed Switchgear (GIS) along with all civil work, Transmission Line, Cables, Transformers etc. Incl. Following:
 - a. 132 KV GIS Grid Power along with Switchyard
 - b. Transmission Line up to Plant Battery Limit
 - c. Supply of 132 KV Cables

(Including engagement of EHV transmission line expert agency for Liaisoning & EPCM activities"

- iii. Supply, Erection, Testing & Commissioning of all supplies along with switchyard including civil work of MRSS(Main receiving Sub-station) & OSBL substations.
- iv. Supply, Erection, Testing & Commissioning of Road Lightings.
- v. Supply & installation of Emergency DG System
- vi.
 - a. E & I Works Supply Cum Erection
 - b. CCTV Camera for Complex & PA System
- vii. Civil Works:
 - a. Raw Water Reservoir inside Plant Battery Limit, Raw Water Pump house including supply erection testing of Raw water supply Pump & allied facilities.
 - b. Non- Plant Buildings
 - c. OSBL Pipe rack foundation & structural work
 - d. Civil work for Instrument/Plant Air Compressor
 - e. Construction of RCC/brick wall with Entrance Gate around Plot Boundary. Land Development Works including cutting of trees, dismantling work, if any
 - f. Construction of Peripheral road (for patrolling), Watch Towers & Security Room and Driver's Rest Room

- g. Construction of Main Approach Road to plants (Bottom Layer), Storm Water Drains including Culverts and Truck Parking.
- h. Construction of Township
- i. Civil work for Emergency DG Room
- j. Top layer (Bitumen) of Road
- k. Weigh Bridge Civil Foundation work
- l. Construction of sewer lines, manholes & allied facilities under Plant Sewage Network
- m. Landscape, Horticulture, Rain Water Harvesting & Miscellaneous Civil Work
- n. Construction of PEB structure with foundation works for Workshops & warehouse
- viii. Ash Handling System outside plant battery limit to abandoned mine (Owner to confirm the Place) including pumping system and transmission pipeline from Ash Pond.
- ix. Coal Transportation system through pipe conveyor for coal gasification plant
- x. a) Raw Water Treatment Plant (RWTP), DMW, CPU, Effluent Treatment Plant and Sewage Treatment Plant (STP)
b) Civil Work
 - Facilities for Raw Water Treatment Plant (RWTP)
 - Facilities for Demineralization & Condensate Polishing Unit - (DM & CPU)
 - Facilities for Sewage Treatment Plant (STP)
 - Electrical Substation Buildings RWTP, ETP & (DM & CPU)
 - Internal plant roads, culvert & Storm Water Drain for RWTP, ETP & DM-CPU area
 - Paving works inside unit
 - Internal plant roads, culvert & Storm Water Drain for RWTP, ETP & DM-CPU area
- xi. Flare system
- xii. Supply with Supervision of Erection & Commissioning of Plant Air & Instrument Air System
- xiii. NG supply system (NG SKID)

- xiv. Workshop Items (Mechanical, Electrical & Instrumentation)
- xv. Engineering, supply, erection of mechanical piping works of OSBL yard piping incl. Auxiliary cooling system
- xvi. a) Fire Water Network including FWPH & allied facilities for OSBL
b) Fire Tender:
 - Rental tenders with crew (for safety during commissioning)
 - Purchase of new fire tenders
 - Fire station and Training ground"
- xvii. a) Appointment of Township planner/ Architecture for Township
b) Design of PEB structure for Workshops & warehouse
- xviii. Construction water & Construction Power

SECTION-VI

SCOPE OF WORK

1. GENERAL SCOPE OF SERVICES

The Project Management Consultant (PMC) is being appointed for executing the project right from Design to Commissioning & project close out on total and single point responsibility basis. The PMC Project Manager shall be the “Engineer-In charge” for each Package (as defined in section V). The scope of work of the PMC is broadly defined under the following heads but not limited to:

- (i) Design & Detail Engineering.
- (ii) Planning & Scheduling
- (iii) Safe and successful execution of the project by adhering to high standards of Engineering, Construction and Quality within time and cost.
- (iv) Revalidation/review of the DFR cost at various stages of project execution.
- (v) Management, supervision and Coordination with Client.
- (vi) Effective Project Interface Management.
- (vii) Overall integration of the plant and optimization.
- (viii) Tendering & Ordering including Purchase of all equipment and materials, as per Tender Procedure provided by BCGCL. The consultant has to follow C&P Procedure as provided by BCGCL for all purchases / services / works.
- (ix) Checklist while forwarding recommendations to be followed as per attached **Annexure-B**.
- (x) Preparation of tender documents, invite bids, evaluation of un-priced and price bids, recommendation for award of job as per BCGCL's C&P procedure, assistance during negotiations if situation arises.
- (xi) Preparation of Fax of Acceptance (FOA) / Detailed Letter of Acceptance (DLOA)/ purchase orders, contract documents/ agreements.
- (xii) Review and approval of design/drawings/documents submitted by vendors/ contractors/ suppliers.
- (xiii) Inspection/ Expediting of equipment/Materials being manufactured by vendors including contractors supplied items.
- (xiv) Management of Construction Stores and Stores Accounting. Assistance for capitalization of the project as per the provisions of BCGCL Finance.

- (xv) Construction Management & Supervision
- (xvi) Project Commissioning.
- (xvii) Project Cost Control, Management & Monitoring. Monthly scheduling of fund requirement during project duration to be submitted. Prior intimation of quarterly requirements with break up against each awarded tender to be provided
- (xviii) Monitor cost over runs by providing quarterly reports if any, by comparing DFR cost VS Actual cost incurred.
- (xix) Prepare periodic payment status reports (monthly) against each Work Order / Packages
- (xx) Ensuring Quality Management compliance by all vendors / contractors involved during execution of the project.
- (xxi) Risk Management of the project along with the detailed Risk analysis (Qualitative as well as Quantitative). The Risk Management Plan (RMP) & disaster management plan (DMP) is also to be prepared by the consultant.
- (xxii) Complete assistance in Lodging of Insurance claims for realization of the same: It shall be the PMC's responsibility to carry all the technical & coordination works for lodging of insurance claims for realization of these claims from the insurance agencies. However taking of insurance policies and payment of its premium would be in scope of either Vendor/Contractor or BCGCL.
- (xxiii) Health & Safety Management
- (xxiv) Design & Implementation of Rain Water Harvesting
- (xxv) Closure of Contract of all Package Vendors & Contractors.
- (xxvi) Performance of Vendors/ Contractors
 - a. Carry out the vendor performance evaluation of vendors/contractors
 - b. Along the order/contract closing statements, the consultant shall provide performance evaluation report of all the vendors/ contractors.
- (xxvii) The PMC will devise and suggest the methodology for project closeout, deliverables required to be submitted during closeout, schedule for close out.
- (xxviii) During construction, maintaining with due justifications all records obstruction/ hindrances and intimation thereof from time to time.
- (xxix) Certification and forwarding the supplier's/contractor's bills to BCGCL within stipulated time.
- (xxx) Preparation of detailed O&M contract for O&M period of 5 years, separately for LSTK-1 and LSTK-2 that will be executed between BCGCL and BHEL.

The consultant will work with the aim to complete the Project on or before the schedule, within the stipulated cost and shall follow all relevant & applicable international / national codes and

standards. The Detail scope of work of the consultant is outlined below. However, the list is not exclusive and limited. The consultant shall also be required to do the works not envisaged herein and specifically mentioned below, but otherwise required as a consultant for overall completion of the project, within the quoted price / awarded value of work to PMC.

2. Detailed Scope of Work

Project Management Consultant (PMC) shall be providing Consultancy Services as follows:

- a) Post-Award PMC Services for LSTK Package - LSTK-1, 2, 3 and 4 at Clause 1, 2, 3 and 4 of section V.
- b) EPCM Services for ~~Non~~-Packages of Offsites & Utilities mentioned at Clause 5 of section V.
- c) Miscellaneous Activities mentioned at Clause 7 below.

Detailed Scope of Work shall cover the following activities:

2.1 Post-Award PMC Services for LSTK Package – LSTK-1, 2, 3 and 4 mentioned at Clause 1, 2, 3 and 4 of section V.

Consultant Scope of Work during post-LSTK award phase of LSTK 1, 2, 3 & 4 shall comprise of the following activities:

2.1.1 Project Management including Scheduling & Monitoring

The following Project Management activities are envisaged to be carried out by Consultant during various stages of implementation covered under LSTK Package - 1, 2, 3 & 4.

- a) To review Project implementation procedure & activity schedule.
- b) To review the documents prepared by LSTK Contractor including:
 - Work Breakdown Structure incorporating:
 - Engineering (Basic Engineering & Detail Engineering)
 - Procurement related documents
 - Quality Assurance Schedule (Inspection & Expediting)
 - Delivery Schedules
 - Construction & Erection Philosophy and Procedures
 - Pre-Commissioning, Commissioning and Guarantee Test Run Procedures
 - Project Network Diagrams

- Project Activity List, Milestones incorporating the Early Start, Early Finish, Late Start & Late Finish Dates, Total Float, Free Float against each activity
- Project Overall Progress Schedule: Monthly Breakups, and Cumulative Breakups
- Project Financial Schedule in accordance with the envisaged / actual dates of delivery / construction. Monthly report on utilization of funds against each work /service awarded to be submitted
- Organogram of LSTK for Project Office & Construction Site Office
- Manpower Deployment Schedule (Month wise) of LSTK Contractor Project Communication / Coordination Plan
- Inspection Schedule and Plan
- Fortnightly / Monthly Reports of LSTK Contractor
- c) To participate in association with BCGCL's representative in fortnightly / monthly meetings with LSTK Contractor.
- d) To monitor progress of the project and submit periodic status reports to BCGCL, highlighting slippages, if any, caused by the LSTK Contractor or any agency of LSTK Contractor hindering efficient execution of the project.
- e) Certification of all construction related invoices of LSTK Contractor.
- f) Monitoring progress of various statutory approvals to be taken by BCGCL and indicating the slippages, if any, highlighting impact on the overall progress of the Project.
- g) Closure of Contract(s)

2.1.2 Engineering Management

Consultant will be the lead coordinator between LSTK Contractor, BCGCL and Consultant. The detailed scope of engineering management shall be in line with standard project management techniques which shall broadly include the following:

Design Engineering activities of the Project, which have started by the LSTK Contractor and will be structured into following two phases:

- a) Basic Design & Engineering Phase
- b) Detailed Engineering Phase

The LSTK Contractor's (including Process Licensors') engineering efforts will be monitored by Consultant. Process and other discipline engineers may visit the respective Process Licensors' / LSTK Contractor's offices periodically during review/approval of the relevant documents / drawings and monitor the activities as mentioned below:

A) Review of Basic Engineering Documents

The work that will be performed by the project team at Home Office during this phase, shall broadly include:

- a) Review of Design basis (prior to the Basic Engineering by Process Licensor(s))
- b) Review of Basic engineering documents prepared by Process Licensor(s) with the objective to assure adequacy / completeness of the basic engineering documents (Basic Engineering Documents shall be reviewed by Consultant at its Home Office. Accordingly, Process Licensors shall furnish Basic Engineering documents at Consultant's Home Office).
- c) Review of following Basic Engineering documents may be undertaken:
 - Process Flow Diagrams (PFDs) with mass & energy balance, Steam & Cooling Water Balance
 - Raw material & Utility balance diagram
 - Plot Plans
 - Piping and Instrumentation Diagrams
 - Brief equipment data sheets and drawings of critical equipments
 - Process data sheets for critical equipments
 - Single Line Diagram and Electrical load list
 - Process control philosophy
 - Alarm, ESD, Interlock Logic Diagram/ cause & effect Diagram
 - Fire Protection system, UPS and emergency power requirement
 - Spares' philosophy
 - Requirement of Catalysts, Chemicals, Refractories and lubricants

B) Review of Detailed Engineering Documents

Consultant shall review the Detailed Engineering Documents furnished by the LSTK Contractor (These documents shall be reviewed at Consultant Home Office and accordingly, LSTK Contractor shall furnish Detail Engineering Documents at Consultant Home Office). It is envisaged that Detail Engineering shall be reviewed in a phased manner based on the progress of detail engineering by the LSTK Contractor.

- a) Review of Detail Engineering Documents prepared / furnished by LSTK Contractor shall be undertaken with a view to assure compliance to approved specifications, specified codes and standards and good engineering practices. The detailed engineering documents / drawings will be reviewed based on the codes and standards specified in the LSTK Contract

with BCGCL. It is the general intent that the specifications / drawings of equipment which are of critical nature will be reviewed and approved by Consultant.

b) The detail engineering document(s) / drawing(s) to be reviewed shall include Process, Mechanical (Machinery, Piping, Pressure vessels), Electrical, Instrumentation & Civil related documents broadly covering the following:

- Detailed P&ID
- Technical Specifications, data sheets of equipment and machinery
- Equipment Layout drawings
- Piping Layout drawings
- Quality control procedure and plan for piping system
- Piping Material Specification / Valve Material Specification
- 3-D Model Review
- GA Drawings
- Flexibility Analysis of critical piping
- Equipment mechanical design - Load data, platforms, ladders, davits and hoists, internals, nozzle orientations, welding details, etc.
- Thermal design of equipment such as heaters, exchangers, boiler and reformers
- Rotating Equipment and auxiliaries – Relevant drawings like Characteristic curves
- Extent of Fireproofing and Firefighting system
- Insulation and painting specifications and schedule
- Vendor documents and drawings
- Single Line Diagrams
- Final Electrical Load List
- Final data sheets for transformers, switch-gears, MCCs, important HV motors, Battery, Battery Charger, UPS, and DG Set.
- Layout drawings for cable rack, trench, lighting, earthing, lightning protection, switchgear, substation cable.
- Cathodic protection system
- Cable schedules
- Alarm and interlock system details

- Plant Communications system & CCTV
- Layout of Process Control Room / DCS Configurations
- Detail design drawings for structural items
- Foundation design criteria
- Specifications and drawings of buildings
- Site preparation drawings & site report
- Roads, paving, area drainage, etc.
- Design Criteria for Plant Structures, Buildings & Foundations and Standard drawings.
- Drawings for Structures, RCC works/ foundations.
- Operating manual
- Instrument Specification of field Instrument.
- Analyzer Specifications
- DCS/ESD Specification
- Instrumentation drawings.
- Line list
- Valve list

Notes:

- i. The documents mentioned above will be covered under various categories viz. (i) For Approval (ii) For Review (iii) For Information, depending on the criticality of the documents, which shall be discussed & finalized during meetings, based on Consultant's Experience on previous projects for similar services.
- ii. Consultant shall depute its concerned representative for participation in HAZOP study and submit the report.

2.1.3 Procurement Management

The objective of PMC services during Procurement will be to assure that equipment and materials procured by the LSTK Contractor are as per the approved specifications to meet the project requirements and that they are delivered in a timely manner.

LSTK Contractor shall follow the vendor list for various critical & semi-critical equipment and any deviation shall be subject to Consultant / BCGCL approval, as per procedure laid down in the LSTK ITB.

Consultant shall monitor the procurement activities of LSTK Contractor to meet the

specifications and to ensure timely delivery to meet overall project objectives and schedule. Major activities to be undertaken by Consultant from Home Office during procurement phase will include following:

Review of:

- a) List of vendors / subcontractors submitted by LSTK Contractor prior to approval of said list by BCGCL.
- b) Procurement and coordination procedures of LSTK Contractor.
- c) procurement policies, plans, procedures and forms
- d) purchasing schedules
- e) vendor selection procedure of LSTK Contractor
- f) technical purchase specifications
- g) purchase orders of key equipment to check for inclusion of various aspects viz. description of goods, applicable engineering specifications, complete and approved drawings/ documents / data sheets, vendor data requirements, inspection and test, marking/ tagging requirements, requirements for spare parts identification and supply list, vendor start up service requirements, Scheduled delivery dates etc.
- h) manufacturing and delivery schedules
- i) coordination plan
- j) inspection and expediting plans and schedules, expediting reports
- k) quality assurance reports
- l) material movement and handling procedures

Note:

The documents mentioned above will be covered under various categories viz. i) For Approval ii) For Review & iii) For Information, depending on the criticality of documents, which shall be discussed & finalized during Kick-off meeting, based on Consultant's experience on previous projects for similar services.

2.1.4 Inspection and Expediting Services

LSTK Contractor shall appoint a Third Party Inspection Agency for Inspection and Expediting. BCGCL may, if it so desires, requisition the services of Consultant on case-to-case basis for rendering Inspection Services (periodic/ stage wise) for equipment, machinery, materials sourced from various Vendors to ensure that such items conform to the requirement of Purchase Order with good design, engineering & fabricating practice and for Expediting of the

supply of equipments, machinery & materials.

2.1.5 Construction Management

- a) Consultant shall undertake overall monitoring of LSTK Contractor construction & erection activities to meet the overall project schedule.
- b) The scope of construction management by Consultant shall broadly comprise the following activities:
 - Project management and control
 - Review of drawings / documents, installation details of all critical equipment(s).
 - Review and monitoring of LSTK Contractor's construction activities.
 - Progress reporting, generate "alert" and action plan for overcoming slippage in schedule, if any.
 - Management and Supervision of Construction at SITE including Safety Management
- c) Consultant shall review and monitor LSTK Contractor's adherence to the approved plans and procedures, and take the necessary actions in providing information to BCGCL for directing the LSTK Contractor when deviations are noted.
- d) Consultant shall review/monitor various Construction and Erection activities of LSTK Contractor such as:
 - Resource planning, construction plans / Schedules.
 - Proposed key management personnel.
 - Planning and scheduling of LSTK Contractor's work and provide the necessary directives to address the identified schedule concerns.
 - Adequacy of manpower and construction resources (equipment, cranes, tools, scaffolding, lighting, etc.) to be deployed by LSTK Contractor for the execution of the work.
 - Quality of work for adherence to good engineering and construction standards and practices for identification of non-conforming work / inadequacies.
 - Verify for acceptability of inspections and tests carried out / arranged by LSTK Contractor through relevant test certificates / records.
 - Field design changes carried out at site by LSTK Contractor to ensure compliance with Project requirements.
 - Additional work or modifications, if any, are performed according to the approved

Change Order.

- Assistance for close-out of construction works and advises BCGCL on the Mechanical completion of the project.
 - Conducting project Review Meeting with LSTK Contractor.
- e) Consultant will review/monitor following activities of LSTK Contractor pertaining to Mechanical Completion:
- Mechanical Completion Procedure submitted by LSTK Contractor including checklist of forms and procedures for ascertaining systems completion, inspection and testing to achieve Mechanical completion.
 - To monitor that each part of the Project has been mechanically erected and that various systems inspection and testing have been carried out satisfactorily according to the approved procedures.
 - To identify uncompleted work and un-rectified deviations from Project requirement so that such work could be performed (unless waived by BCGCL) before Mechanical Completion is achieved.
 - Preparation of Checklists and their liquidation at various stages like erection, mechanical completion and commissioning.
 - Based on the above, Consultant will issue necessary certificate of Mechanical Completion.

2.1.6 Pre- Commissioning, Commissioning and Start-Up Phase

To provide technical assistance to BCGCL and coordinate with LSTK Contractor and licensors for safe pre-commissioning & commissioning of the plant and arranging As-built drawings to be prepared by LSTK Contractor.

The objective of Consultant Services for this phase shall be to assure that the Commissioning and Performance Tests are successfully completed by LSTK -1 Contractor in accordance with approved schedules and procedures.

Consultant's role will generally include following:

- a) Review of procedures, plans and schedules of LSTK Contractor for start-up, pre-commissioning, commissioning & performance test
- b) To Monitor LSTK Contractor's pre-commissioning work
- c) Review adequacy of manpower and other resources deployed by LSTK Contractor.
- d) Monitor and supervise various commissioning and start-up activities of the Project
- e) Keep BCGCL informed of the progress and status of the commissioning & start-up work.

- f) Review preparatory work carried out by LSTK Contractor for commissioning vis-à-vis the procedure & schedule of the start up, commissioning and Guarantee Test Plan as mentioned in the LSTK Contract with BCGCL.
- g) Review schedules, procedures, and Performance Tests to be undertaken by LSTK Contractor for commissioning so that procedures and proposed tests include various activities to be completed for commissioning.
- h) To monitor recording and maintenance of daily commissioning log sheets and preparation of weekly progress reports by LSTK Contractor.

Consultant will also monitor various commissioning activities to be carried out by the LSTK Contractor.

2.1.7 Performance Test Run and Defect liability

- a. The detailed Guarantee test run method will be reviewed by the consultant considering all the variables. The Guarantee Test Run will be conducted by LSTK Contractor in the presence of Licensor(s), Consultant and BCGCL. Consultant shall assist in the above test runs. The Guarantee Test Run Report prepared by LSTK Contractor shall be reviewed by Consultant and Consultant shall recommend if deemed fit the same to BCGCL for acceptance.
- b. All works by Contractors with reference to the Project will be subject to a Defect Liability period during which the Contractors would be liable to correct, repair and/or rectify any and all defects and/or imperfections in the design of the work (in so far as the Contractor shall be concerned with the design of the work or any part thereof), in the work performed and/or in the materials components or other items incorporated therein. CONSULTANT shall, upon the written request of BCGCL, undertake such supervisory and/or consultancy services as may be required to monitor the Defect Liability obligations of Contractors and/or to ensure that Contractors perform in accordance with the requirements the corrective work, repairs and/or replacements necessary to rectify defects and/or imperfections.

2.2 EPCM Services for Offsites & Utilities mentioned at Clause 5 of Section V

Detailed Scope of Work of Consultant shall inter-alia include, but not limited to facilities indicated at Clause 5 of Section V and cover the post-award activities for O&U packages in line with Clause No. 1 of Section VI and following activities as mentioned:

2.2.1 Detailed Engineering

Consultant shall perform detailed engineering for Non-Package items mentioned at **3.6.1**. This shall include **majorly** the following activities:

2.2.1.1 Process Engineering

- a) Preparation of Process Flow Diagram (PFD)
- b) Preparation and Issue of P&IDs - Approved For Construction (AFC) grade
- c) Preparation of basic specifications and data sheets.
- d) HAZOP Study of the Offsites.
- e) Finalization of Hazardous Area Classifications based on Packages.
- f) Preparation of Final plant operating manual(s) based on the Basic operating manual provided by vendors in line with existing operating philosophy to the extent possible.
- g) Preparation of list of recommended spares for commissioning and two years operation.
- h) Finalization of overall plot plan.
- i) Review of vendor drawings & documents.

2.2.1.2 Equipment Engineering

- a) Preparation of technical enquiry specifications for static equipment.
- b) Preparation of technical enquiry specifications for moving machinery.
- c) Review of vendor drawings and documents. All Detailed Design Calculation, Drawings and Fabrication Drawings for Equipment / Pumps / Compressors etc. prepared by vendors shall be checked and approved by Consultant.

2.2.1.3 Piping Engineering

- a) Preparation of technical enquiry specifications of piping items.
- b) Preparation of Support Schedule.
- c) Preparation of Bill of Quantity / MTO.
- d) Development of Plot Plan and General Arrangement drawings.
- e) 3-D Modelling
- f) Preparation of Piping Plans, Isometric drawings.
- g) Flexibility/ Stress Analysis of Steam Piping and other piping as required.
- h) Preparation of IBR piping drawings as required by IBR.
- i) Preparation of common Specifications for Insulation, Painting, Wrapping and Coatings for Piping, Equipments and Structures.

- j) Piping layout drawings including inter-connection / yard piping.
- k) Review of vendor drawings and documents.

2.2.1.4 Electrical Engineering

- a) Integration of Electrical System including motors, Motor Control Centre (MCC), battery bank, transformers, electrical substation. Local sub stations shall be provided as per project requirement. Overhead 11 kv line is not envisaged within battery limit of Offsites & Utilities.
- b) Arranging adequately rated distribution boards, power supply cables and other associated materials for the purpose of construction and fabrication activities shall be included in the scope of individual package contractors and also electrical contractor at their own cost.
- c) Preparation of cable tray / trench layout, cable layout, cable sizing, transformer sizing, switchgear sizing, cable schedule, earthing / lightning protection layout, lighting layout, substation equipment layout and other related documents & necessary Bill of material.
- d) Preparation of technical enquiry specifications for UPS wherever applicable.
- e) Review of vendor drawings and documents.

2.2.1.5 Instrumentation Engineering

- a) Preparation of technical enquiry specifications for instrumentation items.
- b) Preparation of Instrument drawings and related documents wherever applicable.
- c) Preparation of bill of materials for applicable Instrument Items.
- d) Preparation and review of general arrangements, wiring control schematics, installation of instrumentation system/ equipment/ unit wherever applicable.
- e) The control scheme and instrumentation shall be maintained similar for Offsite Facilities wherever possible. In order to maintain this, Consultant shall check and approve the following in all the cases:-
- f) Instrumentation Scheme with tag no.
- g) Interlock Diagram/ Trip Sequence.
- h) General arrangement/ location and spacing of instrument and accessories, cable trays, piping, tubing, wiring, etc.
- i) Engineering for location, spacing and orientation of instrumentation nozzles on piping &

equipment and layout of transmitters, connecting tubing, piping etc. wherever applicable.

- j) Preparation of Drawings showing Control Loop (P&I diagram), Instrument installation and indicative panel layout.
- k) Review of vendor drawings and documents.
- l) Civil and Structural Engineering
- m) Preparation of bill of quantities for all items of civil and structural works for inviting bids for relevant works.
- n) Preparation of preliminary estimates for structural & reinforcement steel and cement for advance procurement action.
- o) Preparation of specifications for civil, structural & architectural for the proposed substation buildings.
- p) Formulation of design data for foundations based on available soil report supplied by BCGCL. Design of all open civil foundations for Offsite Facilities is included in Consultant's Scope of Work except when civil works is included in Packages. In such cases, review of necessary design calculations and drawings of vendors and approval of the same for construction shall be done.
- q) Preparation of Civil Engineering Design & Drawings, Drawings for open civil foundations, design & drawings for super structure of buildings, paving, cladding, roofs and other details, drawings for acid brick areas, structural design drawings of platform, walkways, handrails, structural supports, supporting framework for large mechanical equipment such as bins, hoppers, pipe support and pipe bridges.
- r) For Plant buildings, Consultant shall prepare Architectural drawings & good for construction drawings. Structural fabrication drawings shall be prepared by Construction Contractor which shall be reviewed by Consultant.
- s) For Non-plant buildings, Consultant shall prepare Architectural conceptual drawings, structural drawings and detailed drawings.
- t) Preparation of Detailed Steel Structural design drawings for all Steel Structures, Pipe Racks etc. The Steel Structures' Contractor shall prepare the shop fabrication drawings on the basis of Consultant's design drawings. Consultant shall check and approve Steel Structures Contractor's fabrication drawings.
- u) Q The Bar Bending Schedule shall be prepared by Civil Contractor which shall be checked and approved by Consultant's Engineer deputed to Site.
- v) Review of vendor drawings and documents.
- w) To incorporate comments given by BCGCL on various technical specifications and

drawings.

2.2.2 Procurement Assistance Services

Consultant shall provide Procurement Assistance Services for procurement of equipment and appointment of Contractors for Construction & Erection Works, wherever applicable, in accordance with the Tender Procedure provided by BCGCL and as mentioned in Clause 7 of Scope of Work.

2.2.3 Inspection Services

- 2.2.3.1** Consultant shall perform Inspection of Equipments pertaining to Items of Offsite Facilities which are of Indian origin at vendor's shop / site. At all times, BCGCL's Representative shall be entitled to inspect the Equipments pertaining to Non-Package Items of Offsite Facilities, at BCGCL's cost at the point of manufacture. BCGCL / BCGCL's Representative shall cooperate with Consultant / vendor in conducting the inspection so that there are no extra expenses or delays to Consultant.
- 2.2.3.2** All test reports, results of radiography or core sample tests conducted by vendors shall be made available to BCGCL, wherever possible before dispatch of Equipments pertaining to Non-Package Items of Offsite Facilities. Consultant shall also provide / arrange to provide from vendors appropriate test certificates, copies of drawings, radiography examination reports and other documents required by Boiler Inspector, Factory Inspectorate, Electrical safety officer, Explosives Department or other Inspection Authority or Statutory Authorities as may be required in terms of regulations in force in India.
- 2.2.3.3** Within a reasonable time, BCGCL shall intimate Consultant in writing the list of Equipment pertaining to Non-Package Items of Offsite Facilities which BCGCL also intends to inspect. BCGCL may review such list appropriately, if required. Consultant shall notify BCGCL by e-mail 7 (Seven) days in advance of the date of inspection of such Equipment pertaining to Non-Package Items of Offsite Facilities in order that BCGCL may also participate in inspection and test. In the event that any inspection or test is not satisfactory, or that tests disclose defective materials or workmanship, Consultant shall advise vendor of corrective measures to be taken. In the event that BCGCL's Representative does not attend such inspection and test, the same shall be conducted in his absence and BCGCL shall accept Consultant's decision as to whether or not such test was satisfactory. BCGCL's failure to inspect any such Equipment pertaining to Non-Package Items of Offsite Facilities or to object to defects at the time of inspection or acceptance of test on certification by Consultant shall not absolve Consultant of its responsibility towards Inspection services.

2.2.4 Expediting Services

Consultant shall render Expediting Services to ensure delivery according to purchase order of Equipment pertaining to Non-Package Items of Offsite Facilities.

2.2.5 Pre-Commissioning & Commissioning Assistance and Guarantee Test Run Services

2.2.5.1 Pre-Commissioning Assistance Services

Consultant shall prepare a detailed schedule of pre-commissioning activities and assist in the supervision & direction of Pre-Commissioning Activities leading to the Mechanical Completion of Offsite Facilities of Project. Consultant's Personnel for Construction Supervision shall take care of all Pre-Commissioning activities and where specified under the requirements of a purchase order, shall after approval by BCGCL, arrange for the services of vendor's specialists to provide Pre- Commissioning Assistance for Equipment.

2.2.5.2 Commissioning Assistance, Guarantee Test Run Services and Defect Liability

Consultant shall prepare a schedule of commissioning activities and provide supervisory engineers as are required to supervise & direct the commissioning of Offsites & Utilities of project. Commissioning activities shall include the following:

- a. Consultant shall supervise and assist BCGCL in start-up and commissioning of Offsite Facilities with the help of BCGCL and Vendors/ Contractors, by deputing to site, at appropriate time, suitable commissioning engineers and staff. BCGCL shall provide the operation and maintenance staff.
- b. Consultant's Commissioning Engineer shall supervise and evaluate acceptance tests & Guarantee Test Runs of various sections / plants for Offsite Facilities which are to be carried out by Contractors.
- c. All works by Contractors with reference to the Project will be subject to a Defect Liability period during which the Contractors would be liable to correct, repair and/or rectify any and all defects and/or imperfections in the design of the work (in so far as the Contractor shall be concerned with the design of the work or any part thereof), in the work performed and/or in the materials components or other items incorporated therein. CONSULTANT shall, upon the written request of BCGCL, undertake such supervisory and/or consultancy services as may be required to monitor the Defect Liability obligations of Contractors and/or to ensure that Contractors perform in accordance with the requirements the corrective work, repairs and/or replacements necessary to rectify defects and/or imperfections.

- d. Preparation of Organization Chart for operation and maintenance of Non- Packages for submission to BCGCL.

2.2.5.3 Progress Reports

Consultant shall prepare the following documents:

- a. S-Curve of the project (Scheduled vs Actual)
- b. Detailed Schedule for Engineering and Procurement in the form of Document Control Index (DCI) & Material Control Index (MCI), and related Progress curves.
- c. Look Ahead Schedule
- d. Suggested Catch up Plan, if required.
- e. Monthly Progress Reports covering highlights of the Detailed Status, Progress Statistics, S-Curves, DCI and MCI of the Project.

3. Site Supervision Services

3.1 Consultant shall provide following Site Supervisory Services for Construction & Erection etc. by respective Package vendor as mentioned in Clause 1, 2, 3, 4 and 5 of Section V:

- a. Supervision Services for Construction and Erection by respective Package vendor for completion of Project within time schedule. Supervision Services includes instituting safety management system at Site & Overall planning of Work at Site.
- b. Inspection of Site fabrication and erection of Piping, Equipment, Structures, etc. & related works so that these conform to the specifications, approved drawings and good engineering practices.
- c. Review Package Contractor's resources and schedules.
- d. Carryout progress measurement, scrutiny, works certification of contractor's bills for payments (including final bills).
- e. Deviations, extra items, AHR items, time extension etc of the contractors are to be analysed, and forward the recommendations with reason for variation within 15 days of occurrence for approval of BCGCL.
- f. Quarterly Closure of the Contract etc as applicable as per C&P Procedure.
- g. Coordinate with Package contractors/BCGCL.
- h. Coordination of activities of different Contractors and to prepare periodic Construction and Progress Reports.

- i. Carryout QA/QC during construction. Consultant shall use its construction management procedure (CMP) and review all the QA/QC formats submitted by the execution contractors in order to maintain required quality during construction period.
- j. Prepare monthly/weekly progress status reports.
- k. Consultant will ensure the availability of all contractual management documents at sites.
- l. HSE Monitoring & reporting during the work execution

3.2 Consultant shall prepare a site manpower deployment chart, which will be finalized in consultation with BCGCL and Consultant shall deploy its manpower accordingly. Accordingly, the Consultant shall mobilize adequate manpower to carry out the construction supervision activities.

3.3 Consultant shall record measurement of Civil, Mechanical, Electrical, Instrumentation and other erection Work in measurement sheets periodically. These measurements shall be carried out jointly by the representatives of Consultant, BCGCL and Contractor(s). The measurements so recorded shall form the basis of preparation of running and final bills of Contractors. Consultant shall check and recommend the bills of Contractors for payment on submission of bills to BCGCL within 7 working days from date of receipt.

Consultant shall devise a system for incorporating change orders for Civil and Erection Work arising out of change in specification, nature of Work and/or increase in Scope of Work etc. Change of Scope of Work in Orders shall be carried out after obtaining necessary approval from BCGCL.

3.4 Third Party Inspection Agency/ies scheduling, monitoring, liaisoning & coordination. For Supply-cum-Erection Contracts, Mechanical Completion of such items shall be so defined that the same are ready in all respects to accept feed or related inputs.

3.5 The rate quoted by Consultant for Site Supervision Services shall include the cost for (a) Boarding & Lodging, (b) Food, (c) local transport facilities, (d) to & fro fare for mobilization & demobilization of Consultant's Personnel to and from site, and (e) any other charges for Consultant personnel deputed at site.

3.6 Consultant shall deploy adequate manpower for carrying out the site supervision activities of entire plant. However, Consultant has to ensure following minimum manpower at site for site supervision activities.

SI No.	Description of Manpower	Numbers
1.	Project Incharge (Exp- >18 years)	01

2	LSTK-1, 2 & LSTK-3, 4 package	
2.1	Engineer- In-charge/ Resident Construction Manager (Exp> 15 years)	02
2.2	Site Lead Engineers- Civil (Exp>12 Years)	02
2.3	Site Lead Engineers- Mechanical (Exp>12 Years)	02
2.4	Site Lead Engineers- Electrical (Exp>12 Years)	02
2.5	Site Lead Engineers- Control & Instrumentation (Exp>12 Years)	02
2.6	Site Lead Engineers- HSE (Exp>12 Years)	02
2.7	Site Lead Engineers- Quality (Exp>12 Years)	02
3	Offsite and Utilities	
3.1	Engineer- In-charge/ Resident Construction Manager (Exp> 15 years)	01
3.2	Site Lead Engineers- Civil (Exp>12 Years)	01
3.3	Site Lead Engineers- Mechanical (Exp>12 Years)	01
3.4	Site Lead Engineers- Electrical (Exp>12 Years)	01
3.5	Site Lead Engineers- Control & Instrumentation (Exp>12 Years)	01
3.6	Site Lead Engineers- HSE (Exp>12 Years)	01
3.7	Site Lead Engineers- Quality (Exp>12 Years)	01

Consultant need to provide the Organogram and deployment chart of the entire team to BCGCL incorporating the above minimum requirement of manpower.

4. **Miscellaneous Activities:**

These activities shall include but not limited to the following:

I. O&M related activities

Preparation of separate Work order for O&M services for 5 years for LSTK-1 and LSTK-2. PMC will be responsible for drafting detailed terms and conditions of O&M work for 5 years including the modalities of execution of O&M, payment terms, scope of BHEL (as O&M contractor) and BCGCL (as owner), penalties, handing over, dispute resolution, O&M zero date etc. PMC will prepare the work order by mandatorily including the terms and conditions of Offer invited by BCGCL from BHEL during bid submission of LSTK-1 and 2. PMC shall submit the draft work order to BCGCL for review and incorporate the observation made by BCGCL in the Work order. After finalization of Work order, PMC, on behalf of BCGCL shall issue the work order to BHEL for carrying out the O&M services for 5 years for LSTK-1 and 2.

II. Site Store Management

Consultant shall be responsible for receipt and storage of equipment & materials and shall check for short shipments, damage and loss of equipment / materials. Consultant shall make material receipt report for receipt of the equipment / materials and shall issue the materials to the Construction / Erection Contractors and maintain store accounts. Carryout stores management, Inventory Control including handing over to BCGCL the left over construction surplus materials etc. along with their Inspection Certificates and final drawings and documents. Consultant shall be responsible for proper maintenance and upkeep of the materials. Recovery shall be levied for loss or shortage of materials.

III. Smart Site Softwares:

PMC should provide comprehensive **Smart Site Management System** to enhance digital intervention and effective control of construction activities through real-time schedule management, document control, and workflow automation.

The aforesaid digital construction management and monitoring software should be accessible on desktop/laptop as well as on mobile devices. The users of the app should have easy access to all the standard processes, checklists, schedules, reports, provision for logging of site progress/ measurements on their mobile phone.

The accessibility of such data on App should help in analysis and data driven decision making for BCGCL. The inputs like activity progress, project risks, quality, safety issue and snags are

summarized in dashboards which are used to monitor key metrics like open/close status of issues, planned v/s actual completion of milestones, look-ahead plans, mitigation plans, etc. which can describe the project health.

The Smart Site Management System shall, at a minimum, provide the following features:

- **Document Management:** Centralized storage, version control, and easy retrieval of construction documents, drawings, and schedules. Provision of access to LSTK and O&U contractors for drawing sharing , review and approval.
- **Schedule Control:** Real-time tracking of project schedules, task dependencies, progress updates, and automated alerts for delays or milestones.
- **Workflow Automation:** Customized workflow creation, review cycles, approval processes, and notifications.
- **Access Control:** Role-based permissions ensuring secure and controlled access to documents and schedules.
- **Collaboration Tools:** Facilitates communication between site engineers, project managers, subcontractors, and other stakeholders.
- **Reporting:** Generation of progress reports, delay analysis, and audit trails for decision-making.
- **Web-based Access:** Cloud-hosted solution accessible via desktop and mobile devices with secure login.

The app shall be capable of:

- Quick onboarding supported with assigning and monitoring of roles & responsibilities.
- Paperless way of working - A sustainability & green initiative with an added benefit of avoiding multiple touch points.
- Cloud based data storage, accessible from mobiles and desktops.
- Enables collaboration across stakeholders (documentation, communication and tracking).

IV. Any activity which is not explicitly mentioned in the tender but is envisaged by Consultant for successful implementation of the project within time schedule shall be deemed as part of the tender. The consultant shall also be required to do the works not envisaged in the tender, but otherwise required as a consultant for overall completion of the project, within the quoted price

for Miscellaneous Activities (as mentioned in SOR Item No. 7).

Note: The Consultant Resident Construction Manager shall be “Engineer In-charge (EIC)” for Miscellaneous Activities as mutually defined by BCGCL & Consultant.

5. **Adherence to Tender Procedure**

The PMC shall be responsible for preparing & floating of all the Tender documents on CPP Portal/e-procurement portal which are in the Scope of PMC. The tendering will be done strictly as per BCGCL's “Contracts and Procurement (C&P) Procedure” and Notification / guidelines being issued by Ministry, Government of India, Central Vigilance Commission etc from time to time. The Consultant must also have platform for e-Reverse Auction wherever reverse auction is applicable as per C&P Procedure. The envisaged activities include:

- 5.1 Cost Engineering** — Preparation of item wise cost estimate (*) for each packages / tenders to be floated by Consultant. The Monthly Report provided by the Consultant shall provide detailed cost status of the month. Further, PMC's are to evaluate all information available and formulate SOR of tender accurately based on actual survey of sites/ work locations etc. Format for reporting cost estimates is placed at Annexure-A.

Note:

(*) Preparation of accurate estimates in time (based on past data/ CPWD rate basis/ Market rate Analysis) for procurement of items, services and works is an important activity in Cost Engineering. Owner lays strong emphasis on accuracy of cost estimates and price difference between quoted price of L-1 bidder and estimated cost beyond (+/-) 10% shall call for exhaustive analysis and explanation from Consultant. Deviation between cost estimates & recommended order value being more than (+/-) 10% not backed by justifiable reasons and beyond the control of Consultant shall be treated as deficiency of services by Consultant and an advisory will be issued to Consultant highlighting such deficiency and for taking corrective action in future cases.

Further, in case of the deviation between cost estimate provided by the Consultant at the time of bid submission and recommended order value being more than (+/-) 15 %, recovery will be made from the payment of Consultant as follows:

If x: the actual awarded value of a particular package

X: the total awarded value of all the packages in the project

Then R (Recovery for that particular package) shall be: $(x / X) * (2\% \text{ of awarded PMC contract})$

value)

- 5.2 Preparation of “BEC (Bid Evaluation Criteria)” and “Evaluation Methodology” for all tenders and submission to BCGCL for approval through a covering letter duly signed by Project Manager. Consultant shall provide the name of at least six probable bidders at the time of tendering to ensure adequate competition. The proposal shall also contain proposed EMD, type of tendering, whether work is splittable or non-splittable, other associated clauses and policies.
- 5.3 Preparation of Complete Tender document comprising ITB (Instructions to Bidder), Scope of Work (SOW), Schedule of Rates (SOR), Special Conditions of Contract (SCC), Technical Specification, Drawings, any other technical document and General Conditions of Contract (GCC) and technical document in line with C&P procedure provided by BCGCL.
- 5.4 Preparing & floating of tender on CPP portal and publication of tender on Consultant's website & other Govt. websites and in case of Tendering on International Competitive basis, sending letters to the respective embassies of foreign countries and also in Indian Trade Journal.
- 5.5 Further, for all tenders where approved Vendor List of Consultant is available, immediately after publication of Tender on websites, Consultant shall send letter of intimation to all prospective bidders available at their end regarding publication & participation in such Tender.
- 5.6 Consultant shall make efforts for getting maximum number of offers (at least three accepted offers) for all packages / tenders to ensure adequate competition. However, for exceptional cases where this is not possible Consultant will provide appropriate reasoning / justification for not ensuring the same in writing.
- 5.7 Consultant shall hold Pre — tender and Pre — bid meeting(s) for various packages of BCGCL project as per BCGCL's requirement. Consultant shall prepare record note of discussions held during the pre-bid and pre-tender meetings and the same shall be signed by Consultant & BCGCL.
- 5.8 To issue Corrigendum/addendum/clarifications/reply to pre-bid queries and submit recommendations with reasons for issuance of Corrigendum / addendum / clarifications to BCGCL through a covering letter duly signed by Project Manager.
- 5.9 Consultant shall keep safe custody of EMD/Bid security for all tenders, wherever applicable. In case EMD is submitted in form of DD or cheque, the same is to be immediately forwarded to BCGCL and Bank Guarantee (BG) submitted towards EMD shall

be managed by Consultant. Further, BG to be promptly returned to unsuccessful bidders on advice of BCGCL and BG of successful bidder to be handed over to BCGCL immediately after issuance of Fax of Acceptance (FOA) / Detailed Letter of Acceptance (DLOA).

- 5.10 Preparation & submission of detailed estimates for all tenders in a sealed envelope on or before the date of part 1 bid opening.
- 5.11 Prepare & send replies to representations/complaints received, if any, during the tendering process.
- 5.12 Co-ordinate meetings for price negotiations as per BCGCL's advice and requirement as applicable.
- 5.13 Review of estimate & certification of reasonability of rate of L-1 bidder (if applicable).
Provide reasonability of rates of L-1 bidder
- 5.14 Preparation of draft FOA (Fax of Acceptance) / DLOA (Detailed Letter of Acceptance, / Purchase orders immediately after approval of award proposal along with Annexures.
- 5.15 Recommendation for (a) Bid Evaluation Criteria & Evaluation Methodology, (b) Price Bid Opening of Shortlisted Bidder and (c) Award of Contract to L-1 Bidder including price negotiation shall be prepared by Consultant after being duly reviewed and approved at requisite level at Consultant's end. Further, such recommendation shall be forwarded to BCGCL through covering letter. In other words, Consultant to follow prepare, review and approve procedure before submission of any document to BCGCL. Consultant shall follow Checklist as per Annexure-B while forwarding recommendations.
- 5.16 Consultant's Resident Construction Manager shall be "Engineer-In charge" for the said Project.

5.17 Consultant shall ensure following time line in the tendering & ordering process

Post-Award Activities

1	Approval of drawings/Documents of vendors for manufacturing of equipment/Materials etc.	Within 14 days from the date of receipt from Vendors to Consultant / BCGCL
2	Commencement of inspection of Equipment/ for inland and within 15 Days for overseas	Within 7 days from Inspection call Materials
3	Reply of query from Contractor / Vendor	Within Seven Days from the date of receipt from Contractor / Vendor

It may be noted that non —adherence to the above timelines without any justifiable reason shall be

considered as deficiency of services by PMC and same shall be dealt accordingly.

- 5.18 In case of re-tendering of any package, same shall be carried out by Consultant at no extra cost while maintaining the project Schedule.

6. Assistance for Statutory Approvals

All Statutory Approvals applicable for the various LSTK Packages and other Packages shall be obtained by the respective LSTK Contractor(s) / respective Package vendors. BCGCL shall obtain necessary approvals in connection with Non- Packages and overall Project from respective Government authorities, Financing Institutions, IBR, Explosives Inspectorate, Factory Inspectorate, Electrical Safety Officer, etc. Consultant shall provide necessary technical assistance from its Home Office by way of furnishing technical information (within the scope of Consultant) to BCGCL for submission to Statutory Authorities. All applicable fee/charges to be paid for obtaining Approvals from Govt. / Statutory Authorities shall be borne by BCGCL.

Note:

In addition to the above, Consultant shall have complete responsibility and shall facilitate the handing over of all plants & facilities covered under LSTK / Packages / EPCM as defined above to BCGCL.

ANNEXURE-A

COST ESTIMATE

NAME OF PROJECT

NAME OF PACKAGE

ESTIMATE DATE & VALIDITY TYPE
OF COST ESTIMATE

: DFR / EMD / PBO

JOB COMPLETION / DELIVERY
SCHEDULE TYPE OF DELIVERY

: FOT / FOB

DELIVERY AT SITE CURRENCY
EXCHANGE RATE

Destination / Port of Shipment / Works

REFERENCE & DATE OF
EXCHANGE RATE

1) Direct Cost:

Est. Unit Rate Amount

S.NO. ITEM/ COMPONENT Est.

Qty

(with brief specification)

Total=

2) Indirect Costs (as applicable):

(i) Freight

a. Shipment

b. inland

(ii) INSURANCE

(iii) TAXES (specify tax wise & its percentage)

(iv) DUTIES (specify duty wise & its percentage)



- (v) PACKAGING & FORWARDING
- (vi) HANDLING CHARGES
- (vii) OTHER ANTICIPATED COSTS
- TOTAL

- 3) Total Landed Cost (1 + 2)
- 4) List of Assumptions in the above cost
- 5) Basis of estimation
- 6) Justification/ Reasons for variation (if any)

Landed Cost			Percentage variation	Reasons for variation	Estimate
a)	DFR	EMD			
b)	EMD	BID			
c)	BID	Actual			
Cost					PMC's
Costing Department					

Prepared
by
Manager

Reviewed
by

Approved and issued by PMC Project

ANNEXURE-B**PBO RECOMMENDATION - CHEKCLIST**

1) Brief details of Tender

- a) Tender document number and revision number
- b) Scope of Supply / Services / Work
- c) Mode of tendering
 - i) In case of open tender enquiries, has the copy of Tender been sent to all the probable bidders
 - ii) In case of limited tender enquiries, list of vendors approved.

2) Issue of Tender

- a) Date of issue of tender
- b) List of Corrigendum / Addendum issued
 - i) Date of issue of corrigendum / addendum
 - ii) Reason of issue of corrigendum / addendum
 - o Does the issuance of corrigendum / corrigendum call for change in specification.
 - o If the issues of corrigendum call for change in specification, specify the financial implication towards the change in specification.
 - iii) Does the issue of corrigendum have prior approval of BCGCL?
- c) Have any queries / clarifications been obtained from bidders (TQ /CQ)
 - i) Attach all the communication between PMC and bidder,
 - (1) Bidder wise — issue wise
- d) Has the tender been hosted on the Web?

3) Bid due date — Techno-commercial Bid opening

- i) As per original tender (not extended bid due date)
- ii) Actual
- iii) Reasons for bid due date extensions if any

4) Bidders' response — also mention number of foreign and number of Indian bidders for each of the following:

- a) List of bidders from whom bids were invited (in case of limited tendering)

- b) List of bidders who submitted their bid.
 - c) List of bidders who regretted to submit their bid, specifying reasons.
 - d) List of bidders who did not respond, specifying reasons.
 - e) Number of foreign bidders.
 - f) Number of Indian bidders
 - g) If case of no Indian bidder, mention reasons.
 - h) Late bids if any
 - i) Late EMD if any
- 5) Is there any change in quantities as mentioned in SOR
- a) Certificate that the quantities are final as on date
 - b) If there is any change in the quantities, give details.
 - c) If there is any change in the quantities, give the percentage variation from the SOR quantities and mention under what provisions the variations in quantities will be dealt with.
 - d) Revised cost estimate, if required.
 - e) Prior approval for change in quantities.
- 6) Deviations
- a) Technical
 - b) Commercial
 - c) Approval from BCGCL for accepting any of the deviations
- 7) Bid evaluation (comparative Statement)
- a) Technical
 - b) Commercial
- 8) Bid validity of acceptable bids
- 9) EMD validity of acceptable bids
- a) Copies of EMD of all bidders
- 10) Recommendations with specific / discrete / explicit reasons for rejection some bid(s)
- 11) Final Recommendation
- 12) Has the cost estimate been prepared? State the basis of estimation.
- 13) Enclose Original / Soft Copy of techno-commercial bid of all bidders

AWARD RECOMMENDATION - CHECKLIST

1) Brief details of Tender

- a) Tender document number and revision number
- b) Scope of Supply / Services / Work
- c) Mode of Tendering

2) Price Bid Opening (PBO)

- i) PBO approval on which date.
- ii) Date on which price bids were opened
- iii) Reasons for delay is more than 3 days
- iv) Price bid opening statement.

3) Bidders' response

- a) List of bidders whose PBO was recommended by PMC
- b) List of bidders whose PBO has been approved by BCGCL
- c) List of bidders whose price bids were opened.
- d) If a) and b) are not equal specify reason.

4) Is there any change in quantities as mentioned in SOR

- a) Certificate that the quantities are final as on date
- b) If there is any change in the quantities, give details.
- c) If there is any change in the quantities, give the percentage variation from the SOR quantities and mention under what provisions the variations in quantities will be dealt with.

5) Itemized LANDED price comparative statement with percentage variations from the estimate

- a) Cost Estimate as per format. (cost estimate for PBO)
- b) In case variation in the Final Estimate Cost and Recommended cost is more than 10%, the analysis for the variation should be furnished.

6) If there is any AHR item, it should be indicated clearly with recommendations

7) In case of OEM / Proprietary item, has the latest standard rate list of the vendor been checked and indicated?

8) In case quoted rates are lower by 20% from the estimate, have the reasons been specified?

- 9) Bid validity of all bids recommended for price bid opening.
- 10) EMD validity of all bids recommended for price bid opening.
 - a) Original of EMD
- 11) Final Recommendation.
 - a) Award price as compared to the estimate
 - b) Negotiations required if any.

Apart from the above checklists, PMC is required to submit the following checklists (or as advised by BCGCL time to time) mentioned against each activity:

A. CHECK LIST FOR RECOMMENDATION/ PROPOSAL FOR BEC

Sl. NO.	Description
1	Item wise estimates including GST and other charges etc.
2	Minutes/ points discussed in Pre-Tender Meeting enclosed and action proposed on relevant points/ taken in SCC, SOW or BEC
3	Availability of materials in surplus, if any (applicable for procurement of goods only)
4	Consistency in BEC in case of regular/ repeated cases. In case of shift, reasons for the same.
5	To verify that name of prospective bidders are not appearing in Holiday/ Banning list of Consultant Website.
6	Incorporation of lesson learnt in previous tenders, if any
7	Evaluation Methodology
8	Whether item/job is Splittable or not for applying the provisions of PPP for MSE-2012 accordingly.
9	Whether PP-LC Policy is applicable
10	Relevant clauses of DoP and C&P Procedures
11	Whether item is Domestically Manufactured Electronic Product list. Whether relevant details regarding preference for the relevant product have been filled in ITB.
12	Cost-DFR Vs. Estimate and reason for difference, if any

B. CHECK LIST FOR PRE- BID MEETING

Sl. NO.	Description
1	Bidders to be sensitized on the major aspects of tender including the BEC, its documentation & authentication
2	Bidder to be informed about BCGCL's "Procedure for Evaluation of Performance of Vendors/ Suppliers/Contractors/ Consultants" and „Procedure for action in case Corrupt/Fraudulent/Collusive/Coercive Practices" and consequence of

	same for non-compliance.
3	Any specific requirements of Tender.

C. CHECK LIST FOR ISSUANCE OF CORRIGENDUM/ EXTENSION OF BID DUE DATE

Sl. NO.	Description
1	Technical Corrigendum, if any
2	Commercial Corrigendum, if any
3	Impact on time schedule of project etc
4	Relevant Clauses of C&P Procedure (as applicable)
5	Details of request letters for bid due date extension (if any)

D. CHECK LIST FOR RECOMMENDATION/ PROPOSAL FOR PBO

Sl. NO.	Description
1	Specific reasons for disqualification, if any
2	TBA is signed by competent level of executive in indenting department (for cases where PMC is not involved). Names and designations of officials should be clearly specified in TBA. TBA checked and vetted by Indentor/ Project Manager (for cases where PMC is involved) TBA should cover all point related to BEC, compliance to specifications/scope criteria and all other important technical provisions of tender.
3	CBA is signed by competent level of executive in C&P and F&A department (for cases where PMC is not involved). Names and designations of officials should be clearly specified in CBA. CBA checked and vetted by C&P and F&A department (for cases where PMC is involved). CBA should cover all point related to BEC (wherever applicable), rejection criteria and all other important commercial provisions of tender. Confirmation regarding the name of bidders is not appearing in Holiday/Banning list, on Consultant's Website also to be mentioned in CBA.
4	To verify that name of techno-commercially acceptable bidders are not appearing in Holiday/ Banning list of Consultant's Website.
5	Details of request letters for bid due date extension (if any)

6	Relevant clauses of C&P Procedures (as applicable)
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E. CHECK LIST FOR RECOMMENDATION/ PROPOSAL FOR AWARD

Sl. NO.	Description
1	Reasonability of prices
2	Any suspicion regarding cartelization
3	Recommendation on re-tendering (if applicable)
4	Impact on project cost (Not applicable for O&M)
5	Impact of delivery period on O&M Activity / Project Schedule
6	Analysis of L1 price if it is higher than estimates
7	Ordering Cycle time
8	Past price comparison for purchases
9	Clear recommendation for approval is to be submitted, no conditional recommendation.
10	Total committed cost in project with the award of subject package (Not applicable for O&M)
11	Verifying that name of recommended bidder(s) are not appearing in Holiday/ Banning list.
12	Dealing of purchase preference to MSEs, PP-LC, DMEPs etc. (wherever applicable)
13	Dealing of insufficient competition in terms of clause no. 4.16 of C&P Procedure (wherever applicable)
14	Relevant Clauses of C&P Procedure (as applicable)

SECTION-VII

EVALUATION CRITERIA

Tenders in Two Bid 'Quality cum Cost Based Selection' System (a) Technical bid with Commercial Terms and (b) Price Bid, are invited from reputed, established and financially sound parties for the above work.

1. PRE QUALIFICATION CRITERIA (PQC):

Evaluation of the bidders shall be done in the following two stages:

a) STAGE I:

After opening of the technical bids, the bidders shall be scrutinized with respect to submission of EMD and shall be evaluated as per Stage I pre-qualifying criteria as specified below, based on the documents submitted.

b) STAGE II :

Only Bidders shortlisted as per the defined stage I pre-qualifying criteria shall be evaluated for detailed technical parameters as part of Stage II Evaluation.

Bidders must meet minimum pre-qualifying parameters for this tender as under:-

1.1 Definition of Similar Works:

Similar works for the purpose of qualification under both Stage I and Stage II qualifying criteria shall be considered as experience in successful completion of Consultancy services involving Design & detailed Engineering or EPCM or PMC in/at Hydrocarbon (Oil/Gas) installations or Refineries or Petrochemical Plants or Fertilizer Industries, Chemical Industries or Power Plants" during the last 15years ending last day of previous month of NIT.

Legend:

EPCM – Engineering Procurement construction Management

PMC – Project Management Consultancy (Should include Design Approval)

- a. **BOO/ BOOT Contracts even having Design & Engineering Components shall not be considered.**

Legend:

BOO – Built Own & Operate

BOOT – Built Own Operate and Transfer.

- b. **Bids to be submitted by the Indian Bidder as per the meeting the following criteria**
- i. Sole Bidder: Individual (Proprietary) /Partnership/ Company incorporated under Companies Act 2013.
 - ii. An incorporated Joint Venture Company.

- iii. Either the Parent Company/ Holding company or any one of its Subsidiaries or the JV company only can participate in the tender.
- iv. Indian Wholly owned subsidiary of a Foreign company or Indian company on the strength of its Group Company. However credentials of group company(s) currently on holiday list by promoters companies of BCGCL or BCGCL or its administrative Ministry shall not be accepted.
- c. Experience towards similar works for the projects carried out outside India are also acceptable.
- d. Consortium bidding- Not applicable.

Evaluation of the bidders shall be done in the following two stages:

- a) After opening of the technical bids, the bids shall be scrutinized with respect to submission of EMD and shall be evaluated as per Stage I pre-qualifying criteria as specified below, based on the documents submitted.
- b) Only Bidders shortlisted as per the defined Stage I pre-qualifying criteria shall be evaluated further for detailed technical parameters under Stage II Evaluation:

1.2 Stage I Qualification Criteria :

SN	QUALIFYING PARAMETERS:
1	<p>Bidders should have successfully completed:</p> <ul style="list-style-type: none"> (a) One similar works (as defined above) costing not less than the amount equal to Rs. 217 Cr(Inclusive of Taxes) OR (b) Two similar works (as defined above) costing not less than the amount equal to Rs. 135 Cr (Inclusive of Taxes) OR (c) Three similar works (as defined above) costing not less than the amount equal to Rs. 108 Cr (Inclusive of Taxes) <p>Notes:</p> <p>Document submission against Stage I criteria on similar work:</p> <ul style="list-style-type: none"> i. In case of Work Order from Indian Government Bodies/ Indian PSUs: Copies of Contract Document along with either <ul style="list-style-type: none"> a. Completion certificates OR b. Duly certified copies of Bill/ Tax Invoice ii. In case of Work Order from Private Parties [other than specified in (i) above]: Certificates from CA certifying value of work done either with bank statement or TDS Certificate (where applicable) shall be required in addition to that specified in (i) above.

- iii. In cases of Work Orders falling under Non-disclosure agreement, Declaration as per format attached at the level of Director/ CEO/ Country Head of such company OR client certificate/ mail on broad scope of services, successful completion & value shall also be acceptable.
 - iv. In case credentials of Group Company etc are being relied upon where the Group Company is based outside India, declaration from Director/ CEO/ Country Head of such company on the value of works executed shall be additionally required.
 - v. For the same project finalized against one tender, if separate orders for design and engineering or variation orders or amendment orders are issued in continuation of the original purchase/work order, then the total value of works completed against the design, engineering & PMC service components of the original work orders, subsequent variation/ amendment orders put together shall be accepted as one single work completed.
 - vi. Work carried out at multiple locations through a single Purchase order or multiple purchase orders finalized against one tender shall be considered as one similar work for the purpose of qualification.
 - vii. Ongoing contracts (i.e. not successfully completed) shall not be considered irrespective of the value of works completed up to the period mentioned in the tender.
 - viii. In case of projects executed outside India, proof of remittance to India shall also be submitted. For the work order in foreign currencies, the amount of consultancy & cost of project shall be converted to INR by the bidder based on SBI TT Selling rate as last day of previous month of NIT.
- The value of completed job as submitted by the bidders shall be compared with values as prescribed above and only completed orders will be considered. There shall be no deductions against taxes.
- ix. Cost of previous completed work(s) shall be given a simple weightage of 7% per year to bring them at current price level, while evaluating the qualification requirement of the bidder. Such weightage shall be considered after end date of completion. The year can be considered as suitable consecutive 365 days till the last day of month previous to one in which bid has been invited. Adjustment will be considered for full or part of the year (total no. of days / 365) i.e. considering 365 days in a year, till the last day of month previous to one in which bid has been invited.
 - x. AUTHENTICATION OF ALL DOCUMENTS SUBMITTED AGAINST PQC:
All documents in support of similar work furnished by the BIDDERS shall be verified and certified by any one of the following independent third party inspection agency:
 - a) Société Générale de Surveillance(SGS)
 - b) Gulf Lloyds Industrial Services (India) Pvt. Ltd.(GLISPL)

	<p>c) International Certification Services(ICS) d) Bureau Veritas (Ind.) Pvt. Ltd(BVIS) e) DNVGL f) UV Rheinland (India) Pvt. Ltd. g) TUV SUD South Asia Pvt. Ltd. h) TUV India Pvt. Ltd. (TUV Nord Goup) i) Intertek India Pvt. Ltd. j) Moody International (India) Pvt. Ltd. k) RINA India Pvt. Ltd. l) Competent Inspectorate and Consultants LLP m) ABS Industrial Verification (India) Pvt. Ltd. n) IR Class Systems and Solutions Private Limited</p> <p>All charges of the Third party for verification and certification shall be borne by the Bidder. TPIA will provide in addition a certificate towards verification and certification of documents pertaining to as per proforma attached as Annexure-1.15. If any above mentioned agency themselves are participating in bidding, then they shall authenticate the document by a different agency from the list given above.</p>
2.	<p>TURNOVER: Annual Turnover during any of the last three preceding financial year, ending 31st Mar' 2025/ 31st Dec 2024 should be at least Rs. 81 Cr. Published Annual report of the bidder shall also be acceptable. (The balance sheet copy MUST bear the Registration Number of the authorized Chartered Accountant and its SEAL. This is not applicable for published annual reports).</p>
	<p>Definition for Subsidiary/JV/Group Company</p> <p>a) Definitions :</p> <p>(i) Subsidiary : “subsidiary company” or “subsidiary”, in relation to any other company (that is to say the holding company), means a company in which the holding company controls the composition of the Board of Directors; or exercises or controls more than one-half of the total voting power either at its own or together with one or more of its subsidiary companies.</p> <ul style="list-style-type: none"> ✓ a company shall be deemed to be a subsidiary company of the holding company even if the control, referred to above, is of another subsidiary company of the holding company ✓ The composition of a company's Board of Directors shall be deemed to be controlled by another company if that other company by exercise of some power exercisable by it at its discretion can appoint or remove all or a majority of the directors. ✓ The word company means a company incorporated under the

	<p>Companies Act 2013 or under any previous company law and includes a company incorporated outside India</p> <p>(ii) Joint Venture : "Joint Venture", in relation to another company, means a company in which that other company has a significant influence, but which is not a subsidiary company of the company having such influence.</p> <p>For the purpose of this clause, the expression "significant influence" means control of at least twenty per cent of total voting power. However MOU and consortium arrangements shall not be considered i.e. the JV company should be a separate legal entity</p> <p>(iii) Group Company : A group company in relation to any other company (i.e. the bidder company) means a company having common holding company as the bidder i.e. both the bidder and the said group companies are subsidiary company of the same holding company.</p> <p>Group companies can either be Parent/ Holding company, Direct subsidiary or In-direct subsidiaries or incorporated Joint Ventures (JVs).</p> <p>For the purposes of this tender, in case of partnership firms, the term Group company would extend to registered partnership firms having common partners as the bidder subject to partnership stake of over 50 % among the common partners.</p> <p>(iv) Documents as required to establish Group Company (parent / subsidiary / JV) relationship shall be submitted with bid.</p>
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Other Commercial Qualification Criteria: Following documents are required to be submitted

- PAN no.
- PF Registration No.
- GST registration certificate
- Partnership deed or certificate of incorporation with memorandum and article of association.
- Power of Attorney / Board resolution (as applicable) in favour of tender signing authority.
- Integrity Agreement with cover note.
- Standard declarations:

☐ Undertaking by Bidder in lieu of tender documents ☐

Declaration for blacklisting/holiday listing.

Bidders to enclose copy of applicable certificates/declarations/ agreement etc. (as applicable) in lieu of above.

All the above credentials under Clause 13.3 shall be in the name of the bidder.

1.3 Stage II Evaluation Criteria:

- Only Bidders shortlisted as per the defined pre-qualifying criteria under Stage I shall be evaluated for detailed Techno-Commercial parameters.
- Bidders scoring 60 marks and above out of 100 marks under Stage II evaluation criteria shall be shortlisted for price bid opening.
- Stage II Evaluation of Techno-Commercial Bid shall be based on parameters mentioned below:

SN	Criteria	Max Marks	Scale of Marking
A	Past Experience of the firm	30	
(i)	Number of each work orders submitted towards similar work requirement should be value \geq INR 108 Cr completed in the last 15 years ending last day of previous month of NIT. Scoring against submitted work orders shall be as defined in the table	15	<p>Work Order/s submitted or fulfilment of similar work criteria.</p> <p>Additional work order of minimum value of INR 108 Cr, excluding work order considered for stage-1</p> <p>1 Work order : 8 Marks</p> <p>2 Work Order : 10 Marks</p> <p>3 Work Order : 12Marks</p> <p>More than 3 WO : 15 Marks</p>
(ii)	Cumulative value of projects considered (as per definition of similar works) completed of value \geq INR 81 Cr completed in the last 15 years ending 31/ 05/ 2025	15	<p>Rs 130 Crs – 1 Mark</p> <p>Rs 270 Crs – 6 Marks</p> <p>Rs 540 Crs – 11 marks</p> <p>Rs 810 Crs & More – 15 Marks</p>
	<p>Note:</p> <ol style="list-style-type: none"> For marking on A(i), the document submission shall be same as that for similar works under Stage I. For A(ii), proration of actual value (intermediate scoring) shall be done; For example, in case Cumulative value of completed works > Rs 130 Crs is Rs 200 Crores, score shall be $[1 + (200-130)/(270-130) \times (6-1)] = 3.5$. For Cumulative value of Rs 400 Crs, score shall be $[6 + (400 -270)/(540-270) \times (11-6)] = 8.4$. Similar rationale shall be applied for each slab. Values mentioned under A(i) and A(ii) are inclusive of taxes. 		
B	Financial Creditability	Max Marks=25	Scale of Marking

i	Financial turnover in any of the last three preceding financial years ending March 2025. (Highest turnover of last three years as submitted shall be considered)	20	Rs 50 Crs – 1 Marks Rs 150 Crs – 3 Marks Rs 250 Crs – 5 Marks Rs 350 Crs – 10 Marks Rs 450 Crs – 15 Marks Rs 550 Crs – 20 Marks
ii	Profitability: Average Annual Net Profit (PAT) during last three years	5	I. If P.A.T >50 Cr: 5 marks II. If P.A.T ≤50 and >30 Cr: 4 Marks III. If P.A.T ≤30 Cr and >20Cr : 3 Marks IV. If P.A.T ≤20 Cr and > 10 Cr : 2 Marks V. If P.A.T ≤10 Cr and > 1 Cr : 1 Marks VI. If P.A.T ≤ 0 Cr: 0 Marks
<p>Note:</p> <p>Marking against Turnover for B (i) & (ii) shall be based on Audited Financial Statement or Published accounts. Additionally a certificate from external auditor on above calculations corroborating figures from Audited Financial Statement or Published accounts/ Annual report shall also be provided. Proration shall be done for B(i) by adopting identical procedure enunciated for the item A(ii).</p> <p>2. For B(ii), in case Balance Sheet / Profit & Loss Account statement for only 1 or 2 years is submitted, Nil marks shall be considered for years for which required details are not submitted.</p>			
C	Home Office / Local Office in India	Max Marks=10	Scale of Marking
i	Human resources strength of personnel on rolls of the Company office in India.	10	Up to 200= 1 marks 201 to ≤300 = 2 marks 301to ≤ 500 = 4 marks 501 to ≤ 1000 = 8 marks > 1000 = 10 marks

	<p>Note:</p> <p>1. Marking on C(i) shall be based on Certification from HR head / CEO/ Country Head/ Director on strength of personnel as on last day of previous month of NIT duly vetted by an external auditor shall be submitted. In case of PSUs (Central & State), a certificate from an officer in rank of GM or above shall suffice. For above purpose, no. of employees on the payroll of the bidder or it's group company based in India shall be considered.</p>		
D	Staffing for the Contract: Confirmation to Post the Following Key Personnel during project duration	Max Marks=20	Scale of Marking
(i)	Project Manager with past experience of more than 12 years (at least PM for 2 projects)	4	12-15 years – 2 Marks 15-20 years – 3 Marks > 20 years – 4 Marks
ii)	Engineering Manager with past experience of more than 12 years	4	12-15 years – 2 Marks 15-20 years – 3 Marks > 20 years – 4 Marks
iii)	Procurement Manager with past experience of more than 12 years	4	12-15 years – 2 Marks 15-20 years – 3 Marks > 20 years – 4 Marks
(vi)	Resident Construction Manager (RCM) – In charge with past experience of more than 10 years (at least RCM for 2 projects)	3	10-12 years – 1 Marks 12-15 years – 2 Marks > 15 years – 3 Marks
V	Site Engineers of all lead disciplines (Civil/ Mechanical/ Electrical/ Instrumentation / HSE) with past experience of more than 5 years	5	> 5 years – 0.5 Marks > 8 years – 1 Marks (For each discipline)
	<p>Note:</p> <p>1. Manpower mentioned under D (i), (ii) (iii), (iv) and (v) are required to be on the rolls of the bidder's Organization. Experience in years shall be the cumulative working period experience.</p> <p>2. Bidder shall submit the CVs of all the Team Members proposed to be deployed exclusive for this project duly certified by HR head / CEO/ Country Head/ Director along with the bid. Bidders may also submit a pool of CVs for each position. Marking shall be done</p>		

based on minimum experience among the pool (subject to meeting minimum experience criteria).

3. For D(i), bidder to submit CVs of minimum 2 nos. of project managers, for D(ii) bidder to submit CVs of minimum 2 nos. of Engineering Manager, for D(iii) bidder to submit CVs of minimum 2 Nos. of procurement manager, for D(iv), bidders to submit minimum CVs of 4 Nos. of RCM and for D(v) CVs of minimum 4 nos. of site engineers per discipline to be submitted, i.e CV of 20 members.
4. Bidders to enclose experience certificates of the Key personnel to be proposed to meet requirements.
5. The experience criteria is based on personnel having Graduate Engineering degree. In case of personnel holding diploma qualification, marks shall be allocated considering additional experience requirement by 2 years. For e.g Diploma holder in Mech Engg under Lead Discipline Engineer head will get 0.5 marks for 7-10 years' experience and 1 marks for >10 years experience.

In case of dual degree of Diploma and Engineering and experience post engineering degree not meeting requirements under Engineering head, total experience shall be considered under diploma head.

6. **The Team proposed to be deployed (at SI no. "D") shall remain unchanged during the contract period. Under unavoidable circumstances, the change will be permitted with prior written consent of BCGCL. The new member(s) proposed to be deployed shall also meet the minimum experience as defined in the tender and as offered by the bidder. In case bidder opts to offer RCM with experience of > 15 years to get full marks during evaluation, the alternative offered will also require experience of greater than 15 years.**

Additional Note:

In case of PSUs (Central & State) bidders, a certificate from an officer in rank of GM or above shall suffice requirement of Certification for A(i) & (ii) (against NDA Orders), C(i), D(i),(ii), (iii),(iv) and (v).

E	Quality Certifications	Max Marks=5	Scale of Marking
(i)	Quality Certifications	5	ISO ≤10 years – 1 Marks ISO > 10 years – 2 Marks OHSAS 18001 -1 marks PMI- PMP certificate If PMP >10 -1 marks Else 0 Marks

	Note: Bidder to furnish the certificate along with validity. The expired validity certificate will not be considered. Bidder to provide a undertaking duly signed by their HR head / CEO/ Country Head/ Director along with the bid regarding correctness of certificates.		
F	Availability of Licensed Software	10	<p>1.Engineering Softwares -</p> <p>i) Licenses (L) of E3D/PDMS a) If $L \geq 60$: 2 Marks b) If $L \geq 30$ or < 60: 1Mark c) If $L < 30$; 0 Mark</p> <p>ii) Licenses of E-TAP a) If $L \geq 5$: 1 Mark b) If $L < 5$: 0 Mark</p> <p>iii). Licenses of Prodok a) If $L \geq 5$: 1 Mark b) If $L < 5$: 0 Mark</p> <p>iv). Licenses of Caesar II a) If $L \geq 1$: 1 Mark b) If $L < 1$: 0 Mark</p> <p>v). Licenses of Tekla a) If $L \geq 3$: 1 Mark b) If $L < 3$: 0 Mark</p> <p>vi). Licenses of Staad Pro a) If $L \geq 6$: 1 Mark b) If $L < 6$: 0 Mark</p> <p>2. Project Management Software: i) Primavera P6 a) If $L \geq 6$: 1 Marks Else 0 Marks</p> <p>3.Electronic Document Management System for project execution – 2 Marks</p> <p>(Total Marks shall be summation of marks obtained in each field)</p>
Note: Bidder to furnish documentary evidence of License quantity and their validity duly certified by HR head / CEO/ Country Head/ Director along with the bid. The expired validity certificate will not be considered. Electronic document Management system shall have the provision for receiving engineering drawings and other document from LSTK and O&U contractors electronically for further review and vetting.			

	TOTAL MARKS	100	
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Combined Techno-Commercial and Price Bid Evaluation:

- A combined score will be arrived at after considering weightages - 30% for price bid and 70% for techno-commercial scores.
- Bidders scoring 60 marks and above out of 100 marks under stage-II evaluation criteria shall be shortlisted for price bid opening. No counter conditions should be included in price bid. Conditional price bid shall be summarily rejected.
- Combined technical and price bid evaluation will be done for all the bidders for whom price bids have been opened as per **Combined Quality Cum Cost Based System (CQCCBS) Methodology** as detailed below:

A combined "Score (S)" will be arrived at after considering weightages 30% for price bid and 70 % for techno-commercial scores, according to the following formula:

Combined score of Bidder A,

$$S_A = 70\% \times T_A / T_{\text{high}} + 30\% \times L_{\text{low}}/L_A$$

Where S_A = Combined score of Bidder A

T_A = Techno-commercial score of Bidder A

T_{high} = Highest Techno-commercial score

L_A = Evaluated Bid Price of Bidder A

L_{low} = Lowest of all evaluated Prices among responsive bids

$$S = 70 \% \times \text{Tech score of A} + 30 \% \times (\text{Lowest Price Bid} / \text{Price Bid of A}) \times 100$$

SN	BIDDER	TECH. SCORE	RELATIVE TEC BID SCORE	PRICE BID (IN LACS)	RELATIVE PRICE BID SCORE	COMBINED TECHNO-COMMERCIAL & PRICE BID SCORE			BIDDER RANK
		(i)	(ii)	(iii)	(iv)	(v)	(vi)	(vii) = (v) + (vi)	
		(T)	(T/T _{High} X 100)	(C)	(Lowest/C x 100)	70% x (ii)	30% x (iv)		
1	A	88	100	600	75	70	22.5	92.5	H-1
2	B	80	90.91	500	90	63.64	27	90.64	H-2
3	C	76	86.36	450	100	60.45	30	90.45	H-3
4	D	52	NA	NA	NA	NA	NA	NA	-

On the basis of the above combined weighted score, the bidder shall be ranked in terms of the total combined score obtained. The bidder with the highest combined score shall be

given precedence.

The bid evaluation process has been illustrated below:

- d) In the above example, Bidder 'D' does not qualify Techno-Commercial evaluation as the bidder does not meet the minimum qualifying marks of 60. Bidders B & C were not the highest combined scorer (i.e. Techno-Commercial Score + Price Bid Score), thus not given precedence. Bidder A is highest combined scorer, thus H-1 bidder and would be given precedence for further negotiation (if required) and award.
- e) The bidder with the highest combined score will be declared successful and shall be given precedence for award of the contract.
- f) In case, combined Techno-Commercial & Price Bid score of two (2) or more bidders are exactly same, then the bidder with lowest price would be given precedence.
- g) In case of identical Techno-Commercial & Price Bid scores, then all such bidders shall be required to submit discount bid in terms of percentage discount over previous quoted amount in a sealed envelope. The works shall be awarded to the bidder whose discounted quote is the lowest amongst all.
- h) In case of identical discount bids, the Bidder having highest annual turnover in the any of the last three financial years shall be given precedence. If Annual Turnover is not submitted and/ or mentioned "Nil" by a Bidder for a particular year, it shall be considered as ZERO.
- i) The BCGCL reserves the right to accept any tender in whole or in part or reserves the right of cancellation of the tender without assigning any reasons whatsoever. BCGCL reserves the right to revise/extend any Date/time from schedule timelines of published tender. Decision of BCGCL, in this connection shall be final & binding on all bidders.

1.4 Miscellaneous:

1.4.1 Offer from following types of bidder shall not be accepted:

- a) Those in the Holiday list of BHEL, CIL and BCGCL or its Administrative Ministry, MHI and MoC.
- b) Those under liquidation, court receivership, referred to NCLT or similar proceedings.
- c) Who are undergoing insolvency resolution process or liquidation or bankruptcy proceeding under Insolvency and Bankruptcy Code, 2016.
- d) whose insolvency resolution process or liquidation or bankruptcy proceedings is initiated under the code at any stage of evaluation of the bid.
- e) Bids from Foreign entities participating in Domestic /National tender.
- f) Bids from MOUs/ Consortium parties.

1.4.2 Affiliates of a firm are not permitted to make separate bids directly or indirectly. 2 or more Parties who are affiliates of one another can decide which affiliate will make a bid. Only one affiliate may submit a bid. If two or more affiliates submit a bid, then all of them are liable for disqualification.

- a) It is clarified that a person shall be deemed to have submitted more than one bid if a person bids in an individual or proprietorship format and/or in a partnership or association of persons format and/or in a Company format.
- b) A company shall for this purpose include any artificial person whether constituted under the laws of Indian or of any other country.
- c) A person shall be deemed to have bid in a partnership format or in association of persons format if he is a partner of the firm which has submitted the bid or is a member of any association of persons which has submitted a bid.
- d) A person shall be deemed to have bid in a Company format if, the person holds more than 10% (ten percent) of the voting share capital of the company which has submitted a bid, or is a Director of the Company which has submitted a bid, or holds more than 10% (ten percent) of voting share capital and/or is a Director of a holding Company which has submitted the bid.

1.5 Others:

- a) The tenders will be summarily rejected if requisite EMD or EMD exemption document is not submitted as mentioned in NIT.
- b) The tenderer shall furnish all necessary documents online in support of required qualification and experience along with their offer. The offers shall be scrutinized and evaluated based on the qualifying parameters mentioned above and on the basis of the uploaded documents in e-tender portal.
- c) The Tenderers shall upload legible scanned copy of necessary documents in support of required qualification and experience along with their offer as per instruction given in the Special Instructions to Tenderers.
- d) Notwithstanding any other condition/ provision in the tender documents, bidders are required to submit complete documents pertaining to PQC under Stage I and relevant documents under Stage II along with their offer. Failure to meet the PQC will render the bid to be summarily rejected.
BCGCL reserves the right to complete the evaluation based on the details furnished by the bidder, with or without seeking any additional supporting documents/ clarifications.
- e) One TQ under each stage may be raised to the bidder to seek additional documents.
- f) Legal dispute, if any, arising during the evaluation of the tender shall be within the jurisdiction of local courts situated at Jharsuguda, Odisha, and after placement of LOA, the jurisdiction of local courts at Jharsuguda, Odisha shall be applicable.
- g) Bidders may note that the following are attached separately and uploaded in the e-tendering portal:

- ✓ Special Instructions to bidders for participating in e-tendering.
 - ✓ FAQ's –online EMD facility in BCGCL e-tendering &
 - ✓ Format for Acceptance of Tender Terms and Conditions.
- h) The successful Bidder will have to present original documents for verification to the tender inviting authority, within 7 days from date of intimation.
- i) Physical/ Manual Bids shall not be accepted. Bids shall be accepted only through eTendering portal. No manual bid shall be permitted along with electronic bids. In case of receipt of manual bids apart from specifically requested offline documents in the tender, same shall be returned to the bidder. Additional documents received through email shall also be ignored for the purpose of evaluation, unless specifically advised by the Tender Issuing Authority.
- j) Tender Document can be downloaded from XXXXXXXX and on line bids are required to be submitted with Digital signatures on the system.
- k) BCGCL reserves the right of cancellation of tender without assigning any reasons whatsoever.
- l) BCGCL shall not be bound to accept the lowest tender and reserves right to accept any tender. Decision of BCGCL, in this connection shall be final.
- m) Canvassing for information or submission of forged or false documents / information by any Bidder shall make the offer invalid. In addition, action shall also be taken by BCGCL for forfeiture of EMD as well as putting the Bidder on Holiday list.
- n) No suo – motto reduction in prices quoted by the bidder shall be permitted after opening of the bids. If any bidder unilaterally reduces the prices quoted by them after opening of bids, the bid of such bidder will be summarily rejected.
- o) Bidders may note that negotiations will not be conducted with the bidders as a matter of routine. However, BCGCL reserves the right to conduct such negotiations. Bidders will have to attend to the office of the BCGCL for negotiations/ clarifications required in respect of their bids without any commitment on the part of the BCGCL. In case of negotiation, the Bidder should send the confirmation of such negotiation so as to reach the office of the BCGCL within 7 days from the date of negotiations failing which the BCGCL reserves the right to ignore the bid.
- p) Consultants or their subsidiary company or companies under the management of consultant, shall not be eligible to quote for the execution of the same job for which they are working as consultant.
- q) As the tender is on CQCCBS methodology, Purchase preference as per MSME Order, 2012 shall not be applicable to this tender.

All Bidders must have Type II or above Digital Signature Certificate and have to register themselves in the above website in order download the tender and Bid for the same.

SECTION-VIII

PAYMENT TERMS

- a) For payment of Clause No. 2.1, of Scope of Work of Tender (i.e. SOR Item No. 1 respectively)
 - i. **10% (Ten Percent)** payment within 30 days from submission of invoice after completion of 1st review meeting with the Contractor.
 - ii. **80% (Eighty Percent)** Progressive Payment against submission of Monthly invoices based on physical progress achieved during the previous month as per respective LSTK / Package Vendor progress report certified by Consultant and BCGCL. The payment shall be made to the Consultant within 30 days from the submission of Monthly invoice.
 - iii. **5% (Five Percent)** within 30 (Thirty) days from invoice submission by Consultant after mechanical completion of all LSTK Package.
 - iv. **2.5% (Two decimal Five Percent)** within 30 (Thirty) days from final submission of invoice by Consultant after Commissioning of the all LSTK Package.
 - v. **2.5% (Two decimal Five Percent)** within 30 (Thirty) days from submission of invoice after closure of contract of all LSTK Package.
- b) For payment of Clause No. 2.2 of Scope of Work of Tender (i.e. SOR Item No. 2)
 - i. **10% (Ten Percent)** within 30 days from submission of invoice after completion of Kick-off meeting between BCGCL & Consultant.
 - ii. **70% (Seventy Percent)** Progressive Payment against submission of Monthly invoices based on physical progress achieved during the previous month as per Project Schedule progress report certified by Consultant and BCGCL. The payment shall be made to the Consultant within 30 days from the submission of Monthly invoice. The Consultant shall raise the invoice for progressive payment under this head after six months from the date of issuance of FOA.
 - iii. **15% (Fifteen Percent)** within 30 (Thirty) days from submission of invoice after mechanical completion of all Packages.
 - iv. **2.5% (Two decimal Five Percent)** within 30 (Thirty) days from invoice submission by Consultant after Commissioning of the last such Package.
 - v. **2.5% (Two decimal Five Percent)** payment within 30 days from submission of invoice after closure of all contract(s).

- c) For payment of Clause No. 3 of Scope of Work of Tender (i.e. SOR item No 3)
 - i. **95% (Ninety Five percent)** of actual man-days of manpower deployed on monthly basis after submission of invoice.
 - ii. Balance **5% (Five percent)** after closure of contracts of all packages (LSTK, Offsite, EPCM etc.)
- d) For payment of visit related to Inspection Services as and when required by BCGCL within India / Outside India as per Clause 3.0 of Special Conditions of Contract of Tender (i.e. SOR Item No. 4 & 5)

Payment for Visits as mentioned in SOR at Sr. No. 4 & 5, if any shall be paid after submission of invoice by Consultant.

- e) Any miscellaneous activity covered in clause No. 4 of Scope of work will be executed by the contractor within the lumpsum quoted price of the PMC services.
- f) **Paying Authority**
Director Finance/BCGCL

SECTION-IX

RIGHT TO ACCEPT OR REJECT EOI

1. Notwithstanding anything contained in this EOI, BCGCL reserves the right to accept or reject any Application and to annul the EOI Process and reject all Applications, at any time without any liability or any obligation for such acceptance, rejection or annulment and without assigning any reasons thereof. In the event that BCGCL rejects or annuls all the Applications, it may, at its discretion, invite all eligible Prospective bidder(s) to submit fresh Applications.
2. BCGCL reserves the right to verify all statements, information and documents submitted by the Applicant in response to the EOI. Any such verification or lack of such verification by BCGCL shall not relieve the applicant of his obligations or liabilities hereunder nor will it affect any rights of BCGCL

SECTION-X

DOCUMENTS TO BE FURNISHED

FORMATS AGAINST QUALIFICATION CRITERIA

STAGE-I QUALIFYING CRITERIA:

Table-I

SN	Name & description of Work	WO No & Date	WO Value	Completion Certificate No & Date	Completion date	Executed Value (Inclusive of all taxes)
1						
2						
3						

STAGE II QUALIFYING CRITERIA:

A. PAST EXPERIENCE OF FIRM:

Number of similar works completed during last 15 years ending last day of previous month of NIT with each work costing > INR 81 Cr.

Table II

SN	Name & description of Work	WO No & Date	WO Value	Completion Certificate No & Date	Completion date	Executed Value (Inclusive of Tax)
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
	Cumulative Value					

Table I and II to be vetted by Third Party Inspection Agency (TPIA).

B. FINANCIAL CREDITABILITY:

- i. Financial turnover in any of the last three preceding financial years ending 31st March 2025. (Highest turnover of last three years as submitted shall be considered)

Table III

	Financial year	Turnover / Revenue from Operations
1	2021-2022	
2	2022-2023	
3	2023-2024	

- ii. Profitability [Net Profit (PAT)] during financial years ending March 2025

Table IV

Profitability [Net Profit (PAT)] during financial ending March 2024	year	
Profitability [Net Profit (PAT)] during financial ending March 2023	year	
Profitability [Net Profit (PAT)] during financial ending March 2022	year	

Note: Table III & IV are required to be vetted by external auditor.

C. HOME OFFICE / LOCAL OFFICE IN INDIA :

- i. Established local office in India, operational and having Certificate of Incorporation (CIN):

Table V

SN	Description	Date
1	Certificate of Incorporation	

Note: Table V is required to be vetted by an external auditor.

- ii. Human resources strength of personnel on rolls of the Company in Local / Home office in India.

Table VI

	Description	Number
1	Human resources strength of personnel on rolls of the Company in Local / Home office in India as on 31.05.2025.	

D. TECHNICAL EXPERTS (As on 31.05.2025)

Table

	Description	Number
i	Total no of technical experts having degree in Engineering and on rolls of the company	
ii	Total no of technical experts having masters degree or above in Engineering (M Tech, ME, MSc (Engg), PHD) and on rolls of the company	

Note: Table VII is required to be vetted by an external auditor.

E. STAFFING FOR THE CONTRACT: Confirmation to Post the Following Key Personnel during project duration :

Table

	Description of Role	Names of personnel offered
A	Project Manager (Full Time Team Leader) with BE or B Tech degree qualification with past experience of more than 12 Yrs	
B	Engineering Manager (Full Time Team Leader) with BE or B Tech degree qualification with past experience of more than 12 Yrs	
C	Procurement Manager (Full Time Team Leader) with BE or B Tech degree qualification with past experience of more than 12 Yrs	
D	Resident Construction Manager (RCM) - In charge - Civil Engineer with past experience of more than 10 years	
E	Lead discipline Engineer with past experience of more than 5 and 8 years - Mechanical	
F	Lead discipline Engineer with past experience of more than 5 and 8 years - Civil	
G	Lead discipline Engineer with past experience of more than 5 and 8 years - Electrical	
H	Lead discipline Engineer with past experience of more than 5 and 8 years - Instrumentation	
I	Lead discipline Engineer with past experience of more than 5 and 8 years - Safety	

Note: CV/ Resume of each of the personnel offered with their signatures to be attached.

F. QUALITY CERTIFICATIONS :

Table no: IX

	Description	Validity date of certification
A	ISO	
B	OHSAS 18001	
C	PMI certification for PMP	
D	Any other - Please mention	

Note: Copy of Certification to be attached.

G. FORMAT FOR SUGGESTIONS

S.NO	SPECIFICATION (SECTION/CLAUSE/PAGE NO.)	SPECIFICATION REQUIREMENT	SUGGESTION

H. FORMAT FOR NUMBER OF SOFTWARE

S.NO		TOTAL NUMBER OF LICENSE
1.	E3D/PDMS	
2.	E-TAP	
3.	Prodok	
4.	Caesar II	
5.	Tekla	
6.	Staad Pro	
7.	Primavera	
8.	Electronic Document Management System for project execution	

SECTION-XI

TIME SCHEDULE

The contract period / project completion schedule shall be (a) 60 months from the date of issuance of Letter of Acceptance (LOA). The date of commissioning including contract closure of packages shall be considered as completion of Project.

Price Reduction Schedule shall be applicable on any delay beyond (a) 60 months from the date of issuance of Letter of Acceptance (LOA) in case the delay is attributable to the Consultant.

PMC would prepare detailed activity schedule for the project in consultation with BCGCL at the beginning/during kick-off meeting. All efforts should be made to meet all the intermediate schedule and milestones. PMC is required to plan and put manpower and resources accordingly. PMC is required to work simultaneously on various procurement & works packages and accordingly, make strong efforts to complete the project on or before this date. However, as per extant practices the project shall be monitored w.r.t internal schedule (Best effort Schedule) as well the deadline as indicated above.