

NOTICE INVITING TENDER(NIT)

FOR

Engagement of EPCM Consultants to undertake Engineering, Procurement & Construction Management Services including Selection of Technology Provider for Establishing Facility for Aluminium Alloy Melting Slab Casting And Flat Rolled Products Production Facility at Nellore, Andhra Pradesh, India

BID Reference No.: UADNL/ADVT/02/2020-21, Dated: 19-11-2020

Start of the Issue of Tender Documents:	19-11-2020 at 12.00 hrs. IST
Pre Bid Meeting:	02-12- 2020 at 11.00 Hrs IST
Receipt of Tender on or before:	21-12-2020 by 10.30 Hrs IST
Opening of Tender Date:	15-01-2021 at 11.00 Hrs IST

Pre Bid meeting shall be held at:

M/s MISHRA DHATU NIGAM LIMIED

A Govt of India Enterprises,

PO: Kanchanbagh, Hyderabad – 500058

Ph no: 040-2418 4466/2418 4202

Note: To attend the Pre Bid meeting (through Video Conference), Kindly contact below officers.

Contact Details

Queries/clarifications technical, financial, commercial, if any, that may arise, should be referred by the tenderer by email/letter to

Technical Queries

Sr. Manager (Projects)

Email id: ramanalah@midhani-india.in

Ph: 040-2418 4466

Commercial/Financial Queries

Dy. General Manager (Purchase)

Email id: praavin@midhani-india.in

Ph: 040- 2418 4564

ISSUED BY

UTKARSHA ALUMINIUM DHATU NIGAM LIMITED

PO-KANCHANBAGH, HYDERABAD, TELANGANA – 500 058, INDIA



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NOTICE INVITING TENDER (NIT)

NIT No: UADNL/ADVT/02/2020-21

Date: 19-11-2020

EPCM Consultancy Services for setting up of 60,000 TPA capacity High End Aluminum Alloy Flat Rolled Products Production Plant in Nellore District, Andhra Pradesh, India.

- 1.0 The Joint Venture Company incorporated as **UTKARSHA ALUMINIUM DHATU NIGAM LIMITED (UADNL)** by M/s National Aluminum Company Limited (NALCO) and M/s Mishra Dhatu Nigam Limited (MIDHANI), herein referred to as 'The Client' or "Owner" invites proposals from Reputed Engineering Design and Consultancy firms herein referred to as the '**Bidder**' for providing Engineering, Procurement & Construction Management (EPCM) services including but not limited to Engineering, Procurement & contract engineering, selection of Technology Provider & participation in erection & commissioning, testing and integration & post commissioning services for establishing a 60,000TPA High End Aluminum Alloys Flat Rolled Product (FRP) Complex/Plant at Nellore, Andhra Pradesh as details below.
- 7000 TPA Al Alloy Plates
 - 4800 TPA Al Alloy Sheets
 - 48000 TPA Al Alloy Coils
 - 200 TPA Special Al Alloy Sheets
- 1.1 The proposed complex/plant will use Aluminium ingot as raw material which are melted in melting & holding furnace with addition of alloying elements as per product specifications, vertical DC casting machine, Hot & Cold rolling machines, heat treatment facilities and other utilities required for manufacturing of High End Aluminium Alloy Flat Rolled products.
- 1.2 To establish the facility, a land of approx. 110 Acre has already been acquired for this project in the Bodduripalem village in the Kodavaluru Mandal of SPSR Nellore District of Andhra Pradesh. The geographical coordinates i.e. latitude and longitude of Bodduripalem is 14.436255 and 79.969225 respectively.
- 1.3 The brief description of the proposed project along with detailed scope of work of the EPCM Consultant is given in **Annexure-1**. The Project shall be implemented in accordance with the Project Schedule approved by the Client. An overall time schedule for this consultancy services & projects is indicated at clause No 4 of this chapter.
- 1.4 To obtain information on the proposed plant location, bidders are encouraged to visit the site before Submitting their proposal.
- 1.5 All the communications will be in written form and shall be directed to **Dy. General Manager (Purchase)**, MISHRA DHATU NIGAM LIMITED, Hyderabad. The contact information is provided on the cover page of the Notice Inviting Tender (NIT).



- 1.6 Bidder shall be deemed to have examined, fully understood and considered the contents of all documents issued as part of this NIT prior to preparation of the proposal. It shall be the sole responsibility of the Bidder to notify the Client of any discrepancies errors or omissions in any part of the NIT and to obtain interpretation and/or clarification on any questions that may arise.
- 1.7 A successful Bidder shall not in any way be relieved from any obligation under the contract should any technical information, engineering data or other information obtained from Client (whether or not contained in the NIT, or otherwise) be incorrect and/or insufficient.
- 1.8 Bidder is advised to respond in all matters asked for in the NIT. Deviation, if any, shall be brought out in the proposal and only to be indicated at one place specified as list of deviations
- 1.9 Bidder's proposal shall cover all the scope of services as described in the NIT including all requested options, which have to be confirmed explicitly in his proposal. Client may reject exclusions for a part of the scope of services or an incomplete proposal.
- 1.10 Bidder may outsource engineering expertise that is not available in-house provided that the use of such out sourced expertise is clearly identified in the technical proposal.
- 1.11 Client reserves the right to reject, in whole or in part, any or the entire proposal and to Select the proposal of its choice without assigning any reason.
- 1.12 Bidders requiring a clarification of the documents must notify the Client, in writing, not later than fifteen (15) days before the proposal submission date. The Client shall respond to such requests and copies of the response shall be sent to all invited Bidders.
- 1.13 At any time before the submission of proposals, the Client may, for any reason, whether at its own initiative or in response to a clarification requested by a Bidder, modify the documents by amendment. The amendment shall be sent in writing to all invited Bidders and will be binding on them. The Client may at its discretion extend the deadline for the submission of bids.
- 1.14 During preparation of the technical bid, the bidder must give particular attention to the following:
- i. The estimated number of key professional staff-months required.
 - ii. The majority of the key professional staff proposed shall be permanent employees of the firm.
 - iii. No alternative to key professional staff may be proposed, and only one curriculum vitae (CV) may be submitted for each position.
- 1.15 The technical bid shall provide with the following and any additional information, using the formats attached.
- i. A brief description of the Consultant's organization and an outline of recent experience on assignments of a similar nature. For each assignment, the outline should indicate, inter alia, the profiles of the staff provided, duration and firm's involvement.



- ii. A description of the methodology (work plan) that the Consultant proposes to execute the services, illustrated with bar charts of activities and graphics of the Critical Path Method (CPM), if appropriate.
 - iii. The composition of the proposed staff team, the tasks which would be assigned to each, and their timing.
 - iv. CVs recently signed by the proposed key professional staff or an authorized manager in the office. Key information should include number of years with the firm, and degree of responsibility held in various assignments during the last ten (10) years.
 - v. Estimates of the total time effort (person x months) to be provided to carry out the assignment, supported by bar chart diagrams showing the time proposed (person x months) for each professional staff member.
 - vi. Project Schedule.
- 1.16 The technical bid shall not include any cost information.
- 1.17 Consultancy Fees for Engineering, Procurement & Construction Management Services is to be quoted as Lump Sum as per Price Bid Format attached as Annexure - 3. Increase of Project cost after release of different P.Os for technology supply, equipment supply, civil & structural construction work, other supplies & services etc. will not attract any additional consultancy fees.
- 1.18 UADNL invites duly signed bids under single stage two bid system (Part-I: Techno-Commercial Bid-Un-priced and Part-II: Price Bid) from competent and reputed Consultancy Firms having offices in India with sound technical and financial capabilities for rendering Consultancy Services for the implementation of 60,000TPA High End Aluminum Alloys Flat Rolled Product (FRP) production plant at Nellore, Andhra Pradesh.

2.0 Scope of work

For setting up of 60,000TPA Capacity High End Aluminum Alloys Flat Rolled Product (FRP) production plant at Nellore district, Andhra Pradesh. EPCM (Engineering, Procurement, Construction Management) Consultant will provide various services as per detailed scope of work described in **Annexure-1** of the Tender Documents. The scope of services to be provided are broadly categorized as under:

- Selection of technology provider/know-how supplier
- Enquiry document with technical specifications of proposed plants, equipment, utilities, etc.
- Procurement and contract Engineering services
- Project and construction management services
- Integration & Post commissioning services
- Assist in obtaining various required statutory clearances from Govt. authorities.

And these will be extended to all major equipment, Enabling and Auxiliary packages. A tentative list of packages pertaining to major equipment, enabling and auxiliary packages is enclosed at **Annexure – 15**



3.0 Bid Evaluation Criteria

Offers of the Bidders shall be evaluated based on evaluation criteria as detailed in Para – 5 and 6 of Instruction to Bidders (ITB) enclosed as **Annexure-2**.

4.0 Contract Period

The total period of the consultancy assignment shall be 48 months considering following time schedule. The tentative chronological milestone schedule for establishing the facilities envisaged in this consultancy as below. **The tentative schedule may be reviewed with successful bidder.**

<i>Sl No</i>	<i>Description of Mile Stone</i>	<i>Time Period</i>
01	Issue of Tender For Technology Provider	Within 02 Months from date of PO Placement for EPCM Consultancy.
02	Award of Contract and signing of technology supply agreement with Technology Supplier	Within 05 Months from date of PO Placement.
03	Issue of Tender for Major Equipment & Packages	Within 08 Months from date of PO Placement.
04	Purchase Order Placement for supply of Major Equipment	Within 12 Months from date of PO Placement.
05	Layout finalization of the facility/plant with no. of package finalization.	Within 15 Months from date of PO Placement.
06	Detailed Engineering design and Issue of Tender for building Structural & civil foundation works, electrical, piping, mechanical, instrumentation etc.	Within 18 Months from date of PO Placement.



07	Tentative project schedule up to completion of all civil works, installation, mechanical completion, testing & commissioning and acceptance of all equipments and whole plant complete in all respects.	Within 48Months from date of PO Placement for consultancy. However different packages shall be commissioned in phased manner. Only Last package may go up to 48 Months from date of PO placement of consultancy.
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5.0 Salient features of Tender

i)	NAME OF THE WORK	ESTABLISHING 60,000 TPA HIGH END ALUMINIUM ALLOY SLAB CAST AND FLAT ROLLED PRODUCT FACILITY
ii)	LOCATION OF THE WORK	NELLORE, ANDHRA PRADESH, INDIA
iii)	TENDER REFERENCE	NO: UADNL/ADVT/02/2020-21, DATE: 19-11-2020
iv)	CONTRACT PERIOD	48 (FORTY EIGHT) MONTHS
v)	MODE OF TENDERING	OPEN, TWO PART TENDERING
vi)	NO OF AGENCY REQUIRED	01
vii)	EARNEST MONEY DEPOSIT (EMD)	25 Lakhs (Rupees Twenty Five Lakhs)
viii)	VALIDITY OF BG SUBMITTED AGAINST EMD	Upto Validity of the Bid with One Year Additional Claim period beyond the date of Expiry
xv)	VALIDITY OF OFFER	06 MONTHS FROM BID OPENING DATE

6.0 Details of bid documents as indicated at table of contents are uploaded in websites of MIDHANI (www.midhani-india.in) and NALCO (www.nalcoindia.com).

7.0 The submission of bid shall be as explained in **Annexure-12**. Offer is to be submitted in the manner as indicated below:

- **Techno-Commercial Bid:**

a) Details of EMD i.e. Original DD/BG or NEFT PROOF towards EMD amount.



- b) Dully filled up formats as indicated in **Annexure- 3** regarding man power deployment and no of visit for Inspection expediting.
 - c) Forwarding letter and undertaking as per **Annexure-7**
 - d) Filled up Proforma in **Annexure-6** for the information against Bid evaluation criteria.
 - e) List of team members to be engaged for the assignment.
 - f) Exception/Deviation Statement as per **Annexure-11**
 - g) Pre Contract Integrity Pact as per **Annexure – 13**
 - h) Price Bid format is part of the tender document at **Annexure – 3**
- 8.0** Bids will be received up to last date and time as specified in the tender document or extended bid due date., as the case may be through Speed post/Courier at address as mentioned at Annexure 12.
- 9.0** EMD as specified in Para 5 (vii) above table of salient feature above shall be paid in favour of "Utkarsha Aluminium Dhatu Nigam Limited" in the form of Demand Draft (DD) payable at Hyderabad or Bank Guarantee or online payment with proof thereof. In case of submission of EMD in form of Bank Guarantee, the same shall be in the prescribed Performa provided in Tender Document, issued by Nationalised/Scheduled Bank in India and BG should be valid up to the validity of the offer with additional claim period of 01 year beyond the date of expiry. In case bidders wishes to submit EMD by NEFT mode, bank details are as below:
- Account Name: **UTKARSHA ALUMINIUM DHATU NIGAM LIMITED**
Account Number: 38754989786
Branch Name: SBI Chandrayanagutta Branch
IFSC: SBIN0003026.
- 10.0** Bids not accompanied with EMD shall be rejected. EMD of unsuccessful bidder shall be returned after award of contract. EMD of successful bidder shall be returned after submission of Security Deposit Bank Guarantee (SDBG) by the agency. EMD and hard copy of the document as requested above shall be received up to last date and time for opening of the Tender, as the case may be, in the Office of the **Deputy General Manager (Purchase), MIDHANI, PO-Kanchanbagh, Hyderabad – 500058, Telengana.**
- 11.0** If it happens to be holiday on the date of opening of bids, then the bid shall be opened on next working day at the same time.
- 12.0** UADNL shall not be responsible for any expenses incurred by bidders in connection with the submission of their bids, site visit and other expenses incurred during bidding process.
- 13.0** Bid shall remain valid for acceptance for a period of **06 (six) months** from the due date/ extended due date of opening of the bid.



- 14.0 Bidders are expected not to take any deviations to the terms & conditions stipulated in this NIT document. In case deviation is unavoidable, bidders are requested to indicate all deviations/exceptions in the exceptions/deviations statement sheet only as per **Annexure-11**. For the deviations not withdrawn by the bidder, UADNL shall convert such deviations into a rupee value and add to the bid price to compensate for these deviations under intimation to the bidder. Deviations/variations/additional conditions found elsewhere in the bid shall not be given effect to in the evaluation and it will be presumed that the bidder complies to all conditions of bidding documents.
- 15.0 The deviations shall be mutually discussed by UADNL and Bidder for its acceptability. However, UADNL reserves the right to cancel/reject any bid if the deviation taken by the bidder is found to be unacceptable.
- 16.0 The bids may be evaluated based on the documents furnished without any further reference to bidders. Therefore, bidder must ensure that all relevant documents are furnished as per the requirement of tender terms & conditions at the time of submission of offer.
- 17.0 Amendments and/or Clarifications, if any, issued for the NIT shall form part of the Tender Documents. Amendments and/or Clarifications will be hosted on the MIDHANI/NALCO websites (www.midhani-india.in & www.nalcoindia.com) Bidders are requested to visit the websites from time to time to note the Amendments and/or Clarifications before submission of their bids. UADNL shall not be responsible, if any bidder omits to notice any Amendments and/or Clarifications before submission of their bid.
- 18.0 The date of opening of bid (Price Bid) shall be informed to all the qualified bidders whose offers qualify as per bid evaluation criteria and are techno-commercially acceptable.
- 19.0 A bidder may seek clarification regarding the bidding document provisions, bidding process and / or rejection of his bid. UADNL shall respond to such queries within a reasonable time.
- 20.0 UADNL reserves the right to accept or reject any or all bids without any liability.
- 21.0 Clarifications on bid conditions, if any, can be obtained from Deputy General Manager (Purchase) through Fax: 040-24340764, Email: praavin@midhani-india.in

For, Utkarsha Aluminium Dhatu Nigam Limited

Deputy General Manager (Purchase), MIDHANI



**SCOPE OF WORK FOR ENGINEERING, PROCUREMENT & CONSTRUCTION MANAGEMENT
(EPCM) CONSULTANCY SERVICES**

A. Brief Description of the Proposed Project

NALCO is a premiere Integrated Aluminum producer of the country having Mines, Alumina Refinery, Aluminum Smelter and Captive Power Plants located in the state of Orissa-India. **MIDHANI** is a flagship company of the Ministry of Defence and engaged in manufacturing of super alloys, special steels etc for Defence and strategic sector. MIDHANI along with NALCO promoted the Joint Venture Company "**UTKARSHA ALUMINIUM DHATU NIGAM LIMITED**" (**UADNL**) and it is intending to set up 60000 TPA Capacity Aluminum Alloy making and casting, Alloy Sheets, Plates and Coils Production Plant of different grades of Aluminium at Bodduripalem Village, Kodavalur Mandal, SPSR Nellore District in Andhra Pradesh.

High end Aluminum alloys of grade 2XXX, 5XXX, 6XXX, 7XXX & 8XXX series etc. are planned to be produced for sectors like strategic sectors viz., defence, aerospace, space and transportation viz., automotive, railways, marine and other sectors. Initial capacity of the plant is considered to be 60,000 TPA of Flat Rolled Products with a provision to diversify in future covering other products as per country's needs. About 110 acres of land has already been acquired at Nellore for the proposed facility.

The proposed Aluminum Alloys Flat Rolled Products (FRP) production facility shall be consisting of following facilities excluding primary metal production as it has been envisaged that the basic raw material i.e. Aluminum Ingots shall be purchased from NALCO or potential suppliers from market.

- Melting of virgin aluminum and making desired alloys
- Treatment and filtration of molten metal
- Production of slabs in DC casting machine for Hot Rolling
- Homogenising of slabs and subsequent scalping and sawing
- Preheating of rolling slab and Hot rolling to desired gauge for production of hot rolled plate and hot rolled coil
- Cold rolling mill to produce coil for sheet and saleable auto body grade coil
- Plate/sheet heat treatment & Finishing facility.
- Ultrasonic testing for plates
- Plate, sheet, coil packing facility and dispatch
- Roll shop facility



- Raw materials unloading, handling & storage facility
- Facility for Utilities & auxiliaries
- Raw water & Drinking water system, water treatment & storage facility for raw water & treated water
- Cooling Water System
- Compressed Air System
- Fuel Oil Storage & Handling
- Power Supply including supply of electricity from State Grid to plant
- Laboratory & analytical Facilities
- Ware House
- Maintenance Shop
- Vehicle Maintenance Shop
- Cranes, Mobile Equipment and Hoists/Lifting Tackles
- Fire Protection System (at Cold Mill)
- Mechanical Workshop and Hydraulic/Pneumatic Repair
- Instrumentation, automation and control system
- Plant Communication System
- Any other equipment & facility required for production of intended products following
- Safety, environmental & pollution control norms, statutory requirement.
- Structural shed for equipments and other facilities
- Civil building for offices and other services, etc.
- Main Receiving Sub Station, etc
- Construction of Power, Water and Site Enabling

The scope of Engineering, Procurement & Construction Management (EPCM) services for setting up 60000 TPA capacity Aluminium Alloy making, casting, plates, sheets and coils of high end Aluminium alloys production plant/complex shall include but not limited to the following:



1.0 Introduction

1.1 General

EPCM role shall include but not limited to review of DPR, collection of data/ information of proposed plant location, basic engineering, detailed design for Civil, Mechanical, Electrical Instrumentation, Piping etc design for Casting / Rolling / Extrusion / Process Plant as well as associated Utilities like power, water, gas, air etc., road & transportation, assistance in obtaining statutory clearances, tendering activities, construction management & site supervision services for setting up an Aluminum alloy development centre of 60,000 TPA initial production capacity at Nellore, Andhra Pradesh in India for manufacturing of high end Aluminum Alloy coils, sheets and plates, extrusions, forgings with provision for expansion to 120,000 TPA.

The details facilities as described in NIT, "Project Scope" will be installed at Nellore, Andhra Pradesh.

- a. Collectively these facilities are referred to as the "Project" and together with all related work under the EPCM Consultant and its control necessary to implement the Project are referred to herein as the "Works".
- b. The EPCM Consultant shall be responsible for Engineering, Procurement, and Construction Management including Erection, Testing, Commissioning, PG Test and handing over of the entire Complex after Start up by OEM as defined herein after.
- c. The EPCM Consultant's Scope of Work ("EPCM Work") includes overall management of the above activities, completing same directly and providing support to Owner for Start-up activities, Commissioning and PG Test of equipments /Packages.
- d. All EPCM activities necessary for the "Project" to fulfill its responsibilities in accordance with Owner's Policies and Obligations, including those attached in **Annexure – 4 (Terms of Payment)** even if not specifically covered in the EPCM Consultant's Scope of Work will form part of the "EPCM Work".
- e. Owner's policies and obligations for performance of the "Project" shall be deemed to be included in EPCM Consultant's Scope of Work.
- f. Any omissions from these sections shall neither limit the EPCM Consultant's responsibilities nor Scope of Work under the EPCM Contract in any way.

1.2 Technology Selection/Know-how Supplier:

A Detailed Project Report (DPR) for the project has already been prepared and it shall be shared with the consultant. The EPCM consultant will finalize the know how Technology supplier i.e. Basic Engineering Package (BEP) Supplier with available information with UADNL and BEP also to be prepared by the consultant.



EPCM Consultant shall facilitate for the implementation of OEM's Basic Engineering into Detail Engineering design. Consultant shall liaise closely with UADNL and Technology Provider/OEM during this period. Consultant shall check completeness of basic engineering data for Detail Engineering requirements.

1.3 The scope of work in brief is as follows:

- a. EPCM Consultant shall be responsible for Engineering, Procurement, and Construction Management including supervision & assistance in Erection, Testing, Commissioning, PG Test, integration operation and handing over of the entire Complex after Startup & Commissioning as defined herein after.
- b. The EPCM Consultant's Scope of Work ("EPCM Work") includes overall management of the above activities, completing same directly and providing support to UADNL for Start-up activities starting from study of the acquired land for the proposed project, all procurement activity, supervision of installation & Commissioning and PG Test of equipment/structural & civil buildings/Packages.
- c. All EPCM activities necessary for the "Project" to fulfill its responsibilities even if not specifically covered in the EPCM Consultant's Scope of Work will form part of the "EPCM Work".
- d. Selection of Technology / knowhow supplier is in the scope of EPCM Consultant.
- e. Any omissions from these sections shall neither limit the EPCM Consultant's responsibilities nor Scope of Work under the EPCM Contract in any way.

1.4 Strategy

Following overall strategy for execution of the subject project work to be followed:

- a. A dedicated Project Team at Site and Corporate office shall oversee the execution of the Work and meet the UADNL's obligations.
- b. The technology provider selection, finalization on technology & process equipments, utilities & services, deciding on project packages, basic data & basic engineering document preparation, review and utilization of Detailed Project Report for the proposed project work.
- c. The Engineering, Procurement and Construction Management (EPCM) Consultant shall function as a part of UADNL for project implementation.
- d. In-house engineering and design by Consultant
- e. Optimized implementation plan to minimize "Project life cycle" cost and UADNL risk including Optimized schedule, Optimization of Lump Sum Turn-Key (LSTK) Packages with completion of plant / system performance guarantees
- f. Competitive equipment and material sourcing from competent Indian and International suppliers.
- g. Optimized construction plan and mechanization with due consideration to Site location.



- h. Early finalization of quantity of "free issue materials" like cement, structural steel , reinforcement steel and bulk materials like steel plates, pipes, piping materials, valves etc. if any including raising of Multimodal Transport Order (MTO) by Consultant for procurement by UADNL
- i. Issue of "Free Issue Materials" (FIM) like cement, structural steel, reinforcement steel and bulk materials like steel plates, pipes, piping materials, valves etc.to construction contractors will be by the Consultant in line with the approved drawing and progress of the work.

2.0 Selection of Technology Provider/Know-how supplier

2.1 As described in the tender document under clause no 1.0 of the NIT, UADNL is planning setup High End Aluminium Alloy Flat Rolled Products Production plant with the plant capacity of 600001PA of Aluminium alloy covering 2xxx, 5xxx, 6xxx and 7xxx including Aluminium Lithium alloys. To support setup up such green filed project, UADNL is intended to select Technology Provider / Know-how supplier as a strategic partner for the following

- a. Technology for high end Aluminium alloys making starting from raw Aluminium & alloying additions suitable for different targeted Aluminium alloy grades to meet the desired applications and property of finished products Flat Rolled Products viz. plates, sheets & coils / casting/ extrusions. Targeted Aluminium alloys grades across all ranges i.e. 2XXX to 7XXX series including Aluminium Lithium alloy grades.
- b. Process Technology for production of Flat Rolled Products to make plates, sheets and guiding on selection of plant and machineries. Initially, the following Flat Rolled Products (FRP) shall be manufactured in the proposed plant.

Sl No	Products	Applications	Alloy Grades
1	Plates	Defence & Aerospace applications	2xxx, 5xxx, 6xxx & 7xxx
2	Sheets	Defence & Aerospace applications	2xxx, 5xxx, 6xxx & 7xxx
3	Coils	Automotive and Other transportation applications	5xxx and 6xxx

- c. Technological support for minimum 5 years or as decided mutually from the date of commissioning to develop different alloys and products to meet various customer's requirement and to resolve issues (in process, equipment, parameters, etc.) in production of plates and sheets as per requirement.



2.2 The Scope of Technology Provider/Know-how supplier shall include complete Technology for Aluminium Alloys production and Flat Rolled Products manufacturing facilities. The scope will cover specialized advise and knowhow for all sub-units for Aluminium alloys production with maximum recoveries, efficiency, energy conservation, environmental protection safety in operations & maintenance, etc but not limited to Melting of virgin Aluminium and alloying, Treatment and filtration of molten metal, Production of slabs in DC casting machine for Hot Rolling, Homogenising of slabs and subsequent scalping and sawing, Preheating of rolling slab, Hot rolling for production of hot rolled plate and hot rolled coil to desired gauge respectively. Hot rolled coil further rolling in cold mill to produce sheet and saleable coil, Plate/sheet heat treatment & Finishing facility, Ultrasonic & other testing for plates, Plate, sheet, coil packing facility and other auxiliary facilities including Roll shop facility, Raw materials handling storage, Laboratory and quality control facilities, Environmental control and safety system for entire facility. Establishment of In-house R&D centre for Aluminium products and Training of UADNL Engineers /Staff.

2.3 Consultant shall

- a. Identify, Prepare and submit the lists of potential technology provider/know-how suppliers with details of their credentials relevant to the project.
- b. Obtain the credentials of prospective bidders on their past experience in providing technology to their clients or used technology in their own plant and their technology should be in operations atleast for the last 5 years.
- c. Obtain UADNL approval to the list of technology provider/know-how suppliers
- d. Consultant shall prepare short term and long term strategies for selection of technology provider/know-how supplier for the entire plant in single package or multiple packages and obtain approval from UADNL.
- e. Consultant shall facilitate & coordinate meetings/discussions with prospective technology provider/know-how supplier
- f. Consultant to prepare tender documents comprising of Scope of works, Technical specifications with Pre-qualification Criteria, Evaluation Criteria, appropriate commercial conditions, General Conditions of Contract, Special Condition of Contract, Schedule etc. and submit to UADNL for scrutiny and approval. General Conditions of Contract (GCC) shall be provided by UADNL.
- g. Issue inquiries and tender invitation documents. Cost of press advertisement shall be to UADNL's account.
- h. Receive and evaluate bids/quotations, organize /conduct clarification/pre-bid meetings with bidders at UADNL office.



- i. Assist UADNL in negotiation (if required) and finalisation of placement of orders. This may call for Consultant representative's visit to UADNL office/Project Site office.
- j. Consultant along with UADNL team will participate in discussions with successful bidder for finalization of the contract document.
- k. Submit draft LOA/PO/BO and contract document to UADNL containing specifications, scope, terms and conditions of contract etc. as agreed with the successful bidder. Orders will be placed by UADNL after obtaining internal approval.
- l. Assess, recommend and prepare amendments to Contracts.
- m. Carry out Re-lendering activities, if required.

3.0 Engineering

3.1 General: Consultant shall

- a. Perform all design and engineering activities necessary to complete the Project and required engineering inputs for Turn-key Contracts. Activities shall include, but not be limited to:
 - Residual Basic Engineering for all those areas for which Basic Engineering will not be available from Technology Supplier & OEM.
 - Review of Basic Engineering performed by Technology Supplier, and acceptance thereof as a basis for Consultant's detail engineering
 - Preparation of a Design Basis/ Manual for the entire Complex in consultation with the UADNL's O&M and Project group at site.
 - Detail engineering for the entire Complex (excluding OEM scope of engineering)
 - Technical purchasing/contracting functions
 - Engineering interface coordination
 - Arranging a Field Engineering Team at Site as per requirement to expedite design/design-rechecks to meet the immediate Site requirements if any including Operation & Maintenance facilities.
 - Compilation, indexing, filing, controlling and distribution of all Project documentation
- b. Ensure that Turnkey Contractors shall perform both Basic and Detail Engineering for the Turnkey packages based on the input – output parameters provided by the Technology Supplier. Vendors shall perform equipment engineering and supply Vendor Data and the same shall be critically reviewed and certified by the consultant
- c. Furnish all other design basis information, including functional requirements.



- d. Ensure that the Contractors shall perform engineering as specified in their contracts. It is envisaged that this information will also be related to detailed fabrication and reinforcing bar schedules and the development of final as-built documentation.
- e. Perform all remaining engineering for the Complex
- f. Employ its own qualified and experienced personnel and give due consideration to Owner's view for strengthening the team.
- g. Prepare the Cost Estimation of the total Project / Units / Equipments based on the DPR (Detailed Project Report) cost estimate, which will be provided to the successful bidder.

3.2 Design Manual and Engineering Documentation

Consultant shall:

- a. Develop a Manual that shall contain all design parameters for the integrated Complex. The manual shall be updated as and when required, to ensure that all design parameters are correct and in accordance with Owner's requirements.
- b. See that the documentation shall be comprehensive, and form a complete basis for placing of Contracts, Purchase Orders and Turnkey Contracts. The documentation shall ensure that all Project design parameters are complied with latest standard, and that the design is in accordance with all applicable engineering standards, codes and regulations.
- c. Ensure that the documentation shall be updated to As-built status on completion of the project.
- d. Ensure that the engineering documentation shall be kept in an orderly manner, and a complete Engineering Document Filing Index shall be issued to OWNER regularly and at Contract Completion. The documentation shall include Vendor Data and Operation Manuals and Maintenance Manuals and shall be revised to As-built condition at the appropriate time.

3.3 Technical Purchasing/Contracting Services

Consultant shall:

- a. Prepare all technical input including specifications, requisitions and technical bid evaluations.
- b. Specify review and hold points for the design and shall receive Vendor Documentation from Vendors and Contractors. This documentation shall be issued by Vendors and contractors to Consultant for review and approval, and returned to the Vendors/Contractors with comment mark-ups. Consultant shall ensure that the comments are incorporated into Vendor/Contractor's design and shall compile a complete dossier of Vendor/Contract documentation and correspondence.



- c. Assist for inspections at Vendor or construction sites as and when required.
- d. Prepare bulk material take off summaries, and periodically update them for all bulk material categories.

3.4 Engineering Interface Co-ordination

Consultant shall:

- a. Be responsible for the design of a consistent and cost efficient plant and shall ensure that all engineering interfaces are properly handled in an orderly and timely manner.
- b. Ensure that all documents which have impact on performance of other parties are distributed to the concerned parties in a timely manner. This shall include, but not be limited to documents of different disciplines and those prepared/required by OWNER, Licensor, Consultant, Turnkey Contractors, Contractors and Vendors.
- c. Perform all required document expediting.
- d. Develop all Project procedures for the interface work, and shall ensure that the Vendors and Contractors properly implement the interface requirements. Uniform document formats and document & equipment numbering/coding shall form part of the interface requirements.

3.5 Basic Engineering

Collection of all necessary data and information as required for basic design and engineering including preparation of specifications and schedules is in the scope of EPCM consultant.

The Basic Engineering shall comprise mainly but not limited to the following:

- Equipment layout and general arrangement drawings
- Specifications of equipment and machinery
- Study of Adequacy of electrical power & control equipment.
- Engineering flow and logic diagrams for utilities
- Piping and Instrumentation diagrams
- Electrical single line diagrams
- Instrumentation and interlock basic diagram

3.6 Technology Supplier's Basic Engineering

- a. Consultant shall facilitate for the implementation of Technology Supplier's Basic Engineering into Detail Engineering design. Consultant shall liaise closely with UADNL & Technology Supplier during this period.



- b. Consultant shall confirm in writing to UADNL that the BEP is sufficient for Consultant's Detail Engineering requirements.
- c. 3D model for all process / Casting/Rolling/Extrusion units shall be developed by the Consultant adopting similar methodology as that of Technology Supplier.
- d. In addition to above consultant shall carry out followings
 - i. Consultant shall complete the entire Basic Engineering for the Complex except the process related Basic Engineering inputs by the Technology Supplier.
 - ii. Basic Engineering for plant facilities shall be sufficient to ensure Detailed Engineering and will meet all UADNL requirements.
 - iii. The UADNL shall review Consultant's Basic Engineering documentation and freeze the design prior to start of Detail Engineering.
 - iv. Consultant shall assist Technology Supplier by furnishing their standard engineering specifications for process related work and shall specify design limitations of size, weight etc. of equipment which can be delivered to the plant site as may be required by the Licensor.

3.7 Detail Engineering

General

Consultant shall be responsible for converting the basic engineering into detailed engineering documentation. The process discipline shall assume responsibility for maintaining and updating the Quantitative Flow Diagrams (QFD)s, the Piping and Instrument Diagrams (P&ID)s, Equipment List, Load List, Electrical Load List (motor sizes) , Line list. This includes the design of utility systems, effluent treatment and drainage/discharge. The Consultant will originate any new data sheets required and select operating conditions, range, head, holding time, materials of construction etc.

In addition to above Consultant shall carry out followings:

- a. Complete Detail Engineering for the whole Complex, except that for Turnkey Contracts. Detail Engineering shall provide all technical information required to procure, construct and commission the plant.
- b. Ensure that all Detail Engineering complies with UADNL's insurance requirements and shall obtain insurer's approval for same.
- c. Prepare the documents for approval by Statutory Authorities.
- d. Ensure that engineering standards shall be based on Indian or International standards, codes and practices provided they shall meet all Indian laws, codes and regulations and shall satisfy Technology Supplier's standards and specifications.
- e. Ensure quality and proper execution of all design and engineering work.



- f. Be responsible for the integration of all components and systems of the Complex, and shall ensure compatibility and integration by systems engineering and interface coordination.
- g. Attach due importance to standardization of equipments across the Complex to simplify operation & maintenance procedures and reduce spares holdings. This shall include equipment supplied by Turnkey Contractors. Examples of such equipment are electric motors (frame size & long shaft), couplings, drives, pumps, valves, field instruments, electrical switch gear, computer control hardware and software, etc. Consultant shall provide for UADNL Approval, its procedure and comprehensive equipment list to achieve this.
- h. Ensure that all processes and equipment are in compliance with the standards set out in relevant Environment acts/EIA/Clearances/CTE received from statutory authorities.
- i. Ensure assistance of their Engineering Groups during construction, installation, Pre-commissioning, and Commissioning as required.
- j. Provide the Engineering Design Basis & prepare detailed Engineering Procedures for approval by UADNL prior to commencement of work.
- k. Prepare documents required for statutory bodies/Clearance.
- l. Use the following:
 - Design Software
 - Detail Design shall be on relevant software to allow full electronic integration of equipment design, drafting, material take-off, procurement, construction, quantity tracking and control activities from common data bases.
 - 3D "models" shall be developed and maintained during the design and be made available for design reviews.

3.8 Civil Engineering activities shall include, but not limited to:

- a. Specifications and details for survey work.
- b. Overall plot plans and detailed area drawings.
- c. Design and engineering of site development and services such as site grading plan, storm water disposal, approach roads/ in-plant roads, service/ periphery roads, pavements, Boundary walls, fencing, sewerage/ waste disposal and effluent treatment & disposal.
- d. Design and engineering of all underground and above ground piping.
- e. Water supply, sewage, waste & effluent treatment & disposal drawings for plants and buildings.



- f. Engineering of firefighting system as per agreed norms, and assistance to UADNL in obtaining necessary approvals from Statutory Authorities (TAC, Inspector of Explosive, Public Health Authorities etc.).
- g. All material requisitions technical evaluation and purchase requisitions for material to be procured.
- h. Specifications and bills of quantities for all items of general civil works to be included in tender invitations, technical evaluation of bids and recommendations.
- i. Basic design, specifications and data sheets for Turn-key package material requisitions, review of bids and technical recommendations including approval of Contractor's design and drawings for the same.
- j. Materials Take off (MTO) for bulk procurement of cement, reinforcement steel MS rounds etc.
- k. Design and Engineering of all types of foundation required for different units
- l. Design and engineering of all reinforced concrete building and structures including preparation of bar bending schedule
- m. Specifications for soil investigation work and studies and review of soil investigation reports.

3.9 Structural Engineering

Structural Engineering activities shall include, but not limited to:

- a. Design and engineering of all structural steel works for buildings and structures, pipe racks, conveyor gallery etc. providing basic data for design and approval of design drawing in case of PEB structure
- b. Review and approval of structural steel drawings submitted by the (Lump sum Turnkey (LSTK) vendors and approval of fabrication drawings prepared by the Contractors.
- c. Specifications for civil-and structural work for Turnkey package material requisitions, bid review and recommendations, and review of Contractor's design and drawings of structures for the same.
- d. Specifications and bill of quantities for all items of structural works to be included in tender invitations, technical evaluation of bids and recommendations. This also includes material specifications/ metallurgical specifications and corrosion protection.
- e. Materials Take Off (MTO) for bulk procurement of MS rounds, Structural steel, all type of plates, sheeting, etc.



3.10 Architectural Engineering

Architectural Engineering activities shall include, but not limited to:

- a. Architectural design and detailing of all buildings not forming part of a Turnkey package.
- b. Review & approval of architectural drawings of buildings/structures under the scope of LSTK package.
- c. Preparation of drawings of different buildings/ structures and submission of the same both in soft form (AUTO CAD Format) & hard copy.
- d. Assistance in obtaining approval of building and layout drawings from Inspector of Factories, and/or concerned Statutory Authority.
- e. Specifications and bill of quantities for all items of architectural work to be included in tenders/material requisitions, evaluation of bids, recommendations etc.

3.11 Piping

Piping Engineering activities shall include, but not limited to:

- a. Piping layout and general arrangement drawings including equipment layout. Review of Piping and Instrumentation Diagrams (P & ID) produced at various stages and updated as appropriate including O&M facilities.
- b. Three dimensional drawings.
- c. Steam jacketing/tracing drawings.
- d. Nozzle orientation of vessels and locations of pipe support clips.
- e. Stress analysis of critical piping.
- f. Materials take off for all pipes, fittings and accessories etc.
- g. Material and bid specifications, technical evaluations and recommendations including preparation of purchase requisitions for all items to be procured
- h. Specifications and bill of quantities for all piping items to be included in the' Mechanical Installation tender invitation, technical evaluation of bids and recommendations, Purchase Orders and Brief Orders etc.
- i. Approval of Vendor drawings.
- j. Specification for piping to be included in material requisitions.
- k. Preparation of specifications for insulation & painting.



3.12 Mechanical Equipment Engineering

Mechanical Engineering activities shall include, but not limited to:

- a. Technical specifications and scope drawings as required for procurement along with handling facilities.
- b. Preparation of material requisitions of equipment/packages for procurement.
- c. Technical evaluation of bids, recommendation and preparation of Purchase Requisitions.
- d. Review and approval of Vendor/Contractor drawings.
- e. Development and preparation of all general arrangements and equipment layout drawings.
- f. Specifications for Mechanical Installation tender invitation, technical evaluation of bids and recommendations.
- g. Preparation of specification, scope, drawings, bill of materials for various systems/modules involving mechanical equipment, piping, insulation, painting works, tender evaluation and making recommendations.
- h. Preparation and approval of stress analysis and contractor's specifications, data, document and drawings.
- i. Preparation of specification for erection work, tender evaluation and making recommendations.
- j. Preparation & furnishing of documents for obtaining approvals from State/Central Government and Statutory bodies, etc as per the safety, environment and statutory needs
- k. Furnishing design criteria for major specification, identifying codes and standards to be followed, assumptions and results of technical computations for selection and design of equipment system

3.13 Pressure Vessels and Tanks Engineering

Pressure Vessel Engineering activities shall include, but not limited to:

- a. Design and scope drawings of all vessels, tanks, silos, etc. ensuring the statutory requirements.
- b. Material and bid specifications, technical evaluation and recommendations including purchase requisitions.
- c. Materials take off for plates etc.
- d. Review/approval of Vendor/Contractor drawings.



- e. Specifications to be included in Mechanical Installation tender invitations.
- f. Specifications for vessels and tanks to be included in material requisitions, evaluation of bids and recommendations etc.

3.14 Electrical Engineering

Electrical Engineering activities shall include, but not limited to:

- a. Electrical basic design and system studies.
- b. Single line diagrams.
- c. Specifications and scope drawings for tender requisitions, technical bid evaluation, recommendations and purchase requisitions for equipment package units, including Vendor drawings checking.
- d. Materials take-off of cables, switch gears, VFDs & PLCs, list of motors, etc. Computerized cable routing system shall be used.
- e. Load schedules, relay coordination studies and diagrams for new system and along with existing system.
- f. Layout and design of electrical systems for instrumentation.
- g. Schematic diagrams for interlocks.
- h. Equipment layout drawings for main step-down receiving substations and other units sub-stations.
- i. Layout drawings for electrical power distribution system, lighting of plants, buildings, area lighting, grounding, communication, etc.
- j. Specification and bills of quantity for electrical tender invitations, bid evaluations and recommendations.
- k. Assist UADNL dealing with Statutory Authorities like/AP TRANSCO / APSPDCL / APGENCO / Electrical Inspector and Electric Supply & Distribution Company etc.
- l. Review/approval of Vendor/Contractor drawings.

3.15 Instrumentation & Control

Instrumentation & Control engineering activities shall include, but not limited to:

- a. Review of Piping and Instrumentation Diagrams and assist in updating, and selection and sizing of instruments, including indexing as appropriate.
- b. Preparation of I/O counts.



- c. Technical specifications, bills of materials, scope drawings etc. for tender invitations. Bid evaluations, bid recommendations and purchase order requisitions for all items pertaining to instrumentation systems.
- d. Layouts, logic diagrams and other detail drawings including control panel drawings.
- e. Material take-off for control panel etc. Computerized cable routing system shall be used.
- f. Review/approval of Vendor/Contractor design and drawings.

3.16 Telecommunication & PA System

Telecommunication & PA system engineering activities shall include, but not limited to:

- a. Detail engineering for all in-plant and inter-plant communications, both during Project execution and operation.
- b. Tender requisitions, bid evaluations, bid recommendations and Purchase requisitions.
- c. Power supply drawings and diagrams.
- d. Layouts, logic diagrams and other detail drawings including telecom rooms/panel drawings.
- e. Materials take-off for control cables etc.

Review / approval of vendor / Contractor's design and documents.

3.17 Ventilation and Air Conditioning

Ventilation & Air Conditioning engineering activities shall include, but not limited to:

- a. Equipment layout, ducting layout and general arrangement drawings.
- b. Preparation of Ducting and Instrumentation Diagrams (P & ID) and updates as appropriate.
- c. Calculations and Stress analysis of critical ducting.
- d. Materials take off for all ducts and accessories etc.
- e. Material and equipment specifications, requisitions, technical evaluations and recommendations including preparation of purchase requisitions for all items to be procured.
- f. Specifications and bills of quantities for all ducting items to be included in the Mechanical Installation tender invitations, technical evaluations of bids and recommendations.

- g. Approval of Vendor documents.



- h. Specifications for ducting to be included in material requisitions, evaluation of bids and recommendations etc.
- i. Preparation of specifications for insulation & painting.

4.0 Scope of Work for Owner and EPCM.

4.1 General

- a. The EPCM Scope of Work generally describes the EPCM Work to be undertaken by the EPCM Consultant in order to meet the completion of the Project in all respects.
- b. The Consultant shall perform and be responsible for all work necessary to complete the Project apart from items specifically identified as responsibilities of the Owner or the Technology Supplier. Any omission from the following description shall not limit the EPCM Work nor EPCM Consultant's responsibility and obligations.
- c. Any task or deliverable described in the EPCM Contract shall be identified and performed as part of the EPCM Work and shall be performed in accordance with the requirements therein and as per standard engineering practices as generally followed for such Projects.

4.2 Owner's (UADNL) scope

- a. UADNL as overall Project Manager for the Project will perform the functions and provide at its own expense and in due time those facilities required to establish the proposed plant. Specifications, data, services and decisions identified as "UADNL Responsibilities" defined elsewhere.
- b. The UADNL will establish a small, dedicated Project Team headed by an officer of appropriate rank at the site as well as at Corporate Office to carry out the following tasks:
 - Providing inputs with respect to total budget, schedule milestones and administrative requirements
 - Place, administer, monitor, control and make payments to parties engaged for the Project as per the terms and conditions specified for their services.
 - Review and Approve Consultant's recommendations, change proposals and execution strategies
 - Arrange insurance for the Project based on the information/inputs from Consultant if the same not kept in the scope of Lump sum Turnkey (LSTK) and other vendor.
 - Obtain necessary approvals from Statutory Authorities as required to be obtained "as Owner" for completion of the Project, with assistance from Consultant.



- Liaise with local, state and central government agencies on behalf of the Project with the assistance of Consultant,
- Provide and advise Consultant on Owner's policies/responsibilities including local employment objectives
- Manage and conduct its activities at the Site
- Provide Site location(s) and arrange Site access including designated areas required for temporary facilities
- Obtain all necessary clearances for import of equipments/items/materials, Letter of Credit openings, etc. with assistance of Consultant
- Place all Purchase Orders as defined in project procedures or as mutually modified subsequently between the Owner and Consultant
- Payments to Vendors/Contractors as per agreed terms and conditions and on certification of invoices by Consultant.
- Payments towards imports duty, port charges, freight charges etc. as per procedures agreed for custom clearance and transportation based on the advice of the consultant
- Supply raw materials, chemicals, and consumables required for Commissioning other than in the scope of vendors/package contractors and Start-up of the Complex as per the advice of the Consultant
- Conduct Commissioning and Start-up operations of the Complex through the owner's O&M setup with the assistance of the Process/Technology Licensor and Consultant
- Manage and control information services, press releases etc.

4.3 EPCM Consultant's scope of work

- a. Consultant shall carry out the functions, duties and obligations for the Project and in particular meet its responsibilities and obligations specified in accordance with the requirements of the Project.
- b. Consultant shall exercise due care and diligence to achieve the timely and proper design, engineering, manufacture, procurement, supply, construction, execution, installation, Commissioning, testing and completion of the Complex within the Target Cost Estimate and Project Master Schedule as may be revised from time to time by UADNL.
- c. Acting on behalf of UADNL, Consultant shall:-



- Design, procure, manage construction and hand-over of the entire Aluminium Alloy Flat Rolled Product Production Complex /Plant and shall verify and certify the completeness of the Plant for its intended application.
 - Plan, execute, monitor and control the EPCM Work and Project in a proper, workmanlike and most cost effective manner, maintaining quality, time and safety performance. The standard of diligence, skill and care exercised shall be equivalent to the best of worldwide industry standards and engineering practices.
 - Coordinate with Technology Provider, other consultants / agencies, if engaged for establishing the Plant facility.
 - Remain in direct coordination with Technology Provider with intimation to UADNL on various developments on day today basis.
 - Provide competent and skilled staff displaying capability in all its activities
 - Unless otherwise advised, be the UADNL's sole representative in dealing with third parties.
 - Shall be required to sign a Confidentiality Agreement with UADNL
 - Company Follow in a consistent manner policies and code of conduct of UADNL.
 - Defend UADNL's legitimate interests
 - Ensure the health and safety of all people directly and indirectly involved with, or affected by, the Project as per OHSAS 18001 Occupational Health and Safety Standards.
 - Protect and care for the environment (as per ISO 14001), personnel, plant and materials
 - Ensure compliance with all relevant and applicable regulations
 - Design and implement the Aluminium Alloy Production facility in accordance with the DPR in consultation with Technology Provider and as per the conditions stipulated by various statutory authorities
 - Allocate space for storage etc. for all contractors.
 - Ensure timely shifting of scraps generated in the work places to the designated scrap yard.
 - Arrange all office facilities, equipments, data processing and services as required to complete the EPCM Work to meet requirements.
-
- In coordination with Technology Provider, OEM / LSTK and other vendors prepare, assemble and hand-over all the relevant Project documentation,



General Arrangement drawings, lay out, P&ID both in hard copy and soft copy (in Auto Cad format) including certified As-built drawings, Vendor Data, necessary for UADNL to operate and maintain the Complex.

- Provide and manage rectification works during the Defects Liability Period.
- Prepare and submit Daily Receipt Reports (DRR) of Stores, weekly construction progress & Bulk Materials status and monthly progress and other reports in accordance with the requirement. The consultant shall also provide access to a dash board on the project monitoring software for online visualization of the progress, milestones, activities, constraints, etc. The modalities shall be mutually agreed

5.0 PROJECT MANAGEMENT

5.1 Management and Coordination

- a. Consultant shall establish the necessary Project Management organization / team, procedures, and support services to perform the EPCM Work. The procedures are to be finalized in consultation with the UADNL.
 - b. Consultant's Project Management organization / team shall manage, coordinate and administer the Project, in accordance with the principles, requirements and procedures concerning execution of the Project and UADNL's polices and obligations.
 - c. This work shall comprise, but not be limited to, the following activities:
 - Prepare and implement a Project Execution Plan which shall define all Agreements, Purchase Orders and Contracts which are required to plan, engineer, fabricate, construct, install, test, commission and start up the Complex. The Project Execution Plan shall be subject to approval of UADNL.
 - Competitively invite bids, evaluate, order and manage all Agreements, Purchase Orders and Contracts on behalf of UADNL in accordance with the requirements and procedures specified for the Project.
 - Monitor and take all required management actions to ensure that engineering, purchasing, expediting, inspection and transport are performed in an adequate and efficient manner, in order to ensure that purchased items are delivered on time and at the right quality.
 - Implement an equipment/materials management system to support the above.
 - Further develop and implement Project Work Breakdown Structure (WBS) to meet Project control and UADNL's future monetization, capitalization and operation requirements.
-
- Implement a Project Cost Control system, based on the WBS and Consultants proven cost control system and procedures



- On a monthly basis, provide accurate on-line period and cumulative accounting data together with a monthly Trend estimate of Project final cost.
- Implement a Project Schedule Control system, based on the WBS and Consultants proven scheduling system and procedures
- On a monthly basis, provide accurate on-line Project status with a monthly trend of civil & structural works, receipt of equipment / systems, erection of different equipment/ systems and material handling facility, date of obtaining approval of statutory authorities and expected date of Project commissioning.
- On a six monthly basis complete the detailed schedule review in order to provide formal Forecast updates of Project delivery date.
- Perform periodic Safety Health Environment (SHE) and technical audits, and advice the OWNER of the results of such audits together with the appropriate actions which have been taken.
- Prepare and present periodic progress, S.H.E. and cost reports to UADNL.
- Liaise with UADNL on all matters. Hold regular meetings with UADNL in accordance with agreed meeting schedules, including:-
 - i. Weekly coordination meetings
 - ii. Monthly meetings for the different Complex areas, and for engineering, procurement, construction/installation and Commissioning/start up.
 - iii. Regular SHE meetings
 - iv. Manage and coordinate Pre-commissioning activities. Issue Mechanical Completion Certificates to UADNL for each Unit/section prior to Owner's Acceptance (Hand-over) for Commissioning
 - v. Assist UADNL during Commissioning and Start up activities
 - vi. Assist UADNL in obtaining Statutory Approvals/Clearances. OWNER shall apply for all the requisite statutory clearances.
 - vii. Keep a track of the progress of the Licensor to ensure its Technical Services are provided in accordance with the agreed scope and schedule and intimate to UADNL for any deviation.
 - viii. Develop and implement a manpower control system for handling the EPCM Scope of Work. The system shall contain organization charts, resumes, job descriptions, estimated, actual and forecast manpower projections. The same has to be submitted to UADNL both in soft & hard form.



- ix. Prepare an overall implementation schedule in Project Management Software and present it in the form of a Dash Board, bar chart, indicating the sequence, interlinking of activities and duration of the major activities and indication of Milestones.
- x. Prepare detailed risk management plan including identification potential risk, mitigation plans, close monitoring of the potential risks in order to minimize the negative impact that they may have impact on the project and also on the Client.

5.2 Quality Control and Quality Assurance

Consultant shall prepare the quality assurance plan and quality control checklist to establish and implement a Quality System in accordance with the requirements of the project.

5.3 Planning, Scheduling and Progress Control

Consultant shall:

- a. Plan, schedule, monitor progress and report on all engineering, procurement, supply, construction, erection, Pre-commissioning, mechanical completion, Commissioning and Start-up activities for the Project. MS Project software at enterprise level shall be used for project monitoring with necessary facilities for the client to monitor the project through same.
- b. Prepare detailed Project schedules for each project segment/package driven from the work breakdown structure (WBS).
- c. Engineering work shall be organized by discipline and meeting procurement and construction needs. All engineering deliverables shall be identified as part of the planning process, and listed in engineering registers and schedules by both discipline and work package.
- d. Assess and report progress status for the different Project activities based on monitoring of physical work done. Consultant shall initiate necessary remedial actions if slippage occurs.
- e. Identify all required Purchase Orders, Turnkey Agreements and Contracts for the Project and shall develop separate but integrated schedules for the prior and post award activities of all Purchase Orders and Contracts.
- f. Indicate a schedule for monitoring of the Engineering activities at the beginning of the project for approval of UADNL. This will be the basis for monitoring progress later on. Monitoring shall be at least bi-weekly and include progress and target versus scheduled completion dates for each work package based on physical progress of work and as per the plant of activities indicated in each document. Summaries by engineering discipline shall also be prepared. Similar monitoring and reporting techniques for Purchase Order and construction activities shall be employed.



- g. Ensure that any other scope of work/services which are not specifically mentioned in the tender documents/contract, but required for the completeness of the subject work shall be in the scope of the consultant.

5.4 Cost Control and Reporting

- a. Immediately after EPCM Contract Award, the Consultant shall reformat UADNL's detailed cost estimate provided by OWNER as back up to the Project Cost Estimate to form the detailed Control Cost estimate.
- b. The Control Cost estimate shall be organised in accordance with the approved Work Breakdown Structure and Project Execution Plan and shall be used to monitor cost performance for the duration of the Project. The Control Cost estimate shall be revised only for approved project scope changes.
- c. Cost control activities shall include, but not be limited to:
- Preparation of monthly commitment reports for Purchase Orders/Contracts. Such reports shall include control estimate, commitment, Variations, paid to date and estimate to complete/at completion.
 - Monthly trending of Project final cost based upon latest committed costs and forecasts to complete uncommitted work including any known/expected variations in Project Scope and design, costs or implementation plans
 - Six monthly Forecast of Project final cost based upon a complete re-estimate of outstanding work items, quantities and updated unit price information. This update will form the official Project "Forecast" but will not change the Control estimate.
 - Quarterly update of Project Rate of Expenditure forecast for the total duration of the Project. Forecast shall be by quarter for first two years and six monthly thereafter.
 - Quarterly update of Project cash flow forecast for the next three (3) quarter. Forecast shall be by currency and Contract
 - Preparation of monthly Project cost status reports (PCSR) indicating the trends in cost and performance measurement.
 - Identification and assessment of any events that could have an impact on final costs.
 - Monitoring of continuous cost- and schedule improvement activities of the Project.
 - Development and implementation of Variation Order Control System for all Contracts and Purchase Orders, including the required procedures and instructions.



- Development and implementation of a Project Change procedure to highlight, record and obtain necessary approvals for any Project Change resulting in a change in schedule, cost or design above agreed minimums
- Development and implementation of a Project Scope Change procedure to highlight record and obtain necessary UADNL's approval for any Project scope Change requiring Control Cost estimate Budget or Project Schedule adjustment.

5.5 Progress Reporting

- a. Consultant shall have a transparent relationship with UADNL as regards to Project status through regular reporting procedures.
- b. Progress reporting shall be via regular meetings, weekly, bi-weekly and monthly Status Reports and the quarterly Project Forecast of cost and schedule.
- c. The progress reports to be prepared by Consultant shall cover:
 - Basic Engineering, including document lists and document preparation status
 - Detail Engineering, including document lists and document preparation status
 - Interface coordination
 - Procurement
 - Construction/Installation
 - Mechanical Completion
 - Vendor drawing status
 - Equipment and material status
 - Cost status
 - Schedule status
 - SHE
 - Other reports as requested by UADNL.
- d. The progress reports shall be monthly, and weekly as appropriate.

5.6 Office and Data Processing Services

- a. Consultant shall equip its Project and Site offices at their own cost with all necessary data processing facilities (hardware and software) to perform the EPCM Work in the most efficient manner.
- b. The data processing facilities shall include, but not be limited to
 - Cost estimating and cost monitoring



- Scheduling and progress monitoring
 - Document administration & control, including for Vendor Data
 - Engineering planning and progress monitoring
 - Procurement planning and progress monitoring
 - Construction / installation/Pre-commissioning / Commissioning / startup planning
 - Manpower planning and monitoring
 - Accounting
 - Word Processing
 - Computer Aided Design & Drafting (PMS or PDMS)
 - Engineering Analysis
 - Piping Design
 - Cable Routing
 - Electronic Mail
- c. Consultant shall maintain its own data base for all Project data and provide access to UADNL. All documents shall be submitted in standard soft format like PDF/editable format, as required.

5.7 Final Documentation

- a. Consultant shall compile a complete and indexed set of Project Documentation files. The files shall include as-built documentation and shall contain documents delivered by:
- Authorities
 - UADNL
 - Technology Supplier
 - Consultant
 - Turn-key Contractors
 - Vendors & Contractors
- b. Consultant shall specify in each Contract and Purchase Order which documents shall be delivered as part of the purchase order/ contract, and when the documents shall be delivered. This has to be done in consultation with the UADNL.
- c. Consultant shall apply the required expediting efforts to ensure that all documents are delivered in accordance with the schedule.



- d. The documentation shall include, but not be limited to
- Correspondence
 - Purchase Orders and Contracts
 - Drawings and diagrams
 - Specifications and Data Sheets
 - Reports and analyses/calculations
 - Manuals(transport, preservation, lubrication schedule, installation, testing/Commissioning, process, operation, maintenance)
 - Test records and certificates
 - Photographs, films and videos (if applicable)
 - Test samples
 - Invoice records

Note: - Documents as listed above, if not available from supplier, Technology Supplier, LSTK contractors etc. shall be prepared by the Consultant.

- e. All documents shall be certified by the consultant and provided in hard and soft copies, with incoming hard copy scanned unless otherwise agreed with UADNL.
- f. Coordinate with LSTK and other vendors for preparation, compilation and hand-over all the relevant Operation and Maintenance Manuals to UADNL before commissioning of respective equipments.
- g. Handing over of documents shall be in sets of minimum 06 (six) numbers. Three sets of Soft copies of all documentation to be handed over to UADNL. Soft copy of lay outs, Process Flow Diagrams (PFD), P&ID, As Built drawings etc. Shall be handed over to UADNL both in Auto Cad & PDF formats.

5.8 Approved for Construction, Design Manual and Engineering, As built drawings/ Documentation

Consultant shall:

- a. Develop a Manual that shall contain all design parameters for the integrated Complex. The manual shall be updated as and when required, to ensure that all design parameters are correct and in accordance with OEM's requirements.
- b. See that the documentation shall be comprehensive, and form a complete basis for placing of Contracts, Purchase Orders and Turnkey Contracts. The documentation shall ensure that all Project design parameters are and will be complied with, and that the



design is in accordance with all applicable engineering standards, codes and regulations.

- c. Ensure that the documentation shall be updated to As-built status on completion of the project.
- d. Ensure that the engineering documentation shall be kept in an orderly manner, and a complete Engineering Document Filing Index shall be issued to UADNL regularly and at Contract Completion. The documentation shall include Vendor Data and Operation Manuals and Maintenance Manuals and shall be revised to As-built condition at the appropriate time.

6.0 SAFETY, HEALTH & ENVIRONMENT (SHE)

- a. Consultant shall prepare personnel and plant safety studies and hazard/risk analyses, and shall perform safety audits in accordance with requirements of Statutory Authorities and UADNL.
- b. Consultant shall be responsible for the preparation of all philosophies and specifications pertaining to safety systems. The safety personnel/discipline shall ensure that safety is integrated into all aspects of Complex design. Consultant shall also coordinate and review the work of Contractors and Vendors to ensure full compliance with the UADNL's safety philosophy and safety requirements.
- c. Aspects considered shall typically cover:-
 - Escape routes, safe locations and evacuation system
 - Fire and smoke detection and protection systems
 - Personnel safety equipment
 - Communication
 - Emergency power
 - Environmental and discharge monitoring systems
 - Drains and emergency catchment ponds
 - Shutdown systems
- d. SHE Engineering activities shall include, but not limited to:
 - Fire protection arrangement drawings, fire and leakage detection/alarm arrangement drawings.
 - Hydraulic calculations, design reports, study reports.
 - Piping and Instrument Diagrams for firewater/foam systems.
 - Tender requisitions, bid evaluation and purchase order requisitions.



- Review/approval of Vendor/Contractor's design and documents.
 - Civil Engineering
- e. Consultant shall be responsible for identification of risks at various stages of implementation of the Project work, formulation & implementation of risk Mitigation Plan and submitting monthly Risk Assessment Reports to UADNL.

7.0 PROCUREMENT AND CONTRACTING

7.1 General

Consultant shall undertake, on behalf of UADNL, all procurement and contracting activities required for the engineering, supply/purchase, construction, installation, Commissioning and Start-up of the Complex. These shall include, but not be limited to:

- a. Identification, preparation, development and maintenance of all procurement strategies, plans, Procedures and schedules, required for the performance of the EPCM Work
- b. All Purchasing, expediting, inspection, shipping, clearance and transportation functions
- c. Standardization of material and equipment across the Complex
- d. Identification and procurement of spare parts required for Commissioning and Startup other than in the scope of contractors.
- e. Post award administration including verification and payment of invoices, processing of claims, variations and amendments, and all close-out activities
- f. Advising cash flow, fund requirement and forex requirements, enabling UADNL to provide funds and hedge currencies
- g. Handling of insurance claims in coordination with UADNL
- h. Shall be responsible for the control and coordination of all procurement and sub-contracting undertaken by Project Contractors.

7.2 Plan and Procedures

Consultant shall:

- a. Prepare detailed Procurement Procedures, including standard tender and contract documents, for Approval by UADNL prior to commencement of work.
- b. Prepare and issue for UADNL's approval on overall Procurement and Contracting Plan covering Turn-key Contracts, Construction Contracts and Purchase Orders (Total Packaging Philosophy).



7.3 Tendering

Consultant shall perform the following in relation to Contracts:

- a. Prepare and maintain lists of potential Contractors/Vendors.
- b. Obtain UADNL approval to Contractor/Vendor list for individual tender lists as required
- c. Prepare Tender Specifications.
- d. Finalise contracts as per mutually agreed & approved purchase/tendering procedure. Consultant to prepare tender documents comprising of Scope of works, Technical specifications with Pre-qualification Criteria, Evaluation Criteria, tender drawings, appropriate commercial terms & conditions, General Conditions of Contract, Special Condition of Contract, Schedule etc. and submit to UADNL for scrutiny and approval.
- e. Issue inquiries and tender invitation documents. Cost of press advertisement shall be to UADNL's account.
- f. Receive and evaluate bids/quotations, organize /conduct clarification/pre-bid meetings with bidders at consultant's office.
- g. Assist UADNL in negotiation (if required) and finalisation of placement of orders. This may call for Consultant representative's visit to UADNL office/Project Site office.
- h. Consultant along with UADNL will participate in discussions with successful bidder for finalization of the contract document.
- i. Submit draft LOA/PO/BO and contract document to UADNL containing specifications, BOQ, terms and conditions of contract etc. as agreed with the successful bidder. Orders shall be placed by UADNL after obtaining internal approval.
- j. Assess, recommend and prepare amendments to Contracts.
- k. Carry out Re-Tendering activities if required due to any reason.

7.4 Expediting

Consultant shall:

- a. Develop and implement expediting procedures
- b. Expedite Purchase Order / Brief Order confirmations and review Vendors manufacturing schedules
- c. Expedite Vendors for submission of drawings/documents/spare parts list, etc.
- d. Assist in obtaining import licenses in relation to overseas procurement
- e. Monitor Vendors progress vis-a-vis manufacturing schedules and reports



- f. Organise progress review meetings with vendors for identifying holdups and suggest corrective measures for ensuring scheduled deliveries
- g. Review availability of raw materials, manpower resources, etc. with the Vendors to ensure delivery as per schedule.
- h. Expedite replacement/repair actions by Vendors
- i. Bring to notice of UADNL likely delays, holdups, work stoppages, lock outs, strikes, non-availability of power and force majeure situations at Vendors/sub-vendors works and recommend corrective measures
- j. Issue monthly delivery status reports
- k. Review Contractor's billing schedule.
- l. Preparation and Submission of material Status Report (MSR) on Monthly basis.

7.5 Quality assurance and inspection

Consultant shall:

- a. Review Vendor's QA certification and procedures
- b. Handle major fabrication contracts under the relevant provisions.
- c. Develop and implement inspection Standards and its incorporation in letter of intent/Purchase order. The comments of UADNL if any will be incorporated in the inspection procedure. Develop and implements inspection procedures
- d. Review Purchase Orders and develop inspection standards
- e. Witness raw material inspections for suppliers and Turnkey Packages.
- f. Inspect conformity with drawings/standards/ specifications as stated in the Contracts
- g. Witness stage wise inspection wherever considered critical
- h. Review fabrication, welding and manufacturing procedures
- i. Review welders qualifications and material approvals
- j. Approve deviations from specifications/procedures for inspection
- k. Review Pre-commissioning documentation
- l. Witness final inspection and testing and follow-up punch list work.
- m. Maintain liaison with Vendors and third party inspection agencies
- n. Foreign visits may be required for the quality inspection which shall be carried out with prior approval of UADNL.



7.6 Contract Quality Assurance

- a. An Engineering Quality Assurance (EQA) programme detailing the overall management and procedures for the execution of this consultancy Agreement shall be agreed for implementation after a discussion between the two parties. The CONSULTANT shall adhere to such Agreed Quality Programme during the pendency of the agreement.
- b. The Engineering Quality Assurance programme developed for this consultancy services by the CONSULTANT shall meet the following engineering quality requirements of the UADNL.
- c. Engineering Quality Assurance programme is to be designed for the control of design activities including the preparation of calculations, drawings and purchase specification.
- d. Procedure to be provided by the documentation control system of EQA to assure the uniform application of engineering practice provision for reviewing and verifying designs and the maintenance of appropriate records.
- e. A systematic approach to be provided by the design control of EQA to the preparation, review and approval of design documents. Thus all engineering documents generated, for system analysis and system design specifications through calculations and detailed design shall have specified review and approval requirements. The design control procedures should also provide appropriate reviews of manufacture's drawings, data and other information to assure that all equipment will meet the requirement of the system design specifications.
- f. Provision for review and approval prior to release of the specifications.
- g. Provision for monitoring and checking of system procedure adopted by the Engineering personnel.

7.7 Material Management

7.7.1 Inventory Control

Consultant shall:

- a. Establish a material management group initially in the Consultant's Project Office and transferring to Site at the appropriate time.
- b. Establish a computer based inventory control system in accordance with the requirements of the Project.
- c. Some critical equipment shall also be supplied by Technology Supplier. All Post order activities like expediting, co-ordination of port handling, custom clearance, transportation etc. shall be in the scope of consultant.



- d. Provide free issue material supply, usage and reconciliation. Installation Certificates of FIMs are to be issued by Consultant.

7.7.2 Traffic

Consultant shall:

- a. Undertake detailed route survey between Port/ State Boundaries and construction site(s) and determine road/rails for transport and handling of equipment/material/deliveries to the site. Any necessary strengthening / reinforcement / diversions, etc required shall be identified and informed to OWNER for Approval and Consultant shall implement in co-ordination with local authorities.
- b. Prepare packing, marking, shipping and documentation specifications to be attached to inquiries/tender invitations for indigenous and imported materials separately, and specify the advance information and documents required for planning of movements and expeditious receipt of material at site
- c. Render assistance in appointment of Clearing and Forwarding agents, transport and handling contracts, expediting agencies, and supervise their working for the following services:
 - Carryout customs clearance and dispatch of imported shipments
 - Collect and transport steel materials from various steel stockyards
 - Organize transportation of materials and equipment from Vendors workshops to Project Site(s) by road and rail, and distribution of free issue material to Vendors workshops.
 - Escort for movement of large loads in transit.
- d. Ensure appropriate insurance is in place for inland and marine transit.
- e. Assist UADNL in lodging of insurance and other claims.
- f. Certify bills of payment submitted by Contractors.
- g. Submit regular, periodical status reports to UADNL covering imports collection and receipt of materials at Site(s).
- h. Survey for damages/shortfall of imported consignments and submit report to UADNL.

7.8 Invoice Verification

Consultant shall check and certify invoices/payment requests from Contractors prior to payment on behalf of UADNL.



7.9 Claims Handling and Close-outs

Consultant shall:

- a. Assess on a continuous basis claim(s) from Contractors, discuss and resolve disagreements and issue Change Orders in the event a claim requires an amendment to an existing Contract on approval by the UADNL. Issue of Change Order shall be as and when required but latest within 3 months from Mechanical Completion of the Project Segments.
- b. Perform closure of all Contracts/Purchase Orders in consultation with UADNL.

8.0 CONSTRUCTION MANAGEMENT

8.1 General

Consultant shall take control of the Site(s) on behalf of the UADNL and perform all necessary activities to complete construction of the entire Complex, including but not limited to:

- a. Coordination and interface management of all activities on construction sites
- b. Interface/liaison with engineering offices, Licensor and UADNL.
- c. Ensure all construction work is performed under safe conditions including usage of required PPEs and that high health and environmental standards are maintained
- d. Carry out all pre-constructional surveys
- e. Planning, provision and management of temporary facilities including labour camps
- f. Supply and erection of temporary office space and facilities, including first aid facilities
- g. Construction planning and scheduling, progress monitoring and schedule control
- h. Contract cost monitoring, trending, forecasting and reporting
- i. Quality assurance, inspections and technical audits
- j. Field engineering, material planning, field purchasing, warehousing and issue
- k. Consultant shall employ its own qualified and experienced personnel and give due consideration to UADNL's view for strengthening the team and replacing some persons keeping in view the Project requirement.
- l. The planning may be reviewed with the site progress and suggest remedial measures for recouping the delays. Organize that the entire plant is erected and mechanically completed and prepare the related reports to be signed by all parties including approval and acceptance of completion certificates.



8.2 Construction Procedure and Site Grading

- a. Consultant shall develop construction procedures which shall describe all matters pertaining to the construction work, such as temporary facilities, construction program, construction methods, safety, health, environmental and security programs, construction plans and schedules, and construction management/coordination procedures.
- b. Carryout site grading and related civil works for the total project area by appointing suitable agency in line with the tender procedures of UADNL.

8.3 Safety, Health, Environment (SHE) and Security

Consultant shall:

- a. Establish and implement a SHE System in accordance with the requirements of the Project.
- b. Ensure that all work at Site(s) is performed under safe conditions, and that high environmental standards and site cleanliness are maintained throughout construction, installation, Commissioning and Start-up.
- c. Prepare a comprehensive SHE Procedures Manual for UADNL Approval.
- d. Ensure that:
 - Statutory obligations are complied with
 - Safety training, both general induction and trade specific, is given to all site employees
 - Appropriate personal safety equipment regulations are developed and enforced
 - Regular Safety meetings are held with all Site contract employees
 - Safety inspections are carried out and reported
 - Accident statistics are prepared and issued monthly and are displayed at site
 - All Lost Time or serious incidents are reported to UADNL within 8 hours
 - Adequate first aid and medical facilities are provided and maintained at Site(s) to handle routine medical examinations, illness, accidents.
 - Appropriate emergency services and procedures are in place at the Site(s) including evacuation to the nearest hospitals
 - Entrance to Site(s) is controlled, monitored and recorded
 - Appropriate security measures are enforced
- e. Prepare safety procedures in consultation with UADNL and ensure that:
 - Safety procedures are employed in job execution.



- Safety procedures are complied with,
 - Safety inspection reports are prepared,
 - Statutory obligations with respect to accident are complied with.
 - Monthly lost time reports are prepared.
 - Proper safety programmes redesigned and carried out.
- f. Prepare and implement suitable guidelines for the contractors/vendors for strict adherence to SHE policies (being followed by UADNL) along with penalty charges (in addition to GCC & SCC of the contract) for noncompliance and also repeated failure in implementation of any SHE provisions.

8.4 Quality Assurance

Consultant shall:

- a. Ensure that Contractors develop Quality Assurance (QA) Manuals that meet the relevant requirements. These manuals shall contain procedures/guidelines for all work that shall be carried out (qualification of personnel, work procedures, quality control procedures etc., and quality plans that specify all control work to be performed
- b. Monitor contractor's work and Quality Control (QC) activities to ensure conformity with the QA procedure in the QA Manuals
- c. Issue instructions and give directions for corrective actions on QA non-conformance
- d. Ensure that all Contractors produce QA/QC dossiers in accordance with the QA manuals
- e. Review proposed construction procedures, such as erection and welding procedures
- f. Ensure Contractor's employees are suitably qualified for the work that they perform through inspection and recording of certification and conducting or witnessing trade tests such as welding.
- g. Keep up to date records of all qualified Site personnel
- h. Audit Contractor's quality performance.
- i. Special control on civil construction work quality and structural & equipment erection, piping and cabling work quality as per QAP.

8.5 Pre-constructional Surveys and Planning of Temporary Facilities

Consultant shall:

- a. Establish benchmarks, grid pillars, and control points
- b. Carry out reconnaissance and route surveys as required



- c. Carry out soil investigations as needed
- d. Carry out/assist with studies and analyses of the existing infrastructure and support facilities available either at Site(s) or nearby locations as required
- e. Prepare a plan of action regarding development of infrastructure and support facilities and implement the same after approval by UADNL.
- f. Implement Site development work and services
- g. Assess, design and implement construction water, construction power supply and distribution scheme, and sewage system for the various construction areas
- h. Assess, design and implement various warehousing facilities
- i. Develop a plan for temporary housing and accommodation for Consultant and Contractors Site staff
- j. Develop and implement a plan for temporary housing for construction workers including utility, messing requirements, garbage disposal etc. The plan shall include provisions for the removal of the temporary facilities on completion of the Works
- k. Develop suitable Site offices for Consultant/OWNER/Technology Supplier requirements
- l. Provide and implement computerised system for construction control,
- m. Assess and implement the communication system requirements
- n. Assess the need for, and develop suitable construction laboratory facilities required for quality control during the construction stage
- o. Evaluate the requirements for construction equipment and propose action plans to meet Project needs
- p. Evaluate the requirement of various consumables, and propose action plans to meet Project needs

8.6 Construction Planning and Monitoring

Consultant shall:

- a. Provide all necessary field input for the planning and scheduling of the overall Project
- b. Examine the Contractors' schedules
- c. Highlight critical areas, and identify remedial actions
- d. Generate from Construction Worksheets monthly guide schedules, from which weekly programs are drawn
- e. Evaluate the progress weekly/monthly and generate corresponding reports



- f. Identify material constraints, drawing release constraints, and report them for remedial action
- g. Conduct weekly/monthly review meetings
- h. Identify resource constraints, and prepare resource deployment reports
- i. Provide to the UADNL any back-up information required on the status of Project
- j. Gather, consolidate and transmit all data pertaining to costing
- k. Control and issue of Free Issue materials.

8.7 Construction Coordination & Supervision

Consultant shall:

- a. Provide adequate number of skilled personnel in the field to coordinate, control, expedite, inspect, liaise and report work of various Contractors working at Site
- b. Coordinate construction and installation/erection of entire Complex to maintain progress, quality and correctness including safety and environment
- c. Maintain a constructability review program including lifting studies throughout the engineering and construction phases to simplify construction, improve safety, and to minimise the total Project cost
- d. Ensure that Complex is erected and Mechanically Complete, and prepare the related reports to be signed by all parties including approval and acceptance of Completion Certificates as per agreed procedures
- e. Co-ordinate work of all Contractors at Site and render technical advice to Contractors. Identify all interfaces, and manage the closeouts of the interfaces
- f. Certify measurements of works completed by Contractors, and verify the payments of Contractors' bill as per billing procedure
- g. Organise, plan and manage the construction program as a whole
- h. Plan field manpower requirements
- i. Recommend and administer back charges and settlement of claims, etc.
- j. Interpret and resolve Contract disputes/discrepancies in prior consultation with OWNER
- k. Maintain cost records.
- l. Allocate materials, and certify material consumption of the Contractors.
- m. Report progress and work program, establish procedures for final listing of different Contractors work, and perform progressive take over and Contract closeouts.



- n. Perform material reconciliation, issue, consumption, receipt, return, stock etc. on monthly basis along with the progress bill of each Contractor.
- o. Co-ordinate the activities of all parties involved in the Project work.
- p. Conduct and minute all required meetings with Vendors, Turn-key & other Contractors and with Consultant's Engineering Department.

8.8 Inspection and Technical Audit

8.8.1 General

- a. Consultant shall establish a Technical Audit Group, which shall perform the following activities
- b. Verify Contractor provides acceptably qualified trades people through inspections of certificates and/or trades testing at Site. Conduct or monitor Contractor's program for welder certification
- c. Standardise and update inspection procedures and construction norms and implement total quality assurance programs
- d. Verify Contractors adhere to approved QA programs in accordance with procedures in Contractor's Quality Assurance Manual
- e. Verify that Contractors QA programs result in a quality plant be monitoring quality through a series of spot checks, including those activities listed below

8.8.2 Civil and Structural Works

- a. Check concrete work including form work, staging, reinforcement, placing inserts, anchor bolts, curing, taking out cubes for testing and certifying the acceptability of concrete work.
- b. Quality inspection and testing of various civil engineering materials brought by Contractors.
- c. Operate a concrete Testing Laboratory.
- d. Quality inspection and testing of bolted & weld connections in structural works by conducting Radiography examination of joints & it's evaluation.
- e. Testing of the all the underground & above ground piping works
- f. Ensure correctness of Contractors work during lay out and fixing of levels of all structures and foundations, roads, drains, pipelines, etc.
- g. Check layout, levels, dimensions, etc.
- h. Test water supply system, drainage system, sanitary system, storm water and effluents disposal system, etc.



8.8.3 Mechanical

- a. Weld inspection including all non-destructive testing such as Radiography, Ultrasonic, Magnetic Particle Testing etc., stress relieving, co-ordination with boiler inspectors,
- b. Qualify welders and welding procedures and manage/coordinate of testing of materials.
- c. Inspect piping fabrication, erection alignment and testing including structural work.
- d. Check level and alignment of equipment and machinery and prepare the necessary protocol for submission to Owner.
- e. Inspect fabrication, erection and testing of vessels and tankages.
- f. Witness flushing and pressure testing of piping and equipment.

8.8.4 Electrical

- a. Check completeness of earthing network, soundness of connections, continuity and earth resistance. Completeness, soundness and continuity checks of lightning protection installation.
- b. Check correctness, soundness and quality control of interlocks and power connections
- c. Check continuity, polarity, phase sequence etc. of controls, interlocks protection and power circuits.
- d. Check correctness of installation, completion of work, soundness of switch gear, motors, transformers, cables and supplying IR test, test of polarisation index, dielectric with stand test, NV test as required by standards, codes, rules and regulations to establish soundness of charging.
- e. Check protection equipment/gear and setting for pre-commissioning run by primary run, secondary run as required.
- f. Check operation of controls, interlocks, auto change over, etc. and establish correct operation.
- g. Check of dust and water protection and classifications
- h. Assist in Statutory approvals
- i. Step by step energisation after applying IR test, etc.
- j. Check and test energisation of lighting circuits.
- k. Cleaning of switch gear internals and bracing up.
- l. Check, test and energisation of motors in decoupled condition and checking of physical condition of motors, noise level, direction of rotation, identifying rubbing, etc.



- m. Alignment of motors for coupling with machines.
- n. Set protective equipment for "ONLOAD" running.
- o. Inspect motors, transformer, switch gears, etc. during running "ON LOAD".

8.8.5 Instrumentation

- a. Check up orientation of flow (d/p) meter as per the service condition.
- b. Check up alignment for variable type flow instruments.
- c. Check orientation of pressure transmitter piping as per service condition.
- d. Hydrostatic test valve manifold for all types of pressure instruments.
- e. Check alignment of external displacer level instruments.
- f. Check orientation of level instruments.
- g. Hydrostatic test of all types of level instruments.
- h. Check location of capillary type temperature instruments.
- i. Check/coordinate with piping group for hydrostatic testing of all thermo wells.
- j. Check up installation, piping, wiring and tubing of all analysers.
- k. Hydrostatic test of impulse piping of all analytic instruments.
- l. Check direction of control valve and orientation of hand wheels, limit switches, positioners, air filter regulators, etc.
- m. Check alignment of channel base for all control panels.
- n. Check correctness and pressure testing of all tubes used in control panels and their connection with instrument and other interconnections.
- o. Check loading of both the phase of instrument electrical power on the bus bar in the power distribution box.
- p. Check correctness of connection and interconnection to instruments for all temperature compensating cable. Check input impedance for galvanometric instruments.
- q. Check that the electrical type instruments including local alarm enunciators are properly protected from rain, heat, etc.
- r. Check for minimum length of impulse piping.
- s. Check that magnetic flow meters, analysers, etc. are properly grounded.
- t. Check routing of copper tubing, electrical cable and compensating cable and their supports.



- u. Check fabricated ducts and angle trays.
- v. Check the requirements for insulation (hot or cold) and steam tracing as required by piping class.
- w. Inspect and confirm completeness and correctness of all package units.
- x. Check slopes of instrument air piping and instrument air headers.
- y. Check correctness and pressure testing of all single core/multi core tubes.
- z. Check correctness of connection and insulation resistance testing of all single/multi core electrical control cables.
- aa. Check correctness of connection of all single/multi-core compensation cable in the field.
- bb. Ensure instruments are correctly calibrated.
- cc. Ensure functional testing of loops by simulation.

8.9 Field Engineering

Consultant shall establish a field engineering group to perform the following works:

- a. Resolve or take necessary action to resolve technical queries raised by Contractors
- b. Advise Contractors on alternative methods of construction & technical solutions
- c. Carry out necessary engineering for additional works to be procured at Site
- d. Perform design modifications and prepare field sketches including O&M facilities such as platforms, monorails/ handling facilities etc. to meet site requirements.
- e. Control the issue of bulk materials
- f. Receive, store, issue and keep records of drawings, standards and specifications
- g. Approve drawings/schemes submitted by the Project Contractors
- h. Receive and file Test Certificates from Vendors and Contractors
- i. Organise As-built mark-ups and arrange for As-built revision of all engineering documents

8.10 Field Purchasing

Consultant shall:

- a. Establish a field purchasing group to perform the following work as a minimum:
- b. Prepare estimate of work to be site tendered
- c. Obtain approval for such tenders and invite for tenders



- d. Evaluate tenders and prepare recommendations
- e. Prepare & issue site Contracts and Purchase Orders on behalf of UADNL having cost implication not exceeding the agreed limit.
- f. Handle Variation Orders to existing Contracts/Purchase Orders

8.11 Material Planning

Consultant shall establish a field materials planning group to perform the following minimum work:

- a. Compile and update data, and monitor the material required for construction
- b. Plan for efficient utilization of material resources
- c. Identify surplus material and their utilisation
- d. Identify and raise requisitions for procurement of unplanned material.
- e. Report regularly on critical materials and prepare routine reports

8.12 Warehousing

Consultant shall, on behalf of OWNER, undertake full management responsibility and control for the warehousing function at Site. This function shall include, but not be limited to:

- a. Manage, coordinate control and supervise all aspects of Warehouse Management.
- b. Plan and purchase/lease all required equipment and facilities
- c. Establish procedures for receipt, inspection and reporting of equipment and materials delivered at site
- d. Receive, inspect, accept/reject, store equipment and materials
- e. Establish procedures for maintaining various Vendor records
- f. Raise insurance claims, and follow up on behalf of OWNER.
- g. Free issue of material and equipment to Contractors
- h. Establish and maintain adequate controls, records and reporting systems
- i. Hand-over surplus materials and spares to Operations
- j. Dispose of surplus and scrap materials/equipment.
- k. Maintaining various records at site as per established procedure.
- l. Inspect materials received at site and report on any shortages, over supply, loss or damages. Assist owner in lodging insurance claims, follow up and recovery. Assist owner in lodging of FIR for loss due to theft.



- m. Maintain records for the following:-
- Receipt of materials and equipment
 - Reports of site list of materials and equipment
 - Inspection reports and test certificates.
 - Material receipt vouchers based on codification adopted by owner.
 - Material issue vouchers based on codification adopted by owner.
 - Rendering of complete physical account of stores after the project is completed.
 - Quarterly reconciliation of bin card/ physical balance with PSL records.
- n. Assist in preparation of necessary documents for GST Input Tax Credit.
- o. Issue the necessary 'Installation Certificates' for foreign materials installed in the project.
- p. Handing over of balance stores material to owner on completion of work.

8.13 Pre-commissioning, Mechanical Completion, Statutory Clearance

- a. Physical Completion, Pre-commissioning and Mechanical Completion will occur on a Unit/section by Unit/section basis.
- b. **Physical completion** of any Unit/section is the completion of all related work subject to an agreed plug list identifying deficiencies and before Pre-commissioning checks is completed.
- c. **Pre-commissioning** means the physical testing of a Physically Completed Unit including pressure, leaks, motor rotation, P&ID conformity, control wiring and field device action, etc.; system testing; and dry running without material.
- d. **Mechanical Completion** is the successful completion of Physical Completion and Pre-commissioning activities and certifies that the Unit has been designed, manufactured, erected and tested in accordance with the Specifications and is ready for Commissioning and Start-up. It may have an agreed Punch List identifying deficiencies and a program for their correction.
- e. Consultant shall coordinate all Pre-commissioning activities, and shall develop a Pre-commissioning Procedure Manual with adequate check lists and schedules for UADNL's approval.
- f. Consultant shall provide a computerised program for all Pre-commissioning activities for planning and follow up of the activities.



- g. Consultant shall also depute competent technical personnel at Site to follow up the Pre-commissioning activities performed by the Contractors, and shall perform inspection and witnessing of testing as appropriate.
- h. Examples of Pre-commissioning activities are:-
- Check equipment, piping and instrumentation is in accordance with P & IDs
 - Inspect for complete and correct installation
 - Check alignment of all rotating machinery
 - Flush & first fill of lubricants.
 - Pressure testing of all equipment, pumps and piping
 - Clean and flushing of lines, pressure relief and other systems
 - Insulation and continuity testing of cables and equipment
 - Load testing of lifting equipment
 - Check connections and motor rotation of all electrical cables/equipment
 - Check connections & loop test all instrument loops
 - Testing and calibration of instruments, control & relief valves, etc.
 - Participation in no load test runs
 - Implementation of safety feature.
 - Approval of statutory authority, if applicable.
- i. Correction and re-testing of any deficiencies
- j. Consultant shall include all Pre-commissioning requirements in the Tenders, Contracts and Purchase Orders.
- k. Consultant shall coordinate with the OEM /Technology Supplier and other appropriate parties to secure the authorisation and timely issue of the "Certificates of Readiness for Startup,,"

9.0 Commissioning Start Up and Performance Guarantee Test assistance.

- a. Commissioning is defined as the testing/running of an individual Unit with material.
- b. Start-up is defined as overall plant Start-up and operation with material.
- c. Commissioning & Start up can be separate for individual facility.
- d. Turnkey Contractor shall be responsible for Commissioning of their package
- e. Consultant shall participate in Commissioning and Start-up activities.



- f. Consultant shall render assistance in:
- Preparation of Commissioning and Start-up procedure and schedules including follow-up for completion of Commissioning check lists.
 - Coordinate services provided by Turn-key Contractors/OEM
 - Ensure that any rectification work is handled timely, expeditiously and according to contractual obligations.
 - Performance Test Runs, evaluation and recommendation

9.1 Post Start-up Assistance

Consultant shall assist the UADNL after Start-up in case of arising of any Technical issues with any Unit, Equipment packages, etc.

10.0 Integrated Operation & Post Commissioning Services

The Consultant shall ensure that the commissioning of the units occurs in a proper sequence (i.e. melting & casting facilities to be commissioning earlier so that material flow for commissioning of hot rolling facilities & other downstream facilities can occur) and commissioning tests can be carried out. The services to be provided by the Consultant under this category are as follows:

- i. Prepare a schedule for procurement / supply of utilities, raw materials and services, consumables etc. required for start-up and commissioning.
- ii. Prepare commissioning plan for PG, no load trial run, sequential trials run and hot commissioning of all equipment
- iii. Assistance to UADNL to prepare programme of shutdowns, if required at least six months in advance and also prepare the protocol to be signed by all concerned agencies for the actual shut down.
- iv. Signing handing over / taking over acts for various units along with AUDNL. Checking / comments on delay analysis submitted by suppliers.
- v. Overall planning, guidance and supervision of testing, trial runs, commissioning and performance/guarantee tests to be conducted by equipment/OEM/plant suppliers.
- vi. Assist UADNL in issuing provisional acceptance of commissioning certificate and performance acceptance of the work "PAC" certificates jointly with UADNL.
- vii. Evaluation of results and preparation of guarantee test reports.
- viii. Recommendation and supervision of guarantee test-runs, wherever necessary.



ix. Issue of Final Acceptance Certificate jointly with UADNL.

11.0 Industrial Relations (IR)

- a. Consultant shall develop a plan to manage the industrial relation at the site that will set out a strategy for effectively managing all labour related issues to allow uninterrupted construction.
- b. Consultant shall:-
 - Establish Industrial Relations rules and regulations for the Site(s)
 - Resolve of issues relating to Industrial Relations
 - Approve any action planned by Contractors on specific Industrial Relations issues
 - Liaise with UADNL on all matters pertaining to IR.

12.0 Project Closure:

Consultant shall:

- a. Process the final deviation, if any, in contracts/packages for approval of UADNL.
- b. Recommend the application of Liquidated Damage (LD) against each contract/package after scrutiny of the delay analysis submitted by the party.
- c. Reconcile the Free Issue of Material (FIM) issued to the contractor, if any.
- d. Process the final bills submitted by the party along with all clearances as per the check list.
- e. The consultant shall furnish to the UADNL two sets of all draft and two sets of all final tender documents including specification, drawings, schedules, etc., prepared by them.
- f. Four (4) prints of 'Release For Construction' (RFC) drawings and schedules shall be furnished, required for use by UADNL and the contractor. The as-built drawings CDs in CAD format shall be submitted along with two nos. of hard copy.
- g. Consultant shall ensure submission of Two (2) complete sets of prints and one soft copy of "as built" drawings by the contractor.
- h. Two copies of Operation Manuals & Maintenance manuals giving schedules (daily/monthly/annual) through Contractors along with soft copy.
- i. Tender Evaluation Report in Two (2) sets shall be furnished.
- j. Weekly progress reports through e-mail shall be furnished.
- k. Monthly Progress Report in through e-mail shall be furnished.
- l. Other compiled documents shall be furnished in two (2) sets along with soft copy.



- m. Completion report in two (2) sets along with soft copy.
- n. Two sets of Contract documents in hard copy along with soft copy.
- o. Any other documents etc not specified but required for the completion of the scope of work/services shall be submitted in two (2) of hard copies along with soft copy

13.0 Provisional Acceptance and Final Acceptance

Consultant shall:

- a. **“Provisional Acceptance of the Works” or “PAC”** shall mean the Provisional Acceptance Certificate (PAC) to be issued after the successful completion of the PG test.
- b. **“Performance Test” or “PG Test”** means such tests to be carried out as per Technical Specification of the package, to demonstrate the achievement of the Guaranteed Performance before the Provisional Acceptance Certificate is issued.
- c. **“Final Acceptance of the Works”** shall mean the Final Acceptance Certificate (FAC) to be issued at the end of successful completion of the Defect Liability Period/Guarantee Period.



INSTRUCTIONS TO BIDDERS (ITB)**1.0 GENERAL**

1.1 It shall be the bidder's responsibility to have a thorough understanding of the reference documents, site conditions and specifications included in the Bidding Document.

1.2 Definitions

With respect to this document, the following definitions shall apply:

- a. **"Instructions to Bidders" (ITB)** shall mean the documents describing in which manner the bidder shall prepare and submit the bid.
- b. **"Letter Inviting Bid" (LIB) / "Notice Inviting Tender" (NIT)** shall mean the Owner's request to Bidder for a Bid / Tender together with the Bidding Document.
- c. **"Tender" or "Bid"** shall mean Bidder's offer to perform the work, in accordance with bidding Document.
- d. **"Tender Document" or "Bidding Document"** shall mean the documents listed herein, and any subsequent addenda.
- e. **"Bidder" or "Tenderer" or "Party" or "Consultant"** shall mean the person or company or Consultancy Firm who downloads/ purchases the Tender Document or Bidding Document and submits his Tender or Bid to Owner.

2.0 BIDDING DOCUMENT, CLARIFICATIONS AND AMENDMENTS**2.1 Bidding Document**

- 2.1.1 The Bidding Document shall consist of all the bid documents as indicated the table of contents and should be read in conjunction with any amendment(s) and/or clarification(s) issued subsequently.
- 2.1.2 The Bidder is expected to examine the complete Bidding Document. Failure to furnish all information required as per the Bidding Document or submission of a bid not substantially responsive to the Bidding Document in every respect could result in rejection of the Bid.
- 2.1.3 Bidding documents are exclusive documents of UADNL and once downloaded are non-transferable and shall at all times remain the exclusive property of UADNL with a license to the intending Bidder to use the Bidding Documents for the limited purpose of submitting the bid.
- 2.1.4 Bidder should submit their offer as per procedure detailed at Annexure-12 of this tender document. Bidder should enclose EMD instrument along with all document requested in the envelope-1 and the price part to be furnished in the price bid in the envelope -2. .



2.2 Although the details presented in this bidding document have been compiled with all reasonable care, it is the Bidder's responsibility to ensure that the information provided is adequate and clearly understood.

2.3 Amendment to Bidding Document

2.3.1 Owner may, for any reason whether at its own initiative or otherwise, issue Amendments and/or Clarifications during the bidding period which shall be hosted on MIDHANI and NALCO websites (www.midhani-india.in and www.nalcoindia.com) and become part of Bidding document. Bidder should take note of all amendment and/or Clarifications while submitting their bid.

2.3.2 The bidder is advised to visit the websites from time to time to verify updates/ Amendments and/or Clarifications to the tender documents, if any

2.4 Confidentiality of Document

Bidder shall treat the Bidding document and contents thereof as confidential and should not use for any other purpose except for participation in the bid.

3.0 PREPARATION OF BIDS

3.1 Site Visit

3.1.1 Bidder is advised to visit and examine the site and its surroundings and shall familiarize itself of the existing facilities and environment, and shall collect all other information which it may require for preparing and submitting the bid and entering into the contract. Claims and objections due to ignorance of existing conditions or inadequacy of information will not be considered after submission of the bid and during implementation/execution of the order.

3.2 Pre-bid Meeting

A Pre-bid meeting shall be held on Dt. **02.12.2020 at 11:30 Hrs at MIDHANI Office Hyderabad**. The prospective bidders intending to attend the pre-bid meeting shall submit their queries Deputy General Manager (Purchase), Midhani, Hyderabad, Fax: 040 – 2434 0764, Email: praavin@midhani-india.in latest by 3 days before the date of pre bid meeting so as to enable to prepare for the replies.

The Addendum/Corrigendum to the tender documents based on the Pre-bid discussions, (if any) shall be uploaded on MIDHANI and NALCO websites (www.midhani-india.in and www.nalcoindia.com) latest within a week from the pre-bid meeting. Bidders may download the same. No separate intimation shall be given to the bidders.

3.3 Bid Validity

Bid shall remain valid for acceptance for a period of 180 days (06 Months) from the due date/ extended due date of opening of the bid. The Bidder shall not be entitled to revoke or cancel its bid or to change the bid except and to the extent required by Owner in writing during the bid validity period. In case of any Bidder revoking or



cancelling its bid or changing any term suo moto the earnest money deposited along with the bid of the bidder shall be forfeited.

3.4 Compliance to Bidding Requirement

3.4.1 The Bidders are required to submit offers strictly as per the terms and conditions/ specifications given in the Bidding document without any deviations.

3.4.2 However, in exceptional cases, if the Bidder wishes to stipulate any deviations to bidding requirements other than those mentioned above, they shall indicate the same as per the format for exceptions/ deviations in **Annexure-11**. Bidder shall note that clarifications/ queries/ deviations mentioned elsewhere in the offer shall not be given any cognizance.

3.4.3 If any exception/ deviation is acceptable to UADNL, the same shall be issued to all bidders through an amendment. Bidders shall withdraw all other deviations/ exceptions, not incorporated in amendment, failing which offer of such bidders shall not be acceptable.

3.5 Bidder is advised that UADNL intend to fully evaluate the technical and un-priced commercial submissions.

3.6 It is important that Bidder clearly demonstrates its experience and capability, giving to UADNL a high level of confidence that if awarded, the Bidder will be able to perform the works within the stipulated Time Schedule and quoted price and meeting all other requirements listed in the Bidding document.

3.7 Bidder is requested to furnish the complete and correct information required for evaluation of his bid. If the information with regard to resources and concurrent commitments or any other information/ documentation forming basis of evaluation is found incomplete/ incorrect, the same may be considered as adequate ground for rejection of the bid.

4.0 Conflict of Interest

4.1 A Bidder shall not have a conflict of interest that may affect the Selection Process or the Consultancy (the "Conflict of Interest"). Any Bidder found to have a Conflict of Interest shall be disqualified. In the event of disqualification, UADNL shall forfeit and appropriate the Bid Security as mutually agreed genuine pre-estimated compensation and damages payable to UADNL for, inter alia, the time, cost and effort of UADNL including consideration of such Bidder's Proposal, without prejudice to any other right or remedy that may be available to UADNL hereunder or otherwise.

4.2 UADNL requires that the Consultant provides professional, objective, and impartial advice and at all times hold UADNL's interest paramount, avoid conflicts with other assignments or its own interests, and act without any consideration for future work. The Consultant shall not accept or engage in any assignment that would be in conflict with its prior or current obligations to other clients, or that may place it in a position of not being able to carry out the assignment in the best interests of UADNL.



4.3 Note for submitting the documents as per NIT requirement:

- a. All documents to be submitted in hard copies/soft copies/Photo copies to UADNL as per NIT terms should be attested by Authorised Signatory of the Bidder.
- b. Any documents UADNL desire to be furnished separately, also need to be attested by Authorised Signatory of the Bidder.
- c. The Bidders have to submit the following hard/soft copies at the Place/ Address of submission as indicated at Proposal Details of the NIT within the due date & time specified for bid submission.
 - i. Signed & stamped copy of all NIT pages by authorized persons of the bidder.
 - ii. All prescribed Formats enclosed at **Annexure-8** are also to be submitted after complying the requirements stipulated for respective format.
 - iii. The bidder or its Proprietor/Partner(s)/Director(s) of the firm should not have been convicted by a court of Law for an offence involving moral turpitude in relation to business dealings during past seven years for acceptance of the offer. The bidder has to submit self – declaration duly signed by Authorised signatory on Company's Letter Head as above along with techno commercial bid.
 - iv. Bidder should not be under liquidation, court receivership or similar proceeding and shall submit self-declaration for the same.
 - v. The bidder is required to give the names of other firms / agencies / partnership firm / wholly owned or partly owned subsidiary etc. where they are having financial / professional stakes and also give a certificate if any such firm / agency are participating in the subject tender.
 - vi. Bidders are required to furnish the complete and correct information required for evaluation of their bids. If any information furnished is found to be false/misleading/incomplete, the same shall be considered as adequate ground for rejection of the bids.
 - vii. Bidders are required to furnish only those credentials in the prescribed format for Tables for which documentary evidence of work undertaken and completion is available with them. UADNL reserves the right to seek additional information or ask for supporting documents from Bidders for verifying/evaluating their credentials whenever required.
 - viii. Appropriate Tables indicated in the NIT are required to be filled up for compliance to different qualifying criteria completely and to be signed & certified by an Authorized Signatory of the Bidding Entity. If any information furnished is found to be false/misleading/incomplete, the same shall be considered as adequate ground for rejection of the bids.



4.4 Criminal Background

The bidder or its Proprietor/ Partner(s)/ Director(s) of the firm should not have been convicted by a court of Law for an offence involving moral turpitude in relation to business dealings during the past seven (7) years. The bidder shall give an affidavit to this effect duly signed by Authorised Signatory on Company's Letter head.

5.0 PRE-QUALIFICATION CRITERIA

The Consultants intending to participate in this tender should **have offices in India** and shall have to meet all the following Qualifying criteria indicated in the table below. Bidder's participation through consortium is not allowed.

5.1 Eligibility Criteria

Sl. No.	Criteria	Documents for confirmation
a.	The bidder must be a legal entity and consulting firm must be registered under Company Act/Indian Partnership Act/ LLP Act/proprietor ship company. The Company should have been established and operating since atleast 10 years in India for engineering consultancy business of metal industry before the date of tender.	Certificate of incorporation issued by Registrar of the Companies/certificate of registration issued by Registrar of the firms/GST registration certificate in case of proprietary firm and other relevant document
b.	The average Annual turnover towards consultancy services should be more than Rs 40.00 Crores (in words, Forty Crores rupees) during the last three financial years (FYs) i.e. 2017-18, 2018-19 & 2019-20	Audited Financial Statement / Profit & Loss Account with Turnover for Last Three Financial Years (FYs) i.e. 2017-18, 2018-19 & 2019-20
c.	Bidder has to comply either of the following Net worth of the bidder during the last three financial year (FYs) i.e 2017-18, 2018-19 & 2019-20 shall be positive as per audited balance sheet OR Submission of solvency certificate worth of Rs. 40 Crores (In words, Forty crores) or equivalent amount to be issued not earlier than 6 months from the date of Tender.	Audited Financial Statement for the last Financial Years (FYs) i.e 2017-18, 2018-19 and 2019-20 OR Issued by Nationalized or Scheduled Bank
d.	Within last 20 years, the bidder should have completed EPCM Consultancy Services of following one of the overall project value. i. Single Project executed value of Rs 3500 Cr. (OR)	i. work order copies including amendments issued if any indicating broad scope ii. Satisfactory completion certificate obtained from principal owner of the work



	<p>ii. Two Projects executed value of each-Rs 2000 Cr. (OR)</p> <p>iii. Three Projects executed value of each - Rs 1500 Cr.</p>	<p>for whom the work has been executed indicating the completion date.</p> <p>iii. Other relevant supporting documents</p>
e.	<p>Within last 20 years the Bidder should have completed EPCM Consultancy Services for setting up rolling mill plant (Aluminium/Steel) along with its auxiliary facilities in a single installation of having minimum capacity of 48000 MTPA for Aluminium / 150000 MTPA for Steel industries.</p> <p>The Plant so established must be in successful operation for a period of minimum one year from the date of commissioning / from the date of obtaining PG certificate.</p>	<p>i. work order copies including amendments issued if any indicating broad scope</p> <p>ii. Satisfactory completion certificate obtained from principal owner of the work for whom the work has been executed indicating the completion date.</p>
f.	<p>Within last 20 years the Bidder should have successfully completed EPCM Consultancy services to setup casting facilities for billet/ingot/slab/strip castings (Aluminium / steel) along with its auxiliary facilities in a single installation of having minimum capacity of 48000 MTPA for Aluminium / 150000 MTPA for Steel industries.</p> <p>The Plant so established must be in successful operation for a period of minimum one year from the date of commissioning / from the date of obtaining PG certificate.</p>	<p>i. work order copies including amendments issued if any indicating broad scope</p> <p>ii. Satisfactory completion certificate obtained from principal owner of the work for whom the work has been executed indicating the completion date.</p>
g.	<p>Bidder should have PAN/TIN/TAN/GST Registration No.</p>	<p>Copy of the registration certificate of the bidder</p>
h.	<p>Unconditional acceptance of all technical & commercial Terms & conditions as outlined in the tender</p>	<p>Self-certified document to be submitted by Bidder</p>

5.2 Note to Eligibility Criteria:

- a. EPCM Consultancy Services means the Consultancy services offered to any client involving detailed Engineering, Procurement and Inspection Services, Construction Supervision/ Management, Project Management, Assistance in start-up Commissioning and Performance Guarantee test runs for any Engineering Projects in India or abroad.



- b. Failure to meet the eligibility criteria will render the bid to be summarily rejected. Therefore, the bidder shall, in his own interest furnish complete documentary evidence by way of copies of work orders, work completion certificates, etc in the first instance itself, in support of their fulfilling the eligibility criteria. UADNL reserves the right to complete the evaluation based on the details furnished in the bid without seeking any additional information.
- c. Bidder to submit detail work order placed by the client along with certificate of successful completion & operation of the project as required under 5.1 (d), 5.1 (e) & 5.1 (f) issued by client.
- d. Wholly owned Indian subsidiary of a Foreign Company may be considered provided the bidder / the Parent Company meets the technical experience qualification Criteria as stipulated. In such case, the work under consideration shall be executed under the supervision and back-up of the Parent Company. The Parent Company shall furnish a Corporate Undertaking to be jointly and severally responsible with the Indian Subsidiary for due, proper and timely performance of the contract and discharge of liabilities of its Indian Subsidiary in the event of award of work to its Indian Subsidiary.
- e. In-house work experience shall not be considered as valid experience for the purpose of qualification.
- f. Copy of completion certificate issued by the Principal / project authorities in favor of the main agency showing due completion of the package.
- g. In case work executed as a sub-contractor to a main agency in a project awarded by any principal / project authorities shall be considered subject to following:
 - i. Bidder to submit detailed work order / PO/ Agreement from the main agency.
 - ii. Completion certificate issued by main agency.
 - iii. Copy of completion certificate issued by the Principal / project authorities in favor of the main agency showing due completion of the package.
- h. Concept plan and methodology proposed for deployment of consultant for carrying out the proposed assignment shall be finalized after award of work jointly between UADNL & consultant.

6.0 BID OPENING AND EVALUATION

6.1 Opening of bid

On the bid due date and time mentioned in 'Notice Inviting Tender' or extended bid due date as the case may be, the bid will be opened by tender inviting authority or his representative at MIDHANI Corporate Office, Kanchanbagh, Hyderabad 500 058 in the presence of Bidders who chose to present thereof with a valid authorization letter from their Organisation. In the event the specified date of bid opening being declared a holiday for owner, the bid shall be opened at the appointed time on the next working day.



6.2 Clarification and Additional Information

During evaluation of bid, UADNL, may request Bidder for any clarification on the bid, additional or outstanding documents. Bidder shall submit all additional documents as requested without any delay. In case of delay, UADNL reserve the right to evaluate the offer based on the available document or may reject the offer because of non-compliance.

Post bid correspondences may be made over e-mail. The bidders are advised to furnish authorize e-mail id along with an alternative e-mail for all communications in the format for bidder information. Mail received from the authorized or the alternative mail ids shall only be accepted.

6.3 Techno-Commercial Discussions

Techno commercial discussions with Bidder shall be arranged, if needed. Bidder shall depute authorised representative(s) for attending such discussions with authorization to attend the discussions and sign the minutes of meeting on behalf of his/her organisation. The authorised representative(s) must be competent and empowered to settle all technical and commercial issues with the exception of Price implication, wherever applicable.

6.4 Condition for Bid Evaluation:

6.4.1 Bid is the responsibility of Bidder and no relief or consideration can be given for errors and omissions made by the Bidder inadvertently or advertently for what so ever reason. Bid with incomplete information is liable for rejection.

6.4.2 UADNL reserves its right to call for original of the supporting documents for verification if so deemed fit and also cross-check for any details as furnished by the bidder from their previous clients etc. Bidder shall have no objection whatsoever in this regard.

6.4.3 Non-submission of details/ documents may lead to rejection of bid.

6.4.4 In the techno commercial evaluation, only the techno commercial conditions (if any) spelt out by the bidder for the subject tender will be evaluated.

6.5 Evaluation of Bids

Successful bidders will be finalized based on the following two stages of evaluations

- i. All valid bids submitted by the bidders must meet the Eligibility Criteria indicated under the clause 5.0
- ii. Bidders qualified in Eligibility Criteria under the clause 5.0 will be considered for their bids to be evaluated through POTENTIAL EVALUATION MATRIX indicated under the clause 6.6.



- iii. The bidders who scores is equal or higher than 60% of the total mark in POTENTIAL EVALUATION MATRIX will only be qualified for opening of their price bid and accordingly bid position will be evaluated.
- iv. The bidders overall position will be based on their position in price bids and point scored on POTENTIAL EVALUATION MATRIX by applying CQCCBS (Combined Quality cum Cost Based System) method. Please Refer "Method of Evaluation" below under the clause 6.7.

6.6 Potential Evaluation Matrix

Sl. No.	BIDDER EVALUATION PARAMETER	Max. Marks
1.	<p>Within last 20 years, the bidder must have completed EPCM Consultancy Services involving detailed Engineering, Procurement and Inspection Services, Construction Supervision/ Management, Project Management, Assistance in start-up Commissioning and Performance Guarantee test runs for any Engineering Project of the overall project value</p> <p>Scoring Methods</p> <p>01. For completion of projects as per eligibility criteria – 10 Marks</p> <p>02. For completion of at least one project of value Rs 4000 Crores - 15 Marks</p> <p>03. For completion of at least one Project of value Rs. 5000 Crores – 20 Marks</p>	20
2.	<p>Within last 20 years, broadly the Bidder must have completed EPCM Consultancy Services involving detailed Engineering, Procurement and Inspection Services, Construction Supervision/Management, Project Management, Assistance in start-up Commissioning and Performance Guarantee test runs for setting up an rolling mill plant along with its auxiliary facilities in a single installation of having minimum capacity of 48000 MTPA for Aluminium / 150000 MTPA for Steel industries.</p> <p>The Plant so established must be in operation for a period of minimum one year from the date of commissioning / from the date of obtaining PG certificate.</p> <p>Scoring Methods</p> <p>01- For completion of one assignment - 10 Marks</p> <p>02- For completion of two assignments - 15 Marks</p> <p>03- For completion of three or more assignments - 20 Marks</p>	20



Sl. No.	BIDDER EVALUATION PARAMETER	Max. Marks
	<p>(Bidders have to submit the requisite work orders from their client to establish that they have successfully executed the assignment in which all the above activities were included.)</p>	
3.	<p>Within last 20 years the Bidder must have successfully completed EPCM Consultancy services to setup casting facilities for billet/ingot/slab/strip castings (Aluminium/Steel) along with its auxiliary facilities in a single installation of having minimum capacity of 48000 MTPA for Aluminium / 150000 MTPA for Steel industries.</p> <p>The Plant so established must be in operation for a period of minimum one year from the date of commissioning / from the date of obtaining PG certificate.</p> <p>Scoring Methods</p> <p>01- For completion of one assignment - 10 Marks</p> <p>02- For completion of two assignments - 15 Marks</p> <p>03- For completion of three or more assignments - 20 Marks</p> <p>(Bidders have to submit the requisite work orders from their client to establish that they have successfully executed the assignment in which all the above activities were included.)</p>	20
4.	<p>Annual turnover of Consulting firm for last three years (FYs) i.e. 2017-18, 2018-19, 2019-20 in equivalent Indian rupees.</p> <p>Rs 100 Crores \geq "X" \geq Rs 40.00 Crores – 03 Marks</p> <p>Rs 200 Crores \geq "X" $>$ Rs 100.00 Crores - 05 Marks</p> <p>More than Rs 200 Crores - - 08 Marks</p> <p>("X" denotes the average Annual Turnover for the bidder over the last three financial years.)</p> <p>(The bidder has to submit relevant documents in support of the claim)</p>	8



Sl. No.	BIDDER EVALUATION PARAMETER	Max. Marks
5.	<p>Average Net profit figure "X" of the bidder over for last three financial years (FYs) i.e. 2017-18, 2018-19, 2019-20 in equivalent Indian rupees.</p> <p>Rs 5 Crores \leq "X" \leq Rs 20.00 Crores - 03Marks Rs 20 Crores < "X" \leq Rs 30 Crore - 05 Marks "X" is more than Rs 30 Crores - 07 Marks</p> <p>("X" denotes the average Annual profit of bidder over the last three financial years.) (The bidder has to submit relevant documents in support of the claim)</p>	7
6.1	<p>Project Manager: Project Manager must be graduate in Engineering in any discipline. CV (Curriculum Vitae): To be endorsed by self and countersigned by authorized representative of the company and documentary evidence to be furnished for credential.</p> <p>Number of Years of experience as an EPCM Project manager in any consulting firm</p> <p>Scoring Methods</p> <p>01- Minimum experience of 10 years - 2 Marks 02- More than 15 years and less than 20 years - 3 Marks 03- More than 20 years - 5 Marks</p> <p>Number of projects completed as EPCM Project manager for implementation of any Rolling Mill plant /casting Project along with its auxiliary facilities in a single installation of having minimum capacity of 48000 MTPA for Aluminium / 150000 MTPA for Steel industries.</p> <p>SCORING METHODS</p> <p>01- One number project completed - 02 Marks 02- Two number project completed - 03 Marks 03- Three or more number project completion - 05 Marks</p>	10



Sl. No.	BIDDER EVALUATION PARAMETER	Max. Marks
	Supporting documents obtained from the client must be submitted indicating the project and completion certificate & Project Manager name	
6.2	<p>Key Personnel for Civil and Structural: Key Personnel for Civil, Structural Engineering must be a graduate in Civil Engineering. CV (Curriculum Vitae): To be endorsed by self and countersigned by authorized representative of the company and documentary evidence to be furnished for credential.</p> <p>Number of Years of experience as a Civil and Structural Engineer in any EPCM Project managed by any consulting firm</p> <p>SCORING METHODS</p> <p>01- Minimum experience of 10 years - 2 Marks</p> <p>02- More than 15 years and less than 20 years - 3 Marks</p> <p>03- More than 20 years - 5 Marks</p>	5
6.3	<p>Key Personnel for Mechanical: Key Personnel for Mechanical must be a graduate in Mechanical Engineering. CV (Curriculum Vitae): To be endorsed by self and countersigned by authorized representative of the company and documentary evidence to be furnished for credential.</p> <p>Number of Years of experience as a Mechanical Engineer associated in any EPCM Project managed by any consulting firm for Erection and commissioning of Equipment.</p> <p>SCORING METHODS</p> <p>01- Minimum experience of 10 years - 2 Marks</p> <p>02- More than 15 years and less than 20 years - 3 Marks</p> <p>03- More than 20 years - 5 Marks</p>	5



Sl. No.	BIDDER EVALUATION PARAMETER	Max. Marks
6.4	<p>Key Personnel for Process: Key Personnel for Process must be a graduate in Metallurgical Engineering / Chemical/Mechanical engineering. CV (Curriculum Vitae): To be endorsed by self and countersigned by authorized representative of the company and documentary evidence to be furnished for credential.</p> <p>Number of Years of experience as a process engineer/process manager in any Aluminium Rolling Plant/ Aluminium Alloy Making Plant and having experience in commissioning of any rolling plant.</p> <p>SCORING METHODS</p> <p>01- Minimum experience of 10 years - 2 Marks</p> <p>02- More than 15 years and less than 20 years - 3 Marks</p> <p>03- More than 20 years - 5 Marks</p>	5

Note:

- i. For calculating number of years towards experience, more than 6 months shall be rounded off to one and less than 6 months to zero.
- ii. Along with the bid, the Consultant shall submit details of the resource persons/experts having relevant experience in the subject work to be deployed for the present assignment together with their qualification and experience. The curriculum vitae (CV) of each expert proposed to be deployed for the assignment shall be given along with the duration proposed for this assignment. For bid evaluation purpose said information can also be used.
- iii. Concept plan and methodology proposed for deployment of consultant for carrying out the proposed assignment shall be finalized after award of work jointly between Nalco & consultant.

NOTE TO POTENTIAL EVALUATION MATRIX

1. Bidders are required to furnish the complete and correct information required for evaluation of their bids. If any information furnished is found to be false/misleading/incomplete, the same shall be considered as adequate ground for rejection of the bids.
2. Bidders are required to furnish only those credentials in the prescribed format (as per Annexure – 6) for which documentary evidence of work undertaken and completion is



available with them. UADNL reserves the right to seek additional information or ask for supporting documents from Bidders for verifying/evaluating their credentials whenever required.

3. Appropriate Tables indicated below are required to be filled up for compliance to different qualifying criteria completely and to be signed & certified by an Authorized Signatory of the Bidding Entity. If any information furnished is found to be false/misleading/incomplete, the same shall be considered as adequate ground for rejection of the bids.

6.7 Method of Evaluation for overall position:

Following Evaluation Methodology will be adopted for bidders for Opening of their price bids.

- 6.7.1 The bidders who have qualified the eligibility criteria at Sl.No 5.1 and who scores 60% of the total mark in POTENTIAL EVALUATION MATRIX will only be qualified for opening of their price bid.
- 6.7.2 In Combined Quality-cum-Cost Based System (CQCCBS), the techno-commercial proposals will be allotted weightage of 70% and price bid will be allotted weightages of 30%.
- 6.7.3 Bidders shall be ranked in terms of the total score obtained on the basis of the combined weighted score for quality and cost as per the CQCCBS methodology. An illustration to that effect has been given at sl. no. 6.7.4 below. The bidder obtaining the highest total combined score in evaluation will be ranked as H1 followed by the bidders ranked as H2, H3 etc. as per their total score obtained.
- 6.7.4 **An illustration of 'Combined Quality-cum-Cost Based System' (CQCCBS) is furnished below**
 - i. CQCCBS (Combined Quality cum Cost Based System), will be followed for selection of Agency on highest point basis. In CQCCBS, the technical proposals will be allotted weightage of 70% while the financial bid will be allotted weightages of 30%. However, as indicated POTENTIAL EVALUATION MATRIX, 60% score will be considered as qualifying mark and price bids of those qualified bidders price bid will be opened and subsequently for those qualified bidders, CQCCBS will be applicable.
 - ii. Proposal with the lowest bidding cost may be given a financial score of 100 and other proposals given financial scores that are inversely proportional to their prices. The total score, both technical and financial, shall be obtained by weighing the quality and cost scores and adding them up.



- iii. **Highest points basis:** On the basis of the combined weighted score for quality and cost, the agency/ bidder shall be ranked in terms of the total score obtained. The proposal obtaining the highest total combined score in evaluation of quality and cost will be ranked as H-1 followed by the proposals securing lesser marks as H-2, H-3 etc.

EXAMPLE:

- iv. Minimum qualifying marks for technical qualifications as indicated is 60 and the weightage of the technical bids and financial bids will be 70: 30. In response to the RFP, (say) 3 proposals, i.e A, B & C were received.
- v. The technical evaluation committee awarded them 75, 80 and 90 marks respectively and accordingly all are qualified. The price evaluation committee examined the financial proposals and evaluated the quoted prices as under:

SL NO	BIDDER	EVALUATED PRICE	TECHNICAL EVALUATION MARKS
1	A	120	75
2	B	100	80
3	C	110	90

<p>Using the formula $(LEC / EC) \times 100$, where LEC stands for lowest evaluated cost and EC stands for evaluated cost, the committee gave them the following points for financial proposals</p> <p>A : $(100 / 120) \times 100 = 83$ points</p> <p>B : $(100 / 100) \times 100 = 100$ points</p> <p>C : $(100 / 110) \times 100 = 91$ points</p>	<p>In the combined evaluation, thereafter, the evaluation committee calculated the combined technical and financial score as under:</p> <p>A: $75 \times 0.70 + 83 \times 0.30 = 77.4$ points.</p> <p>B: $80 \times 0.70 + 100 \times 0.30 = 86$ points</p> <p>C: $90 \times 0.70 + 91 \times 0.30 = 90.3$ points.</p>
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- vi. The three proposals in the combined technical and financial evaluation were ranked as under:



- vii. Proposal A with 77.4 points, positioned at H3; Proposal B with 86 points, positioned at H2; and Proposal C with 90.3 points, positioned at H1
- viii. Proposal C at the evaluated cost of Rs.110 was, therefore, declared as successful bidder. However, award of work to H1 bidder shall be subject to acceptance of H1 bidder quoted rates/price by UADNL.

6.8 Process to be confidential

Information related to the examination, clarification, evaluation and comparison of bids and recommendations for award of contract shall not be disclosed to Bidder or other person not officially concerned with such process. Any effort by Bidder to influence the Owner's processing of bidding or award decisions may result in rejection of such Bidder's bid.

6.9 Owner's Right to accept or Reject a Bid

Owner reserves the right to accept a bid other than the lowest and to accept or reject any bid in whole or part, to annul the bidding process or to reject all bids. Such decisions by Owner shall bear no liability whatsoever consequent upon such decisions.

7.0 NEGOTIATIONS AND AWARD OF WORK

7.1 Negotiation

Bidders are requested to quote their best prices considering the fact that price negotiation, if required, may be held only with the H1 bidder. Bidder shall attend such negotiation meetings and if requested by the Owner shall provide the analysis of rates /break up of amount quoted by him to demonstrate the reasonability. As a result of negotiation, Bidder may offer rebate on his earlier quoted price. However, no uncalled for or voluntary rebate offered shall be considered for evaluation.

7.2 Award of Work:

7.2.1 Successful Bidders may note that, Letter / Fax of Acceptance or work order issued to them is based on acceptance of their offer and the contract is binding on the bidder. Bidder may return a copy of the same duly signed by the authorized representative as a token of acknowledgement of receipt.

7.2.2 EXECUTION OF AGREEMENT: The successful bidder shall have to execute an agreement on non-judicial stamp paper purchased in the name of the bidder from any registered stamp vendor under the jurisdiction of the Telangana High Court, in the specific format of UADNL. The agreement should be executed within 21 days of receipt of LOA/BO or before starting of the work, whichever is earlier.



7.2.3 In addition to above contract agreement, successful bidder needs to sign Non-Disclosure agreement with UADNL as per agreed format of agreement.

8.0 LANGUAGE

The bid and all correspondence incidental and related to bid shall be written in English language. Any printed literature and document submitted in any other language shall be accompanied by authenticated English translation, in which case, for the purpose of interpretation of the bid, English translation shall govern. Responsibility for correctness in translation shall lie with the agencies/bidders.

9.0 EARNEST MONEY DEPOSIT

9.1 The contractor shall deposit the Earnest Money with the tender for an amount as stipulated. If the EMD is in the form of crossed Demand Draft / Banker's Cheque the same shall be in favour of UADNL payable at Hyderabad. In case of EMD in form of Bank Guarantee, the same is to be issued from UADNL's Approved Bank in UADNL approved format. The offers received without E.M.D will be rejected. E.M.D shall not carry any interest and will be refunded to all unsuccessful bidders after finalization of the contract. In case of technically rejected bidders of two part / three part bid, the EMD shall be returned to the bidder after rejection of their offer. E.M.D of successful bidder shall be returned after submission of BG/Security Deposit. ●

9.2 The Bidders shall have to submit the original DD/BC/BG towards cost of Earnest Money Deposit along with the techno – commercial offer.



PRICE BID

1.0 PRICE BID:

PRICE BID FORMAT	
Tender Inviting Authority:	
Name of Work:	
Tender No:	
Bidder Name:	

PRICE SCHEDULE

(This template must not be modified/replaced by the bidder and the same should be submitted after filling the relevant columns, else the bidder is liable to be rejected for this tender. Bidders are allowed to enter the Bidder Name and Values only.)

Sl No	Item Description	Quantity	Units	Consultancy Fee (Rs. in Lakhs)	GST (Rs. in Lakhs)	TOTAL FEE (Rs. in Lakhs)
1	2	3	4	5	6	7
1.1	Consultancy Fee towards Procurement and Contract Engineering as stipulated in the scope of work of Annexure-1	1.00	Lump Sum			
1.2	Consultancy Fee towards Design and Detailed Engineering Service as stipulated in the scope of work of Annexure-1	1.00	Lump sum			
1.3	Consultancy Fee towards Inspection and Expediting Services as stipulated in the scope of work of Annexure-1	1.00	Lump Sum			

1.4	Consultancy Fee towards Project Management and Construction Management as stipulated in the scope of work of Annexure-1	1.00	Lump Sum		
1.5	Consultancy Fee towards Integrated Operations Services & Post Commissioning Services as stipulated in the scope of work of Annexure - 1	1.00	Lump Sum		
2	Total				
3	Quoted Price in Words				

Note:

- a. Bidder have to quote for all items as mentioned in Price Bid Format and to be quoted in Indian Rupees only.
- b. Bidder shall quote consultancy fee by fulfilling the following guidelines:
 - a. For item 1.1 of the price bid, quoted fee should not more than 15% of the total consultancy fee
 - b. For item 1.2 of the price bid, quoted fee should not more than 20% of the total consultancy fee
 - c. For item 1.3 of the price bid, quoted fee should not more than 5% of the total consultancy fee
 - d. For item 1.5 of the price bid, quoted fee should be minimum 15% of the total consultancy fee
- c. The fee quoted above shall be inclusive of all costs to be incurred by the Bidder in connection with this work including cost of all visit to anywhere in India and all other associated cost to this consultancy assignment.
- d. The quoted rates to cover the requirement of Ministerial staff i.e. secretarial services/ Stenos, Office Assistants, Computer Operator, Peons/ Attendants etc. including Office equipment, Stationary, PCs etc.
- e. The quoted fee is inclusive of all taxes of whatsoever nature including Income Tax but excluding GST & Other Taxes which shall be paid extra. Further imposition of any new taxes/duties/levies/cess by Government Authorities, which may be introduced later, shall be paid extra against documentary evidence. Base date for such consideration shall be date of bid submission.



- f. All fees/bills payable to the agency/party under this assignment will be paid within thirty (30) days of receipt of invoices (Supported by necessary documents regarding progress of work and inspection)
- g. The payment shall be released as per the payment terms described in **Annexure-4** of tender document, after deducting statutory deductions.
- h. All conveyance requirements at site to be included in quoted price. No vehicles will be provided by UADNL for this assignment.
- i. The rates should cover all tour expenses of the employees of the consultant. No TA/DA charges will be reimbursed by UADNL unless mentioned.
- j. The quoted consultancy fees for all the services mentioned here to will remain firm up till the completion of the project in all respects.
- k. For item no 1.3, Man Month rates & man month for each key person shall be quoted as per the attached format below (@clause no. 'o') separately along with this price bid.
- l. The quoted fee shall remain firm till completion of project.
- m. In case the integrated performance guarantee parameters are not achieved within one year from the date of integrated commissioning for reasons not attributable to consultant, relevant payments related to this milestones shall be released against submission of Bank Guarantee for equivalent amount valid upto 12 months.
- n. Foreign visits if required for the subject work may be carried out with prior approval of UADNL. The cost of foreign visit shall be reimbursed along with the mutually agreed Per-Diem rate on submission of documentary proofs. This shall be applicable for any inspection undertaken by the consultant through their foreign office.
- o. Bidder should indicate the proposed deployment of manpower separately for item description like for project management, Construction management, Erection & Commissioning Services and integrated operations of the plant to be carried out by the consultant to fulfill the complete scope as per table given below. Bidder may add or delete the type of manpower in the table, based on his assessment.

<i>SL</i>	<i>Type of Manpower</i>	<i>Qualification</i>	<i>Experience</i>	<i>Rate per Man-month</i>	<i>Man-month</i>
1	Project Manager				
2	Civil Engineer				
3	Mechanical Engineer				
4	Electrical/Electronics/ Instrument. Engineer				
5	Technological Engineer (Process)				
6	Transportation/Planning Engineer (logistics)				



7	Cost Accountant/ Chartered Accountant/ MBA in Finance				
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p. **Substitution of Key Personnel:**

- i. It is expected all the Key Personnel included in the proposal by the bidder to be available during execution of the contract. UADNL normally will not consider any request of the Selected Bidder for substitution of Key Personnel. Substitution will, however, be permitted if the Key Personnel is not available for reasons of any incapacity or due to health, subject to equally or higher qualified and experienced personnel being provided to the satisfaction of UADNL.
- ii. Key persons viz. Engineers for Civil & Structural, Mechanical, Electrical & automation and Process (Metallurgy/Mechanical) deployed for EPCM consultancy services should have minimum 10 years of experience in relevant field after completing his graduation (BE/BTech) in relevant engineering stream. Project Manager should be from Mechanical/Metallurgy background with strong project management skills with minimum 20 years' of experience.
- iii. Along with the bid, the Consultant shall submit details of the persons/experts (having relevant experience in the subject work) likely to be deployed for the present assignment together with their qualification and experience. The curriculum vitae (CV) of each expert proposed to be deployed for the assignment shall be given along with the duration proposed for this assignment.

2.0 SECURITY DEPOSIT BANK GUARANTEE (SDBG)

The Consultant shall submit Security Deport through Demand Draft /RTGS/Bank Guarantee for 10% of the total fee towards the Security Deposit within twenty one (21) days of award of work in Client's approved pro-forma. The Security Deposit will not carry any interest. The Security Deposit shall remain valid up to the completion of the scope of work and services of the Consultant with an additional claim period of one year beyond the date of expiry. The Security Deposit Bank Guarantee (SDBG) shall be issued by any Nationalised/Scheduled Banks encashable at Hyderabad, India. The SDBG proforma is enclosed at Annexure – 9.



TERMS OF PAYMENT

1.0 TERMS OF PAYMENT:

The fees specified under Annexure – 3 of the Price Bid shall be paid as follows

1.1 Payment related to Procurement & Contract Engineering Services

Sl.	Milestone Description	Payment
i.	On submission of Draft tender specification of the major equipment and package for the project on prorata basis as per mutually agreed billing schedule.	15%
ii.	On receipt of Final Tender specification of major equipment and packages for the project on prorata basis as per mutually agreed billing schedule.	20%
iii.	On submission of contract documents and on order placement of contract/procurement, etc of the plant/complex on prorata basis as per mutually agreed billing schedule.	40%
iv.	On commissioning of major equipment & Packages or individual plant, etc. on prorata basis as per mutually agreed billing schedule.	10%
v.	On establishment of integrated operation and achievement of integrated performance guarantee parameters & indices of the entire project and issuance of performance acceptance of the work "PAC"	10%
vi.	Issuance of Final Acceptance Certificate.	5%



1.2 Payment related to Design & Engineering Services

Sl.	Milestone Description	Payment
i.	On submission /checking/approval of design information, design drawings, other drawings, specifications, documents, manuals of civil & structural, electrical & instrumentation, utilities & water system and other vendor drawings, etc. of the complex/plant - on prorata basis as per mutually agreed billing schedule.	50%
ii.	On successful commissioning for individual packages of the plant/complex - on prorata basis as per mutually agreed billing schedule.	35%
iii.	On establishment of integrated operation and achievement of integrated performance guarantee parameters & indices of the entire project & on issuance of performance acceptance of the work "PAC" and on submission of all final G. A, Detail drawings, Documents, Manual, As built drawings, specifications, Insurance & Commissioning spares lists, their sources, etc.	10%
iv.	Issuance of Final Acceptance Certificate.	5%

1.3 Payment related to Inspection and Expediting Services

The lump sum fee shall be paid on successful completion of inspection & receipt of equipment/structural material at site on prorata basis as per mutually agreed billing schedule for packages of the project.

1.4 Payment related to Project management and Construction Management Services

- i. Progressive payment will be made for 50% of Lump sum fee on quarterly basis & prorata basis as per mutually agreed billing schedule subject to fulfilment of planned man-months deployed by the Consultant, the project completion schedule / revised schedule.



- ii. 30% of Lump sum fee shall be paid on prorata basis on completion of agreed milestones of project schedule (like erection of equipment/completion of foundation/pipeline work, etc) for all individual units, auxiliary & support services, etc.
- iii. 15% of Lump sum fee shall be paid on integrated operation after commissioning of the Facilities and issue of Provisional Acceptance of the facilities (PAC)
- iv. 05% of Lump sum fee shall be paid after issue of final acceptance certificate.

1.5 Payment related to Integrated operation & Post Commissioning Services

- i. 70% of Lump sum fee shall be paid after integrated operation of the project.
- ii. 25% of Lump sum fee shall be paid on achievement of integrated performance guarantee parameters & indices of the entire project and issuance of Performance Acceptance of Works or PAC for the entire project
- iii. 05% of Lump sum fee shall be paid after issue of final acceptance certificate.

Signature of the bidder
(With Company Seal)



GENERAL TERMS AND CONDITIONS

1.0 OBLIGATIONS OF UADNL

1.1 UADNL shall furnish all data, information and drawings available with them and give such assistance as reasonably be required by the CONSULTANT in the performance of their services under this assignment. However, the CONSULTANT will not be relieved of its obligations to complete the work due to non-availability of any information etc.

1.2 UADNL will accord approval of all reports, recommendations, tender documents and other connected matters etc. if any required, submitted to them by the CONSULTANT within such reasonable time as not to delay the work of the CONSULTANT, provided that those are submitted to UADNL complete in all respects.

1.3 UADNL shall nominate representative(s) duly authorized to coordinate for the subject work with the CONSULTANT and communicate on behalf of UADNL.

1.4 UADNL shall make payments to the contractor (s) engaged for various contracts/packages under the scope of work as certified by the consultant, who shall be nominated as Engineer—in-charge for the work.

2.0 OBLIGATIONS OF THE CONSULTANT

2.1 Obligations of the CONSULTANT will be as described at various places in the enquiry documents.

2.2 The consultant will exercise all reasonable skill, care and diligence in the discharge of the services that are agreed to be performed by them under this Contract.

3.0 GUARANTEES

3.1 Care and Diligence

The CONSULTANT shall exercise all reasonable skill, care and diligence in the discharge of the services agreed to be performed by him. If in the performance of his services the CONSULTANT has discretion exercisable as between the Client and any third party, the CONSULTANT shall exercise his discretion fairly.

3.2 The CONSULTANT shall guarantee that the work and services as specified and described in the Contract to be developed shall be in accordance with sound and established engineering practices, using international standards, Indian codes and regulations, wherever applicable.

3.3 Performance of all services by CONSULTANT for the Main Plant along with all other ancillary/supporting facilities covered under the Project will be as Basic Engineering from Technology Supplier. CONSULTANT shall be entitled to use directly the aforesaid



information without any cost to CONSULTANT and with complete indemnity by UADNL against any infringement of Intellectual Property Rights from the said use.

3.4 Engineering

CONSULTANT guarantees that the project shall be engineered based on the basic design engineering supplied by Technology Supplier and shall be free from defects and suitable for the respective uses intended. In the event of any fault, error or omission in the technical studies and engineering performed by CONSULTANT is found within a period of 18 months from the date of mechanical completion or 12 months from the date of commissioning whichever occurs earlier, CONSULTANT shall furnish corrective technical studies and engineering as may be required without any additional cost to UADNL.

3.5 Equipment and Construction

CONSULTANT shall include in purchase orders and contracts, a requirement for guarantee from equipment and materials vendors and erection contractors against defects in materials and workmanship to the extent such guarantees are reasonably obtained and shall assist UADNL, short of litigation, in the enforcement of such guarantees.

3.6 Acceptance Date

The acceptance date for the entire plant shall be considered when:-

- a. The performance guarantee is met and accepted
- b. In case all performance guarantees of the project are not met within the 12 months period after commissioning not due to reasons attributable to UADNL, Consultant shall have an additional period of 2 months to meet such performance guarantees. In case even during the second performance test, performance guarantees are not met for reasons not attributable to UADNL, UADNL shall have the option either to accept the plant as such or jointly analyse and agree with CONSULTANT about the changes/modifications required to be made to the plant. In the event of changes/modifications to be taken up for the plant, CONSULTANT shall, without any additional cost to UADNL, provide any services of the type as originally provided, as may be required and for the purpose of change/modifications. All other costs including for equipment/material/ workmanship/ site work etc. shall be borne by UADNL. On completion of such changes/ modifications, the plant shall be deemed to have been accepted after successful re-trial or waiver as per UADNL's decision.

3.7 Liability

The CONSULTANT shall be liable to pay for any compensation/damages consequent of lapses/ errors/ omissions arising from the negligence on its part or on the part of its employee.



3.8 Limitation of Liability and Transfer of Rights / Liabilities

- a. The cumulative limit of EPCM Consultant's liability under this Contract for all guarantees or warranties of whatsoever nature, whether expressed or implied and for all causes whatsoever shall be limited to 10% (ten percent) of the fees payable to EPCM CONSULTANT.
- b. Neither UADNL nor the consultant will be entitled to transfer their rights and liabilities under this contract to any third party except their respective legal successor and assignees and with the written consent thereto by the other party.

3.9 Consequential Losses

Neither party shall have liability for indirect damages or consequential loss including loss of profit and / or production or revenue sustained by the other.

4.0 SECRECY

4.1 During the term and duration of this Contract, and till ten years thereafter UADNL and CONSULTANT shall not disclose to any third party, any Technical Information, process data, designs, drawings, plans, specifications, etc. received from the other party at any time either in whole or in part shall make all reasonable efforts to preserve the secrecy of the Technical Information and shall not use the same for any purpose other than the construction, maintenance and operation of the work.

4.2 The above undertaking shall not, however, extend to any such Technical Information which:

- a. Is in the possession of either party prior to its receipt of the same, directly or indirectly from the other party.
- b. Is received by either party without any obligation not to disclose the same.
- c. Is or has become part of the public knowledge or literature since receipt of the same, directly or indirectly.

4.3 Successful bidder shall sign a Non-Disclosure agreement on Mutually Agreed Terms and conditions post award of Contract/Purchase Order/Work Order.

5.0 TERMINATION

5.1 Termination by CONSULTANT

CONSULTANT may terminate the Agreement forthwith by a written notice to UADNL.

- a. If UADNL discontinues the subject business.
- b. If any legitimate payment under the Agreement to be made by UADNL is not made when due and such default continues un-remedied for 60 days after written notice thereof given by CONSULTANT.



5.2 Termination by UADNL

- 5.2.1 UADNL may terminate forthwith the Agreement if CONSULTANT commits any gross negligence in carrying out its obligations and which is left un-remedied during a period of 15 days after written notice thereof is given to CONSULTANT.
- 5.2.2 UADNL shall have right to terminate the contract by giving 30 days' notice without assigning any reason thereof. However, in the event of any breach of the terms of the contract, UADNL will have the right to terminate the contract without notice.
- 5.2.3 UADNL shall have the right to terminate the contract or any part thereof without notice in the event of any directions or restrictions imposed by the Government of India or any statutory authority, which may affect the WORK.
- 5.2.4 In the absence of timely performance by CONSULTANT, UADNL reserves the right to utilize the services of any other CONSULTANT without notice. This will be without prejudice to the right of UADNL for any other action including termination.
- 5.3 Termination of the Agreement shall not affect:
- UADNL's obligation to make payments which have become legally due prior to the termination of the Agreement, after all due adjustments.
 - Right to take any action by the two parties under the Agreement and law.
 - All work done by CONSULTANT till the date of termination shall become the property of UADNL and the CONSULTANT shall be bound to hand over all documents and materials before claiming any payment as per (i) above.

6.0 FORCE MAJEURE

Neither CONSULTANT nor UADNL shall be considered in default in performance of their obligations under this CONTRACT, if such performance is prevented or delayed by events such of war, hostilities, revolutions, riots, civil commotion, strike/lockout (for period exceeding 15 days), epidemic, fire wind, flood, draught, earthquake, because of any law and order proclamation, regulation or ordinance of any Government or of any sub-division thereof, or because of any Act of God, or for any other cause beyond the reasonable control of the party affected, provided notice of any such cause with necessary evidence that the obligation under the Agreement is thereby affected or prevented or delayed is given within 14 days from the happening of the event with sufficient documentary proof in regards to its existence and continuance thereafter. In case it is not possible to serve notice within the said 14 days period then, within the shortest possible period without delay. As soon as the cause of Force Majeure has been removed, the party whose ability to perform its obligations has been affected shall notify the other of such cessation and of the actual delay incurred in such affected activity adducing necessary evidence in support thereof. An event which is Force Majeure whosoever it occurs, provided that it prevents, affects or delays the parties in performing contractual obligations,



will justify the affected party's claim of Force Majeure. From the date of occurrence of a case of Force Majeure, the obligation of the party affected shall be suspended during the continuance of any inability so caused until the case itself and inability resulting from there from have been removed and the agreed time schedule under the CONTRACT shall stand extended by a period equal to the period of delay occasioned by such events. Should one or both parties be prevented from fulfilling contractual obligations by a state of Force Majeure lasting a continuous period of three months, either party has the right to terminate the Agreement. However, prior to deciding on termination, the parties shall consult each other and decide regarding the future performance of the Agreement.

7.0 SETTLEMENT OF DISPUTES & ARBITRATION

7.1 In the event of any question, dispute and/or difference whatsoever arising under this assignment in connection therewith including any question relating to existence, meaning and interpretation of this assignment or any alleged breach thereof, the same will be settled as far as possible by mutual discussions of the parties.

7.2 Notwithstanding any such claim under arbitration, the CONSULTANT shall continue to perform the services unless it is the subject matter of the dispute of referred to arbitration.

7.3 Any dispute(s) or difference(s) whatsoever arises under or out of or in connection with this contract, or in respect of any defined legal relationship associated therewith or derived therefrom, shall be resolved/settled by arbitration in accordance with the International Centre for Alternative Dispute Resolution (ICADR) Arbitration Rules 1996, as amended from time to time. The authority to appoint the arbitrator(s) shall be the International Centre for Alternative Dispute Resolution (ICADR). And will provide administrative services in accordance with ICADR Arbitration Rules 1996. The seat of arbitration shall be India. The language of the arbitration proceeding shall be English. The place of arbitration proceedings shall be Hyderabad, India.

8.0 NORMAL SERVICE

a. The services to be rendered by the CONSULTANT shall be complete and comprehensive for the project as described and in case any other engineering service is essential but not specifically stated therein shall also be performed by the CONSULTANT at no extra cost so as to ensure completeness of the assignment.

b. The CONSULTANT shall provide all the expert technical advice and skills which are normally required for the class of services for which he is engaged.

9.0 OWNERSHIP OF DOCUMENTS AND COPY RIGHTS

All plans, design, studies, data, maps, drawings and specification prepared by the CONSULTANT shall be property of the Client. As and when required, or upon



termination of the Agreement, the aforesaid documents including indigenous make reproducible shall be handed over to the Client.

The CONSULTANT shall take all necessary steps to ensure confidential handling of all the matters pertaining to plans, designs, drawings, specifications, methods and other information developed or acquired by means of this Agreement or for, or in, the performance thereof.

The CONSULTANT may with the consent of the Client which consent shall not be reasonably withheld, publish along or in conjunction with any other person any articles, photographs or other illustrations relating to the project.

10.0 COST TO BE BORNE BY THE CONSULTANT

The CONSULTANT shall bear all costs of rendering the specified scope of services except those costs, which are specifically mentioned as reimbursable by the Client.

11.0 VARIATIONS IN CONSULTANT'S SCOPE OF WORK:

UADNL shall have the right to request CONSULTANT in writing any changes/ modifications/ deletions/ additions to CONSULTANT's Scope of Work and CONSULTANT shall carry out such changes/modifications/ deletions/ additions for due completion of the project. If however, such changes/ modifications/ deletions/ additions would jeopardize fulfilment of any of CONSULTANT's obligations under this Contract, CONSULTANT shall bring the same to the notice of UADNL and carry out such changes after mutual agreement and compensation (if any for both positive and negative) shall be mutually agreed.

12.0 PATENTS

CONSULTANT/Client (as the case may be) subject to the limitations contained in this Article, at all times indemnify and hold the other party harmless from all costs, damages and expenses arising out of any claim, action or suit brought against the other party in respect of any infringement of any patent or registered design or any similar rights resulting from the use of any Technical Information, data or process or design belonging to CONSULTANT/Client (as the case may be) and furnished to other party. The other party shall promptly notify CONSULTANT/Client (as the case may be) in writing of any claim preferred or any person for such infringement of any patent or registered design or any such similar right. CONSULTANT/Client (as the case may be) shall take such legal action as may be necessary for defending the same and other party shall render all such reasonable assistance in this behalf as may be required by CONSULTANT/Client (as the case may be).

13.0 NON-WAIVER OF DEFAULTS

Any failure by the Client or the CONSULTANT at any time or from time to time to enforce observance and performance of any of the conditions of engagement will not



constitute or be deemed to be waiver of such conditions of engagement and will not affect or impair such conditions of engagement in any way, or the right of the Client or the CONSULTANT at any time to avail itself of such remedies as it may have for any breaches or breach of such conditions of engagement.

14.0 INDEMNITY

The CONSULTANT/Client as the case may be, shall at all times indemnify and keep indemnified the other party against all suits, proceeding claims and demands, costs, damages and expenses brought or made against the CONSULTANT/Client (as the case may be) either individually or jointly with the Consultant/Client (as the case may be) or which either party may sustain or incur by reason arising out of assignment with the suppliers, contractors or labourers in connection with the work to be done under this assignment except such may be due to or transpire out of any private or personal dealings, acts, affairs or thing or concerning the CONSULTANT/ UADNL (as the case may be) or any of the agents, employees or workers employed or working for or under the other party.

15.0 SAFETY AND SECURITY

The CONSULTANT's personnel at plant site shall observe and abide by all security, fire safety regulations prescribed by the client or any competent authority approved by the Government of India.

16.0 ACCESS TO CONSULTANT'S OFFICE

The Client shall have reasonable access to and right to inspect the design work including designs, drawings, plans specifications, recommendations, data and such design related documents at reasonable times convenient to the CONSULTANT. No access or inspection by Client shall relieve the CONSULTANT of any obligations under the Agreement.

17.0 INSURANCE

The CONSULTANT will arrange for and pay the cost of personal accident Insurance in respect of his employees assigned to the project/site and insurance for consultants property (including motor vehicles, office equipment, etc) for performance of the obligations under the conditions of engagement. The cost of such insurance shall be included in the Lumpsum Fee.

18.0 ASSIGNMENT

This CONTRACT shall not be assignable by either party without the prior written consent of the other party hereto except that this CONTRACT shall be automatically binding upon, and inure to the benefit of, any successor of party or any person, firm or corporation acquiring fully or substantially all of the business and assets of such party.



19.0 SUB-CONTRACT

CONSULTANT shall not subcontract any part of this CONTRACT or appoint any CONSULTANT without approval of UADNL.

20.0 NO WAIVER OF RIGHTS

A waiver on the part of either party of any terms, provisions or conditions of this CONTRACT shall not constitute a precedent, nor bind either party hereto a waiver of any succeeding breach of the same, or any other terms, provisions or conditions of this CONTRACT.

21.0 GOVERNING LAWS

The terms and provisions shall be governed and interpreted in accordance with the laws of India and subject to the exclusive jurisdiction of courts in Hyderabad only.

22.0 TAXES

The CONSULTANT will be liable and responsible for payment of all Income Tax and all other taxes like Service Tax etc., which may be levied on the fees/ payment, received from the UADNL under the terms of this consultancy and shall keep the UADNL harmless against claim/liabilities and outgoing in this behalf.

23.0 LANGUAGE & SYSTEM OF WEIGHTS & MEASUREMENT

All discussions, documentation, formats, reports and correspondence relating to or arising out of the CONTRACT shall be in English language and Metric Measurement System.

24.0 CAPTIONS AND TITLES

Captions and titles are used in the CONTRACT for the purpose of convenience only and shall in no way affect the interpretation of the CONTRACT.

25.0 NOTICES AND ADDRESSES

- a. All notice and instructions given by either party to the other under this CONTRACT shall be in writing and shall be deemed to have been properly served, if delivered in person, or by cable or by mail, postage pre-paid to the designated persons.
- b. The date of serving of notice or instruction shall be that day on which the said notice or instruction is received. A party may change its notice address at any time by so advising the other thereof in writing.

26.0 SOLE CONTRACT

The parties intend this CONTRACT as a complete and exclusive embodiment of the terms of their agreement. It supersedes all prior agreements, submittal or exchange or terms and conditions, written or oral. No discussion or prior dealings between the parties shall be relevant to supplement, supply or explain any terms in the CONTRACT.



27.0 COST OF BIDDING

The bidder shall bear all costs associated with the preparation or delivery of its Bid, participating in discussions etc. including costs and expenses related with visits to the site. UADNL will in no case be responsible or liable for those costs and expenses regardless of the outcome of the bidding process.

28.0 LANGUAGE OF BIDS

The bid and all correspondence incidental and related to bid shall be written in English language. Any printed literature and document submitted in any other language shall be accompanied by authenticated English translation, in which case, for the purpose of interpretation of the bid, English translation shall govern. Responsibility for correctness in translation shall lie with the bidder.

29.0 BANKRUPTCY/LIQUIDATION

If the CONSULTANT shall commit any act of bankruptcy or being a Corporation, commence to be wound up except for reconstruction purpose, or carry on their business under a receiver, the executors, successors or other representative in Law of the estate of the CONSULTANT or any such receiver, liquidator, or any person in whom the Agreement may become vested shall forthwith give notice thereof in writing to the Client, and shall for one month, during which they shall take all reasonable steps to prevent stoppage of the services, have the option of carrying out the Agreement subject to their providing such guarantee as may be required by the Client but not exceeding the value of the services. The period of the option under this clause shall be thirty (30) days only, providing that should the above option not be exercised, the Agreement may be terminated by the Client by giving a notice in writing to the CONSULTANT.

30.0 DURATION OF CONTRACT/AGREEMENT

Subject to any lawful prior termination of the Agreement as provided therein, the Contract shall be for a period of 48 (Fifty Eight) months from the EFFECTIVE DATE or up to the date as extended by UADNL till the obligations of both parties are fulfilled.

31.0 SECURITY DEPOSIT BANK GUARANTEE (SDBG)

- a. The Consultant shall submit a Bank Guarantee in approved Proforma, for 10% of the total fee towards the SDBG within twenty one (21) days of award of work as stipulated at Para-2 of Annexure-3.
- b. In case the contractor fails to submit the requisite BG even after 60 days from the date of issue of LOA, the contract shall be terminated duly forfeiting EMD and other dues, if any payable against that contract. The failed contractor shall be debarred from participating in re-tender for that work.
- c. The SDBG will not carry any interest. The SDBG shall remain valid as stipulated at Para 2 of Annexure-3. The Proforma of SDBG is enclosed to this document and shall be issued through any Nationalised/Scheduled Banks, encashable at Hyderabad, India.



- d. Bank Guarantees shall be issued through any Nationalized / Scheduled banks in India and encashable at Hyderabad, India.

32.0 PENALTY ON VIOLATION OF SHE REQUIREMENTS.

UADNL being the owner of the project shall view seriously any lapses/violations of Safety, Health & Environment (SHE) requirements by contractors/vendors and their sub-contractors/sub-vendors working in the project and shall impose suitable penalty on the EPCM Consultant

33.0 FACILITIES TO BE PROVIDED BY UADNL

Suitable office space shall be provided free of cost to the Consultant at site. (Furniture and office equipments, Air Conditioners etc. has to be arranged by the consulting agency)

34.0 DEFINITION

For the purpose of this CONTRACT, unless otherwise specified in the subject or context, the following terms shall be deemed to have the following meanings:

- a. "CONSULTANT" shall mean EPCM (Engineering, Procurement & Construction Management) Consultant
- b. "BASIC ENGINEERING" shall mean technical documentation, designs and drawings based on Information Received from Technology Supplier.
- c. "CONTRACT" shall mean this contract including all Annexures here to and all documents herein specified and any amendments, which the parties may hereafter agree to in writing to be made to this CONTRACT.
- d. "EFFECTIVE DATE" shall mean the date on which the CONTRACT comes into force.
- e. "DPR" shall mean the Detailed Project Report prepared by MECON Limited, Ranchi.
- f. "KNOWHOW" shall mean technical knowledge and data relating in implementation of UADNL Plants.
- g. "MECHANICAL COMPLETION" shall mean completion date of Erection as specified in the tender.
- h. "PROJECT COMPLETION" shall mean the completion date of the Entire Plant.
- i. MAJOR EQUIPMENT / PACKAGE: shall mean collectively Raw materials handling facilities, Melting & treatment of molten metal Unit, vertical DC Casting unit, Hot & cold rolling, heat treatment facilities, testing facilities, roll shop facility, Facilities for utilities, Auxiliary facilities, Main Receiving Substation, etc.
- j. "PRODUCTS" shall mean the Finished Aluminium Alloy Flat Rolled Products under the PROJECT.
- k. "PROJECT" shall mean the setting up of 60,000 TPA High End Aluminium Alloy production plant/complex for manufacturing Sheets, Plates and Coils. The main



stream shall encompass setting-up integrated facilities of matching capacity starting from raw material preparation & handling, melting & treatment, casting and rolling mill including associated auxiliaries facilities required for integrated and steady operation of the said plant.

- l. "SITE" shall mean the place or places envisaged at which the plant and equipment of the project are to be erected and / or construction / modifications is to be carried out.
- m. "EXPERTS" shall mean and include Consultants personnel having experience and expertise in required disciplines to render services as per scope of the work.
- n. "UADNL" shall mean "Utkarsha Aluminium Dhatu Nigam Limited", a Joint Venture Company of Mishra Dhatu Nigam Limited (MIDHANI) and National Aluminium Company Limited (NALCO).
- o. "INTEGRATED OPERATION" shall mean commissioning of all the major equipment and main operating units in their proper sequence and a minimum production level of 60% or as agreed with UADNL, of the targeted plant capacity continuously for a period of two weeks in terms of the following products:
- Saleable plates of the targeted Aluminium alloy grades material
 - Saleable sheets of the targeted Aluminium alloy grade material
 - Saleable coil of the targeted Aluminium Alloy grade material
 - And on achieving 105% or as agreed with UADNL, of the techno-economic parameters mutually agreed at later date.
- p. "SUPERVISION" shall mean the control and directions given the consultant from time to time in relation to the services to be rendered under the contract, to ensure completion of the work in time, quality and cost.
- q. "TESTS" shall mean all tests or test complete in all respect in all respects as may be considered necessary by consultant in order to ascertain the quality / efficiency of any system / equipment / material of project.
- r. "START-UP DATE (S)" shall mean the respective dates for commencement of operation of the plant and other facilities.
- s. "START - UP PERIOD" shall mean respectively the period(s) between Start-up Date and Acceptance for the PLANTS.
- t. "WORK" shall mean the services to be performed and obligations to be discharged by Consultant under this CONTRACT.
- u. "PROVISIONAL ACCEPTANCE OF THE WORKS" or "PAC" shall mean the Provisional Acceptance Certificate (PAC) to be issued after the successful completion of the PG test.



- v. "PERFORMANCE TEST" or "PG Test" means such tests to be carried out as per Technical Specification of the packages, to demonstrate the achievement of the Guaranteed Performance before the Provisional Acceptance Certificate is issued.
- w. "FINAL ACCEPTANCE OF THE WORKS" shall mean the Final Acceptance Certificate (FAC) to be issued at the end of successful completion of the Defect Liability Period/Guarantee Period.

35.0 EFFECTIVE DATE AND VALIDITY OF CONTRACT.

- a. On signing by both parties this CONTRACT shall come in to force.
- b. The responsibilities and obligations of EPCM CONSULTANT under this CONTRACT shall terminate on the date six months from the ACCEPTANCE DATE of the entire plant.
- c. UADNL's obligation under this CONTRACT will terminate after six months of ACCEPTANCE, provided UADNL makes all payments to EPCM CONSULTANT as may be due for the invoices raised up to six months from ACCEPTANCE.

36.0 MECHANICAL COMPLETION

- a. When the construction of the PROJECT has been completed other than in minor respects which do not prevent commencement of start-up and Hydrostatic and other necessary tests have been carried out in accordance with the requirements to verify that the plant has been correctly designed and constructed, then UADNL, EPCM Consultant and Executing agencies shall jointly certify the date on which the construction and the said tests were completed.
- b. The dates certified as aforesaid shall be deemed to be Mechanical Completion of the PROJECT for the purpose of this contract.

37.0 SCOPE OF WORK OF EPCM CONSULTANT

Scope of work of EPCM CONSULTANT under the CONTRACT shall be as set forth in Annexure - 1.

38.0 REMUNERATION FOR EPCM CONSULTANT'S SERVICE

- a. In consideration of the services performed and obligations discharged by EPCM CONSULTANT under this CONTRACT, UADNL shall pay EPCM CONSULTANT the fees as indicated in the Annexure - 4 subject to any admissible deduction as per the CONTRACT.
- b. GST or any other tax if applicable, shall be reimbursed in addition to "a" above.

39.0 PROJECT COMPLETION SCHEDULE

The PROJECT is scheduled to be completed as per following chronological tentative schedule for Setting up of 60,000 TPA High End Alloy Sheets, Plates and Coils from the EFFECTIVE DATE i.e. from the date of WO/LOA. **The tentative schedule may be reviewed with successful bidder.**



Sl. No	Milestone	Target (within months from the date of PO/LOA)
i.	Issue of Tender for Technology Provider	02 months
ii.	Award of Contract and signing of technology supply agreement with Technology Supplier	05 months
iii.	Receipt of Basic Engineering package & finalization of number of Packages for tendering.	07 months
iv.	Issue of Tender for Major Equipment & Packages	08 months
v.	Awarding of contract for major equipment & Packages	12 months
vi.	Completion of detailed engineering design of major equipment	18 months
vii.	Awarding of contract for civil building, structural & foundation works	21 months
viii.	Completion of structural works	34 months
ix.	Completion of Supply, Erection & Commission of Main Receiving Substation (MRSS) & area distribution	39 months
x.	Completion of Civil works	35 months to 40 months
xi.	Completion of Major equipment delivery on FOR, Nellore	41 months
xii.	Major Plant supply, erection & commissioning	48 months

40.0 APPROVAL

- a. In accordance with the schedule to be agreed, EPCM CONSULTANT shall submit for Owner's approval overall project schedule integrating all agencies schedules, drawings, specifications, formats, procedures and other major documents for UADNL 's review / approval as per an agreed list to be finalized at the beginning of the Project.
- b. EPCM CONSULTANT, if required, in consultation with UADNL, shall hire personnel from other organizations and the Bio-data, if any of such personnel shall be approved by UADNL.

41.0 SUSPENSION

- a. JV Company may at any time, should deem it necessary to do so for any valid reason, suspend all or part of the work giving not less than Thirty days written notice to EPCM



CONSULTANT. Such notice of suspension shall specify the scope of the work to be suspended and the effective date of suspension. EPCM CONSULTANT shall suspend work on the date or dates specified by UADNL in any notice under this clause and shall use every reasonable effort to recommence work with the least possible delay upon receipt of UADNL 's notice to resume.

- b. EPCM CONSULTANT may, by giving not less than Thirty days written notice to UADNL, suspend the work, if UADNL fails to fulfil its obligations under this CONTRACT.
- c. If whole or part of the work is suspended due to reasons not attributable to EPCM CONSULTANT, then the costs incurred by EPCM CONSULTANT due to such suspension shall be reimbursed by UADNL.



ANNEXURE-6(A)

DETAILS OF PAST EXPERIENCE OF EPCM CONSULTANCY SERVICES IN THE LAST 25 YEARS

Sl. No.	Description of Work	Value of the contract [Rs. Crores]	Work Order no. and date of Award	Postal Address Of Client	Starting Date	Scheduled Completion Date	Actual Completion Date	Reasons For Delay, If Any
	TOTAL							



Signature of the Bidder with Seal

National Office Inviting Tender

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PROFORMA FOR SUBMITTING WORK EXPERIENCE

Tenderer shall furnish their experience details with reference to the Work.

Sr.No.	DESCRIPTION	DETAILS
1.	Name of the client Company	
2.	W.O.no. & description of work	
3.	Capacity of the plant	
4.	Contact Details of Client	Name Postal Address Name & Designation of Person Phone Fax E-mail
	Assignment Detail	<ul style="list-style-type: none"> • Date of award : • Starting date : • Scheduled completion date : • Actual completion date : • Delay in weeks, if any : • Reasons for delay, if any :
7.	Supporting Document Submission (Supporting Documents are required to establish that the subject work has been awarded to the agency and work has been completed in all respects.)	<ul style="list-style-type: none"> • Whether copy of work Order/Contract agreement enclosed YES / NO • Other Documents as required in the Tender Documents (please specify) <ul style="list-style-type: none"> i) ii) iii) The above documents are mandatory failing which such work shall not be considered for pre-qualification.



PROFORMA FOR FINANCIAL DETAILS

FINANCIAL YEAR	ANNUAL CONSULTANCY TURNOVER	NET PROFIT	DETAILS OF NET WORTH			NET WORTH (a+b-c)
			CAPITAL (a)	RESERVE (b)	ACCUMULATED LOSS (c)	
2019-20 OR 2019						
2018-19 OR 2018						
2017-18 OR 2017						

Submission of audited balance sheet and profit & loss account for above three years-YES/NO

(SIGNATURE OF BIDDER WITH SEAL)



[ABOVE CERTIFICATE TO BE CERTIFIED BY A PRACTISING CHARTERED ACCOTANT]

ANNEXURE-6(D)

Information to be furnished on Experience & Credential(s) of the Consulting firm and Quality of the key personnel.

Sl No	Description	Bidder's Response	
1.	Number of Projects completed by the firm as EPCM Consultant during last 25 years		If required, separate sheet may be attached. Documentary evidence to be furnished.(Copy of the contract/P.O./Completion Certificate/PAC, etc)
2.	Number of Projects completed by the firm as EPCM Consultant during last 25 years		If required, separate sheet may be attached. Documentary evidence to be furnished.(Copy of the contract/P.O./Completion Certificate/PAC, etc)
3.	Project Manager: a. Qualification b. Years of experience in consulting firm. c. Number project completed as project manager for any Rolling Mill Project having capacity 0.5 MTPA minimum.		CV (Curriculum Vitae): To be endorsed by self and countersigned by authorized representative of the company to be furnished.
4.	Key Personnel for Process: a. Qualification b. Years of experience in consulting firm. c. Number of completed project associated with.		CV (Curriculum Vitae): To be endorsed by self and countersigned by authorized representative of the company to be furnished.
5.	Key personnel for Civil, Structural & Architectural: a. Qualification b. Number of years of experience in consulting firm. c. Number of completed project associated with.		CV (Curriculum Vitae): To be endorsed by self and countersigned by authorized representative of the company to be furnished.



6.	Key personnel for Logistics: a. Qualification b. Number of years of experience in consulting firm. c. Number of completed project associated with.		CV (Curriculum Vitae): To be endorsed by self and countersigned by authorized representative of the company to be furnished.
7.	Key Personnel for Electrical & Instrumentation: a. Qualification b. Number of years of experience in consulting firm. c. Number of completed project associated with.		CV (Curriculum Vitae): To be endorsed by self and countersigned by authorized representative of the company to be furnished.
8.	Key Personnel for Mechanical: a. Qualification b. Number of years of experience in consulting firm. c. Number of completed project associated with.		CV (Curriculum Vitae): To be endorsed by self and countersigned by authorized representative of the company to be furnished.
9.	Key Personnel for Finance: a. Qualification b. Number of years of experience in consulting firm. c. Number of completed project associated with.		CV (Curriculum Vitae): To be endorsed by self and countersigned by authorized representative of the company to be furnished.

Signature of the Bidder with Seal



FORWARDING LETTER AND UNDERTAKING

(To be submitted by the Bidder)

From: _____

To Deputy General Manager (Purchase)

Mishra Dhatu Nigam Limited, PO-Kanchanbag, Hyderabad – 500058

Sub: EPCM Consultancy Services for setting up of 60,000 TPA High End Alloy Sheets, Plates and Coils in JV Mode with NALCO in Nellore, Andhra Pradesh, INDIA.

1. Having carefully examined all the Tender Documents attached to your Notice Inviting Tender (Doc. No. _____) we offer to complete the works in conformity with all the terms and conditions as detailed in the Tender Documents.
2. We here by confirm that we have downloaded the complete set of tender documents along with the set of enclosures hosted in website. We confirm that the bid document has not been edited or modified by us. In case, it is observed by JV Company that the bid document has been edited or modified, we agree for the rejection of the bid by UADNL.
3. We undertake, if our tender is accepted, to commence the work from the effective date of contract and to carry out work as stipulated in the contract.
4. We are submitting the earnest money deposit for the sum of Rs. _____/- (Rupees _____) in the form of Bank Guarantee/ DD as instructed by you.
5. We agree to abide by this Tender initially for a period of 180 days (06 Months) from the date of opening of technical bids of Tender and it shall remain binding on us and may be accepted at any time before the expiry of that period.
6. Should this Tender be accepted, we hereby agree to abide by and fulfill all Terms and Conditions of Tender Document as accepted by us and in default thereof, to forfeit and pay to UADNL or UADNL's successors, assigns or authorized nominees such sums of money as are stipulated in conditions contained in Tender Documents. We understand that UADNL are not bound to accept the lowest or any Tenders received and UADNL reserves the right to reject any or all tender without assigning any reason.
7. This Tender together with written "Acceptance" thereof, shall constitute a binding CONTRACT between UADNL and us, till a formal contract is executed.

Date _____ day of _____

Signature _____

(NAME IN BLOCK LETTERS)

(To be signed by authorized person.)



FORMAT OF AGREEMENT

This Agreement made this day of _____ in the year Two Thousand and Twenty between the M/s Utkarsha Aluminium Dhatu Nigam Limited having its Registered Office at Hyderabad, Telangana (hereinafter referred to as the "UADNL" or "Client") which expression shall unless repugnant to the context or meaning thereof be deemed to include its administrators, successors and assigns on the one part and M/s. _____ (Consultant) which expression shall unless repugnant to the context or meaning thereof be deemed to include its administrators, successors and assigns on the other part.

WHEREAS UADNL intends to engage the Engineering Consultant for EPCM Consultancy Services for setting up of 60,000 TPA High End Aluminium Alloy Flat Rolled Products Production Plant at Nellore, Andhra Pradesh, INDIA, hereinafter, referred to as "**The Assignment**".

WHEREAS UADNL desires the consultant to carry out the work of EPCM Consultancy Services for setting up of 60,000 TPA High End Aluminium Alloy Flat Rolled Products Production Plant at

Nellore, Andhra Pradesh, INDIA.

WHEREAS the consultant possess the requisite competence and experience to perform the services.

WHEREAS the consultant is willing to provide services as per terms and conditions set forth herein.

All the following documents shall form the part of this Agreement.

- i) RFP along with its enclosures.
- ii) Detailed Letter of Award along with its enclosures.

In witness whereof the parties have executed these presents on the day and the year above written.

Signed and delivered for and on
on behalf of the Consultant

Signed and delivered for and behalf of the Client

M/s. Name of UADNL.

M/s. _____

Date:

Date:

Place:

Place:

Witness:

Witness:

1.

1.

2.

2.



FORMAT FOR DECLARATION OF NOT CONVICTED BY A COURT OF LAW

The bidder or its Proprietor/Partner(s)/Director(s) of the firm should not have been convicted by a court of Law for an offence involving moral turpitude in relation to business dealings during the past five years for acceptance of the offer. The bidder shall give an affidavit to this effect signed by Authorised Signatory on Company's Letter head. Besides, bidder should furnish litigation history of their firm or group firm (if claiming fulfilment of eligibility criteria on group entity terms). The litigation history shall be as per the following Format:

AFFIDAVIT TO BE SUBMITTED BY THE BIDDER

1. The undersigned do hereby certify that all the statement made in the bid and attachments are true and correct.
2. The undersigned also hereby certifies that neither our firm M/s..... nor any of its constituent partners have abandoned any work in India nor any contract awarded to us for such works have been rescinded during the last five years prior to the date of this bid.
3. The undersigned hereby authorised and request (s) any bank, person, firm or Corporation, Govt. officers to furnish pertinent information as deemed necessary and as requested by UADNL to verify this statement or regarding my (our) competency and general reputation.
4. The undersigned understands and agrees that further qualifying information may be requested and agree to furnish any such information at the request of UADNL.
5. INFORMATION REGARDING CURRENT LITIGATION, DEBARRING EXPELLING OF BIDED OR ABANDONMENT OF WORK BY THE BIDDER

1.	(a)	Is the bidder currently involved in any litigation relating to the works.	Yes/No
	(b)	If yes,; give details:	
2.	(a)	Has the bidder or any of its constituent partners been debarred/ expelled by any agency in India during the last 5 years.	Yes/No
	(b)	If yes, give details:	
3.	(a)	Has the bidder or any of its constituent partners failed to perform on any contract work in India during the last 5 years.	Yes/No
	(b)	If yes, give details:	



- (i) Arbitration cases pending.
- (ii) Disputed incomplete works.
- (iii) Pending civil cases against the firm or its Proprietor/Partner(s)/Director(s) involving moral turpitude in relation to business dealings.
- (iv) Pending criminal cases against the firm or its Proprietor/Partner(s)/Director(s) involving moral turpitude in relation to business dealings.
- (v) Punishments awarded under civil cases or criminal cases involving moral turpitude in relation to business dealings

Note: If any information in this schedule is found to be incorrect or concealed, qualification application will summarily be rejected.

Signature of the Bidder

Date:.....

(With Seal)



DECLARATION BY THE BIDDER

I _____ REPRESENTING THE BIDDER, DO
DECLARE ON BEHALF OF THE FIRM AS HEREUNDER :

- That, I am the PROPRIETOR of the bidder's firm. I undertake to submit proof of ownership as and when demanded by UADNL. - OR
- That I am the authorised signatory to the tender documents holding valid Power of attorney. Certified copy of the valid power of Attorney is enclosed with the offer.

NOTE: Strike out whichever is not applicable.

- a. That, we do not have any FINANCIAL/PROFESSIONAL stake in any of the other bidders participating in this tender;
- b. That, this firm has not been blacklisted/debarred/banned in any unit of UADNL/ PSUs / GOVT of India/ State Govts/ Quasi Govt. organizations.
- c. That, the proprietor/partners/directors/ employees of the firm have never been a part of any blacklisted/debarred/banned firms or company in any unit of UADNL/ PSUs / GOVT of India/ State Govts/ Quasi Govt. organizations.
- d. That, we have never been prosecuted by any statutory authority
- e. That, any change in the constitution of the firm shall be made with prior clearance from UADNL.
- f. That, we have studied all the clauses/sub-clauses terms and conditions of the tender documents including GCC and our offer fully comply with the requirements spelt out in the tender documents.
- g. We undertake to abide by and comply with all the safety and environmental regulations in force in UADNL during the execution of work.
- h. We undertake to abide by and comply with all the applicable provisions of laws governing contract workers engaged by you for this work.
- i. We undertake to receive payment through E-payment mode.
- j. I/we declare that the document down loaded by me/my company is/are not tampered in any form.

I further declare that all above statements are true. If at any time during pre-ordering/post ordering stage of the contract, it is found otherwise, action as deemed fit by UADNL including 'rejection of my offer"/ 'banning/blacklisting' me/my firm / my company. The same will be binding on me / firm / company represented by me.

Name of the Signatory _____



Postal address of the firm: _____

PAN No : _____ TIN No : _____

GSTIN NO _____

EPF No : _____ ESI No : _____

Phone No: _____ Mobile No: _____

Fax No: _____ Email Address : _____

Date: _____

(Signature of the Proprietor / Authorised Person)

(with seal)



PROFORMA FOR BANK GUARANTEE FOR EARNEST MONEY DEPOSIT

(To be executed on non-judicial stamped paper of appropriate value)

B. G. No. _____

Date: _____

1. WHEREAS M/s Utkarsha Aluminium Dhatu Nigam Limited, having its Office at HyderabadC/o Mishra Dhatu Nigam Limited, PO Kanchanbagh, Hyderabad - 500058ER) (hereinafter called "The Company" which expression shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) has issued Tender paper vide its Tender No:UADNL/ADVT/02/2020-21 dt. 19.11.2020 for Engagement of EPCM Consultants to undertake Engineering, Procurement & Construction Management Services including Selection of Technology Provider for Establishing Aluminium Alloy Slab Cast And Flat Rolled Products production Facility at Nellore, Andhra Pradesh, India hereinafter called "the said tender") to M/s.(hereinafter called the said Tenderer(s)" which expression shall unless repugnant to the subject or context includes their legal representatives, successors and assigns and as per terms and conditions of the said tender, the tenderer shall submit a Bank Guarantee for Rs.(Rupeesonly) towards earnest money in lieu of cash.
2. WEBank having its branch office atdo hereby undertake to pay the amount due and payable under this guarantee without any demur, merely on a demand from the Company stating that in the opinion of the company which is final and binding, the amount claimed is due because of any withdrawal of the tender or any material alteration to the tender after the opening of the tender by way of any loss or damage caused to or would be caused or suffered by the Company by reason of any breach by the said tenderers(s) of any of the terms and conditions contained in the said tender or failure to accept the Letter of Intent Agreement or that the amount covered under this Guarantee is forfeited. Any such demand made on the Bank by the Company shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs..... (Rupees.....only).
3. We undertake to pay to the Company any money so demanded notwithstanding any dispute or disputes raised by the tenderer(s) in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under. Our liability to pay is not dependent or conditional on the Company proceeding against the tenderer.
4. The guarantee herein contained shall not be determined or affected or suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said tenderer(s) but shall in all respect and for all purposes be binding and operative



until payment of all money due or liabilities under the said contract(s)/ Order(s) are fulfilled.

5. WEBank Ltd, further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the finalization of the said tender and that it shall continue to be enforceable till the said tender is finally decided and order placed on the successful tenderer(s) and or till all the dues of the company under or by virtue of the said tender have been fully paid and its claims satisfied or discharged or till a duly authorised officer of the company certifies that the terms and conditions of the said tender have been fully and properly carried out by the said tenderer(s) and accordingly discharges the guarantee.
6. That the Company will have full liberty without reference to us and without affecting this guarantee to postpone for any time or from time to time. The exercise of any of the power of the Company under the tender.
7. Notwithstanding anything contained herein before, our liability shall not exceed Rs..... (Rupees.....only) and shall remain in force till.....Unless a demand or claim under this Guarantee is made on us within three months from the date of expiry, we shall be discharged from all the liabilities under this guarantee.
8. We.....Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing. We further undertake to keep this Guarantee renewed from time to time on the request of Tenderer(s).

Date.....

.....Bank

Corporate Seal of the Bank

By its constitutional Attorney

Signature of duly Authorised person

On behalf of the Bank With seal & signature code

Details of Persons Issuing the BG:

Name:

Address for Correspondence:

Telephone & Fax No.

E-mail :

Note: BGs to be furnished from any of the approved banks of UADNL.



PROFORMA FOR SECURITY DEPOSIT GUARANTEE BY CONSULTANT

(To be executed on non-judicial stamped paper of appropriate value) B. G. No.....

Date.....

1. WHEREAS M/s Utkarsha Aluminium Dhatu Nigam Limited having its registered Office at Hyderabad(C/o Mishra Dhatu Nigam Limited, PO. Kanchanbagh, Hyderabad - 500058) (hereinafter referred to as "The Company" which expressions shall unless repugnant to the subject or context includes its legal representatives, successors and assigns) has entered into a contract with M/s. has placed a purchase order on M/s.....{ hereinafter referred to as "Consultant" which expression shall unless repugnant to the subject or context includes their legal representatives, successors and assigns) for Engagement of EPCM Consultants to undertake Engineering, Procurement & Construction Management Services including Selection of Technology Provider for Establishing Aluminium Alloy Slab Cast And Flat Rolled Product Facility at Nellore, Andhra Pradesh, Indi.....(work/assignment description) on the terms and conditions as set out inter alia, in the Company's contract No./ P.O. No.datedand various documents forming part thereof hereinafter referred to as the "said contract" which expression include all amendments, modifications and/ or variations thereto and whereas the Contractor(s)/Seller(s) has agreed for due execution of the entire contract and guarantees its performance including any parts executed through any other agencies/subcontractors.

AND WHEREAS one of the conditions of the "said contract" is that "contractor(s)/seller(s) shall furnish to the Company a Bank Guarantee from a bank for% (.....percent) of the total value of the "said contract" against due and faithful performance of the "said contract" including defect liability obligations and the performance guarantee obligations of the contractor(s)/seller(s) for execution/ supplies made under the "said contract."

2. WeBank having its branch office atdo hereby agree and undertake to pay the amount due and payable under this guarantee without any demur merely on a demand from the Company stating that in the opinion of the Company, which is final & binding, the amount claimed is due by reason of default made by the Contractor(s)/Seller(s) in performing any of the terms & conditions of the said Contract



including defect liability obligations, in fulfilling the performance guarantee obligation or loss or damage caused to or would be caused to or suffered by the Company by reason of any breach by the said Consultant of any of the terms & conditions of the contract. Any such demand made on the Bank by the Company shall be conclusive as regards the amount due and payable by the Bank under this guarantee. However our liability under this guarantee shall be restricted to Rs. (Rupees.....only).

3. We undertake to pay to the Company any money so demanded not withstanding any dispute or disputes raised by the Consultant in any suit or proceeding pending before any office, court or tribunal relating thereto our liability under this present guarantee being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment there under. Our liability to pay is not dependent or conditional on the Company proceeding against the Consultant.
4. The guarantee herein contained shall not be determined or affected or suspended by the liquidation or winding up, dissolution or change of constitution or insolvency of the said Consultant but shall in all respect and for all purposes be binding and operative until payment of all money due or liabilities under the said contract(s)/Order(s) are fulfilled.
5. WeBank further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said Consultant and that it shall continue to be enforceable till all the dues of the company under or by virtue of the said Consultant have been fully paid and its claims satisfied or discharged or till a duly authorised officer of the Company certifies that the terms and conditions of the said Contract(s)/Order(s) have been fully and properly carried out by the said Consultant and accordingly discharges the guarantee.
6. WeBank further agree with the Company that the company shall have the fullest liberty without our consent and without affecting in any manner our obligations hereunder to vary any of the terms and conditions of the said Contract(s)/Order(s) or to extend the time of performance by the said Consultant from time to time or to postpone for any time or from time to time any of the powers exercisable by the Company against the said Contractor(s)/Seller(s) and to forbear or enforce any of the terms and conditions relating to the said Contract(s)/Order(s) and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Consultant or for any forbearance, act or omission on the part of the Company or any indulgence by the Company to the said Consultant or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have affect of so relieving us.
7. Notwithstanding anything contained herein before, our liability shall not exceed Rs.....(Rupees.....only) and shall remain in force till.....Unless a demand or claim under this Guarantee is made on us within three months from the date of expiry, we shall be discharged from all the liabilities under this guarantee.



8. We.....Bank, lastly undertake not to revoke this guarantee during its currency except with the previous consent of the Company in writing. We further undertake to keep this Guarantee renewed from time to time at the request of Consultant.

Date.....

.....Bank Corporate

Seal of the Bank

By its constitutional Attorney

Signature of duly Authorised person

On behalf of the Bank With seal & signature code

Details of Persons Issuing the BG:

Name-----

Address for Correspondence: -----

Telephone & Fax No. -----

E-mail: -----



Format for furnishing information for creation of Vendor Code

Bidder may please provide following minimum information required for creation of vendor code under suitable software system at our end.

1. Name of the organization:
2. Address:
 - House No./ Plot No.-
 - Street-
 - City-
 - Pin code-
 - State-
 - Country-
3. Tel. No.-
4. Fax No.-
5. Mobile No.-
6. E-mail ID -
7. PAN No.-
8. VAT Regn. No./TIN No.-
9. GST No.-
10. Bank A/c details:

Bank Name		Branch Name	
Address detail of bank		Branch code	
IFS code		A/c Type	
A/c No.			



EXCEPTIONS / DEVIATIONS (IF ANY)

SL NO.	Para /Clause Number of Tender Document	Page Number of Tender Document	DESCRIPTION	DEVIATION WITH REMARKS

(Signature of Bidder with Seal)



PROCEDURE TO BE FOLLOWED FOR SUBMISSION OF TENDER
(In Separate Sealed Covers)

ENVELOPE NO.1:

PART – I "TECHNO- COMMERCIAL BID"
ALONG WITH EMD&INTEGRITY PACT
ENQUIRY NO.
DATE:
DUE DATE :

To
THE DEPUTY GENERAL MANAGER (PURCHASE)
MIDHANI, HYDERABAD 500 058.

NAME OF THE TENDERER:

ENVELOPE NO.2:

PART - II "PRICE BID"

ENQUIRY NO.
DATE:

To
THE DEPUTY GENERAL MANAGER (PURCHASE)
MIDHANI, HYDERABAD - 500 058.

NAME OF THE TENDERER:

PLEASE PUT ALL THE TWO ENVELOPES IN A BIGGER SIZE ENVELOPE:



ENVELOPE NO: 3 (BOTH THE ENVELOPE NO. 1 & NO. 2 TO BE PLACED IN THE ENVELOPE NO. 3):

TENDER NO:
ENQUIRY NO.
DATE:
DUE DATE :
CONTENTS:

- 1) TECHNO-COMMERCIAL BID
- 2) PRICE BID

To
THE DEPUTY GENERAL MANAGER (PURCHASE)
MISHRA DHATU NIGAM LIMITED
PO: KANCHANBAGH,
HYDERABAD - 500 058,

NAME OF THE TENDERER:



PRE CONTRACT INTEGRITY PACT

Between

Utkarsha Aluminium Dhatu Nigam Limited (UADNL) hereinafter referred to as “The Principal”,

and

..... hereinafter referred to as “The Bidder/ Contractor”

Preamble

The Principal intends to award, under laid down organizational procedures, contract/s for.....The Principal values full compliance with all relevant laws of the land, rules, regulations, economic use of resources and of fairness / transparency in its relations with its Bidder(s) and / or Contractor(s).

In order to achieve these goals, the Principal’s Chairman/CEO will monitor the tender process and the execution of the contract for compliance with the principles mentioned above.

Section 1 – Commitments of the Principal

1. The Principal commits itself to take all measures necessary to prevent corruption and to observe the following principles:-
 - a. No employee of the Principal, personally or through family members, will in connection with the tender for , or the execution of a contract, demand, take a promise for or accept, for self or third person, any material or immaterial benefit which the person is not legally entitled to.
 - b. The Principal will, during the tender process treat all Bidder(s) with equity and reason. The Principal will in particular, before and during the tender process, provide to all Bidder(s) the same information and will not provide to any Bidder(s) confidential / additional information through which the Bidder(s) could obtain an advantage in relation to the tender process or the contract execution.
 - c. The Principal will exclude from the process all known prejudiced persons.
2. If the Principal obtains information on the conduct of any of its employees which is a criminal offence under the IPC/PC Act, or if there be a substantive suspicion in this regard, the Chairman/CEO of the Principal shall initiate disciplinary actions.

Section 2 – Commitments of the Bidder(s)/ Contractor(s)

1. The Bidder(s)/ Contractor(s) commit themselves to take all measures necessary to prevent corruption. The Bidder(s)/ Contractor(s) commit themselves to observe the



following principles during participation in the tender process and during the contract execution.

The Bidder(s)/ Contractor(s) will not, directly or through any other person or firm, offer, promise or give to any of the Principal's employees involved in the tender process or the execution of the contract or to any third person any material or other benefit which he/she is not legally entitled to, in order to obtain in exchange any advantage of any kind whatsoever during the tender process or during the execution of the contract.

- a. The Bidder(s)/ Contractor(s) will not enter with other Bidders into any undisclosed agreement or understanding, whether formal or informal. This applies in particular to prices, specifications, certifications, subsidiary contracts, submission or non-submission of bids or any other actions to restrict competitiveness or to introduce cartelization in the bidding process.
 - b. The Bidder(s)/ Contractor(s) will not commit any offence under the relevant IPC/PC Act; further the Bidder(s)/ Contractor(s) will not use improperly, for purposes of competition or personal gain, or pass on to others, any information or document provided by the Principal as part of the business relationship, regarding plans, technical proposals and business details, including information contained or transmitted electronically.
 - c. The Bidder(s)/Contractors(s) of foreign origin shall disclose the name and address of the Agents/representatives in India, if any. Similarly the Bidder(s)/Contractors(s) of Indian Nationality shall furnish the name and address of the foreign principals, if any.
 - d. The Bidder(s)/ Contractor(s) will, when presenting their bid, disclose any and all payments made, are committed to or intend to make to agents, brokers or any other intermediaries in connection with the award of the contract.
 - e. Bidder(s) /Contractor(s) who have signed the Integrity Pact shall not approach the Courts while representing the matter to Chairman/CEO and shall wait for their decision in the matter.
2. The Bidder(s)/ Contractor(s) will not instigate third persons to commit offences outlined above or be an accessory to such offences.

Section 3 - Disqualification from tender process and exclusion from future contracts

If the Bidder(s)/Contractor(s), before award or during execution has committed a transgression through a violation of Section 2, above or in any other form such as to put their reliability or credibility in question, the Principal is entitled to disqualify the Bidder(s)/Contractor(s) from the tender process or take action as per the procedure.



Section 4 – Compensation for Damages

1. If the Principal has disqualified the Bidder(s) from the tender process prior to the award according to Section 3, the Principal is entitled to demand and recover the damages equivalent to Earnest Money Deposit/ Bid Security.
2. If the Principal has terminated the contract according to Section 3, or if the Principal is entitled to terminate the contract according to Section 3, the Principal shall be entitled to demand and recover from the Contractor liquidated damages of the Contract value or the amount equivalent to Performance Bank Guarantee.

Section 5 – Previous transgression

1. The Bidder declares that no previous transgressions occurred in the last three years with any other Company in any country conforming to the anti corruption approach or with any Public Sector Enterprise in India that could justify his exclusion from the tender process.
2. If the Bidder makes incorrect statement on this subject, he can be disqualified from the tender process or action can be taken as per the procedure.

Section 6 – Equal treatment of all Bidders / Contractors / Subcontractors

1. In case of Sub-contracting, the Principal Contractor shall take the responsibility of the adoption of Integrity Pact by the Sub-contractor. In case of subcontract (only when the contract provide for sub-contracting) the clause is applicable.
2. The Principal will enter into agreements with identical conditions as this one with all Bidders and Contractors.
3. The Principal will disqualify from the tender process all bidders who do not sign this Pact or violate its provisions.

Section 7 – Criminal charges against violating Bidder(s) / Contractor(s) / Subcontractor(s)

If the Principal obtains knowledge of conduct of a Bidder, Contractor or Subcontractor, or of an employee or a representative or an associate of a Bidder, Contractor or Subcontractor which constitutes corruption, or if the Principal has substantive suspicion in this regard, the Principal will inform the Chairman/CEO.

Section 8 – Monitor – Chairman/CEO of UADNL

1. The Chairman/CEO of the Principal shall be the Monitor for this Pact. The task of the Monitor is to review independently and objectively, whether and to what extent the parties comply with the obligations under this agreement.
2. The Monitor is not subject to instructions by the representatives of the parties and performs his/her functions neutrally and independently. The Monitor would have



access to all Contract documents, whenever required. It will be obligatory for him / her to treat the information and documents of the Bidders/Contractors as confidential. He/ she reports to the competent authority.

3. The Bidder(s)/Contractor(s) accepts that the Monitor has the right to access without restriction to all Project documentation of the Principal including that provided by the Contractor. The Contractor will also grant the Monitor, upon his/her request and demonstration of a valid interest, unrestricted and unconditional access to their project documentation. The same is applicable to Sub-contractors.
4. The Monitor is under contractual obligation to treat the information and documents of the Bidder(s)/ Contractor(s)/ Sub-contractor(s) with confidentiality.
5. The Principal will provide to the Monitor sufficient information about all meetings among the parties related to the Project provided such meetings could have an impact on the contractual relations between the Principal and the Contractor. The parties offer to the Monitor the option to participate in such meetings.
6. As soon as the Monitor notices, or believes to notice, a violation of this agreement, he/she will so inform the Management of the Principal and request the Management to discontinue or take corrective action, or to take other relevant action. The monitor can in this regard submit non-binding recommendations. Beyond this, the Monitor has no right to demand from the parties that they act in a specific manner, refrain from action or tolerate action.
7. The Monitor will submit a written report to the competent authority within 8 to 10 weeks from the date of reference or intimation to him by the Principal and, should the occasion arise, submit proposals for correcting problematic situations.
8. If the Monitor has reported to the Competent Authority, a substantiated suspicion of an offence under relevant IPC/ PC Act, the competent authority has to proceed against such offence, within the reasonable time take visible action.
9. The word 'Monitor' would include both singular and plural.

Section 9 – Pact Duration

This Pact begins when both parties have legally signed it. It expires for the Contractor 12 months after the last payment under the contract, and for all other Bidders 6 months after the contract has been awarded. Any violation of the same would entail disqualification of the bidders and exclusion from future business dealings.

If any claim is made / lodged during this time, the same shall be binding and continue to be valid despite the lapse of this pact as specified above, unless it is discharged / determined by Competent Authority.



Section 10 – Other provisions

1. This agreement is subject to Indian Law. Place of performance and jurisdiction is the Registered Office of the Principal, i.e. Hyderabad.
2. Changes and supplements as well as termination notices need to be made in writing. Side agreements have not been made.
3. If the Contractor is a partnership or a consortium, this agreement must be signed by all partners or consortium members.
4. Should one or several provisions of this agreement turn out to be invalid, the remainder of this agreement remains valid. In this case, the parties will strive to come to an agreement to their original intentions.
5. Issues like Warranty / Guarantee etc. shall be outside the purview of Monitor.

(For & On behalf of the Principal)

(For & On behalf of Bidder/ Contractor)

(Office Seal)

(Office Seal)

Place -----

Date -----

Witness 1:

(Name &Address) _____

Witness 2:

(Name &Address) _____



WARRANTIES & GUARANTEES**1.0 General Warranties:**

- 1.1 CONSULTANT guarantees that the basic design, detailed design and engineering performed by CONSULTANT as specified and described in this CONTRACT and the technical documentation to be developed shall be in accordance with sound and established engineering practice, using engineering codes, standards and Indian Regulations where applicable, free from defects and suitable for respective uses intended.
- 1.2 CONSULTANT warrants that:
- 1.2.1 Personnel: All professional personnel of CONSULTANT and its Subcontractors shall have proper qualifications for the SERVICES assigned to them hereunder and shall deploy the required number of personnel.
- 1.2.2 Standard of Care and SERVICES: CONSULTANT shall perform their obligations under this Contract in conformity with the highest international standards of care employed by leading engineering firms in the petroleum refinery industry and all SERVICES shall be Excellent.
- 1.2.3 Management, Design and Development: The management, design and development of the SERVICES shall conform to this Contract and shall be free of defects and deficiencies. The management, design and development shall be such that the SERVICES shall comply with the terms of this Contract and shall meet all design, safety and performance and other criteria as specified herein.
- 1.2.4 ENGINEERING: In the event of faulty or defective engineering undertaken or performed by CONSULTANT within the scope of services described in **Annexure - 1**, CONSULTANT shall promptly and at its own cost and initiative carry out and undertake corrective design, drawings and engineering as may be necessary to rectify the fault or defect without any additional cost to UADNL.
- 1.2.5 SERVICES: The SERVICES shall be fit for the purposes and uses intended and capable of use in the manner contemplated in the Contract.
- 1.2.6 Other Services: All SERVICES performed by CONSULTANT and Sub consultants not otherwise mentioned in this Para 1.1, including, without limitation, inspections performed by CONSULTANT or its Subcontractors under this Contract, shall be adequate and sufficient for the purposes intended, in conformity with the terms of this Contract and free of defects and deficiencies.
- CONSULTANT's obligation to manage, design and develop the SERVICES correctly, and the General Warranties set forth above, shall not be reduced or affected by any inspection, test, acceptance or payment, UADNL's approval of any designs, drawings or specifications, or by the issue of the Certificate of Acceptance of the SERVICES or any re performance or replacement of any part of the SERVICES.



1.3 Remediation

1.3.1 Notice: At any time UADNL may by notice in writing to CONSULTANT, require CONSULTANT to remedy any defect in the SERVICES by reperformance not later than 18 months from date of Mechanical Completion or 12 months from the date of commissioning, whichever is earlier.

1.3.2 Obligation to Remedy Breach: CONSULTANT shall be obligated to effect, at its own expense, in the shortest practicable time, such reperformance and replacement as are necessary to remedy such defect.

1.3.3 Program for Reperformance : As soon as practicable, and in any event within 5 working days after the receipt by CONSULTANT of UADNL's notice, CONSULTANT will submit for UADNL approval a plan for effecting the reperformance required to remedy such breach. If required by UADNL, CONSULTANT shall attend at the site or at place(s) specified by UADNL to inspect the defective SERVICES and where appropriate arrange to carry out repairs to the defective work.

1.3.4 UADNL's Recourse: If CONSULTANT does not begin its plan for reperformance within the time mutually agreed, or if CONSULTANT and UADNL fail to reach agreement on such a program within 5 working days of the receipt by UADNL of CONSULTANT's plan submitted pursuant to Para 1.2.3, UADNL, after advising CONSULTANT in writing, shall be entitled at this option to perform or have third parties perform such work as is necessary to remedy or cause to be remedied. The payment to third parties will be recovered from consultant.

1.4 Completion Warranty

1.4.1 Completion Warranty: Without limiting the effect of the General Warranties or any other provision of this Contract, CONSULTANT warrants that PROVISIONAL ACCEPTANCE CERTIFICATE (PAC) of PROJECT shall occur as per milestones or mutually agreed project schedule at later date.

1.4.2 Integrated Performance Guarantee of the Project: Consultant guarantee that the integrated system and respective facilities specified for the project will be capable of producing at the stipulated production rates and achieving technical indices and parameters as envisages in the DPR. Including subsequent changes as may be mutually agreed.

1.4.3 Without Limiting effect of the General Warranties or any other provision of this Contract, CONSULTANT warrants and acknowledges the time for mechanical completion of the project as specified under the Time Schedule. The time for performance/completion of EPC phase will be duly covered along with applicable liability Clauses in the Contracts and CONSULTANT undertakes to maintain the follow-up and generation of documentation required to monitor progress and assist UADNL in claiming and recovering the full liability and damages available to UADNL attendant upon any delay of performance under Contract.



1.4.4 **Effect of Breach:** If CONSULTANT breaches the completion warranty set forth in Para 1.4.1 and the delay is solely attributable to CONSULTANT, CONSULTANT shall pay to UADNL as liquidated damages for delay. The penalty shall be half percent (0.5%) of the Lump sum Price quoted for this consultancy services (without taxes & duties) for each week of delay or part thereof in PROVISIONAL ACCEPTANCE CERTIFICATE (PAC) for the PROJECT as per mutually agreed schedule. The maximum aggregate penalty amount in respect of such delay shall be ten percent (10%) of the Lump sum Price quoted. The above shall not however, apply if the delay is due to force Majeure conditions.

2.0 GENERAL GUARANTEES:

2.1.1 In the event of faulty or defective Process Design, Residual Process Design, Hazop Study and/or review of detailed Engineering of the Plant/Unit and/or faulty approval of design(s), drawing(s) and specifications, including error or omission in the technical services or studies done, undertaken or performed by CONSULTANT within the scope of Work described in Annexure -1, CONSULTANT shall promptly and at its own cost and initiative carry out and undertake corrective studies, design(s), drawing(s) and engineering as may be necessary to rectify the fault or defect without any additional cost to the UADNL. However, no such liability shall lie after expiry of Defect Liability Period, if the Performance Guarantees have been met.

2.1.2 For the benefit of UADNL, CONSULTANT shall include in Purchase Orders and Work Contracts a requirement for guarantees from equipment, materials VENDORS and Contractors against defects in materials and workmanship and shall assist UADNL in the enforcement of such guarantees. However, CONSULTANT shall not be required to enter into any litigation with VENDORS/ CONTRACTORS on behalf of UADNL. CONSULTANT shall ensure that the purchase specifications for all EQUIPMENT AND MATERIAL adequately specify requirements of quality, process operating conditions/ working condition at site applicable codes and standards and special condition, if any. CONSULTANT shall specify or undertake such tests and inspections as are normally required to ensure that all EQUIPMENT AND MATERIAL to be procured, conform to the specifications and relevant codes and standards. CONSULTANT shall ensure that the construction specifications for all works adequately specify the requirement of quality, working conditions at SITE, applicable codes and standards and special conditions, if any.

3.0 **Consequential Damages:** Neither party shall be responsible to the other for any penalty or consequential direct or indirect losses and damages such as loss of use of revenue, products or profits, increase cost of PROJECT like.

4.0 **Limitation of Liability:** The overall limit of Consultant's liability under this CONTRACT for all guarantees, warranties, liquidated damages of whatsoever nature, whether expressed or implied shall be limited to **Ten percent (10%) of the total lump sum price.**



TENTATIVE LIST OF PACKAGES

1.0 Tentative and broad list of packages of the project are categorized and listed below

Category A: MAIN PACKAGES

Package No.	Description
1	Raw material storage and handling area
2	Melting Area
3	Casting Area
4	Aluminium – Lithium Production Unit
5	General utilities for melting, casting areas
6	Electrics and automation for melting & casting area
7	Reheating Furnaces
8	Hot Rolling Mill
9	Fluid system for Hot Rolling Mill area
10	Plate processing area
11	Solution Heat Treatment & quench line for plates
12	Plate stretcher
13	Plate aging area, finishing and packaging
14	Cold Rolling Area
15	Fluid System for Cold Rolling Mill
16	Batch Annealing facilities
17	Continuous Annealing and Solution Heat Treatment area
18	Coil packaging & sheet packaging area
19	Roll shop for Rolling area
20	Electrics and automation for Rolling area
21	Material Handling and Hoisting facilities
22	Scrap handling facilities

Category B: PLANT SERVICES & UTILITIES

Package No.	Description
1	Intra-Plant Electricity Power distribution
2	Inter – Plant Electrical power distribution
3	Instrumentation and control system
4	Compressed Air Stations
5	DG Power System



6	Water Treatment Plant and Water System
7	Propane facilities
8	PSA Nitrogen handling System
9	Argon Gas Handling System
10	Piping Network
11	Laboratory and R&D Facilities
12	Central Repair shop
13	Maintenance Garage
14	Area wise repair shops (Mechanical/Electrical/Instrumentation)
15	Industrial Safety and Fire Protection system
16	Ventilation and Air-conditioning system
17	Drainage Sewage system
18	Civil Engineering works
19	Structural engineering works
20	Store and Warehouse
21	Telecommunication system
22	Area lighting
23	Road networking
24	Site levelling

Category C: ENABLING PACKAGES

Package No.	Description
1	Construction power
2	Construction water
3	Security
4	Boundary wall & Patrolling tower
5	Relocation of civil, electrical works, if any
6	Drain diversion, if required
7	Office block for security
8	Utility packages
9	Consultant Project office – Building& Furnishing
10	Consultant project office
11	Consultant office equipment and other resources may be required by Consultant
12	Existing line diversion like irrigation canal, power transmission lines if any, -

