

VOLUME-1A	Form No:	 PE&SD	BHARAT HEAVY ELECTRICALS LIMITED PROJECT ENGINEERING & SYSTEMS DIVISION	PY 51 768
			TECHNICAL CONDITIONS OF CONTRACT	Rev. No. 00
			for LESC - IOCL Vadodara – SRU (1x400 MTPD)	Page 1 of 16

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TECHNICAL CONDITIONS OF CONTRACT (TCC)

PLANT : **IOCL GUJARAT REFINERY, VADODARA.**
UNIT : **SRU+TGTU**
OWNER : **M/s IOCL**

Refer Doc	PROPOSAL ENGINEERING PROJECT ENGINEERING & SYSTEMS DIVISION	PREPARED	CHECKED	APPROVED	DATE
		SVN R	SVN R	KS	27.08.2021

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1.0 INTRODUCTION

- 1.1 BHEL is looking for a competent Licensor and Engineering Sub-Contractor (LESC) qualified as per the requirements specified under clause no 5.0 of this TCC, to assist BHEL by providing Process License, Residual Process Design and Detailed Engineering (including HAZOP and SIL study) for the **LEPC-7 PACKAGE OF SULPHUR RECOVERY UNIT (1 x 400 MTPD) INCLUDING CONTROL ROOM AND SUBSTATION FOR SULPHUR BLOCK FOR “LuPech” (J-18) PROJECT at IOCL GUJARAT REFINERY, VADODARA, GUJARAT, INDIA** package, for which BHEL intends to bid as the EPC contractor.
- 1.2 The intent of this TCC is to specify the minimum requirements of LESC to be eligible to associate with BHEL for the subject job both for Pre-bid Engineering and Post-Order detailed Engineering (if BHEL gets order from IOCL in above referred LEPC PACKAGE (LEPC-07) Tender). This document provides details to be used as input by the bidders for submitting their competitive offer.

2.0 LEGEND

IOCL	Indian Oil Corporation Ltd (OWNER)
BHEL	Bharat Heavy Electricals Limited
PE&SD	Project Engineering & Systems Division, Hyderabad, unit of BHEL
PMC	Project Management Consultant
ESC	Engineering Sub contractor
BQC	Bidder Qualification Criteria
WO	Work Order
LOI	Letter of Intent
Contractor	EPC Contractor
LESC	Licensor and Engineering Sub-Contractor

3.0 PROJECT DETAILS

- 3.1 Indian Oil Corporation Ltd. (IOCL), the Owner, intend to install a **New SULPHUR RECOVERY UNIT (1 x 400 MTPD) INCLUDING CONTROL ROOM AND SUBSTATION FOR SULPHUR BLOCK FOR “LuPech” (J-18) PROJECT at IOCL GUJARAT REFINERY, VADODARA**. OWNER has selected **M/s. TECHNIP INDIA LIMITED (TPIL)** as PMC for implementation of the PROJECT.
- 3.2 On behalf of OWNER (IOCL), M/s. TECHNIP INDIA LIMITED (TPIL) as CONSULTANT invited e-Bids for **LEPC-7 PACKAGE OF SULPHUR RECOVERY UNIT (1 x 400 MTPD) INCLUDING CONTROL ROOM AND SUBSTATION FOR “LuPech” (J-18) PROJECT at IOCL GUJARAT REFINERY, VADODARA** for IOCL Vadodara Refinery on Open Global Tender basis from competent CONTRACTORS with sound Technical, Financial and Execution capabilities fulfilling the Qualification Criteria as stated below.
- 3.3 **BREIF SCOPE OF CONTRACTOR’S WORK:** The Contractor’s scope of work includes Licensing / Licensor selection and development of BDEP Project Management, Consistency Checks, Residual Process Engineering, Detailed Design Engineering including HAZOP/HAZID/SIL Study & Other Safety Studies as mentioned in Bidding Documents, Site enabling jobs, Topography Survey and Soil Investigation, underground scanning, Demolition/ Dismantling of existing structures/Re-routing works mentioned in the bid and co-ordination for the same with Owner/PMC, Total Procurement (including proprietary equipment, chemicals, catalysts as per licensor requirements, other chemicals and catalysts, first fill of chemicals and lubricants

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consumables, special tools and tackles, Pre-Commissioning Spares, Commissioning Spares, Start-up spares & Mandatory spares), Fabrication, Manufacturing, Quality Assurance, Inspection & Expediting, Third Party Inspection, Supplies, Transportation, Insurance, Handling & Storage of all Equipment, Materials, items and other Construction Materials at yard/site, Fabrication, Assembly, Construction, Erection, Installation of all plant machinery including civil, Structural, Mechanical, Piping, Electrical and Instrumentation including tie-ins, Testing, Insulation and refractory works, Painting, Fireproofing, First fill of chemicals and lubricants, Obtaining all Statutory Approvals (except for Environment Clearance), Precommissioning & Mechanical Completion of Plant, Preparation of plant specific operating manuals, Start-up, Commissioning and Performance Guarantee Test Runs (PGTR), Training of Owner's O&M personnel, consumables (Chemicals & Lubricants) for 6 (six) months operation, Contract closure activities of Sulphur Recovery Unit including Control Room and Substation for entire Sulphur Block and Final invoice/billing and handing over of the facilities with Final and "As Built" drawing/documentation, supply of spares with necessary support and services during defect liability period and supply of Chemicals, Catalysts, Tool & Tackles, Consumables, Lubricants, Refrigerants, etc. for initial charge and replenishment of any loss of these during Commissioning up to handing over after successful PGTR of the facilities.

4.0 SCOPE OF WORK OF LESC

4.1 Scope of Licensor and Engineering Sub-Contractor (LESC) is to provide Process License, FEED Support, Preparation of BEDP including residual Process Design Engineering, during Pre-bid stage of tender and Post order stage (if BHEL bags the order as LPEC) for IOCL Vadodara SRU package.

4.2 LESC shall execute and be solely responsible for, broadly, the following activities of the subject tender/ project:

- 4.2.1 Process Licensor shall provide license in line with the requirements outlined in the tender doc : 077154C-1812-CN-0007-001_D – Unit Design Criteria for Sulphur Recovery Unit.
- 4.2.2 Submission of signed MOUs as Licensor and Engineering Sub Contractor (LESC) with BHEL as the same need to be submitted along with the bid as part of tender documentation.
- 4.2.3 All the applicable tender documents listed in Bidding Document Reference: 077154C/T/LUPECH (J18)/LEPC-7 to be complied with while designing the SRU and TGTU and other facilities that are included as part of the tender.
- 4.2.4 Pre-bid engineering support required for submitting offer to IOCL during Pre-Bid Stage
- 4.2.5 Residual Process Engineering & Detailed Engineering
- 4.2.6 Detailed Design/ Sizing/ Engineering Documentation for Procurement (Equipment/ Packages/ Bulk Items), BOQ for Mechanical, Electrical, C&I, Civil disciplines.
- 4.2.7 Preparation of Material Requisitions of all Equipment and Package items as defined in tender elsewhere.
- 4.2.8 Technical evaluation of Sub vendor offers, Vendor drawing review and approval.
- 4.2.9 HAZOP, HAZID, SIL Study & Other Safety Studies
- 4.2.10 Plant 3D Modelling and 30%, 60% & 90% Model Reviews of the 3D model developed
- 4.2.11 **Technical Support in** Technical & Construction Audits
- 4.2.12 Documentation for Statutory Approvals

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4.2.13 **Technical Support in** Mechanical Completion, Pre-commissioning, Commissioning and PGTR.

4.3 Detailed Scope of Engineering shall be as per SECTION-4 CONTRACTORS SCOPE OF WORK AND SUPPLY Part-III-Master Index of Bidding Document Reference: 077154C/T/LUPECH (J18)/LEPC-7, for IOCL Vadodara SRU Package.

4.4 LESC shall execute both

4.4.1 Pre-Bid Engineering

4.4.2 Post-Order Engineering, if BHEL were to be successful in getting the Order.

4.5 Pre-Bid Engineering:

LESC shall support BHEL comprehensively during pre-bid stage and enable BHEL to submit a competitive bid. The following shall be submitted **as a minimum** during pre-bid stage:

- (i) Provide required inputs/documentation (Equipment data sheets, Detailed BOQ, Erection schedules etc.) to enable BHEL to quote for the tender.
- (ii) Successful LESC in this enquiry shall sign the **Memoranda of Understanding (MOU)** with BHEL in connection as :
 - a) To provide process License and
 - b) Executing the residual process engineering & detailed engineering, engineering for procurement, Preparation/Approval of MR of Critical equipment and Package items as defined in tender elsewhere, HAZOP/ SIL studies, Technical & Construction Audit, Pre-commissioning/Commissioning and PGTR etc. as applicable. (refer Section 8.0 of this document for details and procedure).
- (iii) Technical inputs for preparation of BHEL's Offer and inputs for various FORMs to be submitted as part of IOCL Bidding Document Reference 077154C/T/Lupech(J18)/LEPC-7
- (iv) Detailed study of Owner's tender documents. Preparation of Pre-Bid Queries/ Questionnaire for seeking clarifications from Owner/PMC on tender documents.
- (v) Preparation of offer for Process, indicating the License details, Process efficiency etc.
- (vi) Preparation of detailed technical Specifications for the Package, in case the Tender requires, which shall be used for further work during Pre-Tender – Offer preparation stage and Post Order Execution stage
- (vii) Residual Process Design of the Process Package depending on the requirement.
- (viii) Proposal Engineering for the project including preparation of all the necessary documentation required for submission of Technical Offer.
Typically includes: Residual Process Design, Process PFDs/ Schemes/ P&IDs, Layouts, System Write- ups, Datasheets, Sizing of all Electrical/ Mechanical/ C&I Equipment & Systems, Bill of Materials for all Equipment & Systems, Schedule of Quantities (SOQ) of Civil/Structural/Architectural Works, Utility Consumptions, Electrical Load List, Bidding forms and any other documents that are required to be submitted as part of the Bid Documentation.
- (ix) Preparation of comprehensive consolidated Technical Offer inclusive of Scope of Supply & Services/ Terminal Points/ Exclusions, Technical Deviations & Clarifications on tender specifications, Filled-up Technical Schedules etc. as required.
- (x) Finalising the optimised Performance Guarantees of the project considering bid evaluation criteria of tender specification.

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evaluation of technical offers from the vendors in all sub-systems (Electrical/ Mechanical/ C&I).

- g) Provide Quality support in getting the Quality documentation approved by Owner/PMC, including Participation in technical/Quality discussions with them as required.
- h) Provide engineering support in getting the engineering documentation approved by Owner/ PMC, including participating in technical discussions with them as required.
- i) Assisting BHEL in review and approvals of engineering/technical, Quality related documentation of Sub-vendors/Suppliers, as applicable.
- j) Assistance in Preparation of Plant Performance Guarantee Test Procedure and in conducting the Plant Performance Guarantee Tests.
- k) Finalize the requirements of O&M consumables & chemicals along with the BOM and technical specifications.
- l) Preparation of Plant Operations and Maintenance Manuals, Plant operation procedures for effective and efficient operation of plant.
- m) Deputation of Engineering Experts to project site for resolving engineering and technical issues, as required during execution of the project.
- n) Identifying the vendors/suppliers, floating of enquiries, receipt of offers, Techno-commercial evaluation, placement of PO, expediting, change orders, closure of PO/order, etc. shall be in scope of BHEL
- o) Wherever the term CONTRACTOR is mentioned for / in the context of the Residual Process Engineering and Detailed Engineering related activities and responsibilities in the Owner's Bidding Document, same shall be the scope and responsibilities of Engineering Sub Contractor (LESC). Accordingly, the bidder shall interpret their scope as per the Owner's Bid Document while submitting their offer against Project Specific Tender for finalization of LESC.

The above is a typical minimum activity to be carried out by "Licensor and Engineering Sub-Contractor (LESC)" as part of Post Order Detailed Engineering. However, LESC shall carry out detailed engineering as per IOCL Bidding Documents in PART-III Master Index (Technical Part) of Bidding Document Reference: 077154C/T/LUPECH (J18)/LEPC-7.

4.6.1 Retendering of contract by End Customer:

In the event of retendering of Tender by end customer, the following methodology will be adopted:

Case-1: Retendering with change in scope of work:

LESC to provide the man hours applicable for all disciplines for the execution of tender. In case of retendering of Tender by customer, the man hours furnished shall be used to finalise the additional price required for the execution of the change order / additional scope during pre-bid stage and post order stage.

Case-2: Retendering without any change in scope of Work:

If there is no change in the scope of work during re-tendering, LESC shall furnish the new MOU to be submitted to customer as part of bidding document in line with the new tender references.

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5.0 BIDDER (LESC) QUALIFICATION CRITERIA

5.1 Technical Criteria:

Criteria to Qualify as an ESC:

The bidder (LESC) should have experience who singly meets the criteria at para 12.3.1.2 and 12.3.2 of NIT in Bidding Document No: 077154C/T/LuPech(J18)/LEPC-7.

Criteria to Qualify as Licensor:

The bidder (LESC) shall satisfy the requirement indicated 12.3.4.2 and 12.3.5 of NIT in Bidding Document No: 077154C/T/LuPech(J18)/LEPC-7.

5.2 Financial Criteria

5.3.1 The average annual financial Turnover of LESC during any of the preceding five financial years i.e., 2020-2021, 2019-2020, 2018 -2019, 2017- 2018 & 2016- 2017 or financial year ending 31.12.2020, 31.12.2019, 31.12.2018, 31.12.2017 & 31.12.2016 from the date of NIT publication shall be equal to or more than **Rs 25 Crs**

5.3.2 Audited financial statement have to be submitted for all the five years as indicated against clause 5.3.1 above. If financial statements are not required to be audited statutorily, then instead of audited financial statements, financial statements are required to be certified by chartered accountant. Published Annual Report available in the public domain shall also be acceptable.

5.3.3 In case audited Financial statements have not been submitted any of five years as indicated above, then the applicable audited statements submitted by bidders against the requisite three years, will be averaged for three years i.e. total divided by five.

5.3 LESC shall not be under Holiday List/ Negative List/ Suspension List/ Banning List of IOCL or its Administrative Ministry, MoP&NG.

5.4 LESC shall singly meet the criteria at para 5.1, 5.2, 5.3

6.0 DOCUMENTATION

6.1 The LESC shall furnish documentary proof in form of the copy of work order(s)/ contract agreement(s)/ relevant pages of contract document(s) mentioning the value and the scope of work, completion certificate(s) by owner/ Consultant indicating executed value and certificate(s) of commissioning of previous plants from owner/ Consultant, fulfilling the qualification criteria for themselves.

6.2 In case proof of commissioning is in the name of EPC contractor who has employed LESC, the contract / supporting documents establishing the relationship between EPC contractor and LESC for the subject project to be furnished.

The document requirement shall be complete as indicated in 12.3.2 and 12.3.6 of Bidding Document No: 077154C/T/LuPech(J18)/LEPC-7 shall be submitted by LESC bidder to prove the qualification requirement.

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7.0 NON-DISCLOSURE AGREEMENT & CONFIDENTIALITY AGREEMENT

7.1 Not Applicable

8.0 TERMS OF CONTRACT

8.1 Successful LESC will be finalized by BHEL considering lowest amount quoted by all the qualifying bidders to this enquiry, for the Total Engineering Licensing and Engineering Sub-Contracting Work for subject IOCL Tender.

8.2 **BHEL will place two separate orders on successful LESC (i.e. L1 Bidder), one for Process License plus Pre-bid Engineering Services and other for Licensing plus Post Order Engineering services. Order for Pre-bid Engineering will be placed on the successful LESC at the cost indicated in Price Bid Format, immediately after finalization of this enquiry and negotiation, if any.**

8.3 In the event of price reduction during negotiation by BHEL with IOCL, corresponding reduction will be passed on to the successful LESC (on finalized Post-Order price).

Order for Post Order Engineering will be placed on successful LESC after BHEL wins the contract from IOCL, at price finalized with the successful LESC after reducing the corresponding discount passed on to IOCL.

8.4 Once finalized, the LESC shall enter into a Memorandum of Understanding (MoU) with BHEL for executing the Residual Process Design and Detail Engineering and providing the Process License by Licensor.

8.5 **However, BHEL reserves the right for ordering of either Pre Bid Engineering work or Post Bid Engineering work or both at its discretion, based on the status of Tender or time available for submitting BHEL's offer to IOCL or as per business decision.**

8.6 **BHEL reserves the right to accept or reject any or all Offers without assigning any reasons thereof. BHEL also reserves the right to cancel the Tender wholly or partly without assigning any reason thereof. Also BHEL shall not entertain any correspondence from bidders in this matter**

8.7 **The successful LESC on whom LOI will be placed for Post-Order Engg Work, shall deposit to BHEL within 30 days of signing the MOU, 1% of Final agreed Price of Post-Order Engineering Work, towards Bid Bond (in the form of Bank Guarantee or Security Deposit etc, for continued commitment during the validity period of MOU.**

8.8 Memorandum of understanding(MOU) between BHEL and LESC shall be for providing the process License , executing the Residual Process Engineering & Detailed Engineering, Engineering for Procurement, Preparation/Approval of MR of Critical equipment and Package items as defined in tender elsewhere, HAZOP/ SIL studies, Technical & Construction Audit, Pre-commissioning/ Commissioning assistance and PGTR assistance, as applicable which shall be binding on the ESC.

8.9 There shall be four MOUs between BHEL and LESC

8.9.1 MOU-1: This MOU between BHEL and successful LESC for providing the Process License.
MOU-02: This MOU for executing the Residual Process Engineering shall be for submission along with BHEL's offer to IOCL and shall be valid for at least 04 (Four) years

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BHARAT HEAVY ELECTRICALS LIMITED

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or till the Defect Liability Period whichever is later, from the date of scheduled bid submission.

8.9.2 MOU-3 and 4 : These MOU between BHEL and successful LESC shall be the basis for future order for Post-order Engineering services for providing license and detailed engineering services during post order stage and shall contain the major commercial clauses which shall be in-principal agreed by both BHEL and the successful LESC. Based on this agreement of terms and conditions, price bid shall be opened and negotiated if required and based on final mutually agreed price, these MOU will be formally signed on non-judicial stamp paper followed by submission of bid bond @1% of final agreed price within 30 days of signing of MOU or date of submission of BHEL bid to IOCL, whichever is earlier. The initial validity of this bid bond shall be for 6 months from the date of MOU and shall be kept valid till the validity of this MOU. The MOU will be converted to a definitive Agreement between BHEL and ESC within one month after award of job from IOCL for execution of Post-Order Engineering, if BHEL gets order from IOCL in above referred EPCC-03 Package Tender.

8.10 LESC shall extensively use latest design software including 3D Modeling with PDS/PDMS software.

8.11 BHEL shall locate its Lead Engineers of the respective disciplines at the design office of LESC to control, monitor and approve the engineering design work/deliverables of the LESC prior to their issue for Review / approval by Owner/Consultant.

8.12 No further subcontracting of Engineering by LESC shall be permitted.

8.13 After start of construction, LESC shall position at work site a field engineering team essentially consisting of General Civil, Piping & Structures initially and followed by Electrical and Instrumentation, who have been involved in carrying out the design at the design office in order to closely coordinate with site construction group to resolve any issues related to design/ construction and provide additional drawings/ documents as required.

8.14 LESC shall note and comply to the applicable clauses in GCC/SCC of IOCL's Tender Specification: 077154C/T/Lupech(J18)/LEPC-7 specially at 4.9.7.0.

9.0 BID EVALUATION CRITERIA

9.1 The bidders are expected to meet the Bidder Qualification Criteria as detailed in clause no 5.0. The same shall be evaluated during technical bid scrutiny. The offers made by the bidders not meeting the BQC are liable for rejection.

9.2 The bid evaluation shall be on Lumpsum L1 basis (Pre-bid Engineering + Post Order Engineering). Accordingly, the Bidder shall quote the Lumpsum Price in the attached Price Bid Format. Quotations submitted in partial will be summarily rejected. BHEL will not entertain any other expenses/ assumptions written separately elsewhere other than those specified in the price bid format.

9.3 Price of Pre-Bid Engineering shall be derived based on the Price Factors provided in the Price Bid Format. The Price Factors shall be binding on the Bidders. No deviation shall be permitted.

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9.4 Successful Bidder shall be awarded the PO for execution of work during Pre-Bid Stage engineering. Subsequently PO for detailed engineering will be awarded to Successful bidder if BHEL bags the order as EPC contractor.

9.5 LESC shall not have any claim whatsoever on the Post-Order Engineering component, if BHEL is not successful in winning the Contract.

10.0 DELIVERABLES TO BE SUBMITTED DURING PRE-BID AND POST BID STAGE

10.1 For minimum deliverables in the scope of LESC in Pre-Bid Stage, refer Annexure-1 of this TCC

10.2 For deliverables in the scope of LESC in Post-Order Stage, refer Attachment-1 of DOCUMENT REQUIREMENT AND REVIEW PROCEDURE Ref. Document Number 077154C-1812-NM-0000-002 FOR New SRU + TGTU available in IOCL's Tender Specification 077154C/T/LuPech(J18)/LEPC-7.

10.3 In general, it is expected that the LESC shall maintain high standards of engineering, quality in deliverables submitted and accuracy in documentation submitted meeting the intended contractual requirements.

10.4 If the Bidder is in JV/corporation with the principal firm, all the drawings submitted by the bidder/LESC shall be vetted by the competent person in principal firm before submitting the deliverables to BHEL.

10.5 The detailed list of deliverables during the Pre-bid stage and during detailed engineering to be submitted along with offer

10.6 The deliverables of LESC shall be submitted to BHEL only, unless instructed otherwise.

10.7 BHEL will review the deliverables and furnish its observations, comments, if any to LESC for their incorporation and resubmission to BHEL.

10.8 LESC shall clarify, with all supporting details on any queries raised by BHEL on their deliverables

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11.0 PAYMENT TERMS & COMMERCIAL CONDITIONS:

11.1 No Advance payment shall be done.

11.2 Payment Schedule:

11.2.1 Payment for Pre-bid Engg work:

90% shall be made on submission of complete Purchase Specifications, BOQs, Technical Offer for OWNER Tender, filled-in formats applicable to LESC as required in OWNER Tender, etc as mentioned in cl 4.5 above, certification by BHEL Contracting Engineer and acceptance by end customer - of MOUs furnished by LESC as per the customer's Tender requirement for BHEL's technical offer.

10% of payment for Pre-bid Engg work shall be made after price bid opening by IOCL or in case of cancellation of IOCL Tender.

Payment will be made within 45 days from receipt of invoice with all supporting documents and certifications.

11.2.2 Bid Bond, Price Discount & Payment Schedule for Post-Order Engineering Work:

- The successful LESC on whom LOI will be placed for Post-Order Engg Work, shall deposit to BHEL within 30 days of signing the MOU, 1% of Final agreed Price of Post-Order Engineering Work, towards Bid Bond (in the form of Bank Guarantee or Security Deposit etc, for continued commitment during the validity period of MOU.
- In the event of price reduction during negotiation by BHEL with end Customer, corresponding reduction will be passed on to the successful LESC (on finalized Post-Order price).
- Major terms & conditions such as acceptance of LD/ Penalty, Guarantee/ warranty etc. should be on back-to-back basis with that of contract between BHEL and its customer.

11.2.3 Post-Order Payments shall be made on back-to-back conditions in line with the services payments of the IOCL tender:

A LICENSE FEE

As per cl. 6.2.5.1 A of SCC in Bidding Document No: 077154C/T/LuPech(J18)/LEPC-7.

B. BASIC ENGINEERING DESIGN PACKAGE

As per cl. 6.2.5.1 B of SCC in Bidding Document No: 077154C/T/LuPech(J18)/LEPC-7.

C. DESIGN & ENGINEERING SERVICES

As per cl. 6.2.5.1 C of SCC in Bidding Document No: 077154C/T/LuPech(J18)/LEPC-7.

Completion of all the above milestones will be considered for payment only if, concerned deliverables are acceptable to BHEL and IOCL.

BHEL will release payment to LESC, within 30 days of release of corresponding payment to BHEL from IOCL.

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11.3 Delivery Schedule:

- 11.3.1 **Pre-bid Engineering** as mentioned at cl 4.5 above shall be completed within **3 weeks** from date of issue of LOI / Work Order by BHEL.
- 11.3.2 Delivery schedule for **Post-Order Engineering** Work shall be mutually agreed between BHEL and LESC to meet the L2 network for project execution, after receipt of order by BHEL.
- 11.3.3 Project Delivery Schedule is 28 (Twenty-Eight) Months) including Commissioning] Project Milestones shall be as per the Annexure A-II (Time Schedule) of “Special Conditions of Contract” of IOCL Bidding Document: 077154C/T/Lupech(J18)/LSTK-7

11.4 Penalty Clause

A. Pre-Bid Engineering Work

- 11.4.1 BHEL will reserve the right of accepting the delayed deliverables by LESC, if suitable time period is available to it for submitting its offer to IOCL, by imposing the Penalty at the rate of **2%** of the order value per week of delay or part thereof subject to a maximum of **10%** of Pre-bid Engg work order value.
- 11.4.2 LESC shall seek prior permission from BHEL to submit the deliverables with delay.
- 11.4.3 Beyond the permitted delivery period, deliverables shall be accepted by BHEL at its discretion.

B. Post-Order Engineering Work

Penalty shall be 0.05% of the total order value per week of delay or part thereof, for the delay on the agreed delivery date for each particular deliverable milestones mentioned in cl 4.6 above or mutually agreed milestones, subject to a maximum of **1.0 %** of the Order value for post-order engineering work.

12.0 ENGINEERING GUARANTEE

- 12.1 Since process Licensing, Residual Process Design and Detailed Engineering is within LESC’s scope and the work shall be executed and UNIT established based on the Engineering performed, it shall be the prime responsibility of LESC to carry out such design and engineering in accordance with good and sound engineering practices using International Standards and Indian Codes & Regulations wherever applicable to such design and/or engineering.
- 12.2 In case any error or omission in design or engineering within LESC’s scope i.e. the residual process design or detailed engineering requires re-engineering, which results in any new requirements for equipment/ materials, the same shall be supplied and/or re-engineering shall be carried by the ESC within the scope of relative work and/or supply and within the contractual period without extra cost to the OWNER or entitlement of extension of time.
- 12.3 ESC shall guarantee that the system design for the Unit / Plant shall meet and comply with the Licensor’s package, if so applicable, and;
- the equipment selected
 - the site criteria
 - the Engineering specifications, standard and design guides
 - the Front-end engineering data as mentioned in Bidding document.

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12.4 LESC shall check and satisfy themselves with Process Package, Front End Engineering Data for its accuracy, correctness and completeness to meet the agreed guarantees and in case of deficiency, LESC shall inform BHEL/OWNER/PMC the modifications proposed to be carried out to overcome the deficiency and rectify the same at no extra cost. LESC, if required, shall carry out corrective technical studies and engineering as may be required without any extra cost to the BHEL/OWNER. Before proceeding with the re-work, Licensor approval, if applicable, shall be obtained.

13.0 PERFORMANCE GUARANTEE

13.1 LESC is not responsible for the process guarantees of the LICENSOR. LESC However guarantees its Engineering as set forth in clause 12.0. If the UNIT does not achieve the results set forth in the LICENSOR's process guarantees due to defect(s) or deficiency(ies) in LESC's Engineering, LESC shall within scope of their work and responsibilities, carry out re-engineering and bear the cost of repair and/or replacement of such defective product(s).

13.2 LESC's guarantees shall also cover the mechanical performance of such equipment/ materials and their efficiencies affected primarily due to defective engineering by LESC. LESC shall bear the cost of replacement or alteration or repair in parts or components or wholly (including dismantling, transportation, erection, hook-up, commissioning and performance test) of such Equipment which does not perform to the guarantees, primarily due to defective engineering by LESC, within the relative scope of supply and/ or services at no extra cost to BHEL and without entitlement of extension of time to LESC.

13.3 LESC's liabilities on account of not meeting the above said Engineering Guarantees and Performance Guarantees (because of Engineering related issues), **shall be limited to 5% (Five percent)** of the Post Order Engineering Work Contract value between BHEL and LESC, payment of which is reserved against issue of Commissioning and Performance Test Certificate by OWNER.

14.0 OTHER INSTRUCTIONS

14.1 Since speedy completion of project is essential for a tight project schedule, it shall be responsibility of LESC to ensure timely delivery of all milestones.

14.2 LESC shall familiarize fully with the standard/ procedures/ practice of BHEL/OWNER, to avoid any dispute at later date and after order placement.

14.3 BHEL shall not pay any amount, other than the fee specifically agreed, towards any cost incurred by LESC by way of salaries to their employees (income and taxes), insurance of any nature, benefits/ bonus to the employees, etc. BHEL's liability is limited to the amount contracted for the services to be rendered under the scope of work defined.

14.4 LESC shall not commit any expenditure on behalf of BHEL without BHEL's consent in writing, during the execution of the work defined in the scope.

14.5 LESC shall bear all expenses/ fee penalties if it infringes on patents/ licenses of any persons/ organizations or in case of suits, court proceedings, damage claims etc., due to any reason whatsoever.

14.6 LESC shall ensure that it possesses the latest revisions of various national and international standards, codes of practices, statutory & environmental regulations etc. as applicable, for

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execution of the work. BHEL shall not provide any such documents to LESC. Engineers of LESC assigned for this project shall have familiarity on relevant documents as mentioned above for their use and applications.

14.7 LESC shall maintain at their own cost the personal accidents policy, life insurance and / or any such insurance required in respect of their personnel deputed to outstation visits for the given contract.

14.8 BHEL reserves the right to terminate or suspend the contract or withdraw part of the scope of the work at any stage of its execution, if it is found that LESC has not met its obligation for the performance / progress is not up to the expected standards and overall work is likely to suffer. In such an event, BHEL shall give 15 days’ notice in writing. In such case all costs incurred accordingly by BHEL to complete any work forming part of the contract shall be recovered from LESC. In case of such premature termination of contract, BHEL reserves the right to claim damages from LESC including the initiation of judicial proceedings.

14.9 LESC shall keep all information/data/drawings etc. related to the work as confidential information and shall not divulge or use the information indirectly or directly in any way detrimental to the interest of BHEL. All drawings, documents, manuals, design calculations including all originals prepared or obtained during the work shall remain the property of BHEL and shall be handed over to BHEL on demand.

14.10 LESC shall comply with the laws and regulations of the country, the state and territories concerned, during the progress of the work.

14.11 LESC shall submit progress report on the status of the work entrusted to them periodically and as mutually agreed upon.

14.12 LESC shall ensure optimal & economic design while executing the work, but without sacrificing the customer specification requirements/ Statutory regulations/ code provisions/ safety aspects.

14.13 Termination of the contract can be initiated by BHEL or LESC in following cases:

i. Contract is not awarded to BHEL by its end customer.

ii. Tender got cancelled entirely by BHEL’s end Customer without retendering

iii. Bankruptcy proceedings being initiated against either of the Parties

iv. Mutual agreement between the “Parties”

v. A prolonged suspension affects the whole of the Works;

vi. BHEL or LESC is found, based on reasonable evidence, to have engaged in corrupt, fraudulent, collusive or coercive practice at any time in relation to the Works or to the Contract

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RECORD OF REVISIONS				
Rev	Date	Revision Details	Revised By	Approved By
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