

# Memorandum Of Understanding

for Zero Liquid Discharge Package  
in RWTP, RO-DMP, CPU & ZLD PLANT Tender on LSTK basis for  
IOCL-Panipat

This Binding Memorandum of Understanding (hereinafter "Memorandum" or "MOU") is dated this \_\_\_\_\_

## BETWEEN

**BHARAT HEAVY ELECTRICALS LTD** having its registered office at BHEL House, Siri fort, New Delhi 110043 (hereinafter referred to as **"BHEL/First Party"** which expression shall mean and include its legal heirs, administrators and permitted assigns),

## AND

Zero Liquid Discharge Package Supplier \_\_\_\_\_ having its registered office at \_\_\_\_\_ (hereinafter referred to as **"ZLDS/Second Party"** which expression shall mean and include its legal heirs, administrators and permitted assigns).

(referred to herein as "Parties" or individually as "Party")

## WHEREAS

On behalf of **IOC, Panipat** (The 'Customer'), **M/s Engineers India. LTD. (EIL)** as CONSULTANT invited Bids (vide Bidding Document Reference: **SG/B269-475-PA-T-8701/23** on 21.01.2022, for RWTP, RO-DMP, CPU & ZLD PLANT for Panipat Refinery Expansion Project (P25) of M/s Indian Oil Corporation Limited (IOCL), India from competent contractors fulfilling the Qualification Criteria as stated in the Tender document.

The First Party is meeting the Pre-qualification Criteria as per tender requirements and not meeting the Qualification Requirement under clause no. 11.1.3 (i) of NIT laid out in subject IOCL Tender for Multi Effect Evaporator unit of 180 KLD Minimum Capacity and a Dryer Unit (consisting of Agitated Thin Film Dryer or Pusher Centrifuge) on his own and the Second Party is meeting this criteria as per tender requirements.

The First Party and the Second Party hereby agree as under:

First Party shall act as EPC Bidder for subject Tender, and has experience in design/engineering ;procurement/supply; erection/ installation including construction work; and commissioning of Water/Wastewater Treatment Plant(s) consisting of the following systems/chains (minimum one system/chain of each type).

- (i) One 'Micro filtration (MF) membrane system' OR 'Ultra filtration (UF) membrane system' OR 'Nano filtration (NF) membrane system' OR 'Reverse Osmosis (RO) membrane system', having minimum 120 m3/hr/chain permeate capacity working on water (including surface water or ground water or sea water) or waste water (including effluent or sewage). and
- (ii) One ion exchange resin based Mixed Bed Exchanger in a 'D.M. Water Plant' OR 'Condensate Polishing Unit' of minimum 51 m3/hr/chain net capacity.

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Second Party has experience in design, engineering, supply, installation/installation supervision and commissioning / Commissioning Supervision of the following

- i) Multi Effect Evaporator Unit of Minimum Capacity of 180 KLD
- ii) Dryer Unit (Agitated Thin Film Dryer or Pusher Centrifuge).

As First Party is not meeting the Qualification Requirement under clause no. 11.1.3 (i) of NIT laid out in subject IOCL Tender, approached Second Party who has agreed to tie up with First Party for design, engineering, supply, installation/installation supervision and commissioning / Commissioning Supervision of Multi Effect Evaporator unit and a Dryer Unit (consisting of Agitated Thin Film Dryer or Pusher Centrifuge) for subject IOCL Tender.

The responsibilities of BHEL/First Party (EPC Bidder) and ZLDS/Second Party are indicated in Annexure-1 Scope Matrix. Further ZLDS undertake to confirm that they will furnish back to back guarantees to First party for guaranteed TDS concentration of 30% minimum at the evaporator outlet and guaranteed moisture content of 10% (max) at the outlet of the Dryer unit including other guarantees related to their scope of work.

1. This MOU shall be part of the tender to be submitted to IOCL.
2. This MOU shall be governed under Indian laws. Disputes, if any shall be resolved amicably, otherwise resolved by arbitration in India in accordance with the Indian Arbitration and Conciliation Act, 1996. The language of the arbitration shall be English language.
3. ZLDS < > has experience of executing work under a single contract for
  - i) Multi Effect Evaporator Unit of Minimum Capacity of 180 KLD
  - ii) Dryer Unit (Agitated Thin Film Dryer or Pusher Centrifuge).
4. ZLDS < > undertakes to execute the Multi Effect Evaporator unit and a Dryer Unit (consisting of Agitated Thin Film Dryer or Pusher Centrifuge) of IOCL project referred above should the bidder emerge as successful bidder.
5. BHEL in case emerges as successful bidder in the tender referred above, they will execute the Multi Effect Evaporator unit and a Dryer Unit (consisting of Agitated Thin Film Dryer or Pusher Centrifuge) only through the supplier/vendor as per this MOU.

This Memorandum of Understanding (MOU), signed in duplicate with each party receiving one original document, shall be valid up to the end of the Defect Liability Period of the contract between IOCL and BHEL, in case BHEL is awarded subject tender

SIGNED BY THE PARTIES THIS \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**BHARAT HEAVY ELECTRICALS LTD**

**ZLDS**

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## **ANNEXURE-I (Scope matrix between BHEL & ZLDS for Multi Effect Evaporator & Dryer Unit)**

S. No.	Scope/Issues	BHEL/ First Party	ZLDS/ Second Party	Remarks
<b>Design &amp; Engineering – Post Order / execution stage</b>				
1.	Basic engineering like <ul style="list-style-type: none"> <li>Process Flow Diagram</li> <li>Hydraulic flow Diagram</li> <li>Process design calculations</li> <li>Equipment list</li> <li>P&amp;IDs</li> </ul>	X	√	
2.	Detail Engg. like <ul style="list-style-type: none"> <li>Detailed equipment sizing &amp;</li> <li>GA drawings/ Layouts /Pipe GA/ Piping Isometric</li> <li>Valve Schedule/ Pipe Schedule/ Cable Schedule</li> <li>Detailed BOQs</li> <li>Electrical and C&amp;I System design</li> <li>Civil Design *</li> </ul>	X	√	*ZLDS will provide inputs
<b>Project Execution</b>				
3.	Procurement and Supply Detailed BOQ to be added	X	√	
4.	Project Management	√	X	
5.	Civil Works	√	X	
6.	Erection of Structures & Equipment	X	√	
7.	Commissioning of equipment	X	√	
8.	Performance at guaranteed parameters	X	√*	*for ZLD portion
<b>Operation &amp; Maintenance</b>				
9.	O&M <ul style="list-style-type: none"> <li>Supply of Consumables, Chemicals</li> <li>Supply of Spares &amp; services</li> </ul>	X	√*	*for ZLD portion