ऑयल इंडिया लिमिटेड
(भारत सरकार का उद्यम)
Oil India Limited
(A Government of India Enterprise)

Business Development Department
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Noida – 201301, U.P.
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Date: 09.01.2024

CORRIGENDUM NO.1 TO OIL e-tender NO.: CQI4810P24

DESCRIPTION OF WORK: Establish a plant of 1 MW capacity in Himachal Pradesh for production of High Purity (99.999%) Green Hydrogen for commercial use

This Corrigendum is issued to notify the following changes in the tender:

1. Annexure – I (Amendments to the Scope of Work) (enclosed)
2. Annexure – II (Amendments to the BEC/BRC) (enclosed)
3. Annexure – III Revised Price Bid Format and sample calculation sheet (uploaded in "Notes and Attachments")
4. Annexure – IV (Pre-Bid Queries Replies)
5. **NEW BID SUBMISSION DATE : 30.01.2024 (11:00 AM)**
6. **NEW BID SECURITY SUBMISSION DATE : 30.01.2024 (11:00 AM)**

All others terms and conditions of the Tender remain unchanged.

Sd/-
Jyoti Sarkar
Senior Manager (BD)

ANNEXURE -I

Amendment / additions / changes in Scope of Work

OIL Tender -CQI4810P24 - Inviting bids for establishing a plant of 1 MW capacity for producing Green Hydrogen in Himachal Pradesh

Sl No.	Existing Clause as per Tender document	Amended Clause
1.	Addition Below 2.31	**3.0** Price Discount due to non-compliance of Guaranteed Performance Parameters during O & M
		3.1. Lower Supply of Hydrogen: The overall supply of Green Hydrogen will be accounted on quarterly basis vis-à-vis Green Hydrogen Production guaranteed in the offer to calculate the short fall in supply of green hydrogen Price discount @ Rs.350.00/kg will be payable to the owner for the shortfall quantity of Green Hydrogen
		3.2 Excess energy consumption: The price discount due to excess energy (KWh) consumption over the guaranteed values will be 125% of the applicable energy cost of that quarter (Average cost of electricity of 3 month electricity bill of the applicable period). The amount of the both above price discount will be calculated and deducted from the Operation & Maintenance bill payable to contractor on quarterly basis. In case the discount amount is more than quarterly O&M bill then the difference amount shall be reimbursed by the contractor within 15 days of informing about the shortfall.

Sl No.	Existing Clause as per Tender document	Amended Clause
2.	1. The LCOH shall be calculated as per the formula mentioned below:	
	LCOH (Rs/Kg) = PV of total cost) / H (Total H2 production in n yrs)	
	Where:	
	Total Cost = Total CapEx (C) + Total OpEx (O) in 10 yrs, CapEx (C) = Sum of line item (10+20) of the SOQ/SQR, as quoted by bidder including taxes as applicable.	
	n = 10	
	OpEx (O) = O1+O2 (As mentioned below)	
	N = NPV of total cost	Deleted
	H = Total Qty. of H2 produced in 10 years i.e 17kg/hr x 8000 hrs per year x 10	H = Total Qty. of H2 produced &supplied in 8000 hrs per year x 10 Yrs i.e 80000 hours
	O1 = Cost of total power consumed in 10 yrs. @ Rs 5.0 per KWhr.	O1 = Cost of total electrical energy consumed in 10 yrs. @ Rs 5.0 per KWh.
	O2A = Total cost of utilities consumptions in 10 yrs. as mentioned by bidder in his technical bid.	O2A = Total cost of comprehensive O&M in 10 yrs. as mentioned by bidder for each year in his technical bid.
	O2B = Total cost of comprehensive O&M in 10 yrs. as mentioned by bidder in his technical bid.	O2B = Total cost of replacement of stacks in the year as recommended by bidder in his technical bid during 10 years of operation
	2. The total period for NPV calculation shall be total 11 yrs.	The total period for PV calculation shall be total 11 years with first year capex and opex in subsequent 10 years
	3. The Discount rate for NPV calculation shall be considered @ 10%.	Clause Prevails
	4. The cash flow for the 1st year shall be the total CapEx (C) only, as quoted by bidder. The OpEx (O) shall be considered for the next 10 yrs, starting from 2nd year.	Clause Prevails

<table>
<tr><th>Sl No.</th><th>Existing Clause as per Tender document</th><th>Amended Clause</th></tr>
<tr><td></td><td>5. The total O&M costs (O3) shall be considered for 10 yrs, which shall start after the successful SAT.</td><td>The total O&M costs (O2) shall be considered for 10 yrs, which shall start after the successful SAT.</td></tr>
<tr><td></td><td>6. The bidder with least LCOH value (Rs/kg) shall be selected as successful bidder.</td><td>Clause Prevails</td></tr>
<tr><td></td><td>7. The unit shall be considered operating 8000 hrs each year at 100 % t'put.</td><td>Clause Prevails</td></tr>
<tr><td></td><td>8. Utilities consumption shall be calculated considering 8000 hrs per years for all the 10 years.</td><td>Deleted</td></tr>
<tr><td></td><td>9. For LCOH calculation, the Hydrogen production rate shall be considered @ 17 Kg/hr for all the 10 yrs. Total 8000 operating hrs. shall be considered for each yr. for all the 10 yrs.</td><td>9. For LCOH calculation, the Hydrogen supply rate shall be considered @ quoted guaranteed rate for all the 10 yrs. Total 8000 operating hrs. shall be considered for each yr. for all the 10 yrs. The quoted guaranteed Hydrogen supply rate shall be within 17 kg/hr (Minimum) to 19 Kg/hr (Maximum)
Note: A sample calculation sheet is attached</td></tr>
<tr><td></td><td>10. Following prices of utilities shall be considered for LCOH calculation only, for all the 10(Ten) yrs.:</td><td>Deleted</td></tr>
<tr><td></td><td><table><tr><th>Sl. No</th><th>Stream</th><th>Unit</th><th>Price</th></tr><tr><td>1</td><td>Cost of renewable power</td><td>Rs/kwh</td><td>5.0</td></tr><tr><td>2</td><td>DM water</td><td>Rs/ KL</td><td>126.6</td></tr><tr><td>3</td><td>Nitrogen</td><td>Rs/Nm3</td><td>12</td></tr><tr><td>4</td><td>Cooling water</td><td>Rs/ KL</td><td>1.34</td></tr><tr><td>5</td><td>KOH or NaOH etc.</td><td>Rs/ kg</td><td>50</td></tr></table></td><td>Deleted</td></tr>
<tr><td>3.</td><td>11. Bidder shall submit following information required for calculation of LCOH, as per the table given below in the price bid only:</td><td>11. Bidder shall submit following, as per the table given below in the price bid only:</td></tr>
</table>

Sl. No	Stream	UOM	Estimated Value
i	DM water consumption as feed to unit for H2 production @ 17 Kg/hr.	KL/hr	To quote in Price Bid
ii	Electricity Power consumption by the electrolyser system/s, for 17 Kg /hr of H2 production.	KWhr	To quote in Price Bid
iii	Electricity Power consumption excluding electrolyser system (BOP), for 17 Kg/hr of H2 production.	KWhr	To quote in Price Bid
iv	Cooling water flow requirement for BoP	KL/hr	To quote in Price Bid
v	N2 consumption at B/L	Nm3/hr	To quote in Price Bid
vi	KOH/NaOH or other chemical/s as required	Kg/yr	To quote in Price Bid
vii	Cost of other utilities, if applicable.	Rs/hr	To quote in Price Bid

Table -1

Sl. No	Stream	UOM	Estimated Value
i	Electricity Power consumption by the electrolyser system/s, at guaranteed rate of hydrogen production	KWh	To quote in Price Bid
ii	Electricity Power consumption excluding electrolyser system (BOP), at guaranteed rate of hydrogen production	KWh	To quote in Price Bid

Table -2 (**to be put in annexure to Price Bid in Table 2) For reference only**

Sl. No	Stream	UOM	Estimated Value
iii	DM water consumption as feed to unit at guaranteed rate of hydrogen production	KL/hr	To quote
iv	Cooling water flow requirement for BoP	KL/hr	To quote
v	~~N2~~ instrument air consumption at B/L	Nm3/hr	To quote
vi	KOH/NaOH or other chemical/s as required	Kg/yr	To quote
vii	Cost of other utilities, if applicable. including N_2	~~Rs/hr~~ LS per year	To quote

Sl No.	Existing Clause as per Tender document	Amended Clause
4.	Addition	The power consumption of the Electrolyser system (Excluding BOP) shall not be more than 60 kWh/ Kg of Hydrogen produced.
5.	13. The guaranteed life cycle of electrolyzer system shall not be less than 80000 hours.	13. The guaranteed life cycle of electrolyzer system shall not be less than 40000 hours. The bidder shall furnish the cost of replacement of electrolyser system/stacks and specify the time period (Year) in which replacement is recommended. The quoted cost of stack replacement shall not be less than 25% of the quoted CAPEX
6.	Addition as 25.6	25.6 **Performance Bank Guarantee during O&M Period** The Bidder shall submit a Bank Guarantee one month prior to commencement of O & M period for an amount equivalent to 10% (ten percent) annual O&M charges for the year. Every year a fresh bank guarantee shall be submitted by the Bidder, having validity of 13 months, one month prior to expiry of the previous Bank Guarantee or the existing bank guarantee can be extended suitably every year till O&M contract remains with the Bidder.
7.	After 1.2.30 Addition as 1.2.31	1.2.31 Metering Point For all accounting purpose, the electrical energy consumption shall be recorded in supply energy meter installed at the incoming of the 33kV feeder at plant boundary.

<table>
<tr><th>Sl No.</th><th>Existing Clause as per Tender document</th><th>Amended Clause</th></tr>
<tr><td>8.</td><td>Schedule of Work, Unit and Quantity (SQQ)

DESCRIPTION OF WORK/SERVICE: Establish a plant of 1 MW capacity in Himachal Pradesh for production of High Purity (99.999%) Green Hydrogen for commercial use.
<table>
<tr><th>SN.</th><th>Description of Services</th><th>UOM</th><th>Estimated Qty</th></tr>
<tr><td>10</td><td></td><td></td><td></td></tr>
<tr><td>20</td><td></td><td></td><td></td></tr>
<tr><td>30</td><td>Comprehensive O&M charges for 10 years @ 5% escalation every year.</td><td>Lump-sum</td><td>1</td></tr>
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</table></td></tr>
<tr><td>9.</td><td>1.0 Payment terms
1.3 For O&M period of the contract (Starts after completion of Item Sl. No. 20 of SOQ).</td><td>1.0 Payment terms
1.3 For O&M period of the contract (Starts after successful completion of Site Acceptance Test).</td></tr>
<tr><td>10.</td><td>Part -V Scope of Work

1.0 Scope of Work
Owners Responsibility
Capital Investment in procuring, installation, commissioning the system and O&M of the plant.
Facilitating the bidder in applying for statutory clearances for the project.
Conducting HAZOP, Qualitative/ Quantitative Risk Analysis and Consequences Analysis.</td><td>Part -V Scope of Work

2.0 Scope of Work
Owners Responsibility
Capital Investment in procuring, installation, commissioning the system and O&M of the plant.
Facilitating the bidder in applying for statutory clearances for the project.
Conducting HAZOP, Qualitative/Quantitative Risk Analysis and Consequences Analysis.
Addition: -</td></tr>
</table>

Sl No.	Existing Clause as per Tender document	Amended Clause
		• Green Power will be supplied at 33kV feeder available at Plant boundary free of cost up to the guaranteed consumption corresponding to the supply of Hydrogen • **Bidder's Responsibility:** **Addition: -** • Two (2) days of Hydrogen Storage at 350 bar including suitable Compressor system • Supply of all the consumables and utility except power required for operation of the plant is in the scope of bidder.
11.	2.2 The capacity of electrolyser module/s to be supplied shall be minimum 17 Kg/hr.	2.2 The capacity of electrolyser module/s to be supplied shall be minimum 17 Kg/hr and Maximum 19 Kg/hr.
12.	2.7 The H2 generation capacity offered by the bidder shall be 17 Kg/hr (min). Bidder shall select its model/s of its electrolyser or designed it accordingly to meet the minimum capacity of Green Hydrogen plant. In case the stacks/modules are selected/ designed of higher capacity, 17 Kg /hr shall be considered for LCOH as mentioned in clause 19.0.	2.7 The H2 generation capacity offered by the bidder shall be ranging from 17 Kg/hr (min) to 19 kg/hr maximum. Bidder shall select its model/s of its electrolyser or designed it accordingly to meet the guaranteed capacity of Green Hydrogen plant.
13.	2.9 The guaranteed Service life of electrolyser system shall not be less than 80000 hours.	2.9 The guaranteed Service life of electrolyser system shall not be less than 40000 hours.
14.	Part -V Scope of Work 3.0 Scope of Work **Bidders Responsibility**	Part -V Scope of Work 4.0 Scope of Work **Bidders Responsibility**

Sl No.	Existing Clause as per Tender document	Amended Clause
	• Arrange necessary water required for the electrolysis process.	• Arrange necessary water including Raw water, Service water, DM water, cooling water and fire water required for the total H2 generation plant
15.	**BIDDER'S SCOPE OF WORK & SUPPLY FOR BOP:** 4.3 Required green energy power of 33 kV~~A~~, 3 phase, 50 Hz feeders, ~~each~~ rated for 100% load will be provided from owner's end for electrical system of Green Hydrogen generation plant.	4.3 Required green energy power of 33 kV, 3 phase, 50 Hz feeders, rated for 100% load will be provided from owner's end for electrical system of Green Hydrogen generation plant.
16.	**4.23 Addition**	**4.23 To be added** Bidder will provide on line process analyser to monitor and control variables such as Hydrogen purity, Gas composition, Pressure, Temperature, Moisture content and Impurities for optimization, safety and quality assurance.
17.	**4.24 Addition**	**4.24 To be added** Bidder will provide Fire fighting protection system as per safety norms and applicable code
18.	**4.25 Addition**	**4.25 To be added** Bidder will provide flame and gas leakage detection system with proper alarm and interlocks
19.	**7.0 SERVICE LIFE GUARANTEE OF ELECTROLYSER SYSTEM:** 7.1 Bidder shall ensure the guaranteed life of the electrolyser system is minimum 80,000 hrs from the date of commissioning. 7.2 Bidder shall declare a list of components of the electrolyser system and its nos., price, which need to be replaced before 80,000 hrs cycle life. The cost of replacement shall be loaded in the OpEx while calculating the LCOH.	**7.0 SERVICE LIFE GUARANTEE OF ELECTROLYSER SYSTEM:** 7.1 Bidder shall ensure the guaranteed life of the electrolyser system is minimum 40,000 hrs from the date of commissioning. 7.2 Bidder shall declare a list of components of the electrolyser system including stacks and its nos., price, which need to be replaced during 10 years of operation. The cost of replacement shall be loaded in the OpEx while calculating the LCOH.

Sl No.	Existing Clause as per Tender document	Amended Clause
20.	**8.0 PERFORMANCE GUARANTEE TEST RUN (PGTR):** 8.1 Performance Guarantee Test Run (PGTR) shall be carried out within 3 months of commissioning (SAT) of the plant to ascertain the meeting of the guaranteed parameters as mentioned below: 8.1.1Hydrogen production: 17 Kg/hr minimum. 8.1.2 Total Power consumption: Kw/Kg of H2 (as guaranteed by bidder) (including BOP) 8.1.3 Hydrogen pressure: 25 kg/cm2 min. 8.1.4 Hydrogen purity: 99.999 vol% min.	**8.0 PERFORMANCE GUARANTEE TEST RUN (PGTR):** 8.1 Performance Guarantee Test Run (PGTR) shall be carried out within 2 months of commissioning (SAT) of the plant to ascertain the meeting of the guaranteed parameters as mentioned below: 8.1.1 Hydrogen production: 17 Kg/hr minimum Or As guaranteed by the bidder within the permitted range 8.1.2 Total Power consumption: xxxx Kwh/Kg of H2 (as guaranteed by bidder) (including BOP) 8.1.3 Hydrogen pressure: 25 kg/cm2 min. 8.1.4 Hydrogen purity: 99.999 vol% min.
21.	**Annexure-II** **1.1** The offered PLC systems shall be hooked up with existing plant DCS through Modbus.	**Deleted**

Addendum as new clauses ***– The below clauses are in addition to the existing tender.***

1. Compensation on account of incoming grid supply failure

Grid outage hours shall be subtracted from the total number of guaranteed hours in a quarter and corresponding target of green hydrogen guaranteed quantity shall also get reduced. On this account, the contractor will not be responsible for shortfall in hydrogen guaranteed quantity corresponding to grid outage hours. The Contractor shall submit grid outage certification from competent authority of STU/DISCOM.

2. Compensation on account of non-offtake of Hydrogen supply

In case the owner fails to take delivery / offtake of green hydrogen for x hours during the quarter then energy consumption of the plant during the period (x hours) will not be accounted in calculating guaranteed energy consumption of the applicable quarter.

3. Price Discount for not successfully completing PGTR

In case the contractor fails to successfully complete the PGTR within 2 months of site acceptance test, the contractor will be required to modify or add additional equipment required for successful PGTR and offer for second PGTR within 2 months . If the contractor fails again then for every 0.1 shortfall in hydrogen guaranteed supply rate (Kg/hr) below the committed value, a penalty of 1% of the total Contract Value (i.e., total sum of all the Supply and installation) shall be levied. In case the Contract Performance Security has already been encashed on account of any default/delays, the penalty amount will be recovered from any due payments to the contractor. In case the hydrogen production Shortfall is more than 0.5 kg/hr than the guaranteed value but above 17kg/hr, then the total plant will be accepted on as-is basis & the total Contract Performance. Security submitted by the contractor will be forfeited & payments linked to PGTR will not be made. However, in case the Hydrogen production is below 16.5 Kg/hr in case of guaranteed 17 Kg/hr than the plant will be taken over as on as is basis after a price discount of 2% for every shortfall of 0.1% from 17 Kg/hr reference values

A sample calculation given below:

Sample sheet showing calculations of Bid Evaluation

Bidder						
	PGTR Test results			**Price Discount in CAPEX**		
Guaranteed Supply of Hydrogen Kg/hr	17	18	19			
As per PGTR Test Kg/hr	16.9	17.9	18.9	1%	1%	1%
	16.7	17.7	18.7	3%	3%	3%
	16.5	17.5	18.5	5%	5%	5%
	16.4	17.4	18.4	12%	12%	12%
	16	17	18	20%	20%	20%
	<16	**<17**	**<18**	**Not Acceptable**		

Note : *Plant with hydrogen production capacity 1.0 kg/hr below the guaranteed value will not be accepted and simply rejected.*

4. O& M Contract

Price Discount for nonperformance during O & M period

If the plant fails to produce hydrogen as per the rate achieved and accepted during PGTR, the O&M contractor is liable to pay the owner the cost of shortfall in hydrogen supply (shortfall quantity in Kg X Rs 350/-) during the quarter. The amount will be recovered from the quarterly bill payable to contractor. If the amount is more than the quarterly bill amount then the same has to be reimbursed by the contractor within 15 days of invoicing failing which the PBG will be encashed.

Annexure II (Instrumentation & Control system Requirements)

The Instrumentation and Control system requirement as specified is only for indicative purpose. The bidder shall design and install and commission the Instrumentation and Control system as per the specific requirements of offered technology as per the standard engineering practice and subsequent to approval from the Engineer In charge. The instrumentation design shall comply with relevant engineering instrumentation codes established by industry standards. Some applicable codes include, but are not limited to:

1. ISA (Instrumentation, Systems, and Automation Society) standards
2. IEC (International Electrotechnical Commission) standards
3. ANSI/ISA standards
4. IEEE (Institute of Electrical and Electronics Engineers) standards

5. PAYMENT TERMS: Amended Payment Terms are as under :

1.1 **Payment Term for Item sl. no. 10 of SOQ:**

Milestone No.	Payment Milestone	% of Lump-Sum Value
1.	After submission of BED, which includes Engg. drawing, finalization of PFD, P&IDs, data sheets for BOP (as required) and approval of drawings by Owner etc.	5%
2.	Site development work/completion of foundation work and completion of entire fencing	10%
3.	Supply of all the Electrolyser system/Containers along with its accessories at designated site.	35%

Milestone No.	Payment Milestone	% of Lump-Sum Value
4.	Completion of Installation, Commissioning and Site Acceptance Test (SAT) of the Electrolyser system.	40%
5.	On successful completion of PGTR of entire Green Hydrogen Plant, as specified, and issuance of Operational Acceptance Certificate	10%

1.2 **Payment Term for Item sl. no. 20 of SOQ:**

Milestone No.	Payment Milestone	% of Lump-Sum Value	% of Lump-Sum Value (ammended)
1A.	Completion of detailed engineering as per scope of Tender Document (duly approved by Owner)	20%	
1B.	Supply of all the Major items of BOP system such as Transformer, HT Switchgear, Compressor, Drier and DM Plant at designated site.	20%	New Addition
2.	Successful completion of installation & commissioning of all the works in scope of work in all respects (excluding PGTR).	50%	30%
4.	Site Acceptance Test (SAT) of the entire Green Hydrogen Plant.	20%	
5.	On successful completion of PGTR of entire Green Hydrogen Plant, as specified, and issuance of Operational Acceptance Certificate	10%	

1.3 **Item sl. no. 30 of SOQ:**

Milestone No.	Payment Milestone	% of Lump-Sum Value
1.	For O&M period of the contract (Starts after completion of Item No 4 of Sl. No. 20 of SOQ).	Quarterly

NOTE:

i. Payment of O&M Charges shall be released on pro-rata basis in quarterly instalment at the end of each quarter against bills duly certified by OIL for satisfactory performance.

ii. All Charges related to travel, accommodation and local conveyance shall be inclusive in O&M charges. Refer detail scope of work of O&M in the tender document.

****End of Annexure – I***

ANNEXURE - II

Sl No.	Existing Clause as per Tender document	Amended Clause
1	**1.0 Eligibility Criteria** **1.1** Bidder shall be a manufacturer or a channel partner of the manufacturer of Water Electrolyser technology (Alkaline Water Electrolyser (AEL) or Anion Exchange Membrane (AEM) or Proton Exchange Membrane (PEM) or Alkaline Membrane Solid Electrolyser (AMSE) or Solid Oxide Electrolyser (SOE) technology). The Manufacturer or the Channel partner should have supplied at least one unit of electrolyser based on Water Electrolysis technology in India in last 10 years and should have been in successful operation for at least 3 (three) months prior to the original bid closing date. **Notes for Eligibility Criteria** **(a)** The bidder must be incorporated/constituted in India and must maintain equal to or more than 20% local content (LC) for the ~~offered services~~ to be eligible to bid against this tender.	**1.0 Eligibility Criteria** **1.1** Bidder shall be a manufacturer or a channel partner of the manufacturer of Water Electrolyser technology (Alkaline Water Electrolyser (AEL) or Anion Exchange Membrane (AEM) or Proton Exchange Membrane (PEM) or Alkaline Membrane Solid Electrolyser (AMSE) or Solid Oxide Electrolyser (SOE) technology). The Manufacturer or the Channel partner should have supplied at least one unit of electrolyser of minimum 50 KW capacity based on Water Electrolysis technology in last 10 years and should have been in successful operation for at least 3 (three) months prior to the original bid closing date. **Notes for Eligibility Criteria** **(a)** The bidder must be incorporated/constituted in India and must maintain equal to or more than 20% local content (LC) for the Electrolysers System (excluding BOP) to be eligible to bid against this tender.

Sl No.	Existing Clause as per Tender document	Amended Clause
2	**2.0 Technical Criteria** One similar work costing not less than Rs. 8.3 Cr. (excl. taxes)	**2.0 Technical Criteria** One similar work costing not less than Rs. 5.0 Cr. (excl. taxes)
3	**3.0 Financial Criteria** 3.1 Annual Turnover Criteria: The Annual Turnover of the bidder during any of the last 03 financial years, viz., FY 2020-2021, FY 2021-22 & FY 2022-23, should be at least Rs. 8.3 Crores as per the audited financial results.	**3.0 Financial Criteria** 3.1 Annual Turnover Criteria: The Annual Turnover of the bidder during any of the last 03 financial years, viz., FY 2020-2021, FY 2021-22 & FY 2022-23, should be at least Rs. 5.0 Crores as per the audited financial results.

****End of Annexure – II***

ANNEXURE - III

REVISED PRICE BID FORMAT AND SAMPLE CALCULATION SHEET (UPLAODED IN NOTES AND ATTACHMENTS)

ANNEXURE – IV

PRE-BID QUERIES REPLIES

Sl. No.	PRE-BID Query	OIL's Reply
1	Bidder understand that the Statutory Clearances like PESO are in Owner Scope. Please clarify	Bidder's Responsibility.
2	Bidder request to provide following inputs: 1. Raw water/DM Water/Cooling Water/Service water flow , Pressure , temperature and water sample report . 2. Nitrogen gas and their manifolds for purging is in Owner or Bidder scope, if yes then Please confirm flow, pressure and temperature , 3. Instrument air is provided by Owner or not. if yes then confirm Flow , Pressure , temperature and Dew point Temperature. 4. Fire Safety Water Supply is in Owner or Bidder scope . Please provide inputs if it is in owner scope .	Bidder's Responsibility.
3	Owner to confirm whether oxygen is taking in use or Bidder shall vent Oxygen gas in atmosphere . Also Confirm end user Application of Hydrogen by owner.	Venting into atmosphere
4	1. Hydrogen Gas Compression section is applicable or not , if yes then Specify Type of Compressor . 2. Storage of hydrogen is applicable or not . If yes then provide inputs .	Please refer corrigendum

Sl. No.	PRE-BID Query	OIL's Reply
5	1) Please Provide Plot Area details, Geotechnical survey and location for preparing plot plan and Plant overall Layout. 2) Please provide i) a scale + contour map (2 mtr) of location of proposed project site ii) Soil Test Report with load bearing capacity iii) What are the other facilities/ operational structures in the vicinity of the proposed facility site/ H2 storage ? iv) Distance of the 33 KVA station from the site v) What is the required output of the transformer. Is it limited to the Water electrolyser plat requirement or any additional capacity is to be incorporated? 3) Kindly Confirm the scope of supply Of electrolyser For testing of the Electolyser system .	1. Location is Dabhota-II(Khasra No. 1798) . Site Coordinates - 31°5'40"N, 76°39'24"E 2. iv. 1000 metres v. Please refer Corrigendum
6	1) Please provide Exact location in the state of Himachal Pradesh for Green Hydrogen Plant . Latitude and longitude Axis for BEDP. 2) OIL to clarify that no safety audit will be carried by Bidder after completion of site / handing over.	1. Location is Dabhota-II(Khasra No. 1798) . Site Coordinates - 31°5'40"N, 76°39'24"E 2. Safety audit to be done periodically as and when required
7	1) we are proposing to provide a single cell solution for which redundancy is not applicable for stack and rectifier. While , during maintenance full plant will be in shut down condition due to this solution , owner to confirm and suggest . 2) We understand that OIL is looking for redundancy and ease of maintenance without affecting the operation. 3) We want to clarify that in this case the Hydrogen gas generation volume will also be affected / reduced.	1. Operation hours of 8000 hrs in years must be guaranteed.
8	Owner to provide the list of mandatory spares as applicable for the whole Green hydrogen Plant.	Bidder's Scope
9	1) Please confirm the distance between Main power supply feeder and Green Hydrogen Plant Station . 2) Request OIL can provide the layout for better understanding to bidders.	1. 1000 Metres 2. Not available
10	Kindly Confirm these points the Tarrif rate is in whose scope	Bidder's scope

Sl. No.	PRE-BID Query	OIL's Reply
11	1) Bidder understanding is Continuous Emissions Monitoring Systems (CEMS) consist of a series of gas analysers for monitoring various air pollutants and all those gases are not produced by Electrolysis based Hydrogen Generation Plant. Owner to Confirm. 2) OIL to clarify the usage of Online process analyser and Online Stack Analyser	1. Stack analysers will not applicable for this project. 2. Online process analyzers will monitor and control variables such as hydrogen purity, gas composition, pressure, temperature, moisture content, and impurities for optimization, safety, and quality assurance.
12	1) As it in not clear that whether this project is green field or brown field project . 2) Bidder understanding that, the scope of civil work is limited to the construction of sub-station building and foundation work related to hydrogen generation plant . There is no requirement to Build roads , drainage system etc. Owner to confirm the same. 3) OIL to clarify that the complete project will be put inside any RCC Civil building (indoor) or Shed structure (Outdoor)	1. Green field project 2. The scope consists of all the works inside the battery limit of the project 3. bidder scope
13	Bidder understanding is Oxygen gas is Flame free. So Flame arrestor for Oxygen Vent is not applicable . Please confirm .	Under Bidders Scope
14	The understanding of bidder , is that The HVW/MVW fire water spray system is not applicable for this project , Owner to clarify	Yes
15	Please provide detail scope of work and technical specification for Fire Fighting protection system	Under Bidders scope
16	· Whether the generated Oxygen is to be used or vented? If it is not to be vented and to be used/ stored, what is The purity of Oxygen required? the pressure required and Type and size of storage required?	Oxygen to be vented
17	What will be the arrangement at site in terms of availability hosting/ housing workers / labour during construction Engineers during installation and commissioning O&M staff during O&M period	to be arranged by bidder on the site
18	Can the power be given from 11 kVA feeder as the cost of step down from 33 kVA is very hgh.	The feeder will be of 33kva
19	Size & Type of H2 storage	Please refer corrigendum

Sl. No.	PRE-BID Query	OIL's Reply
20	1) Please confirm the input power cost will be paid by OIL and it is not part of Operation and maintenance cost. 2) Request OIL to provide suitable room in the plant premises to establish as Site office during construction and O&M period.	1. Input power will be paid by the bidder it comes under O&M cost 2. Will be provided
21	Please confirm Providing continuous and steady source of power and ensuring power to be green will be in scope of OIL	1. RTC green power will be provided
22	Request you to clarify that the land will be provided Free of cost to the selected Bidder. No charges to OIL / any party will be paid by selected bidder.	It will be FOC basis
23	OIL to kindly clarify: 1. 25 Kg/cm2 is the downstream pressure requirement or it is less than that. Otherwise we need to consider PRS in our scope. 2. Our scope is limited to Generation of Hydrogen Gas on Ex- plant basis. Kindly confirm. The pipeline requirement from Generation plant to the consumption point is in OIL scope. Kindly clarify.	1. Downstream pressure 2. Only upto Generation of hydrogen gas
24	We hope that only purity certification is required from agency as mentioned on yearly basis. It does not cover any Green Hydrogen certification / carbon intensity measurement. Kindly clarify.	purity certification is required from agency as mentioned
25	We understand that upto 8.5 % downtime has been considered during operation of Green Hydrogen plant. Kindly confirm.	confirm
26	Request OIL can provide the layout for better understanding to bidders	It is in design scope of bidder
27	The storage space will be provided by OIL at the site on FOC basis to store the material related to this project only. Kindly confirm.	Bidder to build necessary infrastructure on the alloted site
28	Kindly clarify that Bidder to consider the Flame & Gas Detectors and Monitoring systems in our scope.	It is under the scope of Bidders to consider the Flame & Gas Detectors which shall be incorporated in ESD PLC.
29	We understand Company/Owner shall procure permission to construct and operate a Hydrogen Generation. Unit in Himachal Pradesh. Kindly confirm.	Owner will procure permission
30	What is the desired use of generated Green Hydrogen by the plant? Is it desired to store, dispense or be integrated with any existing process? Shall that be in the scope of the bidder?	2 days storage to be considered and usage is owner's responsibility. Corrigendum to be reffered.
31	Specify the use of Hydrogen so that we can Select the technology of electrolyser for Efficiency.	Bidder's Scope

Sl. No.	PRE-BID Query	OIL's Reply
32	EMD at Rs 1.35 cr. at nearly 10% is very high and discourages MSE bidders. Please consider reduction to a significantly lower amount or grant exemption to MSE bidders.	Not allowed
33	Is procurement of Electrolyser/BOP/ Components /materials from vendors from country sharing land border with India allowed/not allowed?	Allowed subject to submission of declaration in Exhibit I,II and III.
34	If Customs Duty, if any, is to be borne by the Company, is it not to be included in price bid?	To be loaded in Price Bid by Bidder and mention the amount.
35	Please consider modification to apply PPP to enable MSE bidders exemption from submission of Bid Security.	Not allowed as per PPP for MSEs
36	Performance Security is expected to be submitted within 14 days of LOA. This is very short. Please consider increasing it to 30 day at least.	tender condition prevails
37	1) GST rates are fixed by Govt and are not in Bidders control. Rates can change during Contract supply or O& M tenure. 2) In case of changes in GST rates, at any time during tenure of contract, levy at actuals, should be permitted and not be capped at amount applicable at the time of bid.	Statutory Clause
38	Please Allow Start-up Firms for EMD Exemption.	tender condition prevails
39	1) Bidder is an EPC company executing Bulk Material Handling Projects for handling Coal, Ores & Minerals, Ash etc., throughout the power/mining industry worldwide. Please clarify whether the bidder qualifies under this clause? 2) Similar Work, means completed industrial projects to produce Green Hydrogen using water electrolysis and green energy input	tender condition prevails
40	Does this criteria shall be met by EPC or Manufacture or both? Please clarify	to be met by the bidder
41	1) We request to Consider not only order in India but also of overseas since supply from India. 2) Please allow manufacturer or a channel partners should have supplied at least one unit of electrolyser in overseas.(Not only in India)	Refer corrigendum

Sl. No.	PRE-BID Query	OIL's Reply
42	Electrolyser and Hydrogen manufacturing business was conducted in Parent Company. A wholly owned subsidiary Company is now formed for carrying on Hydrogen business. Parent Company meets Turnover, net worth and experience criteria. Subsidiary Company, being newly formed will not meet turnover or experience criteria, directly. It will also meet positive Net worth criteria , currently, but there is no previous year. Will the new subsidiary be considered eligible to bid on the basis of the Parent company's meeting the Turnover and experience criteria? As per the Tender Document, Indian subsidiaries of Foreign Companies appear to be eligible to be bidders on the basis of Parent/Supporting Company's experience. It is not clear if the same applies to Indian subsidiaries of Indian Companies. Please clarify.	agreed
43	We understand that the projects which were executed on EPC basis in the field of Natural Gas (CGD) sector are also accepted as past experience.	will be as per tender clause
44	Please allow to verified documents to be submitted after successful technical evaluation.	tender clause prevails
45	One similar work costing not less than Rs. 5.50 Crores (SOUGHT AMMENDMENT) One similar work costing not less than Rs. 5 Crores (SOUGHT AMMENDMENT)	tender clause prevails
46	Net worth must be Rs.40 Crores (SOUGHT AMMENDMENT)	tender clause prevails
47	Please Clarify the Eletrolyser No.of Stacks, Input power.	**Bidders scope**
48	Please Clarify the Compressor type & rating.	**Under Bidder scope**
49	Please Clarify the Type of tanks for H2 Storage	**Under Bidder Scope**
50	Provide process flow block Diagram & layout details	**Under Bidder scope**
51	Please Clarify the requirement of decompression station.	**unclear**
52	Please Clarify the requirement of Enclosure for eletrolyser and Compressor.	**Enclosure will be required**
53	For Transformer 1X100% rating to be considered without any redundancy or 2X50% rating to be considered, Please clarify	**Under design of Bidder**
54	Please confirm the distance of (Electrical, process) terminal point from proposed land for green hydrogen plant?	will be shared
55	33kV Power supply Line from tapping/Terminal Points will be constructed by Power cable or Overhead line. Please elaborate the scope.	Under bidder's scope
56	Please clarify requirement of Emergency DG Set If required please provide rating of for thee same	it is in the design scope of bidder
57	Bidder understands 33kV instead of 33kVA. Request to confirm.	33kv
58	Bidder understands scope includes Substation and Power Distribution. Any Renewable Energy Power Sourcing, Power Purchase agreements and liasonsing thereof is not in scope of this contract. Please confirm.	scope includes only Substation and Power Distribution

Sl. No.	PRE-BID Query	OIL's Reply
59	Request to provide Technical Specifications for Electrical System and Substation.	Bidders to submit
60	Request to provide Terminal points (location and distance) for all utilities.	will be shared
61	Request to provide Gas delivery terminal point (location and distance).	
62	Provide Electricity Tariff Meter location (Hydrogen Plant end or Remote substation end). Bidder shall use this meter input for building Hydrogen Tariff.	within battery limit of plant
63	Request to provide Soil data, GIS data, contour survey?	Bidder's scope
64	Request to provide , Plot area is inside existing factory or outside the plant premises? Any road approachable to plot	The site Dabhota-II (Khasra No - 1798) is adjacent to Nalagarh-Bharatgarh Road.
65	Provide list of utilities provided by owner and its location and quality parameters and supply Pressure and Temperature (Raw water, DM water, AIR, Nitrogen, Electricity, construction water, construction power etc.)	1. Green RTC power will be provided rest all the utilities under bidder's scope 2. Within the Battery limit 3. ZLD/ZLD
66	Request to provide Effluent drain terminal point location	Bidder's Scope
67	Request to provide storm water drain terminal point location	Bidder's Scope
68	Request to provide fire water terminal point and supply pressure ?.	Bidder's Scope
69	Request to clarify requirement of hydrogen storage	Hydrogen storage at 250 bar for atleast 2 days will be required. Corrigendum will be published.
70	Bidder understands , Oxygen is vented off to atmosphere. Please confirm	Vented
71	Bidder understnds that the Bid submission is Online and only following documents to be submitted in physical (Hard copy) format: 1. Original Bid Security 2. Printed catalogue or literature if any Request to Kindly confirm our understanding	1. if BG hardcopy is required.2. Yes
72	Request to inform following related to site erection/installation activity: Scope of utilities (Water, Power etc.), area available for temporary storage (coverd & uncoverd), area available for workers colony if any	no worker colony
73	Kindly confirm whether the cap on liquidated damages for delay is inclusive of LD for mobilisation as specified in GCC	Yes

Sl. No.	PRE-BID Query	OIL's Reply
74	1. **Payment Term for Item sl. no. 10 of SOQ**: Request to allow 35% on dispatch of material as Milestone 3 and 40% payment for Milestone no 4 on receipt of material at site 2. **Payment Term for Item sl. no. 20 of SOQ:** Request to allow 50% payment on dispatch of material as milestone 2 and 20% payment on receipt of material at site as milestone 3	tender condition prevails
75	The guaranteed Service life of electrolyser system shall not be less than 80000 hours. Kindly confirm the parameters that will be used to determine Service life of electrolyser	40000 hours. Corrigendum to be reffered.
76	Bidder understands that the "Manufacturer" shall mean an entity which is a technology provider or entity that has a valid technology licensing arrangement to manufacture the electrolysers under the technology of the technology provider, as the case maybe. Please confirm.	tender clause prevails
77	Considering the nascent stage of the Green Hydrogen industry in India, and the adoption of similar provisions in other green hydrogen tenders issued by reputed PSUs, Bidder requests to consider the clause 1.1 as below: ..... The Manufacturer or the Channel partner should have supplied at least one unit of electrolyser **of production capacity of at least (≥50% of capacity required as per clause 2.2 of PART-IV (SCOPE OF WORK)) Kg/Hour** based on **offered** Water Electrolysis technology ~~**in India**~~ in last 10 years and should have been in successful operation for at least 3 (three) months prior to the original bid closing date. **The credentials of the manufacturer's technology provider or any entity associated with such technology provider shall also be considered**.	tender clause prevails. Refer corrigendum
78	Bidder understands that valid technology collaboration/licensing agreement to manufacture the electrolysers under the technology of the technology provider will suffice this requirement. Please confirm.	tender clause prevails
79	Bidder requests OIL to consider **unpriced** copy of the work order/ Letter of Acceptance along with the scope of work, owing to confidentiality obligations/requirements.	tender clause prevails
80	he bidder understands that the certificate of successful operation implicitly covers the requirements of completion certification. Moreover, the practice of issuing a completion certificate may not be prevalent in many countries outside India. Considering this, we understand that submission of the Certificate of Successful Operation only shall suffice the requirements.	tender clause prevails

Sl. No.	PRE-BID Query	OIL's Reply
81	The bidder understands that an agreement valid for a minimum of 5 (five) years will suffice to meet the requirements under both provisions. Please confirm.	5 years
82	Bidder understands that the DJU shall be executed between the EPC and the Manufacturer or channel partner, who will supply the electrolyser package for the Project, and not necessarily by the technology provider. Please confirm.	tender clause prevails
83	We understand that suitable precaution shall be taken by OIL w.r.t. confidentiality of the data/information to be shared by bidders with third party inspection agencies. Please confirm.	confirm
84	We understand that the electrolyser manufacturer has limited scope compared to EPC Bidder. Therefore, Electrolyser manufacturer's responsibility should be limited to electrolyser package. OIL is requested to suitably update the provisions with the considerations above.	tender clause prevails
85	Bidder requests to clarify the available source of the water at site location.	Boring inside battery limit is under Bidders scope
86	Since various Electrolyser OEMs have different combination of Electrolyser Systems, bidder requests to provide a capacity range from 17 -34 kg / hr. to get the optimized solution. The quoted capacity within this range shall be considered for LCOH calculation.	tender clause prevails
87	Bidder requests that purity of the Hydrogen can be measured through the properly calibrated installed gas analysers.	
88	Bidder requests to please confirm the required pressure of 25 kg / cm2 is absolute pressure of gauge pressure.	gauge pressure
89	Bidder requests to clarify whether it is 33kVA or 33kV?	33 kv. Corrigendum to be reffered.
90	Infrastructure for the Green H2 will include the Electrolyser building along with separate Electrical room, for locating rectifier for Electrolyser, LV MCC for supplying power to BOP loads etc. Hence, a dedicated Substation may not be needed. Kindly accept.	tender clause prevails
91	Please note that Power consumption of the stacks would vary based on the operating regime. Accordingly, power consumption could not remain same during warranty period of 12 months. Bidder requests to consider the same.	tender clause prevails
92	Bidder requests to clarify the details of the existing DCS system.	Corrigendum to be reffered.

Sl. No.	PRE-BID Query	OIL's Reply
93	While bidder will ensure that the offered PLC system is latest proven one, OEM's declaration could be provided at the time of Detailed enginnering stage. Bidder requests to accept the same.	tender clause prevails
94	While bidder will ensure that the offered PLC system is having the proven track record of satisfactory operation, end user performance certificate could be provided at the time of Detailed enginnering stage. Bidder requests to accept the same.	tender clause prevails
95	Bidder submit that the OEMs have optimized the Instrumentation & Control system of the Electrolysers considering the safety, reliability, operability and maintainability aspects. In view of the same, bidder requests to follow the OEM standard / recommendations for the overall Instrumentation & Control system of the Electrolysers to cater to the redundency, SIL level, architecture, communication, vendor selection etc.	tender clause prevails
96	Bidder understands that online stack analysers not applicable for the Electrolyser System. Please confirm.	Not required
97	Bidder requests to follow the Electrolyser OEM recommendations for Water Electrolyser System.	tender clause prevails
98	For Electrolyser Process, installation of pumps & its configuration and other design considerations shall be as per OEM recommendations. Additional pump may be kept as spare. Bidder request OIL to accept the same.	tender clause prevails
99	Whether it is required to mention Zero liquid discharge plant in the tender for clarity.	as per oem recommendations
100	In Eligibility criteria you had mentioned in EPC as Power - We would like to know whether Solar EPC are eligible to participate.	tender condition prevails
101	Can we have a Consortium with Channel Partners of any Manufacturer	tender clause prevails
102	As Water is the feedstock, we request client to provide a reliable source of water at the plant battery limit	Bidder scope
103	Bidder request client to suggest borewell potential in the indentified plot	Cannot provide
104	Bidder understands that bidder scope involves delivery of Hydrogen at 25 bar at a distance of less than 30 m from the electrolyser battery limit.	As per bidder design scope
105	The Fire fighting requirement stated is for refinery etc where existing fire water network is available, bidder request client to confirm if there is existing fire water network considering of fire fighting pumps, storage tanks etc	Not available

Sl. No.	PRE-BID Query	OIL's Reply
106	The EMD of 1.35 crore is very high for this size of project, bidder request to recheck the EMD requirement.	tender condition prevails
107	Bidder understands that power provided will be RE RTC	Correct
108	As per tender payment terms only 35% is released after supply of Electrolyser and 40% after Completion of Installation, Commissioning and Site Acceptance Test (SAT) of the Electrolyser system. With this terms the project will have huge cash flow issues and such terms will never be accepted by the sub vendors. In view of the above bidder request to release atleast 70% against Supply of Electrolyser. As per tender payment terms there is no milestone for supply of BOP items. Electrical items : HT panel, Transformer, LT panel, cables etc Instrumentation & Control system : PLC with SCADA,OWS, EWS, Intruments, Cables etc Fire Fighting Above items are some items which needs to be supplied as BOP and will have huge cost and if there is no payment milestone for supply the project will have major cash flow issues which will hamper the smooth progress of project. In view of the above bidder propose following : Detailed engineering as per scope of Tender Document on prorate basis (duly approved by Owner) – 20% Supply of items on pro rata basis as per approved billing breakup (excluding PGTR) – 60% Installation, commissioning and SAT on pro rata basis as per approved billing breakup – 15% On successful completion of PGTR of entire Green Hydrogen Plant, as specified, and issuance of Operational Acceptance Certificate – 5%	Tender clause prevails
109	Bidder understand that water for cooling water will be provided by client	Bidder scope
110	Bidder understand that approach road to the plot is available	yes
111	Bidder understands that power is will provided by OIL as free issue.	Tender Conditions Prevail
112	During operation if the price of power agreed with the discom is less than Rs 5, then OIL India will proportionately deduct that amount from the O&M bill to be paid to the bidder, and in case if the price of power agreed with the discom is more than Rs 5, then OIL India will pay the incremental cost to the bidder in the O&M bills	At actuals

Sl. No.	PRE-BID Query	OIL's Reply
113	NRL, BPCL etc have issued tender on LCOH basis and in all tenders power cost was paid by the client (i.e it was free issue), hence we request OIL India to issue power as free issue. Power quoted by the bidder should be taken into consideration only for LCOH calculation.	Tender Conditions Prevail
114	Bidder understands that Bidder can submit only 1 bid, but can execute DJU with multiple manufacturer who fulfill the criteria 1.0 Eligibility Criteria clause 1.1. Please confirm	Tender Conditions Prevail
115	As per tender, Hydrogen generated from the system is to be around 25 kg/cm2g min at BL. Kindly Clarify that H2 storage tank shall consider with same pressure of 25 kg/cm2g for the 2 days Holding capacity of Green hydrogen . We presume that No hydrogen cylinder filling / unloading station shall be envisaged by Bidder in the Plant battery limit. Bidder shall envisage 1 x 100 % Hydrogen Gas Purity metering system for measuring the generated hydrogen purpose at plant battery limit. Kindly confirm.	Please refer corrigendum
116	Bidder shall request to indicate the distance of Power supply Grid from the Plant battery limit. Also type of transmission line permitted that is overhead line or UG Line .	UG line
117	Kindly indicate the Mode of water source, water quality (if availble) Request to indicate the storage duration of Raw water	Bidder's Scope
118	Kindly indicate whether any other specific applicable laws being as a part of statutory clearances other than PESO for Hydrogen generation and storage system	Bidder's Scope
119	Kindly clarify that 40% turndown design as mentioned above shall be specifically only for the Electrolyser Stack System and not for the Hydrogen BOP section	Bidder's Scope
120	CEMS & Stack analyzers (SO2/NOx/CO etc.) are not applicable for H2 generation and storage system and Cold vent shall be sufficient for the venting gases generated from H2 generation and storage system. Kindly confirm	Tender Conditions Prevail
121	Kindly clarify if the expected pressure of H2 at B/L Is 25 Kg/cm2 at 40 % turndown capacity?	Bidder's Scope
122	Kindly clarify terms defined as "cold start" and "standby start" conditions and temperature?	Tender Conditions Prevail
123	We request OIL to accept the out of India (foreign) reference also to provide equal oppurtunity for all the bidders to offer latest and proven technology.	Tender Conditions Prevail

Sl. No.	PRE-BID Query	OIL's Reply
124	Pls confirm whether the bidder should should quote O&M charges for first year and OIL will load 5% every year over & above this per annum bid? Or Bidder should quote a Lumpsum price for 10 years cumulatively in s.no. 30 consideirng 5% in each year.	Tender Conditions Prevail
125	Understand that bidder should consider the cost for below items for 10 yrs O&M: 1. Spare stack to replace (at no cost) during operation if there is any stack failure before 80000 hours. 2. Other O&M spares for 10 years 3. Power supply for entire 10 years as per DISCOM rate or 5 Rs/unit. Please clarify. 4. Manpower 5. Tools 6. All consumables inlcuding Catalyst, chemicals, water, etc., .	Tender Conditions Prevail
126	Please confirm whether bidder has the option to change the stack (Alkaline/PEM) technology after award of technology .	No
127	As an alternate to DJU, OIL is kindly requested to accept Support Letter signed between EPC and Manufacturer to satisfy Eligibility Criteria for an EPC Bidder instead of DJU	No
128	OIL is kindly requested to clarify if a Manufacturer is allowed to sign multiple DJUs with other bidders for the said project.	Tender Conditions Prevail
129	OIL is requested to share any Feasibility Report prepared for the project	Not available
130	The operation of the electrolyser is perogative of the client. The plant may be operated as per client requirement. The requirement restricts bidders from particpating in case installed electrolyser has been non operational due to client's decision.	Tender Conditions Prevail
131	1. Please clarify at which voltage power will be provided & Connectivity/tapping distance of the line from the proposed project site. 2. Please clarify weather bidder has to provide substaion. 3. If yes to No. 2 above, then please share proposed Substation rating, details and availability of Bay & Scope of work of line & bay extension works?	Bidder's Scope
132	Since the scope of Substation delivery is unclear, OIL is requested to clarify if it is covered under Owner's scope or Contractor's scope	Bidder's Scope
133	OIL is requested to clarify under whose scope buying & procurement of input Renewable Energy during O&M period be : Contractor or OIL?	OIL's Scope
134	OIL is requested to provide technical specifications for the Firefighting System to be adopted.	Bidder's Scope

Sl. No.	PRE-BID Query	OIL's Reply
135	As discussed during the pre-bid meeting, OIL is requested to confirm that Right of Way for power evacuation from the identified site is in OIL scope. Also OIL is requested to share technical details for the route identified, including any Private Land encountered in the proposed route.	OIL's Scope
136	OIL is requested to kindly share HVAC specifications for the project	Bidder's Scope
137	How this raw water shall be made available near Green Hydrogen generation plant. Kindly provide terminal point of raw water.What is the source of water & its quality.OIL to inform suitably.	Bidder's Scope
138	It is understood that 25 Kg/cm2 (min) pressure is at outlet of Electrolyser system. Kindly calrify.	Bidder's Scope
139	It is understood that multiple stack to be used for 1 MW Electrolyser plant. What shall be the Configuration of Electrolyser system for redundancy viz 2x50%, 3x33% & 4x25% etc. OIL to inform suitably.	Bidder's Scope
140	What is the purpose of UPS. Kindly clarify and also inform the capacity of UPS unit.	Bidder's Scope
141	Hydrogen Dryer shall be part of Electroyser system. However, it seems that redundancy is sought. Kindly calrify.	Please refer corrigendum
142	Instrumentation & Control system of Electrolyser system shall be as per OEM's standard practice.	Correct
143	Complete containerized Electrolyser system shall be provided. All Pipings (Material & Testing)shall be as per OEM's standard practice.	Bidder's Scope
144	Complete containerized Electrolyser system shall be provided. All Pumps shall be as per OEM's standard practice.	Bidder's Scope
145	Inspection & Testing of Electrolyser system shall be as per OEM's standard practice.	Bidder's Scope
146	Safety and Fire protection Requirements shall be as per OEM's standard practice.	Bidder's Scope
147	Please provide the no. & Voltage level of Green Power feeders to be provided by Owner. We understand total power requirement for the GHG Plant shall be met through these feeders? Please eloborate.	Please refer corrigendum
148	If the experience and offerings are of different technology, does the bidder qualify?	Yes
149	Can a manufacture/Channel Partner sign DJU with multiple OEM?	No
150	Can a bidder sign DJU with a supplier (located in India) of a foreign manufacturer who isnt qualified as per the PQR, where in the experience criteria is met by the foreign manufacturer & not by the subsidiary?	Tender Conditions Prevail
151	In Clause 5.4, if the actual quantity consumed is more than the quoted, will OIL still pay on the actuals?	Tender Conditions Prevail

Sl. No.	PRE-BID Query	OIL's Reply
152	Training requirement needs to be firmed up whether required or not as the cost needs to be built up ?	Tender Conditions Prevail

****End of Annexure – IV***