

To,

**All members of DST-Methanol project
Thermax (RTIC)**

Sub: Process of e-Procurement

Please note that as per GFR-2017 norms, all purchases beyond Rs.2.5 Lakhs should be made through e-Procurement process.

The Draft NIQ template is placed below. The indenter is requested to add the technical details in the technical specification column template. Kindly see the necessary terms & conditions. If required, some clauses may be dropped or added based on the requirement of the purchase.

Please also note that the financial quote are to be obtained in any of the following formats namely a) BOQ format (Where the financial comparative charts will be generated automatically) OR b) PDF format (where the financial comparison should be done manually). Authorized Committee members may kindly select any one of the above.

The final NIQ document may kindly be emailed, at Purchase Department (RTIC) for clarification/help please contact our following officials:

S. No.	Name	Telephone	Email
1	Mr Vishal Wayal	020 - 66155171	vishal.wayal@thermaxglobal.com
2	Mr Santosh Hiray	020 - 66155160	santosh.hiray@thermaxglobal.com

Bidders should submit their technical bids online. The committee may open the technical and financial bids at their respective offices if they are in possession of their own Digital Signature Certificate (DSC). Otherwise, the entire process of opening technical & financial bids will be taken up by Procurement Department.

Please ensure that 3 bids have been received, otherwise please extend the tender for 7 more days. In case, less than 3 bids are required after extended period, then the approval of Project Director may kindly be obtained (before opening the technical bid). Draft letter to be sent to Project Director, RTIC Thermax for approval. Technical bids are to be opened at Purchase Department in presence of the committee members and softcopy of the bids will be handed over to the Chairman of the PFC for further processing. **During Technical evaluation, Buyer must ensure payment of EMD/Tender Fee (If applicable) and a copy of payment receipt collected from Accounts Section is to be submitted in e-Procurement cell for record.**

Once the technical comparison is done, the technical comparative chart should be submitted to Procurement Department and the date of financial bid opening should be mentioned.

Once again the financial bids will be opened it in presence of the committee. The softcopy of the financial bids will be handed over to the chairman of the PFC for further processing. After Financial bid opening, prepare financial evaluation chart and needs to be uploaded in the NIC e-Procurement site.

Finally the softcopy of the Financial Evaluation Chart and Supply Order (SO) should be uploaded in the NIC site to complete the E-procurement process.

Notice Inviting Quotation (E-Procurement mode)

Thermax Ltd,
Research & Technology Innovation Centre,
D-13, MIDC Area, R D Aga Rd,
Chinchwad, Pune- 411 019

Dated : 31/07/2019

Open Tender Notice No. TL-ME1801-2019-R00
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IIT-Delhi and Thermax are jointly working as project partner on a DST Sponsored coal to methanol project to establish pilot plant. Thermax Ltd, Research & Technology Innovation Centre is needs following item(s) as per details as given as under.

Details of the item	Process and Engineering Consultant for the Coal based syngas Pilot Plant to design Acid Gas Removal (AGR) system
Earnest Money Deposit to be submitted	NIL
Warranty	As per tender document
Performance security	NIL

Tender Documents may be downloaded from http://sps.iitd.ac.in/sps_final_002.htm IITD website.

Bidder can access tender documents on the website and fill them with all relevant information and submit the completed tender document

Vendor need to submit it as manual bids in sealed envelope. All quotation (both Technical and Financial should be submitted to Thermax Limited).

Thermax will be single point of contact for awarding of contract, payments to vendor, execution of work and deliverable management.

SCHEDULE

Name of Organization	Thermax Ltd , RTIC -Division
Tender Type (Open/Limited/EOI/Auction/Single)	Open
Tender Category (Services/Goods/works)	Service
Type/Form of Contract (Work/Supply/ Auction/ Service/ Buy/ Empanelment/ Sell)	Service
Product Category (Civil Works/Electrical Works/Fleet Management/ Computer Systems/ Mechanical Equipment)	Consultancy
Source of Fund (Organisation/Project)	Project Code : Thermax / ME1801
Is Multi Currency Allowed	No (in INR Only)
Date of Issue/Publishing	30/07/2019 (11:30 Hrs)
Document Download/Sale Start Date	30/07/2019 (11:30 Hrs)
Document Download/Sale End Date	20/08/2019 (16:00 Hrs)
Date for Pre-Bid Conference	---
Venue of Pre-Bid Conference	---
Last Date and Time for Uploading of Bids	20/08/2019 (16:00 Hrs)
Date and Time of Opening of Technical Bids	21/08/2019 (09:00 Hrs)
Tender Fee	Rs. NIL /- (For Tender Fee)
EMD	Rs. NIL /- (For EMD) (To be paid through RTGS/NEFT. Thermax Ltd details are as under: Name of the Bank A/C : THERMAX LIMITED - DST METHANOL A/C No. : 0036013249 Name of the Bank : Citibank IFSC Code : CITI0000005 MICR Code : 411037001 Swift No. : CITIINBXPUN (This is mandatory that UTR Number is provided in the on-line quotation/bid. (Kindly refer to the UTR Column of the Declaration Sheet at Annexure-II)
No. of Covers (1/2/3/4)	01
Bid Validity days (180/120/90/60/30)	60 days (From last date of opening of tender)
Address for Communication	Thermax Ltd, RTIC Division, Chinchwad, Pune
Contact No.	+ 91 020 – 66155160, 71
Fax No.	+ 91 020 – 27475676
Email Address	santosh.hiray@thermaxglobal.com, vishal.wayal@thermaxglobal.com

Thermax Ltd,
 Research & Technology Innovation Centre,
 D-13, MIDC Area, R D Aga Rd,
 Chinchwad, Pune- 411 019

NOTICE INVITING QUOTATIONS

Dated: 31/07/2019

Subject : Process and Engineering Consultant for the Coal based syngas Pilot Plant to design Acid Gas Removal (AGR) system

Invitation for Tender Offers

Thermax Ltd, RTIC invites Bids (Technical bid and Commercial bid) from eligible and experienced consultant or manufacturers for **Process and Engineering Consultant for the Coal based syngas Pilot Plant to design Acid Gas Removal (AGR) system.**

TECHNICAL SPECIFICATION:

Consultancy work package - Deliverables:-

S. No.	Consultancy Work	Deliverables	Working Days
1	Generate Process flow diagram for removal of H ₂ S and CO ₂ from syngas (this is termed as AGR unit)	PFD / Review	-
2	Recommendation on minimum TWO suitable mix of amines for the AGR unit and comparison of performance of amines	Amines selection and comparison for AGR unit	-
3	Process simulation and optimization studies for using commercial process simulation software like Protreat/Aspen plus/HYSIS having in-built amine property package and rate based models	Minimum 5 simulation cases	-
4	Generate mass and energy balance, heat exchanger duty, hydraulic design and sizing of packed column	HMBD/ column design & sizing	-
5	Review of P&ID for the AGR unit	P&ID Review with TL team	4 days
6	Participate in HAZOP studies for AGR unit	HAZOP Study with TL team	1 days
7	Review of General arrangement drawing of all columns, internals other balance of plant equipment of AGR unit	GA Review with TL team	2 days
8	Recommendation/ Review of MOC for each equipment, piping and bought out items of AGR unit	Detailed MOC selection guidelines for AGR unit	1 day
9	Support for coupon studies for two set of amines for minimum three MOC during pilot plant operation at different locations (minimum 3)	Coupon studies in lab scale and support for pilot scale studies	--

10	Recommendation for setting up of test unit for amine degradation (thermal, oxidative route) accelerated lab studies. Suggestion on analysis methods and instruments required for testing.	Review design & give expert suggestions for analysis work	2 days
11	Plant level support for handling of amine, first fill up, startup and commissioning, troubleshooting.	Startup & commissioning support	5 days
		Total	15 days

- Pre-requisite criterion

Technical compliance requirement for Vendor:

The organization (Vendor/consultant/Manufacturer) need to meet following requirements

1. It should have business in the manufacturing/supply of Ethanol/Methyl Di ethanol amine based solvent in gas treating (MEA/DEA/MDEA) for removal of H₂S and CO₂ impurity.
2. Vendor atleast have supplied or engineered (basic & detailed engg.) atleast 10 Gas treating units all over the world including India using their own/sourced amine based solvents. It should have proven track record to provide technical services to support the customers using these solvents.
3. Organization/vendor having in-house facility for amine based R&D and Lab for analytical testing of amine samples will be given preference
4. Vendor need to have in-house process simulation softwares Like Protreat/VMG/Winsim/ Hysys/ASPEN+ etc. for generating process stream summary, column profile etc.
5. Vendor need to have capability to suggest right mix of amine solvent based on in-house simulations for coal based syngas gas and the right mix amine should available in India.
6. Vendor should have commissioning engineers/Chemist for supporting the gas treating plant as per the working days specified in the tender
7. Vendor/Organization need to provide ongoing support for plant optimization, analytical study and troubleshooting guidelines for coal based syngas
8. The organization should have catered to atleast TWO industries of following types and need to share minimum four reference list of installations with contact details.
 - a. Refineries
 - b. Natural gas processing
 - c. Fertilizer
 - d. Steel plants
 - e. Chemical manufacturing
 - f. Biogas

I have also enclosed all relevant documents in support of my claims, (as above) in the following pages.

Signature of Bidder

Name: _____

Designation: _____

Organization Name: _____

Contact No. : _____

1.	<p>Duration of consulting work 24 months from date of purchase order</p>
2.	<p>Documents: <u>Documents required from vendor</u> a. Invoice The financial settlement of the Vendor's invoice is liable to be withheld in the event the Vendor fails to submit the drawings, data and all other documents as called for in the Purchase Order.</p>
3.	<p>Prices: a) Unless otherwise specifically stipulated, the price shall be firm and shall not be subject to escalation for any reason. b) Travel, lodging and boarding for site support will be paid by Thermax and need not to be accounted by vendor while submitting bid</p>
4.	<p>Notices: For the purpose of all notices, the following shall be the address of the Purchaser and Supplier .</p> <p>Purchaser: Santosh Hiray / Vishal Wayal Thermax Limited, Research & Technology Innovation Centre, Procurement Department D-13, MIDC Area, R D Aga Rd, Chinchwad, Pune- 411 019 Office (Dir) (020) 6615 5171 / + 91 9987212161 santosh.hiray@thermaxglobal.com, vishal.wayal@thermaxglobal.com</p> <p>Supplier: (To be filled in by the supplier) (All supplier's should submit). _____ _____</p>
5.	<p>Taxes a. Subject to the provision CGST & SGST/IGST payable on the supply and delivery of Materials pursuant to the contract will be paid at actual within the contractual delivery date. Any increase in the rates of the CGST & SGST/ IGST within the contractual completion date or approved extended contractual completion date will be borne by Thermax Limited but not beyond the contractual delivery date or extended contractual delivery date. However, the benefit of any reduction must be passed on to Thermax Limited. b. Central GST (CGST) & State GST (SGST) / Integrated GST (IGST) payable or reimbursable by Thermax Limited to the vendor on supply of indigenous Materials shall be included in and shown separately in the vendor's Tax invoice for the Materials. The vendor shall prior to dispatch of the Materials obtain from Thermax Limited a list of the documents required by Thermax Limited to enable it to avail of the relative benefits. Payment or reimbursement of CGST & SGST/IGST by Thermax Limited shall be made upon the vendor furnishing the relevant documents. c. Taxes and duties are not intended to operate as a profit center but are intended only to meet the relevant costs incurred on this account. If any reimbursement or collection of the taxes or duties by the vendor from the Thermax Limited is in excess</p>

	<p>of the taxes and/or duties actually paid by the vendor, the vendor shall forthwith refund such excess to Thermax Limited together with interest thereon at 1% (one percent) per annum above the MCLR rate (or rate that replaces it) of SBI from the date of collection until the date of refund.</p> <p><i>We, Thermax Limited are registered as a Research Institute, with Ministry of Science and Technology, Government of India, Department of Science and Industrial Research (DSIR) vide NO.TU/IV- RD/580/2015. As per the GST & Custom Duty Notifications, the specified goods supplied to or for Research Institutes, will be charged at maximum total 5% Tax Rate. For this you will receive a certificate duly signed by our HOD of R&D printed on letter head. So while dispatching the material, kindly raise your invoice with 5 % GST.</i></p>
6.	<p>User list: Brochure / reference list detailing technical specifications and performance, list of industrial establishments where the items enquired have been supplied must be provided along with Bid. (Ref. Annexure-II)</p>
7.	<p>Drawing / Documentation & Manuals: Vendor Need to submit</p> <ul style="list-style-type: none"> -Simulation reports including stream summary with all details - Column hydraulic calculations and design of equipment's - Commented GA
33.	<p>Termination & Cancellation of Contract:</p> <p>Thermax reserves the right to terminate the Contract. Thermax shall in such an event give seven (07) days' notice in writing to the supplier of his decision to do so.</p> <p>The Supplier upon receipt of such notice shall discontinue the work on the date and to the extent specified in the notice. The supplier shall make all reasonable efforts to obtain cancellation of all orders and contracts from Thermax, and stop all further sub-contracting or purchasing activity related to the work terminated, and assist Thermax in disposition of the equipment acquired under the Contract by Thermax. The Supplier will be further required to transfer the title and provide the Purchaser with any partially completed supplies including drawings, information and Contract rights as the Supplier has specifically performed, produced or acquired for the performance of the Contract.</p> <p>Thermax reserves the right to cancel this order at suppliers risk & cost or any part thereof if:</p> <ul style="list-style-type: none"> ▪ The supplier fails to comply with the terms of this purchase order including specifications & other technical requirements. ▪ The supplier becomes bankrupt & goes into liquidation. ▪ A receiver is appointed for any of the property owned by the supplier. ▪ If supplier assigns or sublets the contract or any parts thereof without the written consent of Thermax. ▪ The progress of work is unsatisfactory & Purchaser anticipates delay in execution of the order by supplier. ▪ The supplier fails to replace the rejected goods promptly. <p>The provisions of this clause shall not prejudice the right of Thermax from invoking the clause on delivery & delays.</p> <p>Thermax shall not be responsible for any payment for any work done by the supplier subsequent to the cancellation. Thermax shall also not be responsible for any</p>

	loss sustained by supplier by reason of his having purchased any equipment, materials or entered into any commitments or made any advances in connection with the execution of the contract.
35.	Training of Personnel: As per technical document attached.
36.	Jurisdiction Notwithstanding any other Court or Courts having jurisdiction to decide the disputed issue, and without prejudice to the provisions or generality of the Arbitration clause, jurisdiction to decide the questions arising out of or relative to the Contract in all matters touching or affecting any arbitration, or arising out of or in relation to or under or in accordance with the Arbitration and Conciliation Act, 1996 or otherwise under or with reference to the Contract shall vest exclusively in the courts of competent civil jurisdiction at [where the contracts/Purchase Order shall be signed on behalf of Thermax Limited or at Maharashtra and only the said Courts shall have the jurisdiction to entertain and try any such actions and/or proceedings to the exclusion of all other Courts, provided that nothing herein stated shall be deemed to anyway authorize any party to seek resolution of any disputes otherwise than the recourse to arbitration in accordance with the provisions of the Arbitration clause herein. Provided always that an award rendered in any arbitration proceedings arising out of or in relation to the Contract may be enforced or executed in any other country or jurisdiction including without limitation a country in which any party against whom the award is to be enforced or executed is located and a country in which the assets of any such party are located.
37.	Compliancy certificate: This certificate must be provided indicating conformity to the technical specifications. as per Enclosed document
	Resolution of Disputes: The dispute resolution mechanism to be applied pursuant shall be as follows: <ul style="list-style-type: none"> • In case of Dispute or difference arising between the Purchaser and a domestic supplier relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Indian Arbitration & Conciliation Act, 1996, the rules there under and any statutory modifications or re-enactments thereof shall apply to the arbitration proceedings. The dispute shall be referred to the Project Director, and if he is unable or unwilling to act, to the sole arbitration of some other person appointed by him willing to act as such Arbitrator. The award of the arbitrator so appointed shall be final, conclusive and binding on all parties to this order. • In the case of a dispute between the purchaser and a Foreign Supplier, the dispute shall be settled by arbitration in accordance with provision of sub-clause (a) above. But if this is not acceptable to the supplier then the dispute shall be settled in accordance with provisions of UNCITRAL (United Nations Commission on International Trade Law) Arbitration Rules. • The venue of the arbitration shall be the place from where the order is issued.
38.	Applicable Law: The place of jurisdiction would be Pune, Maharashtra INDIA.
40.	Supplier Integrity The Supplier is responsible for and obliged to conduct all contracted activities in accordance with the Contract using state of the art methods and economic principles and exercising all means available to achieve the performance specified in the contract.
41	Governing Language The contract shall be written in English language. English language version of the Contract shall govern its interpretation. All correspondence and other documents pertaining to the Contract, which are exchanged by the parties, shall be written in the same language.

Annexure-I
Payment Schedule

S. No.	Consultancy Work	Deliverables	Payment
1	Generate Process flow diagram for removal of H ₂ S and CO ₂ from syngas (this is termed as AGR unit)	PFD / Review	20% of PO value
2	Recommendation on minimum TWO suitable mix of amines for the AGR unit and comparison of performance of amines	Amines selection and comparison for AGR unit	
3	Process simulation and optimization studies for using commercial process simulation software like Protreat/Aspen plus/HYSIS having in-built amine property package and rate based models	Minimum 5 simulation cases	
4	Generate mass and energy balance, heat exchanger duty, hydraulic design and sizing of packed column	HMBD/ column design & sizing	
5	Review of P&ID for the AGR unit	P&ID Review with TL team	20% of PO value
6	Participate in HAZOP studies for AGR unit	HAZOP Study with TL team	
7	Review of General arrangement drawing of all columns, internals other balance of plant equipment of AGR unit	GA Review with TL team	20% of PO value
8	Recommendation/ Review of MOC for each equipment, piping and bought out items of AGR unit	Detailed MOC selection guidelines for AGR unit	
9	Support for coupon studies for two set of amines for minimum three MOC during pilot plant operation at different locations (minimum 3)	Coupon studies in lab scale and support for pilot scale studies	
10	Recommendation for setting up of test unit for amine degradation (thermal, oxidative route) accelerated lab studies. Suggestion on analysis methods and instruments required for testing.	Review design & give expert suggestions for analysis work	
11	Plant level support for handling of amine, first fill up, startup and commissioning, troubleshooting.	Startup & commissioning support	40% of PO value
		Total	100%

