



COAL GAS INDIA LIMITED (CGIL)

(A Joint Venture of GAIL & CIL)



SYNTHETIC NATURAL GAS PRODUCTION THROUGH COAL GASIFICATION ROUTE

EOI DOCUMENT NO.: PC-217/EOI/E/001/2025/Rev-00

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BOOKLET FOR

EXPRESSION OF INTEREST (REVISED CRITERIA)

FOR

PRE-QUALIFICATION OF LICENSORS OF COAL GASIFICATION TECHNOLOGY FOR

COAL TO SYNTHETIC NATURAL GAS (SNG) PLANT

AT

BARDHAMAN, WEST BENGAL, INDIA

Prepared & Issued by:



Projects & Development India Limited A-14, PDIL Bhawan, Sector-1, Noida Uttar Pradesh, India, Pin-201301



Date: 10.07.2025





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EOI FOR PROPOSED COAL TO SYNTHETIC NATURAL GAS (SNG)PLANT, AT BARDHAMAN, WEST BENGAL, INDIA



SECTION-1

INVITATION FOR EXPRESSION OF INTEREST (EOI)





INVITATION FOR

EXPRESSION OF INTEREST (EOI) FOR SHORTLISTING OF LICENSORS OF COAL GASIFICATION TECHNOLOGY FOR PROPOSED COAL BASED SYNTHETIC NATURAL GAS PLANT AT, BARDHAMAN, WEST BENGAL, INDIA

1.0 INTRODUCTION

M/s GAIL India Limited (GAIL), is a leading Natural Gas company with diversified interest across the Natural gas value chain of trading. Transmission, LPG production & transmission, LNG re-gasification, Petrochemicals, City Gas, E&P, etc. GAIL owns & operates a network of around 16,421 km of Natural Gas pipeline spread across the length & breadth of Country.

Coal India Limited (CIL), a Maharatna central public sector enterprise ("CPSE"), was incorporated on 01st November 1975 with nationalization of private coal mines by Govt. of India. With a modest production of 79 MT at the year of its inception, CIL today is the single largest coal producer in the world having produced nearly 607 MT and in pursuance of initiatives towards the development of Clean Coal Technology and alternate use of coal, CIL is exploring the possibilities to venture into the coal-to-chemicals sector.

Eastern Coalfields Limited (ECL), fully owned subsidiaries of Coal India Limited was founded in 1975 after Nationalisation of Coal Mines in India. It operates Coal Mines in Jharkhand and West Bengal states of India. The company has its headquarters at Sanctoria, in West Bengal.

India has a reserve of 307 Billion tonnes of thermal coal and about 80% of coal produced is used in thermal power plants. With environment concerns and development of renewable energy, diversification of coal for its sustainable use is inevitable. Coal gasification is considered as cleaner option compared to burning of coal. Gasification facilitates utilization of the chemical properties of coal. Syn Gas produced from Coal gasification is usable in producing Synthetic Natural Gas (SNG), energy fuel (methanol & ethanol), ammonia for fertilizers and petro-chemicals. These products will help move towards self-sufficiency under '*Atmanirbhar Bharat Abhiyaan*'. In line with the above objective, Ministry of Coal has taken initiative for utilizing coal through coal gasification and achieve 100 MT coal gasification by year 2030.

In order to implement various coal gasification projects, it has been planned to set up various gasification projects in phases. In phase I, the project based on low ash coal available in CIL will be taken up. CIL will take care of mining of coal and marketing of the product and the gasification and product conversion plant will be set up on BOO/BOM/LSTK contract basis. Considering the low availability of low ash





coal, gasification plants will be set up based on high ash coal and with concessions given for commercial mining of coal it is expected to reach the goal of 100 MT gasification by 2030.

In view of above, under the directives of GOI, "**Coal Gas India Limited**" (a Joint Venture of GAIL & CIL) is Setting Up of Coal Gasification Based Synthetic Natural Gas (SNG) Plant. "Coal Gas India Limited" intends to set-up 80,000Nm³/hr (Stream days:330) Synthetic Natural Gas Plant at Eastern Coalfields Ltd. (ECL), Sanctoria, West Bardhaman District in the state of West Bengal (India) through surface Coal Gasification route with the objective to use coal from Raniganj Coalfields for gasification to produce Syngas for Production of Synthetic Natural Gas. The Effective Synthesis Gas (H2 +CO) required is approximately 3,36,000 Nm³/hr and accordingly, engaged PDIL, a Government of India Undertaking with ISO 9001:2015 certification based 80,000/-NM³/hr SNG Plant.

Based on the shortlisted licensor(s) for coal gasification, bids will be invited for executing the project on LSTK basis. After short listing through EOI, the details of shortlisted licensor shall be incorporated in the LSTK tender. LSTK bidder shall bid based on technology of any one of the selected licensor. "Coal Gas India Limited" shall not enter into direct agreement with licensor through EOI.

The Detailed Feasibility Report (DFR) will be finalized based on the price of the lowest LSTK bidder. Subsequently, a decision will be made to place the order with the lowest Lump Sum Turnkey (LSTK) bidder for the execution of the project.

2.0 BRIEF SCOPE OF WORK

- 2.1 "Coal Gas India Limited" intends to set-up 80,000/- NM³/hr (stream days:330) Synthetic Natural Gas Plant at ECL Bardhaman, in the state of West Bengal (India) through surface Coal Gasification route. The Effective Synthesis Gas (H₂ +CO) required is approximately 3,36,000 Nm³/hr.
- **2.2** "Coal Gas India Limited" invites "Expression of Interest" (EOI) from internationally reputed technology licensor having the requisite Coal Gasification Technology and willing to provide the technology for production of Synthetic Natural Gas on commercial basis.

3.0 PRE-QUALIFICATION CRITERIA

3.1 (A) Technology/Technical Criteria:

3.1.1 Licensor should be capable of providing Basic Design Package for Coal Gasification and associated equipment including Coal Preparation (without blending with other





feedstocks like pet-coke, biomass, etc.) for Gasifying washed coal having 16% to <u>20% Ash content(**)</u>, after washing coal from Raniganj Coalfields on commercial basis , Approximate Coal Analysis of coal with <u>16% to 20%</u> Ash content(**), after <u>washing</u> coal from Raniganj Coalfields after washing in the washery is enclosed at **Annexure-I** for reference and considerations. Licensor shall submit the details of process in support of smooth operation of gasification plant with the subject coal on its Letter head duly authenticated as per EOI requirement.

Bidder having back to back Tie-up with Licensor can also submit their proposal against this EOI.

- 3.1.2 The Coal Gasification technology of the Licensor shall have at least one proven operating plant having one or multiple coal Gasifier(s) operating successfully on commercial basis with each gasifier designed to handle coal (pure Coal or with blending) with 16 % or more than 16 % ash content (**) and each Gasifier designed to produce effective Syngas equivalent to minimum quantity of 37,500 NM3/hr of H2+CO+CH4. In addition to above requirement, the Licensor shall Provide the details of the referred Plant satisfying the following criteria's:
 - The referred plant has operated 72 hrs continuously at <u>16% or more ash content</u> (**) at 100% load during the last 15 (fifteen) years reckoned from final bid due date.

OR

The referred plant has operated minimum <u>1500 hrs</u> continuously at <u>16% or more</u> <u>ash (**)</u> in consecutive 12-month period at 60% load during the last 15 (fifteen) years reckoned from final bid due date.

AND

Furthermore, the referred plant must have operated commercially, for a minimum period of cumulative 8000 hours of operation within a consecutive 12-month period at not less than 60% of gasifier's design capacity during the last 15 (fifteen) years reckoned from final bid due date.

Or

The referred plant must have achieved Annual Capacity Utilization of 60% or above during the last 15 (fifteen) years reckoned from final bid due date.The bidder must submit authorized published document like annual report etc.

(**) All the Coal Ash data mentioned in the document in as received/Air Dried Basis/Proximate analysis having inherent moisture content





- 3.1.3 The reference unit shall be non-captive*.
 - * The unit will be considered as Captive Unit where the Licensor has more than 50% share capital in the company owning the unit. Pilot Plant, laboratory scale plant shall not be considered for qualification.
- 3.1.4 To satisfy the Technical Criteria as mentioned in clause no. 3.1(A) above, Licensor shall submit documentary proof from their plant owner in line with following table:

SI. No	Description	Document required
3.1.1	Technology Criteria	 Licensor shall submit the details of process in support of smooth operation of gasification plant with the subject coal on its Letter head duly authenticated as per EOI requirement mentioned at Clause 3.1(B) In case the Bidder is not a Licensor for the Coal Gasification technology i.e. the Bidder does not have any patented Technology in their own name but having back to back Tie-up with a Licensor for Coal Gasification technology, under such situation the Bidder must submit an authorization letter from the licensor who owns the Coal Gasification Technology in its name as on EOI bid submission due date, authorizing the bidder to submit the bid on their behalf and with confirmation that (a) the Licensor shall provide all necessary supports/proof of ownership documents etc. to CGIL/PDIL (or its assignee) for its "Coal to Synthetic Natural Gas (SNG) Project" or short listing against the EOI of CGIL/PDIL and (b) the details of Licensor shall be mentioned in the LSTK tender for "Coal Gasification Project for Production of Syn. Gas for producing Synthetic Natural Gas (SNG)'.
3.1.2	Technology of the Licensor shall have at least one proven operating plant having one or multiple coal Gasifier(s) operating	 To satisfy the Technical Criteria as mentioned in clause no. 3.1.2 above, Licensor/Bidder shall submit documentary proof from the plant owner in any one of the following form including the details of contact person(s) of the reference Unit: a) Plant logbooks and laboratory analysis. Or b) Relevant extracts of License agreement or
	successfully on	relevant work orders or contract agreement with





the licensee for the reference unit / units.
 c) Any other documents (Performance Certificate issued by plant owner, Commissioning Certificate/Extract of Performance Guarantee Test Run Report/Agreement or any other relevant document) from plant owner in its letterhead.
d) In case the referred Plant is owned by a Parent company of the Bidder/Licensor in that case Licensor/Bidder shall submit additional supporting documents to substantiate the End User certificate such as system generated Monthly production Report/annual report of the plant or any other relevant published document.
2) To satisfy the Technical Criteria as mentioned in clause no. 3.1.2 above, Licensor/Bidder shall submit documentary proof from the plant owner in any one of the following form including the details of contact person(s) of the reference Unit:
 a) Plant logbooks and laboratory analysis. Or
 b) Relevant extracts of License agreement or relevant work orders or contract agreement with the licensee for the reference unit / units.
c) Any other documents (Performance Certificate issued by plant owner, Commissioning
Certificate/Extract of Performance Guarantee Test Run Report/Agreement or any other relevant document) from plant owner in its letterhead.
d) In case the referred Plant is owned by a Parent company of the Bidder/Licensor in that case Licensor/Bidder shall submit additional supporting documents to substantiate the End User certificate such as system generated Monthly production Report/annual report of the plant or any



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reckoned from final bid due date.	other relevant published document.
Furthermore, the referred plant must have operated commercially, for a minimum period of cumulative 8000 hours of operation within a consecutive 12-month period at not less than 60% of gasifier's design capacity during the last 15 (fifteen) years reckoned from final bid due date. Or The referred plant must have achieved Annual Capacity Utilization of 60% or above during the last 15 (fifteen) years reckoned from final bid due date.	 3) To satisfy the Technical Criteria as mentioned in clause no. 3.1.2 above, Licensor/Bidder shall submit documentary proof from the plant owner in any one of the following form including the details of contact person(s) of the reference Unit: a) Plant logbooks and laboratory analysis. Or b) Relevant extracts of License agreement or relevant work orders or contract agreement with the licensee for the reference unit / units. c) Any other documents (Performance Certificate issued by plant owner, Commissioning Certificate/Extract of Performance Guarantee Test Run Report/Agreement or any other relevant document) from plant owner in its letterhead. d) In case the referred Plant is owned by a Parent company of the Bidder/Licensor in that case Licensor/Bidder shall submit additional supporting documents to substantiate the End User certificate such as system generated Monthly production Report/annual report of the plant or any other relevant published document.

Bidder to submit duly filled Form-4 with respect to Clause no. 3.1.4.





- 3.1.5 The pre-qualification of licensors is only for Coal Gasification and not for purification and Synthetic Natural Gas production technologies. However, technology compatible for gas purification like Sulphur removal, CO₂ removal and producing CO shift reaction should be mentioned.
- 3.1.6 Licensor to ensure that Coal Gasification technology offered during LSTK bidding stage shall be the same on the basis of which the Licensor is shortlisted in the EOI Process.
- 3.1.7 Licensor, from a country which shares land border with India has to comply with the Clearance/ registration with competent authority as per GOI order (public procurement No-1,2 & 3) for Restriction under Rule 144(xi) of GFR 2017 published as F.N06/18/2019-PPD dated 23rdJuly 2020. Refer Annexure-III for detailed compliance to this policy.

Licensor, from a country which shares land border with India shall submit valid registration/waiver certificate. Licensor may submit Application Copy of submission & Acknowledgement receipt documents of Competent Authorities for evaluation of bids against EOI. However, a valid registration/waiver certificates required at the time of LSTK bid submission. (Bidder may refer enclosed as per Annexure-III according to land border)

<u>Note:</u> Please be informed that any new notifications or updates related to "Provision of Land border sharing with India" will be implemented in accordance with directives issued by the Government of India (GOI)

3.1 (B) Authentications of Documents

(i) For Indian bidder: Duly certified/ attested by Chartered Engineer and notary public with legible stamp.

(ii) For Foreign bidder: Duly certified/ attested by Chartered Engineer/ Licensed Professional Engineer/EurEta Registered Engineer/ Eur Ing or Equivalent Registered Engineer of bidder's country with legible stamp.

Further, supporting document pertaining to technical BEC should also be certified true copies, duly signed, dated and stamped by an official, authorized for this purpose in Indian Embassy/ High Commission in bidder's country. However, member countries of Hague Convention 1961, supporting document pertaining to technical BEC Apostille affixed by Competent Authorities designated by the government of bidder's country shall also be acceptable.





All documents submitted by Licensor(s)/bidder(s) in support of meeting the Technical PQC shall be authenticated in the following manner:-

Licensor(s)/bidder(s) shall submit documents in support of meeting the Bidder Qualification Criteria duly certified by CEO/ CMD/ MD or any member of the Board of Directors in case of limited companies (Private / Public limited).

CEO/ CMD/ MD or any member of the Board of Directors in case of a limited company can either sign all the pages of the documents or submit a certificate signed by them, listing out all the Technical PQC documents submitted in the bid along with basic details, duly referenced.

In case of Proprietorship / Partnership firms, the authentication shall be by the proprietor / any two partners and also notarised by public notary on all pages of the documents shall be required.

In addition to above, Licensor(s)/bidder(s) shall furnish an undertaking as per proforma attached as **Annexure-II**, from the same authority (authorities) who had signed and authenticated the documents.

3.2 General

- 3.2.1 The Licensor must not have been debarred / blacklisted by any Govt. Department, Agency, PSUs / Institution / Agencies / Autonomous Organisations. The Licensor shall submit a self-certification (on Letterhead) by an authorized person to this effect.
- 3.2.2 Licensor should not be under liquidation, court receivership or similar proceedings. The Licensor shall submit a self-certification (on Letterhead) by an authorized person to this effect.
- 3.2.3 Coal Gas India Limited (CGIL) will not be responsible for any costs or expenses incurred by the Bidder in connection with preparation or delivery of EOI.
- 3.2.4 Prior to short-listing a presentation would be required before PDIL and CGIL and clarifications would have to be provided.
- 3.2.5 EOI shall be submitted as specified in clause 2.4 (Submission of EOI) of Section -2 'Instruction to Licensor'.
- 3.2.6 Coal Gas India Limited (CGIL) reserve the right to reject any or all EOI received without assigning any reason.





- 3.2.7 Licensor is to submit documentary evidence to support the references provided herein fulfilling the Technology Criteria of EOI. The following are minimum documents required:
 - a. Details of reference unit including the details of contact person(s).
 - b. Extract of License agreement or relevant document as proof of same.
 - c. End user certificate from the licensee (on licensee's letterhead) to detail out following:

i	Capacity of the unit in terms of:	
ii	Numbers of gasifiers (operating and standby) & Type	
iii	Gasifier operating Pressure & Temperature	
iv	Coal feed to each gasifier (MT/day) (full details of analysis of coal used would have to be provided)	
V	Total clean Syn gas produced exiting Gasifiers (H_2+CO) , NM^3/hr	
vi	Total Raw Syn gas produced exiting gasifiers, NM ³ /hr	
vii	End product and Capacity of end product.	
viii	Tentative analysis (Proximate Analysis, Ultimate Analysis, Ash Flow Temperatures) of Coal used in gasifier(s).	
ix	Raw syngas composition	
х	Coal Milling & Drying	

- d. Date of commissioning & commercial production.
- e. Technology involved highlighting the following:
 - i. Gasification process i.e. Moving Bed or Fluidised Bed or Entrained Bed Type.
 - ii. Raw gas pre-treatment process.
 - iii. Raw gas final treatment process and final gas composition.
- f. Commercial performance of the unit for at least one year indicating plant load (average & highest), major operation problems & remedial measures taken and reasons of shutdown if not operating presently (technical and / or commercial).
- g. Guarantee performance parameters and Confirmation on meeting guaranteed performance satisfactorily.





- 3.2.8 Licensor shall furnish details of the offered technology (Coal preparation to Clean Synthesis Gas) as per FORM-3.
- 3.2.9 In case of Foreign Licensor, if any of the documents in support of meeting EOI are not in English language, then the original document along with English translation of the same duly certified, stamped and signed by Local Chamber of Commerce or respective Embassy shall be furnished. In case of Indian bidder having arrangement with foreign Licensor, the same certification may be arranged by Indian Chamber of Commerce (FICCI/CII/ICC)
- 3.2.10 In case of no change in document which have already been submitted at the time of previous EoI for shortlisting of coal gasification licensor, Licensor may also provide a declaration to referto the already submitted documents for the fresh EoI.

3.2.11 SIGNATURE ON EOI DOCUMENT SUBMITTED

The Cover page of the EOI document submitted by the Licensor must contain the name, designation and place of business of the person or persons making the EOI documents and must be signed and sealed, on each page, by the Licensor with his usual signature. The names of all persons signing should also be typed or printed below the signature. The Licensor shall submit authority letter / power of attorney/ board resolution in favour of the authorized signatory(s) of the EOI document. The Licensor's name stated on the proposal shall be the exact legal name of the licensor/ technology provider.

The authorized employee(s) of the Licensor shall be signing the EOI document and any consequence resulting due to such signing shall be binding on the Licensor.

- 3.2.12 Licensor to ensure availability of more than two vendors for all the proprietary item/equipment.
- 3.2.13 Licensor shall submit the Isometric & 3D modelling as part of the Technical package to Owner/LSTK bidder.
- 3.2.14 Shortlisted Licensor shall share the relevant technical information with LSTK bidders to submit the Bid to Owner. In case of submission of any false/forged documents, punitive actions may be taken by CGIL as per extant policy of CGIL.

3.3 Submission of Proposal (EOI)

- 3.3.1 The due date & time for submission of Proposal (EOI) by the Licensor is 31.07.2025 at 15:00 Hrs (IST)
- 3.3.2 Bids shall be opened on **31.07.2025** at 16:00 Hrs (IST)

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3.3.3 Clarification, if any, can be obtained from Mr Amrendra Kumar -Addl GM & HOD (Project Management) (amarendra@pdilin.com), sumit.kumar@pdilin.com, vikassonkar@pdilin.com, Ms Anjali Thakur DGM & HOD (Materials Management) (anjali@pdilin.com), alam@pdilin.com.

Thanking You, For and on behalf of Coal Gas India Limited (CGIL)

10/02/2025

(Anjali Thakur) Dy. General Manager (M.M) Projects & Development India Limited



EOI FOR PROPOSED COAL TO SYNTHETIC NATURAL GAS (SNG)PLANT, AT BARDHAMAN, WEST BENGAL, INDIA



SECTION-2

INSTRUCTIONS TO LICENSORS

FOR

SUBMISSION OF

EXPRESSION OF INTEREST





1.0 INTRODUCTION

1.1 DEFINITIONS

- 1.1.1 **'Owner' means** "Coal Gas India Limited" (CGIL) JV of GAIL & CIL, a company incorporated in India.
- 1.1.2 'Consultant' means Projects & Development India Limited (PDIL), a company incorporated in India.

1.2 SCOPE OF WORK

The brief scope of work and pre-qualification criteria has been provided under Section - 1: Invitation for Expression of Interest.

1.3 OWNER'S RIGHT TO ACCEPT/ REJECT

CGIL reserves the right to accept or reject any EOI and to annul the bidding process and reject all EOI at any time without thereby incurring any liability to the affected Licensor or any obligation to inform the affected Licensor of the grounds for the CGIL's action.

2.0 PREPARATION / SUBMISSION OF EXPRESSION OF INTEREST

2.1 LANGUAGE OF EOI

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

2.2 COST OF BIDDING

The Licensor shall bear all costs associated with the preparation or delivery of its EOI, participating in discussions etc. including costs and expenses related with visits to CGIL/PDILs office and the site(s). CGIL/PDIL will in no case be responsible or liable for those costs and expenses regardless of the outcome of the bidding process.



EOI FOR PROPOSED COAL TO SYNTHETIC NATURAL GAS (SNG)PLANT, AT BARDHAMAN, WEST BENGAL, INDIA



2.3 DOCUMENTS COMPRISING EOI

- 2.3.1 The EOI must be complete in all respect leaving no scope for ambiguity. It is in the interest of Licensor to submit complete and comprehensive proposal leaving no scope for CGIL to raise any further questionnaires. CGIL may evaluate the Licensor on the basis of document submitted in the first instance in order to adhere with project schedule requirements.
- 2.3.2 Licensor is required to make a proposal in a format as outlined in the Checklist enclosed in this EOI document in order to achieve the objective of maintaining uniform proposal structure from all the Licensors. These requirements must be adhered by all the Licensors.

2.3.3 Licensor shall submit the following for expressing their interest:

- i) Cover letter giving brief introduction and expressing interest to participate in bidding process.
- ii) Information details as per FORM-1 and Pre-qualification criterion as per FORM-2 along with supporting documents such as copies of work order, contract agreement, completion certificate, logbook etc. Bidder to submit offer as stipulated at Clause No.3.1.1.
- iii) Technical details of offered technology as per FORM-3

2.4 SUBMISSION OF EOI

Licensors are required to send the complete proposal / EOI document along with all supporting documents in Hard /Soft copy duly signed & stamped on each page (in original) so as to reach at the following address within the due date & time:

Mrs. Anjali Thakur Dy. General Manager (Materials Management) PDIL BhawanA-14, Sector – 1, Uttar Pradesh, Noida – 201 301, India Phone no: 0120-2529842 Ext-340

2.5 OWNER'S RIGHT

2.5.1 CGIL reserves its right to call for originals of the supporting document submitted for verification, if required and also to cross check any details as furnished by the Licensor from their previous Clients / Consultants, Visit of proven operating plant etc.





Licensor shall have no objection whatsoever in this regard and shall facilitate CGIL to obtain the same.

- 2.5.2 CGIL reserves the right to make use of available in-house data (their own or their Consultants) also for pre-qualification of Licensor(s) who have submitted EOI. The decision of CGIL will be final and binding on the parties.
- 2.5.3 This EOI intends to short list the suitable technologies available for processing of coal from Ranigunj Coalfields for gasification to produce Syn. gas for Synthetic Natural Gas production as per specification enclosed at Anexure-1. Owner reserves the right to further call for information to assess the suitability of the technology for the need. Owner reserves to go in for further evaluation methodologies to zero in on technology.

2.6 CONTACTING CGIL

No Licensor shall contact CGIL on any matter relating to its EOI from the time of submission of EOI unless requested so in writing. Any effort by a Licensor to influence CGIL in the decision making in respect of EOI will result in the rejection of that Licensor.

INFORMATION

LICENSOR IS REQUESTED TO COMPLETE THE FOLLOWING QUESTIONNAIRE

SR. NO.	DESCRIPTION	LICENSOR'S RESPONSE	REMARKS
1	Willingness to provide the requisite proven license technology for commercial use to GAIL & CIL/LEPC/LSTK bidder (YES / NO) (Refer clause-2.2 of invitation for EOI)		
2	Complete reference list of all the units licensed (Refer clause-3.1.2 of invitation for EOI)		
3	Complete reference list of proven vendors for Coal Milling & Drying Unit (CMD) (Refer clause-3.2.7 of invitation for EOI)		

SPECIFIC EXPERIENCE FOR PRE-QUALIFICATION CRITERIA

Licensor shall furnish their experience details of the reference unit for pre-qualification:

S. NO.	DESCRIPTION	DETAILS
1.	Name of project and location (Refer clause-3.1.2 of invitation for EOI)	
2.	Project Details : Capacity of the project (units) (Refer clause-3.1.2 & 3.2.7 of invitation for EOI)	
3.	Name of Owner, Postal Address, Phone / Fax No./ E-mail Address (Refer clause-3.2.7 (a) of invitation for EOI)	

S. NO.	DESCRIPTION	DETAILS
4.	Supporting Document as above and as per clause 3.2.7 of Invitation for EoI	Extract of License agreement as per clause 3.2.7 (b) Yes No Page No. of PQ Bid
		Whether copy of Work Order / Contract Agreement enclosed Yes No Page No. of PQ Bid
		Capacity of the unit as per clause 3.2.7 (c-I) Yes No Page No. of PQ Bid
		Certificate for successful commissioning with date of commissioning & commercial production enclosed Yes No Page No. of PQ Bid
		Certificate regarding satisfactory operation of plant for the last one year from EOI due date
		 Yes No Page No. of PQ Bid Commercial performance of the unit as per clause 3.2.7 (f)
		Yes No Page No. of PQ Bid • Coal gasification technology is compatible for gas purification like Sulphur removal, CO2 removal and producing CO Shift reaction as per clause 3.1.7 Yes No Page No. of PQ Bid

TECHNICAL DETAILS OF OFFERED TECHNOLOGY (Refer Clause-3.2.8of Invitation for EOI)

SL. NO.	ITEM	UNIT	QUANTITY	
1.	Technology offered			
2.	No. of Gasifiers Proposed	No. (Operating + Standby)		
3.	Coal Feed to each Gasifier with moisture content	MT/day		
4.	Oxygen /Air Requirement to Gasification	Nm3/hr , In case O ₂ , O₂ Purity in Vol%		
5.	Steam Requirement, (Steam Temp., Steam Press.)	MT/hr, (degC, Kg/cm2g)		
6.	Water Requirement	MT/hr		
7.	Power Requirement	MWhr/hr		
8.	Total Raw Syn. Gas Generation at exit of Gasifiers	1000 Nm3/hr		
9.	Total clean syn. Gas (H ₂ +CO) generation after purification	1000 Nm3/hr		
10.	% Ash considered in gasifier feed for above estimation	%		
11.	The quantity of raw coal in consumption in Metric tonnes per day (MTPD),	MTPD		
12.	Quantity of ash produced by the process for production of the quantity of syn gas stated at Cl. No. 2.1 of section-1, in MTPD and the approximate chemical composition of the ash likely to be produced in their technology.	MTPD		
13.	Details of each By-product			
14.	Total Plot area required (in m2) for Gasification island including Primary waste water treatment & by product/waste handling facilities.			
15.	Any other data (Such as Plot are required (in m ²), etc.			

<u>Form-4</u>

<u>CHECKLIST</u> (Refer Clause-3.1.4 of Invitation for EOI)

SI. No	Description	Document required	Checkbox
3.1.1	Technology Criteria	 Licensor shall submit the details of process in support of smooth operation of gasification plant with the subject coal on its Letter head duly authenticated as per EOI requirement mentioned at Clause 3.1(B) In case the Bidder is not a Licensor for the Coal Gasification technology i.e. the Bidder does not have any patented Technology in their own name but having back to back Tie-up with a Licensor for Coal Gasification technology, under such situation the Bidder must submit an authorization letter from the licensor who owns the Coal Gasification Technology in its name as on EOI bid submission due date, authorizing the bidder to submit the bid on their behalf and with confirmation that (a) the Licensor shall provide all necessary supports/proof of ownership documents etc. to CGIL/PDIL (or its assignee) for its "Coal to Synthetic Natural Gas (SNG) Project" or short listing against the EOI of CGIL/PDIL and (b) the details of Licensor shall be mentioned in the LSTK tender for "Coal Gasification Project for Production of Syn. Gas for producing Synthetic Natural Gas (SNG)'. 	1. Yes No 2. Yes No
3.1.2	Technology of the Licensor shall have at least one proven operating plant having one or multiple coal Gasifier(s) operating successfully on commercial basis with each gasifier designed to handle coal (pure Coal or with blending) with 16 % or more than 16 % ash	 To satisfy the Technical Criteria as mentioned in clause no. 3.1.2 above, Licensor/Bidder shall submit documentary proof from the plant owner in any one of the following form including the details of contact person(s) of the reference Unit: a) Plant logbooks and laboratory analysis. Or b) Relevant extracts of License agreement or relevant work orders or contract agreement with the licensee for the reference unit / units. c) Any other documents (Performance Certificate issued by plant owner, Commissioning Certificate/Extract of Performance Guarantee Test Run Report/Agreement or any other relevant document) from plant owner in its letterhead. 	1.a) Yes No 1.b) Yes No 1.c) Yes No

content (**) and each Gasifier designed to produce effective Syngas equivalent to minimum quantity of 37,500 NM3/hr of H2+CO or 37,500 NM3/hr of H2+CO+CH4.	d) In case the referred Plant is owned by a Parent company of the Bidder/Licensor in that case Licensor/Bidder shall submit additional supporting documents to substantiate the End User certificate such as system generated Monthly production Report/annual report of the plant or any other relevant published document.	1.d) Yes No
The referred plant has operated 72 hrs continuously at 16% or more ash content (on As Received Basis) at 100% load during the last 15 (fifteen) years reckoned from final bid due date.	 2) To satisfy the Technical Criteria as mentioned in clause no. 3.1.2 above, Licensor/Bidder shall submit documentary proof from the plant owner in any one of the following form including the details of contact person(s) of the reference Unit: a) Plant logbooks and laboratory analysis. Or 	2.a) Yes No
OR	b) Relevant extracts of License agreement or relevant work orders or contract agreement with the licensee for the reference unit / units.	2.b) Yes No
The referred plant has operated 1500 hrs continuously at 16% or	c) Any other documents (Performance Certificate issued by plant owner, Commissioning Certificate/Extract of Performance Guarantee Test Run Report/Agreement or any other relevant document) from plant owner in its letterhead.	2.c) Yes No
more ash (**) in consecutive 12-month period at 60% load during the last 15 (fifteen) years reckoned from final bid due date.	d) In case the referred Plant is owned by a Parent company of the Bidder/Licensor in that case Licensor/Bidder shall submit additional supporting documents to substantiate the End User certificate such as system generated Monthly production Report/annual report of the plant or any other relevant published document.	2.d) Yes No

Furthermore, the referred plant must have operated commercially, for a	3) To satisfy the Technical Criteria as mentioned in clause no. 3.1.2 above, Licensor/Bidder shall submit documentary proof from the plant owner in any one of the following form including the details of contact person(s) of the reference Unit:	3.a) Yes No
minimum period of cumulative 8000 hours of operation within a consecutive 12-month	a) Plant logbooks and laboratory analysis. Or	3.b) Yes No
period at not less than 60% of gasifier's	b) Relevant extracts of License agreement or relevant work orders or contract agreement with the licensee for the reference unit / units.	
design capacity during the last 15 (fifteen) years reckoned from	 c) Any other documents (Performance Certificate issued by plant owner, Commissioning Certificate/Extract of Performance Guarantee Test Run Report/Agreement or any other relevant document) from plant owner in its letterhead. 	3.c) Yes No
final bid due date. Or The referred plant must	d) In case the referred Plant is owned by a Parent company of the Bidder/Licensor in that case Licensor/Bidder shall submit additional supporting documents to substantiate the End User certificate such as system generated Monthly production Report/annual report of the plant or any other relevant published document.	
have achieved Annual Capacity Utilization of	report of the plant of any other relevant published document.	
60% or above during the last 15 (fifteen) years reckoned from		
final bid due date.		

Annexure-I

TM -	ON AII	R DRY BASIS		ON EQUILIBRATED BAS		TED BASIS
	M%	A%	GCV	M%	A%	GCV
10.46	5.73	16.12	6173	6.00	16.06	6149

V.M	32.15	
FIXED	CARBON	45.7

Annexure- II

SELF-CERTIFICATION

l,	S/o/D/o of				, working
	D/ CMD/ MD or any				
limited company or propri	ietor / any two part	ners in case of l	Proprietorship	/ Partn	ership firms
(indicate, as applicable)}	of the Company _				_ having its
registered office at					
certify that all the details	including documer	nts pertaining to	Technical Cr	iteria of	PQC (Pre-
Qualification Criteria)	signed by	undersigned	vide our	offer	reference
	against	your	Enquiry		document
		, are true, au	uthentic, genu	ine and	exact copy

of its original.

It is certified that none of the documents are false/forged or fabricated. All the documents has been submitted with full knowledge of (i) the provisions of the Indian laws in respect of offences including, but not limited to those pertaining to criminal breach of trust, cheating and fraud (ii) provisions of bidding conditions and iii) Suspension / Banning rules of Owner/PDIL which entitle the Owner/PDIL to initiate action in the event of such declaration turning out to be a misrepresentation or false representation.

I further certify that further documents, if any, required to be submitted by our company, shall be submitted under my knowledge and those documents shall also be true, authentic, genuine, exact copy of its original and shall not be false/forged or fabricated.

I also declare that in case, at a later date, any of the document submitted in our bid referred above is found to be false/forged or fabricated, I, shall be held responsible for the same and Owner/ PDIL has every right to take action against me and my company, as deemed fit as per law of land and provisions of the Bidding Documents and Owner/ PDIL's right to put our company on Suspension / Banning list for future business with Owner/ PDIL.

Specimen Signature of authorized representative

Signature

Name & Designation (*CEO/ CMD/ MD* or any member of the Board of Directors in case of a limited company or proprietor / any two partners in case of Proprietorship / Partnership firms (indicate, as applicable))

Notarised by Notary Public (applicable only in case of Proprietorship / Partnership firm).

<u>CLAUSE REGARDING PROVISION FOR PROCUREMENT FROM A BIDDER</u> <u>WHICH SHARES A LAND BORDER WITH INDIA</u>

- 1. Order (Public Procurement No. 1) dated 23.07.2020, Order (Public Procurement No. 2) dated 23.07.2020, Order (Public Procurement No. 3) dated 24.07.2020 and OM no. 7/10/2021-PPD(1) dated 23.02.2023, Department of Expenditure, Ministry of Finance, Govt. of India refers. The same are available at website https://doe.gov.in/procurement-policy-divisions.
- 2. Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority. For details of competent authority refer to Annexure I of Order (Public Procurement no. 1) dated 23.07.2020.

Further, any bidder (including bidder from India) having specified Transfer of Technology (ToT) arrangement with an entity from a country which shares a land border with India, shall also require to be registered with the same competent authority.

Further the above will not apply to bidders from those countries (even if sharing a land border with India) to which the Government of India has extended lines of credit or in which the Government of India is engaged in development projects. Updated lists of countries to which lines of credit have been extended or in which development projects are undertaken are given in the website of the Ministry of External Affairs, Govt. of India

- **3. "Bidder"** (including the term 'tenderer', 'consultant' 'vendor' or 'service provider' in certain contexts) **for purpose of this provision** means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial juridical person not falling in any of the descriptions of bidders stated hereinbefore, including any agency, branch or office controlled by such person, participating in a procurement process.
- 4. "Bidder from a country which shares a land border with India" for the purpose of this:
 - a. An entity incorporated, established or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established or registered in such a country; or

- c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
- d. An entity whose beneficial owner is situated in such a country; or
- e. An Indian (or other) agent of such an entity; or
- f. A natural person who is a citizen of such a country; or
- g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above

5. "Beneficial owner" for the purpose of above (4) will be as under:

- i. In case of a company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person(s), has a controlling ownership interest or who exercises control through other means. Explanation
 - a) "Controlling ownership interest" means ownership of, or entitlement to, more than twenty-five per cent of shares or capital or profits of the company;
 - b) "Control" shall include the right to appoint the majority of the directors or to control the management or policy decisions, including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
- ii) In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more juridical person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
- iii) In case of an unincorporated association or body of individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more juridical person, has ownership of or entitlement to more than fifteen percent of the property or capital or profits of such association or body of individuals;
- iv) Where no natural person is identified under (i) or (ii) or (iii) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
- v) In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person

exercising ultimate effective control over the trust through a chain of control or ownership.

6. "Agent" for the purpose of this Order is a person employed to do any act for another, or to represent another in dealings with third persons.

Note :

- (i) A person who procures and supplies finished goods from an entity from a country which shares a land border with India will, regardless of the nature of his legal or commercial relationship with the producer of the goods, be deemed to be an Agent for the purpose of this Order.
- (ii) However, a bidder who only procures raw material, components etc. from an entity from a country which shares a land border with India and then manufactures or converts them into other goods will not be treated as an Agent.]
- 7. "Transfer of Technology" means dissemination and transfer of all forms of commercially usable knowledge such as transfer of know-how, skills, technical expertise, designs, processes and procedures, trade secrets, which enables the acquirer of such technology to perform activities using the transferred technology independently. (Matters of interpretation of this term shall be referred to the Registration Committee constituted by the Department for Promotion of Industry and Internal Trade, and the interpretation of the Committee shall be final.)
- 8. "Specified Transfer of Technology" means a transfer of technology in the sectors and/ or technologies, specified at Schedule-I, II & 3 of this order.

9. <u>SUBMISSION OF CERTIFICATE IN BIDS:</u>

Bidder shall submit a certificate in this regard as Form-I.

For cases falling under the category of Transfer of Technology, Bidder shall submit a certificate in this regard as Form-II.

If such certificate given by a bidder whose bid is accepted is found to be false, this would be a ground for immediate rejection of the bid/termination and further action as per "Procedure for Action in case of Corrupt/Fraudulent/ Collusive / Coercive Practices" of tender document.

10. The registration, wherever applicable, should be valid at the time of submission of bids and at the time of acceptance of bids. In respect of supply otherwise than by tender, registration should be valid at the time of placement of order. If the bidder was validly registered at the time of acceptance / placement of order, registration shall not be a relevant consideration during contract execution.

11. PROVISION TO BE IN WORKS CONTRACTS, INCLUDING TURNKEY CONTRACTS:

The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority. The definition of "contractor from a country which shares a land border with India" shall be as in Para 4 herein above. A Certificate to this regard is to be submitted by bidder is placed at Form-I.

[Note: Procurement of raw material, components, etc. does not constitute sub- contracting]

12. The sectors listed in Schedule I to this circular are considered Category-I sensitive sectors. The sectors listed in Schedule II to this Order are considered Category-II sensitive sectors. The technologies listed in Schedule III are considered sensitive technologies.

For Category-I sensitive sectors, bidders with ToT arrangement in any technology with an entity from a country which shares a land border with India shall require registration.

For Category-II sensitive sectors, bidders with ToT arrangement in the sensitive technologies listed in Schedule III, with an entity from a country which shares a land border with India shall require registration.

In Category-II sensitive sectors, the Secretary (or an officer not below the rank of Joint Secretary to Government of India, so authorized by the Secretary) of the Ministry/ Department of the Government of India is empowered, after due consideration, to waive the requirement of registration for a particular item/ application or a class of items/ applications from the requirement of registration, even if included in Schedule III.

The Ministry/ Department concerned shall intimate the Department for Promotion of Industry and Internal Trade (DPIIT) and National Security Council Secretariat (NSCS) of their decision to waive the requirement of registration. Ministries/ Departments of the Government of India are not required to consult the DPIIT/ NSCS before deciding and are only required to intimate the decision to DPIIT/ NSCS. If any points raised by DPIIT/ NSCS, it should be considered in future procurements; ongoing procurement for which the waiver was granted need not be interrupted or altered.

Based on security considerations, a Ministry/ Department in a Category II sensitive sector or other Ministries/ Departments may recommend to DPIIT inclusion of any other technology in the list of Sensitive technologies, either generally or for their Ministry/ Department.

[Note: "Specified Transfer of Technology" means a transfer of technology in the sectors and/ or technologies, specified above, occurring on or after 23.07.2020.]

Form-I

UNDERTAKING ON LETTERHEAD

To,

M/s

SUB: TENDER NO:

Dear Sir

We have read the clause regarding Provisions for Procurement from a Bidder which shares a land border with India, we certify that, bidder M/s_____ (*Name of Bidder/Licensor*) is :

(i)	Not from such a country	[]
(ii)	If from such a country, has been registered with the Competent Authority. (Evidence of valid registration by the Competent Authority shall be attached)	[]

(Bidder is to tick appropriate option (\checkmark) above).

We hereby certify that bidder M/s_____ (*Name of Bidder/ Licensor*) fulfills all requirements in this regard and is eligible to be considered against the tender.

Place: Date: [Signature of Authorized Signatory of Bidder] Name: Designation: Seal:

<u>Form-II</u>

<u>UNDERTAKING ON LETTERHEAD</u> (Applicable in case of Transfer of Technology cases only)

To,

M/s

SUB: TENDER NO:

Dear Sir

We have read the clause regarding Provisions for Procurement from a Bidder having Transfer of Technology (ToT) arrangement which shares a land border with India, we certify that, bidder M/s_____ (*Name of Bidder/Licensor*) is :

- (iii) Does not have ToT with such a country []
- (iv) If having ToT from such a country, has been registered [] with the Competent Authority.
 (Evidence of valid registration by the Competent Authority shall be attached)

(Bidder is to tick appropriate option (✓) above).

We hereby certify that bidder M/s_____ (*Name of Bidder/ Licensor*) fulfills all requirements in this regard and is eligible to be considered against the tender.

Place: Date: [Signature of Authorized Signatory of Bidder] Name: Designation: Seal:

<u>Schedule I</u>

List of Category-I Sensitive sectors:

Sr. No.	Sector
(i)	Atomic Energy
(ii)	Brocasting/ Print and Digital Media
(iii)	Defense
(iv)	Space
(v)	Telecommunications

<u>Schedule II</u>

List of Category-II Sensitive sectors:

Sr.No.	Sector
(i)	Power and Energy (including exploration/ generation/transmission/ distribution/ pipeline)
(ii)	Banking and Finance including Insurance
(iii)	Civil Aviation
(iv)	Construction of ports and dams & river valley projects
(v)	Electronics and Microelectronics
(vi)	Meteorology and Ocean Observation
(vii)	Mining and extraction (including deep sea projects)
(viii)	Railways
(ix)	Pharmaceuticals & Medical Devices
(x)	Agriculture
(xi)	Health
(xii)	Urban Transportation

Schedule III

List of Sensitive Technologies:

Sr.No.	Sensitive Technologies
(i)	Additive Manufacturing (e.g. 30 Printing)
(ii)	Any equipment having electronic programmable components or autonomous systems (e.g. SCADA systems)
(iii)	Any technology used for uploading and streaming of data including broadcasting, satellite communication etc.
(iv)	Chemical Technologies
(v)	Biotechnologies including Genetic Engineering and Biological Technologies
(vi)	Information and Communication Technologies
(vii)	Software