



**Expression of Interest (EOI) for setting up Lignite Beneficiation Plant at
GMDC's 'Mata No Madh' Lignite Project at Kutch, Gujarat.**



Gujarat Mineral Development Corporation Limited

KhanijBhavan, 132-Ring Road, Gujarat University Ground, Vastrapur, Ahmedabad- 380052,
Gujarat, India



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This information is not intended to be exhaustive and interested bidder are required to make their own inquiries and do site visits that it may require to submit the EOI. The information is provided on the basis that it is non-binding on GMDC, any of its authorities or agencies, any of their respective officers, employees, agents or advisors.

GMDC reserves the right not to proceed with the EOI process at any stage without assigning any reasons thereof, or to alter the timetable reflected in this document or to change the process or procedure to be applied. It also reserves the right to decline to discuss the EOI further with any party submitting an EOI.

No reimbursement of any cost of any type will be paid to persons or entities submitting the EOI.



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1. BACKGROUND

Gujarat Mineral Development Corporation Ltd (GMDC) is a leading State-owned Mining and Minerals Company in the western Indian State of Gujarat with operational experience spanning nearly 50 years. GMDC's product portfolio spans across mining, value added products and power. Its power portfolio includes clean energy sources such as solar and wind besides thermal power. GMDC is a zero-debt company listed on National and Bombay Stock Exchanges. The Government of Gujarat (GoG) disinvested 26% stake to the public shareholders vide an IPO in 1997 while the balance ownership is held by the Government of Gujarat. It stands around fifth in terms of market capitalization (Rs 2100 Crore/ USD 300 m) among its peers as on July 2021.

GMDC's mining activities are spread across the Gujarat state. It is currently dealing in minerals like Lignite, Bauxite, Fluorspar, Ball Clay, Silica sand and Manganese. GMDC also value adds to minerals through works such as Pyrite removal from Lignite, Beneficiation of Bauxite, Beneficiation of Low-Grade Manganese and Beneficiation of Fluorspar. The Company has set up a 250 MW lignite based Akrimota Thermal Power Station (ATPS) at NaniChher in Kutch as a forward integration, Wind power plant of 200.9 MW at Maliya, Jodiya, Godsar, Bhanvad, Bada, Verbala, Rojmal and Solar Power plant of 5 MW at Panandhro Project.

The objectives of ATPS thermal power plant were to initiate forward integration as well as to avail tax benefits. These units are situated in vicinity of GMDC's lignite mines which ensure an uninterrupted feedstock supply. Further the water supply to the power plant is ensured through nearest Kori creek (through 1.4 km long sea water intake channel). GMDC had signed Power Purchase Agreement with Gujarat UrjaVikas Nigam Ltd (GUVNL).

Presently both ATPS units are facing operational, technical and financial challenges. Fuel to ATPS is supplied from GMDC's nearby mines of Umarsar and Matata No Madh Lignite Projects. Lignite from Umarsar and Mata No Madh Project has higher Ash, Sulphur and Pyrite. GMDC intends to setup a lignite beneficiation plant of 2 million tonnes per annum under Build Operate & Maintain model at Mata No Mach lignite mine so that clean fuel can be supplied to



the power plant. The idea is for the plant to be setup near the mine to provide lignite of required quality & quantity as below

Parameter	Desired
Fixed Carbon (FC)	> 30%
Volatile Matter (VM)	> 25%
Ash	10% - 15%
Moisture	<34%
Gross Calorific Value (GCV)	>3200 kCal/kg

In above respect, GMDC invites Expression of Interest from Globally reputed Vendors/ Technology Service Provider /EPC contractor who can assist GMDC in designing, planning, testing and commissioning of a lignite beneficiation plant at Mata No Madh lignite mine at Kutch, Gujarat

Lignite analysis test Report is attached in Annexure 7& 8 of this EOI document.



2. Bidding Process

To select the right technology partner/ Vendor/ EPC contractor, GMDC is adopting a two-stage selection process comprising of a technical Expression of Interest (EOI) Stage and a priced Request for Proposal (RFP) stage. The first stage includes an Expression of Interest (EOI), where Proposers having technological expertise in Lignite Beneficiation are invited to present their technological solutions for before-mentioned problem faced by GMDC, testing requirements, business model, broad timeline for commissioning of plant, statutory and environment compliance requirements, Approx. Project commissioning cost, Operation & Maintenance Cost.

The purpose of EOI stage is to solicit inputs/comments of Vendors/ Technology Service provider. Basis the inputs /suggestions received during EOI stage from interested vendors, the RFP documents shall be prepared. The RFP document shall specify detailed Scope of Work, Bidding structure, roles and responsibilities, Technology specifications, Service Levels/ desired output, payment and related commercial terms. During the RFP stage priced proposals against this scope shall be requested from the experienced and eligible vendors. The RFP proposals will be evaluated to select the Vendor for setting up Lignite beneficiation plant.



3. Scope of Work and GMDC assistance

3.1 Tentative Scope of Work

A key role of the vendor shall be selection of efficient, cost effective & state-of-the-art technology judiciously considered to fetch higher yield of desired quality, commissioning of plant and thereafter Operation & Maintenance for a period of five years. A tentative Scope of Work of Vendors /technology service provider is specified below. It is provided here to solicit comments of the EOI participants.

- The scope of work of the Vendor/ technology service provider will broadly cover design, planning, engineering, installation, testing and commissioning of a Lignite Beneficiation Plants for GMDC of throughput capacity of 2.0 million tonnes per annum (Mtpa) on Build, Operate and Maintain (BOM) concept.
- Proposed Technology/solution shall comply with statutory and regulatory requirements as prevalent time to time in India including environmental regulations and safeguards as per Environment Management Plan (EMP) duly approved by State/Central Govt. agencies/departments concerned. This shall also comply with social, health and safety related aspects as per the best industry practices.
- Install all allied activities for supporting operation of Lignite Beneficiation Plant.
- Monitor reliable, uninterrupted supply of desired quantity & quality of Lignite.
- Plant complex in general needs to include the provision of raw lignite receiving and sizing arrangement; main plant; delivery arrangement of performance lignite and middling; emergency stockpile of raw lignite, performance lignite & middling and all allied facilities.
- The plant is proposed to be located at GMDC Lignite Project, Mata No Madh, Taluka: Lakhpat, District: Kutch, State: Gujarat, Country: India.
- After successful commissioning of the plant, the Scope of work of the Vendor will include Operation & Maintenance of the Plants for five years. The operation will include Receipt of raw lignite of specified quality & quantity at plant end provided by GMDC, process of raw lignite to meet requisite quality & quantity of performance lignite and middling and delivery



of performance lignite and middling to GMDC at designated delivery places which is inside the mine area.

- The Performance of the Vendor shall be reviewed during the period of 5 years by the GMDC and based on the performance of Build Operate and Maintain structure, the contract may be renewed.
- The ownership of raw lignite, performance lignite, middling and rejects including slurry (if any) shall remain with GMDC.
- Tentative Specification of performance lignite desired are:

Fixed Carbon	More than 30%
Volatile Matter	More than 25%
Moisture	More than 34%
Ash	Between 10% to 15%
Lignite GCV	More than 3200 (kcal.kg)
Crusher	Oversize fractions and generation of fines in the crushed product shall not exceed 5.0%.

3.2 GMDC assistance

GMDC will assist in the following:

- Financing for setting up of the plant.
- Land free of any obstruction such as abandoned structures, overhead electrical lines, debris/ dump materials, hillocks etc. with approach road for setting up of plants.
- Soil investigation report and contour map of the Project site.
- Supply of power at a single point of the proposed plant site on chargeable basis.
- Land for disposal of rejected lignite and other impurities.
- Assured supply of raw lignite.
- Assured receipt of performance lignite.



4. EOI Process

GMDC has adopted the two-stage process since it intends to understand the following through the first stage of the bidding process (EOI):

- a) Vendor landscape – identify potential and interested vendors who understand lignite beneficiation technology and having similar successful experience.
- b) Identification of suitable technology for Lignite beneficiation process
- c) Typical time frame required for setting up the plant
- d) Broad magnitude of the Costs associated with the proposed plants, say at different levels of capacity, and if required at the pilot scale.

At the end of this exercise, GMDC wishes to connect with the vendors who have the capability and interest to provide technical services/ assistance to GMDC in setting up the proposed Lignite Beneficiation plant.

4.1 EOI Documentation Requirements

Respondents to the EOI are required to provide the following:

1. Vendor's Credentials:
 - a. Financial Turnover/Revenue of last 3 years ended on March 2021
 - b. Technological Background
 - c. Experience in setting up and operating a plant for Lignite Beneficiation.
2. Comments on the Scope of Work.
3. Suggestions on Roles and responsibilities of Vendor and GMDC
4. Propose an efficient, cost effective and state of the art judicially compliant technology to be used to obtain desired results. Vendor shall also provide rationale for proposed Technology Solution.
5. Vendor shall also provide performance of proposed Technology with suitable case study indicating the name of the plants where the similar equipment/technology is already in



operation for which the performance certificates of the plant(s) may be attached to the extent possible.

6. Complete description of the plant and appropriate technology to the extent possible supported by flow sheet to be used for raw lignite to produce specified quality & quantity of performance of lignite& middling.
7. Testing Requirements
 - a. Risks, challenges and requirements for test.
 - b. Proof of Concept.
 - c. Is a pilot project required prior to initiate commissioning of the Plant?
8. Tentative Project Plan (timeline for Project Development and Phasing).
9. Business Model mentioning tentative project commissioning costs, operation and maintenance costs.
10. Comments on whether proposed Technology solutions comply with Environmental, health and safety requirements.
11. Comments on support required from GMDC.

Feedback on the above-mentioned requirements would be used as inputs to finalise the detailed scope, system functionalities and components, roles and responsibilities, and terms and conditions for the project for RFP stage. No suggestions would however be binding.

GMDC reserves the right to shortlist participants meeting its requirements and commission pilot/POC before short listing.

4.2 EOI Opening

- a) GMDC will open the EOI on the date, time and place specified in Key Dates Section.
- b) GMDC shall verify whether EOI submitted by Proposers are responsive with regards to timely submission, format of submission (as per EOI) and mode of submission (i.e. submitted through either Registered Post with Acknowledge Due (RPAD), Speed Post, courier or Hand delivery).



4.3 EOI Submission

The proposal for Expression of Interest (EOI) with details as specified in clause 4.1 and Annexure, Suggestions/inputs as specified in section **4.1 shall be submitted in a single copy format along with soft copies in Word, Excel and PDF format in portable Hard drive in sealed envelope to GMDC office at address given below.**

The General Manager (Power, Maintenance & Purchase)
Gujarat Mineral Development Corporation
Khanij Bhavan, 132-Ring Road,
Gujarat University Ground, Vastrapur,
Ahmedabad- 380052, Gujarat, India

The sealed Envelope shall bear the following identification:

- Notice No (if any):
- **Name of the Work:**
- Indicate the name, address and contact details of the Proposer.

Proposal for EOI and other details shall be submitted at above specified address and submission format on or before the Due Date and time for EOI submission specified in Key Dates section. The EOI shall be submitted through Registered Post with Acknowledge Due (RPAD)/Speed Post/Courier/Han delivery only. Late proposal shall not be accepted and summarily rejected.



5. Key Dates

Date for Downloading of EOI, Submission Date and Date of Meeting with prospective Proposer is specified in table below.

Event	Date and Time
Download EOI Document	EOI Document may be downloaded from website between 19/04/2022 11:00 hrs to 11/05/2022 up to 17:00 hrs IST from GMDC Website: https://www.gmdcltd.com/en
Queries by Email	Queries if any may be sent by Email to jndave@gmdcltd.co.in , by 27/04/2022 up to 17:00 hrs IST .
Pre EOI submission Meeting with Prospective Proposer	Meeting with Prospective Proposer shall be held on 29/04/2022 at 12:00 hrs IST online the video link. The video link for the meeting shall be uploaded on GMDC website in due course.
Due Date for EOI Submission (i.e Last Date for EOI submission)	Complete EOI in sealed envelope with relevant details shall be submitted through Speed Post or Registered Post with Acknowledge Due (RPAD) or courier or hand delivery by 11/05/2022 up to 17:00 hrs IST at following address; The General Manager (Power, Maintenance & Purchase) Gujarat Mineral Development Corporation Khanij Bhavan, 132-Ring Road, Gujarat University Ground, Vastrapur, Ahmedabad- 380052, Gujarat, India.
Date of Opening of EOI	The EOI shall be opened 13/05/2022 at 11:00 hrs IST in the office of General Manager (Power, Maintenance & Purchase) at Gujarat Mineral Development Corporation



6. Other Instructions

1. EOI Validity period

The EOI validity period shall be 180 days from the date of submission of EOI.

2. Extension of Period of EOI Validity

In exceptional circumstances, the GMDC may solicit the Proposer's consent for an extension of the period of EOI validity. Any such request by the GMDC and the response there-to shall be made in writing and such extension of Bid validity period by the Proposer should be unconditional. A Proposer may refuse GMDC's request for such extension. A Proposer accepting the request of GMDC shall not be permitted to modify its Bid.

3. Cost of Submitting EOI

The Proposer shall bear all costs associated with the preparation and submission of his EOI and the GMDC will in no case be responsible or liable for those costs.

4. Site Visit

GMDC shall arrange site visit if the Proposer so desires.

5. Amendment to EOI document

- a) Before the deadline for submission of EOI, the GMDC may modify the EOI document by using addenda/Corrigendum.
- b) Any addendum thus issued shall be part of the EOI documents. The addendums shall be posted on GMDC website: <https://www.gmdcltd.com/en>. Proposers are required to regularly check the website for such addendum.
- c) To give prospective Proposers reasonable time in which to take an addendum into account in preparing their EOIs, the GMDC may its sole discretion, extend as necessary the due date for submission of EOI.



6. Late Proposal for EOI

Any proposal for EOI received by the GMDC after the due date and time for submission of EOI prescribed in Key Date Section will be rejected returned unopened to the Proposer.

7. Corrupt and Fraudulent Practices

- a) The GMDC requires that Proposers under this EOI, observe the highest standard of ethics during the procurement and execution of this contract. In pursuance of this policy, the GMDC defines, for the purpose of these provisions, the terms set forth below as follows:
- (i) **Corrupt practice** means the offering, giving, receiving or soliciting of anything of value to influence the action of a public official in the procurement process or in contract execution; and
 - (ii) **Fraudulent practice** means a misrepresentation of facts in order to influence a procurement process.
- b) The GMDC will reject a EOI proposal if he determines that the Proposer has engaged in corrupt or fraudulent practices.

8. Clarification of Proposal Submitted for EOI

To assist in the examination, evaluation and comparison of EOIs, the GMDC may, at his discretion, ask any Proposer for authentication the correctness of the information/ details furnished by him in his bid or request for further clarifications/information as may be required for Evaluation. Such request by the GMDC and the response by Proposer shall be in writing.

GMDC reserves its right to amend, modify, cancel and or otherwise annul the EOI and or any of its contents at any time without assigning any reason whatsoever.

Selection Process of an Agency for the scope of work under the present Expression of Interest may be incorporated.



Annexure

Annexure 1: Cover Letter

Date:

To,

The General Manager (Power, Maintenance & Purchase)
Gujarat Mineral Development Corporation
Khanij Bhavan, 132-Ring Road,
Gujarat University Ground, Vastrapur,
Ahmedabad- 380052, Gujarat, India

Subject: Submission of Expression of Interest for setting up of Lignite Beneficiation Plant in Kutch, Gujarat.

Dear Sir,

With respect to above mentioned subject, we are pleased to submit the EOI. Our EOI proposal is subject to all terms and conditions contained in the EOI document. In additions to terms and conditions of this EOI, we are not given any written or oral promise from the GMDC.

We are fully aware that the GMDC has right to accept any EOI or reject any/all EOI without giving any reason and upon rejection of EOI, we shall not be entitled to any right with related to the GMDC.

We have thoroughly read and understood all the terms and conditions of this EOI and we promise to observe all the terms and conditions of this EOI. We have signed and sealed each and every page of this EOI document.

(Signature and stamp of the Proposer with date)



Annexure 2: General Information

{On Proposer's letterhead}

(1) Proposers name and contact details.

Name of the Proposer Organization:

Nature of Entity:

Name of the Concerned Person:

Address of Registered Office:

Country:

Phone:

Fax:

E-mail:

Main Line of Business with experience:

(2) Copy of the Registration of the Proposer: Certificate of Incorporation/Registration certificate as per relevant laws of respective countries where in Proposer is involved in Business activities. If the registration certificate is in other language other than English then such certificate should be accompanied with translation in English language.



Annexure 3: Financial Capability Statement

I hereby declare that the Financial Turnover and Net worth of the Proposer (name of the Proposer) as per Audited statement is as follows:

Financial Year	Financial Turnover	Net worth
2018-19		
2019-20		
2020-21		

(Signature and stamp of the Proposer with date)

ENCL.

- (1) Copy of latest available Audited annual reports for last three years as applicable or as per Financial Year/Calendar Year followed by the Proposer firm.



Annexure 4: Experience Statement

Proposer to provide brief description on following items

1. Technological Background
2. Experience in setting up and operating a plant for **Lignite Beneficiation**.



Annexure 5: Proposed Technology and its details

1. Complete description of the proposed technology in terms of plant and appropriate technology to the extent possible supported by flow sheet to be used for raw lignite to produce specified quality & quantity of performance of lignite & middling.
2. Vendor shall also provide rationale for proposed Technology Solution.
3. Vendor shall also provide performance of proposed Technology with suitable case study indicating the name of the plants where the similar equipment/technology is already in operation for which the performance certificates of the plant(s) may be attached to the extent possible.
4. Details on Testing Requirements
 - a. Proof of Concept.
 - b. Risks, challenges and requirements for test.
 - c. Is a pilot project required prior to initiate commissioning of the Plant?
5. Tentative Project Plan : Timeline for Project Development and Phasing
6. Broad/Approx. cost of Technology
 - a. Project Commissioning costs
 - b. Operation and maintenance costs
7. Comments on whether proposed Technology solution comply with Environmental, health and safety requirements.



Annexure 6: Comments on Scope of Work and Proposed Business Model

1. Comments on the Scope of Work.
2. Suggestions on Roles and responsibilities of Vendor and GMDC and proposed Business Model
3. Comments on support required from GMDC



Annexure 7: Lignite Specification, Mata No Madh Mine, Kutch.

GMDC LTD
Lignite Project Matanomadh

Sub: SEAMWISE Lignite analysis

Month: SEPTEMBER -2021

Seams From Top to Bottom	Total Moisture %	Ash %	Volatile Matter %	Fixed Carbon %	GCV Kcal/kg
Seam .1 (NE)	41.70	8.20	35.10	15.00	3318.00
Seam .2 (NE)	41.30	13.40	33.80	11.50	2957.20
Seam.3 (NE)	43.70	6.90	29.60	19.80	3375.84
Seam.4 Main seam upper (NE)	36.60	11.40	35.90	14.10	3313.28
Seam.5 Main seam lower (NE)	30.06	12.46	35.30	16.50	3451.20
Seam.6 Blackish (NW)	36.70	14.90	33.30	15.10	3218.08
Seam.7 Light Brownish (NW)	32.20	7.90	35.90	18.00	3608.40



Annexure 8: Lignite Analysis Report, Mata No Madh Mine, Kutch.

Mata Na Madh Lignite Analysis Report						
Year 2019						
Sr. No.	Date	%TM	%Ash	%VM	%FC	GCV (kcal/kg)
1	Jan-19	33.51	22.53	28.28	15.68	2963.93
2	Feb-19	34.32	19.99	28.96	16.73	3089.38
3	Mar-19	32.75	20.27	29.61	17.36	3179.53
4	Apr-19	34.01	22.64	28.19	15.16	2915.92
5	May-19	31.17	25.98	27.78	15.06	2883.98
6	Jun-19	32.49	24.01	28.11	15.40	2930.47
7	Jul-19	33.03	23.43	28.62	14.91	2922.48
8	Aug-19	31.68	25.24	28.45	14.64	2889.21
9	Sep-19	33.24	22.97	28.83	14.96	2938.77
10	Oct-19	32.33	23.45	29.32	14.91	2963.63
11	Nov-19	33.38	20.30	30.44	15.88	3109.30
12	Dec-19	33.00	21.74	30.16	15.10	3029.69
Year 2020						
Sr. No.	Date	%TM	%Ash	%VM	%FC	GCV (kcal/kg)
1	Jan-20	33.74	21.90	29.71	14.66	2966.76
2	Feb-20	33.25	22.54	29.59	14.63	2957.08
3	Mar-20	33.64	23.33	28.75	14.29	2879.11
4	Apr-20	32.65	24.59	28.41	14.34	2863.47
5	May-20	33.49	23.09	28.79	14.62	2909.30
6	Jun-20	34.25	21.87	29.40	14.49	2934.65
7	Jul-20	33.13	22.26	29.29	15.32	2995.21
8	Aug-20	34.45	21.06	29.88	14.61	2973.44
9	Sep-20	33.54	19.63	30.67	16.17	3146.06
10	Oct-20	32.08	23.00	29.70	15.22	3011.72
11	Nov-20	32.03	22.65	29.85	15.47	3040.91
12	Dec-20	32.72	23.21	29.32	14.75	2950.83
Year 2021						
Sr. No.	Date	%TM	%Ash	%VM	%FC	GCV (kcal/kg)
1	Jan-21	31.93	24.88	28.96	14.22	2886.98
2	Feb-21	31.20	25.69	28.82	14.30	2884.28
3	Mar-21	Lignite stopped				
4	Apr-21	31.79	23.69	29.68	14.84	2980.26
5	May-21	31.88	23.09	29.76	15.28	3019.89



6	Jun-21	31.35	22.74	30.04	15.87	3084.65
7	Jul-21	30.28	23.99	29.60	16.13	3079.57
8	Aug-21	31.17	23.28	30.21	15.34	3052.09
9	Sep-21	37.67	13.05	30.82	18.46	3340.30
10	Oct-21	36.03	13.86	30.58	19.53	3412.66
11	Nov-21	35.34	14.29	30.50	19.88	3435.90
12	Dec-21	35.46	13.47	30.59	20.48	3490.26
Year 2022						
Sr. No.	Date	%TM	%Ash	%VM	%FC	GCV (kcal/kg)
1	Jan-22	35.97	13.24	30.54	20.25	3468.62
2	Feb-22	34.98	14.67	30.59	19.77	3432.39
3	Mar-22	34.96	15.10	30.17	19.77	3407.4
4	Apr-22	34.42	16.68	29.90	19.00	3329.20