

ମହାନଦୀ କୋଲ ଫିଲ୍ଡସ୍ ଲିମିଟେଡ୍
महानदी कोलफील्ड्स लिमिटेड
Mahanadi Coalfields Limited
(A subsidiary of Coal India Limited)



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Expression of Interest (EOI) Notice

Expression of Interest (EOI) is invited on-line on the website <https://coalindiarenders.nic.in> from the bidders having Digital Signature Certificate (DSC) issued from any agency authorized by Controller of Certifying Authority (CCA), Govt. of India and which can be traced up to the chain of trust to the Root Certificate of CCA, for “**Setting-up of Coal to Synthetic Natural Gas (SNG) Plant at Talcher Coalfields of MCL on Build_Own_Operate (BOO) Basis**” with the following schedule:-

Sl. No	Particulars	Date	Time
a.	EoI e-Publication date	14/08/2020	05.00 PM
b.	Start date for Document download	14/08/2020	05:00 PM
c.	Last date for Document download	14/09/2020	05:00 PM
d.	Start date for seeking Clarification on-line by bidder	14/08/2020	05.00 PM
e.	Last date for seeking Clarification on-line by bidder	28/08/2020	05.00 PM
f.	Start date for EoI Offer Submission	14/08/2020	05.00 PM
g.	Last date for EoI Offer submission	14/09/2020	05.00 PM
h.	EoI Offer Opening date	15/09/2020	05:00 PM
i.	Date of presentation (through VC) by interested parties	Starts after Opening of EOI (Exact date & time will be communicated to interested parties via e-mail)	

All EOIs are to be submitted on-line only. No offer shall be accepted off-line.

For further details and submission of EOI please visit the website <https://coalindiarenders.nic.in>.

14.08.2020
General Manager (Washery)
MCL HQ

Ref. No: MCL/HQ/GM(Washery)/EOI/SNG/20-21/2909

Date : 14/08/2020

DISTRIBUTION:

1. All CGMs/GMs, Ib Valley, Orient, Lakhanpur, Basundhara, Mahalaxmi, Jagannath, Bharatpur, Lingaraj, Talcher, Bhubaneshwari, Subhadra, Kaniha and Hingula Area, MCL
2. GM(P&P)/GM(F)/HoD(Innovation Cell) MCL HQ
3. TS to CMD/TS to D(T/O)/TS to CVO/ TS to D(T/P&P)/TS to D(P)/ TS to D(F),MCL.





MAHANADI COALFIELDS LIMITED

A Mini Ratna Company

**GLOBAL
EXPRESSION OF INTEREST (“EOI”)**

FOR

**SETTING-UP OF COAL TO SYNTHETIC NATURAL GAS (SNG)
PLANT IN TALCHER COALFIELDS OF MCL**

ON

BUILD_OWN_OPERATE (BOO) BASIS.

AUGUST, 2020



MAHANADI COALFIELDS LIMITED

(A Subsidiary of Coal India Ltd.)

JAGRUTI VIHAR, BURLA

SAMBALPUR, ODISHA-768020, INDIA

TABLE OF CONTENTS

SECTION	DESCRIPTION	PAGE NO.
1.	INVITATION FOR EXPRESSION OF INTEREST (EOI)	3-12
2.	QUALIFICATION CRITERIA & SUBMISSION OF EOI	13-20
3.	EXHIBITS AND ANNEXURES	21-36

SECTION-1:
INVITATION FOR EXPRESSION OF INTEREST (EOI)

1.1 Expression of Interest (EoI) are invited on-line on the website <https://coalindiatenders.nic.in> from the bidders having Digital Signature Certificate (DSC) issued from any agency authorized by Controller of Certifying Authority (CCA), Govt. of India and which can be traced up to the chain of trust to the Root Certificate of CCA.

1.2 About MCL

Mahanadi Coalfields Limited (a Mini Ratna PSU), a subsidiary of Coal India Limited, is a major coal producing company of India and deals with coal production in the coalfields of Odisha. Coal India Limited (CIL) produced 602.14 Million Tonnes of coal in FY 2019-20. MCL produced 140.36 Million tonnes of coal in FY 2019-20. MCL is the second largest coal producing subsidiary of CIL. The Total geological coal reserves of MCL are approx. 33 Billion Tonnes (BT).

It is one of the eight subsidiaries of Coal India Limited. Mahanadi Coalfields Limited was carved out of South Eastern Coalfields Limited in 1992 with its headquarters at Sambalpur. It has its coal mines spread across Odisha. The company is incorporated under the Companies Act, 1956. For more details please visit website: <https://www.mahanadicoal.in>

It consists of two (2) coalfields:

- i) Talcher Coalfields
- ii) Ib-Valley Coalfields

i) Talcher Coalfields

Talcher coalfield is lying between latitudes 20° 53' N and 20° 12' N and longitude 84°24' E and 85° 33' E. The major part of the coalfield including the present coal mining area falls in Angul district in Odisha.

The coalfield is situated near Cuttack-Sambalpur railway line, which is linked to Howrah-Chennai and Howrah-Mumbai railway line. It is only 192 kms away from a major port in the eastern coast of Odisha i.e. Paradeep port. Railway link is available between Talcher and Paradeep-via-Cuttack. Talcher coalfield is also favorably located for consumers of Southern and western India itself where coal can be transported either by rail or rail cum sea route.

Talcher Coalfield has geological reserves of 17 billion tonnes of coal (as on 01.04.2019).

ii) Ib-Valley Coalfields

Ib valley coalfield is situated in the Jharsuguda and Sundargarh district of Orissa.

Ib-Valley Coalfield is located between latitudes 21°31' & 22°14'N and longitudes 83°32' & 84°10'E within the districts of Sundergarh, Jharsuguda of Odisha state.

Ib Valley Coalfield has geological reserves of 16 billion tonnes (as on 01.04.2019). Ib Valley Coalfield is served by South East Central Railway. The main railway station for passenger traffic is Brajrajnagar on the Tatanagar-Bilaspur section of Howrah-Nagpur-Mumbai line. The area links to NH 200.

1.3 COAL TO SYNTHETIC NATURAL GAS (SNG) PROJECT AT TALCHER COALFIELDS IN MCL.

MCL intends to invite the Global Expression of Interest (EoI) for setting-up of Coal to Synthetic Natural Gas (SNG) Plant at Talcher Coalfields on Build_Own_Operate (BOO) Basis.

1.4 BRIEF SCOPE OF WORK

MCL intends to invite the Global Expression of Interest (EoI) through e-procurement portal of CIL (<https://coalindiatenders.nic.in>) to know the interest of technically sound and financially capable parties for setting-up of Coal to Synthetic Natural Gas (SNG) Plant at Talcher Coalfields on Build_Own_Operate (BOO) Basis.

The projects shall broadly comprise the following plants and facilities:

1. Coal Handling System [2/4/6/8/10 Million Tonnes Per Annum (MTPA)]
2. Air Separation Unit
3. Steam Generation Unit
4. Coal Gasification including Cleaning Unit
5. Methanation Unit or any other process required to convert synthesis gas to Synthetic natural gas
6. Associated offsite and utilities facilities
7. Delivery and despatch infrastructure for entire quantity of Synthetic Natural Gas (SNG) and by products if any,

8. Storage facilities of ash generated and disposal as per as per the norms of the Environment Management Plan (EMP) duly approved by the State/ Central and other concerned agencies.

9. Selected technology should confirm to zero effluent discharge and should be Environment friendly.

1.5 SCOPE OF MCL

MCL will supply requisite quantity of coal for the proposed Coal to Synthetic Natural Gas (SNG) Plant. Power and Water for operation and construction of the plant will be provided by MCL on chargeable basis, if available near plant site. Land for setting-up of the proposed plant have to be identified and acquired by the BOO Operator. Necessary statutory clearance shall have to be obtained by the BOO Operator.

1.6 LOCATION OF THE PROJECT SITE

MCL intends to invite the Global Expression of Interest (EoI) for setting-up of Coal to Synthetic Natural Gas (SNG) Plant at Talcher Coalfields on Build_Own_Operate (BOO) Basis.

Brief description of Talcher Coalfields has been given at Clause no. 1.2 (i).

1.7 OBJECTIVE OF EXPRESSION OF INTEREST (EOI)

1. Expression of Interest (EoI) is being floated with an intent to know the interest of technically sound and financially capable parties for setting-up of the proposed Coal to Synthetic Natural Gas (SNG) Plant at Talcher Coalfields on BOO Basis.

2. Through this EoI, MCL invites various experienced players and stakeholders in the industry like Technology Suppliers, and other experienced organizations having experience in construction and operation of coal gasification plant in India or abroad.

3. The interested parties are invited to submit their expression of interest (EoI) proposal for setting-up of the proposed Coal to Synthetic Natural Gas (SNG) Plant at Talcher Coalfields on BOO Basis.

4. The parties are also requested to furnish their basic details (such as Name of the Company/Firm, Year of establishment, Presence in India, Name of the parent company, Country, Industry, website address , contact person (with e-mail & contact no.) etc.).

1.8 QUALITY AND QUANTITY OF COAL

Coal required to be fed to the proposed Coal to Synthetic Natural Gas (SNG) Plant is 2/4/6/8/10 MTPA. Coal as basic raw material for the production of Synthetic Natural Gas (SNG) will be fed from Talcher Coalfields of MCL having ash percentage 16 (after washing/oil agglomeration) - 45%. MCL is also planning to establish Oil Agglomeration based coal cleaning process plant in Talcher Coalfields of MCL. Clean coal through oil agglomeration/Washing may be used in proposed Coal to Synthetic Natural Gas (SNG) Plant. Selection of mines from Talcher Coalfield for SNG Plant may be done after identification of Land for the plant by BOO Operator.

Test results of raw coal of Bhubaneswari Open Cast Mine and Hingula Open Cast Mine detailed hereafter in this EOI is indicative only. Hence, BOO Operator may collect the raw coal sample from the mines of Talcher Coalfields and carry out the laboratory tests using their own experience / expertise. Test results (proximate and ultimate analysis) of raw coal of Bhubaneswari Open Cast Mine and Hingula Open Cast Mine of Talcher Coalfields of MCL is given below:

1. Bhubaneswari OCP

Coal samples were collected from Bhubaneswari Opencast mine of Jagannath area from Talcher coalfield under the supervision of CMPDI team by MCL from 29th & 30th January 2014.

PROXIMATE ANALYSIS, GCV AND HGI OF RAW COAL: Proximate analysis on air-dried basis and equilibrated basis was carried out for raw coal (as received). HGI and GCV for raw coal (as received) were also determined. The results are given in **Table-1**.

Table-1: Proximate Analysis of Raw Coal Sample

Sl. No.	Particulars	Raw Coal (As received)	
		Air dried basis	Equilibrium Basis
1	Proximate Analysis		
i)	Moisture%	4.2	4.9
ii)	Ash%	36.4	36.1
iii)	VM%	27.0	26.8
iv)	Fixed Carbon%	32.4	32.2
2	GCV (Kcal/Kg)	4430	-
3	HGI	65	-

ULTIMATE ANALYSIS AND ASH FUSION TEMPERATURE OF RAW COAL:

Ultimate analysis and ash fusion temperature was conducted for raw coal.

Table-2: Ultimate Analysis of Raw Coal Sample

Particulars	Raw Coal
Carbon %	44.85
Hydrogen %	3.01
Nitrogen %	1.37
Sulphur %	0.89

Table-3: Ash Fusion Temperature of Raw Coal Sample

Particulars	Raw Coal
IDT(°C)	>1400
ST(°C)	>1400
HT(°C)	>1400
FT(°C)	>1400

Abbreviations used: IDT: Initial deformation temperature, ST: sphere temperature HT: hemisphere temperature, FT: flow temperature.

2. Hingula OCP

RoM coal sample of Seam VIII+IX from Hingula OCP was collected and tested at CMP Lab, CMPDI, Ranchi and test report has been prepared.

PROXIMATE ANALYSIS, GCV AND HGI OF RAW COAL: Proximate analysis on air-dried basis and equilibrated basis was carried out for raw coal (as received). HGI and GCV for raw coal (as received) were also determined. The results are given in Table-1.

Table-4: Proximate Analysis of Raw Coal Sample

Sl. No.	Particulars	Raw Coal (As received)	
		Air dried basis	Equilibrium Basis
1	Proximate Analysis		
i)	Moisture%	4.7	5.6
ii)	Ash%	37.7	37.3
iii)	VM%	26.8	25.9
iv)	Fixed Carbon%	31.5	31.2
2	GCV (Kcal/Kg)	4267	-
3	HGI	69	-

ULTIMATE ANALYSIS AND ASH FUSION TEMPERATURE OF RAW COAL:

Ultimate analysis and ash fusion temperature was conducted for raw coal.

Table-5: Ultimate Analysis of Raw Coal Sample

Particulars	Raw Coal
Carbon %	42.56
Hydrogen %	2.83
Nitrogen %	1.08
Sulphur %	0.66

Table-6: Ash Fusion Temperature of Raw Coal Sample

Particulars	Raw Coal
IDT(°C)	1310
ST(°C)	>1500
HT(°C)	>1500
FT(°C)	>1500

Abbreviations used: IDT: Initial deformation temperature, ST: sphere temperature HT: hemisphere temperature, FT: flow temperature.

1.9 SALIENT FEATURES OF THE PLANT ON BOO CONCEPT

Salient features and mode of development of Synthetic Natural Gas (SNG) Plant under Build-Own-Operate (BOO) Basis are mentioned hereunder:

i) FINANCING

Financing of the project shall be done 100% by the BOO Operator.

ii) TECHNOLOGY & CAPACITY

The Synthetic Natural Gas (SNG) Plant shall be built, owned and operated by the BOO operator who will enjoy the freedom of selection of technology, type and design of the plant with zero effluent discharge and also operation and maintenance of the plant, subject to various statutory and regulatory provisions, as prevalent in India, environmental regulations and safeguards as per norms etc. The Synthetic Natural Gas (SNG) Plant shall be designed with closed water circuit and zero effluent discharge. The plant shall be capable of efficient performance with additional feed commensurating with the fluctuation in mine production in the different seasons. Responsibility of obtaining various clearances will be of successful bidder. Support and help from MCL may be provided, if required.

iii) ENVIRONMENT/ STATUTORY & REGULATORY CLEARANCES

Obtaining all necessary statutory and regulatory/ environmental (State and Central pollution Control Board) and other clearances etc. prevalent in the country shall be the responsibility of the BOO Operator.

iv) RAW COAL SUPPLY

MCL shall assure supply of raw coal of specified quality & quantity from Talcher Coalfields by MCL through belt conveyors or any other available mode on mutually agreed basis as per the Monthly Scheduled Quantity (MSQ) determined at the beginning of each year and BOO Operator shall receive the same at the plant end.

v) SYNTHETIC NATURAL GAS (SNG) DELIVERY & DESPATCH

BOO Operator will be responsible for delivery of pipeline feeding quality Synthetic Natural Gas (SNG) (having minimum 95% CH₄). Synthetic Natural Gas (SNG) may be transported through proposed Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDPL) of GAIL(India) Ltd passing through Angul or any other pipeline available.

vi) OWNERSHIP OF RAW COAL AND PRODUCTS

Ownership of Synthetic Natural Gas (SNG) generated from Plant and raw coal shall remain with MCL.

vii) COST OF PRODUCTION OF SYNTHETIC NATURAL GAS (SNG) (PER MMBTU) AND ITS BY –PRODUCTS

MCL shall pay for the cost of production of synthetic natural gas (SNG). By-products, if any generated will be sold by BOO Operator.

Cost of production is to be quoted by the bidder in terms of per MMBTU of Synthetic Natural Gas (SNG) produced.

Cost of production covers the cost for receiving & storage of raw coal (2 Million Tonnes per Annum), sizing & crushing, beneficiation (if required), Air Separation Unit, cost of Steam generation Unit, cost of Coal Gasification including cleaning Unit, Methanation Unit and cost of Associated offsite and utilities facilities and delivery of pipeline feeding quality Synthetic Natural Gas (SNG) to the designated place. Distance of proposed Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDPL) of GAIL(India) Ltd passing through Angul is about 20 KM. SNG should be delivered to pipeline at a pressure ranging from 28 to 80 Kg/Cm².

viii) WATER AND POWER

Power and Water for operation and construction of the plant will be provided by MCL on chargeable basis, if available near plant site. The current rates for power and water are Rs. 5.98/ kWh and Rs. 7.84/ m³ (for the Year 2020-21) respectively. The rate of power and water given are indicative and guidance purpose only. Prevailing rate of water and power at the time of construction and operation will be charged from BOO Operator.

ix) SITE

For construction of the Synthetic Natural Gas (SNG) Plant, Land have to be identified and acquired by the Build_Own_Operate (BOO) Operator in the vicinity of Talcher Coalfields of MCL.

x) ASH DISPOSAL

BOO Operator shall keep provision for storage of ash as per the norms of the Environment Management Plan (EMP) duly approved by the State/ Central and other concerned agencies

at the temporary storage site identified by MCL. There shall be provision of lighting, dust suppression garland drain to collect surface runoff and arrangement for its treatment in environment compatible manner for its further use/ disposal as per approved EMP.

Further disposal of ash produced from the plant shall be done suitably by BOO Operator. MCL may provide mine void for disposal of ash.

xi) SAFEGUARDS TO BE ENSURED BY THE BOO OPERATOR

- Capacity of the plant shall be in terms of Synthetic Natural Gas (SNG) produced (in MMBTU) per annum.

- The BOO Operator shall have to keep raw coal storage facility atleast of half day requirement.

- The technology selected shall be environment friendly and zero effluent discharge.

SECTION-2:
QUALIFICATION CRITERIA
AND
SUBMISSION OF EOI

2.1 QUALIFICATION CRITERIA

2.1.1 Any bidder enrolled in the site <https://coalindiatenders.nic.in> having Digital Signature Certificate (DSC) issued from any agency authorized by Controller of Certifying Authority(CCA), Govt. of India and which can be traced up to the chain of trust to the Root Certificate of CCA subject to his qualification as per Clauses of this EoI may submit its offer against this EoI. The bidder may be a registered partnership firm/ body corporate/ Joint Stock Company/ JV Company/ Subsidiary Company (registered under the Company Act 1956/2013) or equivalent basis in case of foreign applicants.

2.1.2 TECHNICAL QUALIFICATION REQUIREMENT

a. **Coal Gasification Technology:** The Bidder either on his own or with the support from a reputed Gasification process Licensor should be capable of providing/ arranging process License and Basic Design Package of proven performance for coal Gasifiers for gasifying coal feedstock on commercial basis. Each respondent company / companies should be capable of providing Basic Design Package for associated equipment for gasifying coal from Talcher Coalfields of MCL with ash content ranging from 16 (after washing/oil agglomeration) -45%. The objective is to process Talcher Coalfields Coal for gasification to produce SNG. However, it will be sole responsibility of the bidder that the Coal Gasifier / Gasification technology proposed by him is suitable for the quality of Coal of Talcher Coalfields of MCL.

b. **Gas Cleaning, Purification, Methanation, and Synthetic Natural Gas (SNG) Production :** The Bidder either on his own or with the support from a reputed process Licensor should be capable of providing/ arranging process License and Basic Design package for the proposed Gas Cleaning, Purification, Methanation or any other any other process required to convert synthesis gas to Synthetic natural gas , and Synthetic Natural Gas (SNG) Production (having minimum 95% CH₄ ,sulphur compound less than 1 ppm).

c. The interested parties either on his own or with the support of organizations having experience in design, planning, DPR preparation, construction and operation of coal gasification plant in India or abroad should possess experience of having successfully built and operated in any one or more plant in the field of Coal gasification/Coal to Synthetic Natural Gas (SNG)/Coal to Liquid/Coal to chemical/Coal to Fertilizers/Coal to Oil/Coal Bed

Methane (CBM) etc. Such plant should have been in satisfactory commercial operation for a continuous minimum period of two years in last 10 years period.

2.1.3 FINANCIAL QUALIFICATION REQUIREMENT

The intending respondents shall have to furnish details as per **Exhibit – 3** along with documentaries evidences for Financial Turnover & Working Capital OR Net worth as mentioned therein.

The foreign bidders should submit Financial Turnover certificate based on International Financial Reporting Standards (IFRS) accounting standard certified by a local practicing public accountant/audit firm & Banker's Certificate regarding availability of access to credit (issued maximum 90 days before e-Publication date of EoI) for Working capital or evidence of Net worth duly vetted/endorsed by the relevant* Embassy/ High Commission concerned, towards authenticity of document

The intending respondents shall also furnish complete audited annual financial year statements including Balance Sheet, Profit & Loss accounts statement and all other schedules of immediate preceding financial year, self- certification of being not under liquidation, court receivership or similar proceedings, in the first instance itself, in support of their fulfilling the Qualification Criteria.

2.1.4 EVALUATION CRITERIA

The Company will examine the uploaded documents against information/declarations furnished by the bidders. The offer will be analysed on the basis of cost of production of Synthetic Natural Gas (SNG) per MMBTU quoted by bidders online for each value of 2/4/6/8/10 MTPA coal supplied .

The viability of the project shall be based on the cost of production of Synthetic Natural Gas (SNG) per MMBTU quoted by the bidders, and other related expenditure of MCL on this account.

2.2 SUBMISSION OF EOI

2.2.1 In order to submit the offer, the bidders have to get themselves registered online on the e-Procurement portal (<https://coalindiatenders.nic.in>) with valid Digital Signature Certificate (DSC) issued from any agency authorized by Controller of Certifying Authority

(CCA), Govt. of India and which can be traced up to the chain of trust to the Root Certificate of CCA. The online Registration of the Bidders on the portal will be free of cost and one time activity only. The registration should be in the name of bidder, whereas DSC holder may be either bidder himself or his duly authorized person.

2.2.2 Each respondent company / companies may express its interest for setting-up of the proposed Coal to SNG Plant at Talcher Coalfields on BOO Basis.

2.2.3 Interested parties shall submit the details of process in support of smooth operation of gasification plant with the subject coal.

2.2.4 Submission of EoI does not entitle for any kind of registration / qualification for further bid process.

2.2.5 MCL will call a meeting with prospective parties after receipt of this EoI through Video Conferencing (VC).

2.2.6 The intending respondents must not have been debarred/ blacklisted by any Govt. Department, Agency, PSUs/ Institution/ Agencies/ Autonomous Organizations.

2.2.7 MCL (Mahanadi Coalfields Limited) will not be responsible for any costs or expenses incurred by the parties in connection with preparation or delivery of EOI.

2.2.8 Prior to short-listing, a presentation (through VC) would be required before MCL by the interest parties and clarifications would have to be provided.

2.2.9 EOI shall be submitted online through e-Procurement portal of CIL.

2.2.10 The bidders have to accept unconditionally the online user portal agreement which contains the acceptance of all the Terms and Conditions of bid document including conditions of Contract and other conditions, if any, along with on-line undertaking in support of the authenticity of the declarations regarding the facts, figures, information and documents furnished by the Bidder on-line in order to become an eligible bidder. No conditional bid/offer shall be accepted.

2.2.11 All documents relating to the online Bid shall be in the English language. In case of other language, information shall have to be translated in English and to be certified/ authenticated by respective Embassy. The offers along with all the supporting documents are

to be submitted on-line on the website <https://coalindiatenders.nic.in>. No offer shall be accepted off-line.

2.2.12 It is the bidder’s responsibility to comply with the system requirement i.e. hardware, software and internet connectivity at bidder’s premises to access the e-tender website. Under any circumstances, MCL shall not be liable to the bidders for any direct/indirect loss or damages incurred by them arising out of incorrect use of the e-tender system or internet connectivity failures.

2.2.13 The EOI must be complete in all respect leaving no scope for ambiguity. It is in the interest of the respondent to submit complete and comprehensive proposal leaving no scope for MCL to raise any further questionnaires. MCL may evaluate the respondents on the basis of document submitted in the first instance in order to adhere with project requirements.

2.2.14 Price bid/offer: The Price Bid/offer i.e. **BoQ** containing the details of Cost of Production per MMBTU of Synthetic Natural Gas (SNG) produced for each value of 2/4/6/8/10 MTPA coal supplied (in INR) will be in Excel Format and the same will be downloaded by the bidders. They will quote for all items on this **BoQ**. Thereafter, the bidder will upload the same **BoQ** during bid/offer submission. This file will be digitally signed and uploaded by the Bidder.

2.2.15 The Parties shall upload scanned copy of the following documents online for expressing their interest:

COVER-1		
Sl. No.	PRE-QUALIFICATION CRITERIA	Scanned copy of documents to be uploaded as CONFIRMATORY DOCUMENT
1	General Details	The parties has to furnish details as per Exhibit 1 along with the documentaries evidences for items mentioned therein.
2	Technical Qualification Requirement	The parties has to furnish details as per Exhibit 2 along with the documentaries evidences for items mentioned therein.
3	Financial Qualification Requirement	The intending respondents shall have to furnish details as per Exhibit – 3 along with documentaries evidences for Financial Turnover & Working Capital OR Net worth as mentioned

		<p>therein.</p> <p>The foreign bidders should submit Financial Turnover certificate based on International Financial Reporting Standards (IFRS) accounting standard certified by a local practicing public accountant/audit firm & Banker's Certificate regarding availability of access to credit (issued maximum 90 days before e-Publication date of EoI) for Working capital or evidence of Net worth duly vetted/endorsed by the relevant* Embassy/ High Commission concerned, towards authenticity of document (As per Exhibit-3).</p> <p>*Relevant Embassy/High Commission means the Embassy/High Commission in INDIA of the Country where the bidder has obtained Turnover certificate or Country of origin of the bidder.</p>
4	Authorization for Digital Signature Certificate	<p>a). If the bidder himself is the DSC holder bidding on-line then self declaration of the bidder to this effect (As per Exhibit – 4). OR</p> <p>b). If the DSC holder is bidding online on behalf of the bidder then the Power of Attorney or any sort of legally acceptable document for authorization to submit bid on behalf of the bidder (As per Exhibit – 4).</p>
5	UNDERTAKING	An UNDERTAKING is to be given on Bidder's letter head (Exhibit-5) . Undertaking is about the genuineness of information furnished online, authenticity of scanned copy of documents uploaded and about other commitments.
6	Annexure 1	BROAD PARAMETERS
7	Annexure 2	<p>A. Description of Coal to Synthetic Natural Gas(SNG) generation Scheme alongwith Flow Diagram for each value of 2/4/6/8/10 MTPA coal supplied</p> <p>B. Detailed Work Programme for each value of 2/4/6/8/10 MTPA coal supplied</p>
8	Annexure 3	Format for Furnishing Technical Details of offered Coal to Synthetic Natural Gas (SNG) technology
9	Annexure 4	<p>A. Details of Requirement of Electricity for each value of 2/4/6/8/10 MTPA coal supplied</p> <p>B. Details of Requirement of Water for each value of 2/4/6/8/10 MTPA coal supplied</p>
10	Annexure 5	Commercial details of offered technology for Coal to Synthetic Natural Gas (SNG) plant for each value of 2/4/6/8/10 MTPA

		coal supplied
11	Annexure 6	Cost of Production per MMBTU of Synthesis Gas (CO+H ₂) produced for each value of 2/4/6/8/10 MTPA coal supplied . (in INR)
12	Annexure 7	Graph for Cost of Synthesis Gas (CO+H ₂) production vs. coal ash ranging from 16-45% for each value of 2/4/6/8/10 MTPA coal supplied
13	Annexure 8	Graph for Cost of Synthetic Natural Gas (SNG) production vs. coal ash ranging from 16-45% for each value of 2/4/6/8/10 MTPA coal supplied
14	Annexure 9	Graph for Cost of Synthetic Natural Gas (SNG) production vs. 2/4/6/8/10 MTPA coal supplied
<p>Note: Only one file in .pdf format can be uploaded against each eligibility criteria. Any additional/other relevant documents to support the information/declaration furnished by bidder online against eligibility criteria may also be attached by the bidder in the same file to be uploaded against respective eligibility criteria. Strict adherence to formats, wherever specified, is required. Non-adherence to formats may be a ground for declaring the Offer non-responsive & liable for rejection.</p>		

2.2.16 EXTENSION OF TIME SCHEDULE OF EoI: MCL may extend the deadline for submission of offers by issuing a corrigendum, in which case all rights and obligations of the employer and the bidders previously subject to the original deadline will then be subject to the new deadline.

2.2.17 OPENING OF EOI

Offers against EoI will be decrypted and opened online by the Bid Openers with their Digital Signature Certificate (DSC) on the pre-scheduled date & time of EoI opening.

2.2.18 TIME SCHEDULE OF EXPRESSION OF INTEREST (EOI)

Sl. No	Particulars	Date	Time
a.	EoI e-Publication date	visit (https://coalindiatenders.nic.in) for details	
b.	Start date for Document download		
c.	Last date for Document download		
d.	Start date for seeking Clarification on-line by bidder		
e.	Last date for seeking Clarification on-line by		

	bidder	
f.	Start date for EoI Offer Submission	
g.	Last date for EoI Offer submission	
h.	EoI Offer Opening date	
i.	Date of presentation (through VC) by interested parties	Opening of EOI (Exact date & time will be communicated to interested parties via e-mail)

2.2.19 MCL reserves the right to accept the applications in entirety or reject any or all of them or withdraw the notice at any stage of processing without assigning any reason thereof.

2.2.20 Offer against this EOI made by the parties shall be considered subject to financial /economic viability at MCL end.

2.2.21 Evaluation of Offers against this EOI received from Bidders having origin from the Hostile countries like Pakistan, China etc. will be subjected to Govt. of India guidelines.

2.2.22 MCL further also seeks input/suggestions from interested Parties/Bidder on the following:

- i. Roles & responsibilities of MCL & BOO Operator during Construction and operation period
- ii. Commitment from MCL and BOO Operator for delivery and despatch of pipeline grade SNG
- iii. Enabling assistance required from MCL for Syn Gas (CO+H₂), SNG production and disposal of by products if any
- iv. Requirement of various Statutory & Regulatory Clearances and fulfilment of conditions stipulated therein.
- v. Any other relevant issue/clauses

2.2.23 Contact Details of Inviting Authority:

General Manager (Washery)
Mahanadi Coalfields Ltd.
P.O. Jagruti Vihar, Burla
Dist. Sambalpur-768020, Odisha.

E-procurement Helpdesk: 0663-2542695/264

Email - hlp-eproc.mcl@coalindia.in

SECTION-3:
EXHIBITS AND ANNEXURES

EXHIBIT -1**GENERAL DETAILS**

Sl. No.	Particulars	Reply
1.0	Full legal Name of the organization:	
2.0	Communication details	
	i) Full Postal Address(es)	
	ii) Name and designation of the contact person	
	iii) e-mail	
	iv) Telephone Code	
	v) Telephone No.	
3.0	Year in which established, Registration No. and date	
4.0	Ownership status	
4.1	a) Registered Partnership Firm	
	b) Body Corporate	
	c) Joint Stock Company	
	d) JV Company	
	e) Subsidiary Company	
	f) Equivalent of (a) to (e) in case of foreign bidder	
4.2	Documentary evidence e.g. Certificate of Incorporation; Certificate of Registration; Memorandum & Articles of Association; Partnership Deed, GST Registration Certificate etc. w.r.t. sl. no. 4.1 above	
4.3	Name and address of Chief Executive, President or Managing Director, Secretary or other persons authorised to bind the firm	
4.4	Organization set up	
5.0	In how many assignments and/ or projects penalties were imposed on you for delay? If your answer is “yes”, furnish details.	

6.0	Have you ever been black listed by any Govt. or Private organization? If your answer is “yes” by whom, when and why? Furnish details.	
7.0	In case of foreign entity, name and address of Indian representative, if any	
8.0	Division of work between the partners for setting up and operation of the Coal to Synthetic Natural Gas (SNG) Plant	
	Name of Partners	Proposed responsibilities
	1) 2) 3)	
9.0	Other details	
9.1	Certificate of Registration as per statutory requirement under contract labour laws, as may be applicable.	
9.2	If registered with CIL or its subsidiaries (Quote registration no., date & name of the work)	
<p>NOTE:</p> <p>1. Furnish a write up alongwith roadmap indicating broad approach for design, installation, operation and maintenance of Coal to Synthetic Natural Gas (SNG) Plant at Talcher Coalfields on Build_Own_Operate (BOO) Basis covered by this offer.</p> <p>2. Bidder has to upload inputs/suggestions, if any with respect to the this EOI invited by MCL along with Exhibit-1.</p>		

EXHIBIT-2**TECHNICAL QUALIFICATION REQUIREMENT**

SL.No.	DESCRIPTION	DETAILS
1.	Name of the project and location (Please specify the name of process licensors)	
2.	Project Details: Capacity of the project(units)	
3	a. Date/ Month/Year of award/ commencement of project b. Date/ Month/Year of commissioning of project	
4	Name of Owner, Postal Address ,Phone/Fax No./ E- mail Address	
5	Type of Plant [Coal gasification/Coal to Synthetic Natural Gas (SNG)/ Coal to Liquid/Coal to chemical/Coal to Fertilizer/Coal to Oil/Coal Bed Methane (CBM)]	
6	Period of Operation (commercial operation for a continuous minimum period of two year in last 10 years period).Documentary proof in support of successful operation of plant.	
7	Performance data of the plant for at least two continuous year	
8	Operating Cost of the Plant (in INR or US Dollar)	
9	Reliability Data	
10	Safety Records	
11	Any other Details	

Note: Bidder shall have to ensure that all relevant supporting documents shall be submitted with the Exhibit-2.

EXHIBIT -3**FINANCIAL INFORMATION**

Sl. No.	Particulars	Reply
1.0	Financial Qualification requirement	
	a) Bank reference (with full name and address of all bankers).	
	b) Turnover for the immediate preceding financial year:	
	c) Evidence of possessing adequate working capital inclusive of access to lines of credit and availability of other financial resources to meet the requirement	
	d) If the bidder furnishes evidence for a net worth then no evidence w.r.t. 'b' & 'c' above is required to be furnished	
	e) Photocopies of Auditor's report or Chartered Accountant's certificate for the immediate preceding financial year	

**FORMAT FOR SELF DECLARATION OF BIDDER OR AUTHORIZATION OF DSC
HOLDER BY BIDDER**

[If the digital signature certificate holder is the bidder himself then self-declaration of bidder to this effect in the format mentioned at (a) below, otherwise an authorization in the format mentioned at (b) below from the bidder to the DSC holder authorizing him to submit the offer on behalf of bidder.]

Sub: **Expression of Interest (“EOI”) for Setting-up of Coal to Synthetic Natural Gas
(SNG) Plant in Talcher Coalfields of MCL on Build_Own_Operate (BOO) Basis.**

Ref: Notice No. dated

a) I being (Post held in the company) of M/s
(Name of the Bidder), aged about Years, son/daughter* of Shri
residing presently at on behalf of M/s (Name &
address of the Bidder) do hereby declare that I myself is the bidder and is bidding for me, and
for and in the name of the firm by using my Digital Signature Certificate.

OR

b) I being (Post held in the company) of M/s
(Name of the Bidder), aged about Years, son/daughter* of Shri
residing presently at on behalf of M/s (Name &
address of the Bidder) do hereby authorise Mr./ Mrs.* son/daughter of
..... resident of to bid for me/ on our behalf*, and for and in
the name of the firm by using his Digital Signature Certificate

Photocopy of Approval of Board of Directors or CEO of the company having no Board of
Directors in this regard is enclosed.

Signature

(Name & Designation with
seal)

Dated:

* Strike out whichever is not applicable

UNDERTAKING

(on the Letter Head of the interested company)

(Undertaking is about the genuineness of information furnished online, authenticity of scanned copy of documents uploaded and about other commitments.)

ANNEXURE – 1**BROAD PARAMETERS****(for each value of 2/4/6/8/10 MTPA coal supplied)**

SL. No.	Broad Parameters	Information
1	Raw Coal throughput Capacity (Mtpa)	2/4/6/8/10 MTPA on 'as received basis' (arb)
2	Raw Coal Quality	
2.1	Range of day-to-day ash% ('adb')	16 (after washing/oil agglomeration) - 45%
2.2	Range of Total Moisture% (arb) day-to-day basis	8 to 12
2.3	Raw coal Size (-) 100/ (-) 200 mm	(-) 100
3	Product Quality	
3.1	Synthetic Natural Gas (SNG) for each value of 2/4/6/8/10 MTPA coal supplied .	----- (to be quoted by the bidder)
3.2	By-products and their quality if any (to be quoted by the bidder)
4	Operating Conditions	
	No. of days per year: commensurating with the mine operation	----(to be quoted by the bidder)
5	Method of delivery of pipeline feeding quality of Synthetic Natural Gas (SNG).	
5.1	Mode of transportation of SNG	Through proposed Jagdishpur-Haldia-Bokaro-Dhamra Pipeline (JHBDPL) of GAIL(India) Ltd passing through angul or any other pipeline available

A. Description of Coal to Synthetic Natural Gas(SNG) generation Scheme alongwith Flow Diagram for each value of 2/4/6/8/10 MTPA coal supplied .

B. Detailed work programme

ANNEXURE – 3

Format for Furnishing Technical Details of offered Coal to Synthetic Natural Gas (SNG) technology for each value of 2/4/6/8/10 MTPA coal supplied .

SL.No.	ITEM	UNIT	QUANTITY
1.	No. of Gasifiers Proposed	No.(Operating+ Standby)	
2	Type of Gasifier (Fixed/Moving Bed/Fluidized Bed/Entrained Bed)		
3.	Coal Feed to each Gasifier	MT/day	
4.	Oxygen Requirement(% age of O2 purity)	m3/Hr, (%)	
5.	Steam Requirement (Steam Temp., Steam Pressure)	kg/Hr,(⁰ C, Kg/cm2)	
6.	Total Synthetic Natural Gas (SNG) generation	In MMBTU	
7.	By Products if any		
8.	Ash% in gasifier feed for above estimation	%	
9.	Any other data		

A. Format for Furnishing the Requirement of Power for each value of 2/4/6/8/10 MTPA coal supplied .

Sl. No.	Particulars	Power requirement
1	During construction (kW)	
2	During regular operation of Plant (kWh/ per MMBTU of Synthetic Natural Gas (SNG) produced)	

B. Format for Furnishing the Requirement of Water for each value of 2/4/6/8/10 MTPA coal supplied.

Sl. No.	Particulars	Water requirement
1	During construction (cum/ day)	
2	During regular operation of Plant (cum/ per MMBTU of SNG produced)	

ANNEXURE – 5

COMMERCIAL DETAILS OF OFFERED TECHNOLOGY FOR COAL TO SYNTHETIC NATURAL GAS (SNG) PLANT FOR EACH VALUE OF 2/4/6/8/10 MTPA COAL SUPPLIED

SL. No	ITEM	UNIT PRICE (IN INR or USD)	TOTAL VALUE (IN INR or USD)
1.	Capex for Coal Handling Section		
2.	Capex for Air Separation Unit		
3.	Capex for Steam generation unit		
4.	Capex for Coal Gasification including cleaning Unit		
5.	Capex for Methanation Unit or any other any other process required to convert synthesis gas to Synthetic natural gas		
6	Capex for delivery and despatch facilities for SNG		
7	Operating Cost per MMBTU of Synthetic natural Gas (SNG) production		
8.	Gasifier Maintenance Cost per year per Gasifier		
9.	Any Other		

**Cost of Production per MMBTU of Synthesis Gas (CO+H₂)
produced for each value of 2/4/6/8/10 MTPA coal supplied . (in INR)**

Sl. No.	Item	Amount per MMBTU of Synthesis Gas (CO+H ₂) produced (in INR)
1	Base Price	
2	Relevant Taxes & Duties	

Note : i) Taxes & Duties shall be reimbursed by MCL on actual basis

ii) Base Price for the 1st year of commercial operation will remain fixed

Graph for Cost of Synthesis Gas (CO + H₂) production for each value of 2/4/6/8/10 MTPA coal supplied vs. coal ash ranging from 16-45%.

Graph for Cost of Synthetic Natural Gas (SNG) production for each value of 2/4/6/8/10 MTPA coal supplied vs. coal ash ranging from 16-45%.

**Graph for Cost of Synthetic Natural Gas (SNG) production vs.
2/4/6/8/10 MTPA coal supplied**