ମହାନଦୀ କୋଲ୍ ଫିଲଡ୍ସ୍ ଲିମ୍ଚିଟେଡ୍ महानदी कोलपगील्डस लिमिटेड Mahanadi Coalfields Limited (A subsidiary of Coal India Limited)



Office of the General Manager (Washery) PO: Jagruti Vihar, Burla, MCL Dist. Sambalpur,-768020 (Odisha) CIN: U10102OR1992GOI003038 Tel:0663-2542095, Fax no:0663-2542674 Email: gm-washery.mcl@coalindia.in Website: www.mahanadicoal.in

#### Expression of Interest (EOI) Notice/ स्चना

A fresh Expression of Interest (EOI) is 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, 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	22/09/2020	05.00 PM
b.	Start date for Document download	22/09/2020	05:00 PM
с.	Last date for Document download	22/10/2020	05:00 PM
d.	Start date for seeking Clarification on-line by bidder	2.2/09/2020	05.00 PM
e.	Last date for seeking Clarification on-line by bidder	06/10/2020	05.00 PM
f.	Start date for EoI Offer Submission	22/09/2020	05.00 PM
g.	Last date for EoI Offer submission	22/10/2020	05.00 PM
h.	EoI Offer Opening date	23/10/2020	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 <u>https://coalindiatenders.nic.in.</u>

विभाष

22·09.2020 महाप्रबंधक (वाशरी), एमसीएल

पत्रांक: MCL/HQ/GM(Washery)/EOI/SNG/20-21/2944

दिनांक : 22/09/2020

वितरण :

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

SEPTEMBER, 2020



# MAHANADI COALFIELDS LIMITED

(A Subsidiary of Coal India Ltd.) JAGRUTI VIHAR, BURLA SAMBALPUR, ODISHA-768020, INDIA

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# SECTION-1:

# INVITATION FOR EXPRESSION OF INTEREST (EOI)

**1.1** Expression of Interest (EoI) are invited on-line on the website <u>https://coalindiatenders.nic.in</u> 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: <u>https://www.mahanadicoal.in</u> It consists of 02 (two) coalfields:

- I. Talcher Coalfields
- II. Ib-Valley Coalfields

### I) Talcher Coalfields

Talcher coalfield is lying between latitudes  $20^{\circ}$  53' N and  $20^{\circ}$  12' N and longitude  $84^{\circ}24'$  E and  $85^{\circ}$  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 period of Operation of plant shall be 25 years from the start of commercial operation.

The projects shall broadly comprise the following plants and facilities:

- 1. Coal Handling System [ 2 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. Infrastructure for delivery of pipeline feeding quality Synthetic Natural Gas (SNG)
- 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 shall be provided as per availability. 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 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.
- 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 in the field of coal gasification in India or abroad.
- 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 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 range from 20-24 % (if oil agglomeration is successful) and 32-36% (after selective screening/segregation or beneficiation). MCL is also planning to establish Oil Agglomeration based coal cleaning process plant in Talcher Coalfields of MCL. Clean coal through oil agglomeration/ beneficiation may be used in proposed Coal to Synthetic Natural Gas (SNG) Plant. Selection of mines from Talcher Coalfield for SNG Plant shall be done after identification of Land.

Test results of raw coal of Bhubaneswari Open Cast Mine of Talcher Coalfield 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 of Talcher Coalfields of MCL are given below:

#### Bhubaneswari OCP

**A. 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**.

S1.	Particulars	Raw Coal
No.		
1	Proximate Analysis	
i)	Moisture%	4.2
ii)	Ash%	36.4 (raw coal) However, coal of 32-36% will be provided after selective screening/segregation or beneficiation
iii)	VM%	27.0
iv)	Fixed Carbon%	32.4
2	GCV (Kcal/Kg)	4430
3	HGI	65

### B. ULTIMATE ANALYSIS AND ASH FUSION TEMPERATURE OF RAW COAL:

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

Particulars	Raw Coal
Carbon %	44.85
Hydrogen %	3.01
Nitrogen %	1.37
Sulphur %	0.89
Oxygen %	13.48

# Table-2: Ultimate Analysis of Raw Coal Sample

### Table-3: Ash Fusion Temperature of Raw Coal Sample

Particulars	Raw Coal
IDT(0C)	>1400
ST(0C)	>1400
HT(0C)	>1400
FT(0C)	>1400

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

### C. ASH COMPOSITION

### Table-4: Ash Analysis Results of II B + II Seam, Bhubaneswari Block, Talcher Coalfield

No. of Boreholes considered: 1 (CMTL-202) (Clubbed sample of IIB + II as per old correlation)

Oxide	Range
SiO <sub>2</sub> %	60.84
Al <sub>2</sub> O <sub>3</sub> %	28.62
Fe <sub>2</sub> O <sub>3</sub> %	7.12
TiO <sub>2</sub> %	1.73
MgO %	1.01

CaO %	0.92
P <sub>2</sub> O <sub>5</sub> %	0.42
SO <sub>3</sub> %	0.16
MnO %	0.02
Na <sub>2</sub> O <sub>3</sub> %	-
K <sub>2</sub> O %	-
Alkalies & Errors by difference (%)	0.96

# **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 BOO operator. 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. MCL will give necessary assistance/support to the BOO Operator to the extent possible.

#### 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% CH<sub>4</sub>). 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) 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.

### viii) SITE

For construction of the Synthetic Natural Gas (SNG) Plant, Land shall be provided as per availability in the vicinity of Talcher Coalfields of MCL.

### ix) 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, if available.

# **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. Any interested party meeting technology qualification criteria, experience criteria and financial qualification criteria as detailed in this EoI may submit their offer against this EoI.

#### **2.1.2 TECHNICAL QUALIFICATION REQUIREMENT**

#### A. TECHNOLOGY QUALIFICATION CRITERIA

**i)**. **Coal Gasification Technology**: The Bidder either on his own or with the support from a reputed Gasification process Licenser 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 20-24 % (if oil agglomeration of coal is successful) and 32-36% (after selective screening/segregation or beneficiation of coal). 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.

The Coal Gasifiers/Gasification technology proposed by Bidder shall have reference of at least 01 (one) plant having one or multiple (Max. 2 nos.) Coal Gasifiers with a total coal capacity of 1400 Metric Tonnes Per Day (MTPD) operating successfully on commercial basis with coal/feedstock.

Bidder to note that Marketing of any by product formation by selected Coal Gasification process apart from Synthesis Gas will be bidder's responsibility.

ii). Gas Cleaning, Purification, Methanation, Synthetic Natural Gas (SNG) Production and High Pressure Steam handling : The Bidder either on his own or with the support from a reputed process Licenser 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 also capable of handling High Pressure Steam generated during SNG production. Synthetic Natural Gas (SNG) produced should have minimum 95% CH<sub>4</sub>, Sulphur compound less than 1 ppm.

**iii).** For establishing that the Technology to be adopted by the Bidder as per (i) and (ii) above is a proven one, the interested parties shall provide details of at least 01 (one) latest commercial plant which has operated successfully for at least 02 (two) continuous year in the last 10 years period reckoned from last day of the month previous to the one in which bid is invited.

#### **B. EXPERIENCE CRITERIA**

The Bidder should possess experience either as BOO Operator or should have experience of successfully built plant owned by bidder/Associate/Client in any one or more in the field of Coal Gasification/Coal to Synthetic Natural Gas (SNG)/Coal to Oil/Coal Bed Methane (CBM)/Coal to Liquid/Coal to Chemical/Oil & Gas/Refinery/Hydrocarbon/Petrochemicals/ Ammonia/Fertilizer/Methanol. Such plant should have been in satisfactory commercial operation for at least 02 (two) continuous year in the last 10 years period reckoned from last day of the month previous to the one in which bid is invited.

#### 2.1.3 FINANCIAL QUALIFICATION REQUIREMENT

The Average Annual Financial Turnover of the Bidder during the last three (3) preceding financial years i.e. 2019-20, 2018-19 and 2017-2018 or calendar years 2019, 2018 and 2017 of the bidder should be at least **INR 4 billion**.

The intending respondents shall have to furnish details as per Exhibit-3.

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

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

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

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

**2.2.7** EOI shall be submitted online through e-Procurement portal of CIL only.

**2.2.8** The bidders have to accept unconditionally the online user portal agreement which contains the acceptance of all the Terms and Conditions of EoI 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.

**2.2.9** 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.

**2.2.10** 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.

**2.2.11** 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.

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

COVER-1			
SI.			
No.	PARTICULARS	SCANNED COPY OF DOCUMENTS TO BE UPLOADED	
1	General Details	The parties have to furnish details as per Exhibit-1.	
2	Technical Qualification Requirement	The parties have to furnish details as per <b>Exhibit-2</b> .	
3	Financial Qualification Requirement	The intending respondents shall have to furnish details as per <b>Exhibit-3</b> .	
4	Authorization for Digital Signature Certificate	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	
		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).	
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.	
addit onlir uplot requ	tional/other relevant docum ne against eligibility criteri aded against respective eligi	format can be uploaded against each eligibility criteria. Any ents to support the information/declaration furnished by bidder a may also be attached by the bidder in the same file to be ability criteria. Strict adherence to formats, wherever specified, is nats may be a ground for declaring the Offer non-responsive &	

**2.2.15** The Company will examine the uploaded documents against information/declarations furnished by the bidders.

# 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.

Sl. No	Particulars	Date	Time
a.	EoI e-Publication date		
b.	Start date for Document download		
c.	Last date for Document download	-	
d.	Start date for seeking Clarification on-line by bidder	visit (https://coalindiaten	ders.nic.in)
e.	Last date for seeking Clarification on-line by bidder	for details	
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 (Exa time will be communi interested parties via o	icated to

# **2.2.18 TIME SCHEDULE OF EXPRESSION OF INTEREST (EOI)**

**2.2.18** 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.

**2.2.19** 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.

- **2.2.20** 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 Synthesis Gas (CO+H<sub>2</sub>), 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
- 2.2.22 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**

# EXHIBIT -1

SI. 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	Name and address of Chief Executive, President or Managing Director, Secretary or other persons authorised to bind the firm	
4.2	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)	
	1	l

# **GENERAL DETAILS**

	3)		
NO	TE:		

Bidder has to upload inputs/suggestions, if any with respect to the EOI invited by MCL along with Exhibit-1.

### EXHIBIT-2

# **TECHNICAL OUALIFICATION CRITERIA**

# A. TECHNOLOGY QUALIFICATION CRITERIA

# 1. Coal Gasification Technology

SI. No.	DESCRIPTION	DETAILS
1.	Name of the project and location (Please specify the name of process licensors)	
2	The Bidder either on his own or with the support from a reputed Gasification process Licenser 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 20-24% and 32-36%.	
3	The coal Gasifiers/Gasification technology proposed by Bidder shall have reference of at least 01 (one) plant having one or multiple (Max. 2 nos.) Coal Gasifiers with a total coal capacity of 1400 Metric Tonnes Per Day (MTPD) operating successfully on commercial basis with coal/feedstock, for at least 01 (one) continuous year. 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.	
4	<ul><li>a. Date/ Month/Year of award/ commencement of project</li><li>b. Date/ Month/Year of commissioning of project</li></ul>	
5	Name of Owner, Postal Address ,Phone/Fax No./         E- mail Address	
6	Performance data of the plant for at least one continuous year	
7	Whether bidder has letter of Support/MOU from the processLicensor for technology tie up for the proposed coalGasification technology or the bidder posses his own	

	technology? In case of letter of Support/MOU from the process Licensor, mention the name of the process licensor.	
8	Any other Details	

# 2. <u>Gas Cleaning, Purification, Methanation, Synthetic Natural Gas (SNG) Production</u> <u>and High Pressure Steam handling</u>

SI. No.	DESCRIPTION	DETAILS
1.	Name of the project and location ( Please specify the name of process licensors)	
2	The Bidder either on his own or with the support from a reputed process Licenser 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 also capable of handling High Pressure Steam generated during SNG production. Synthetic Natural Gas (SNG) produced should have minimum 95% CH <sub>4</sub> , Sulphur compound less than 1 ppm.	
3	<ul><li>a. Date/ Month/Year of award/ commencement of project</li><li>b. Date/ Month/Year of commissioning of project</li></ul>	
4	Name of Owner, Postal Address ,Phone/Fax No./         E- mail Address	
5	Performance data of the plant for at least one continuous year	
6	Whether bidder has letter of Support/MOU from the processLicensor for technology tie up for the proposed SynthesisGas Cleaning, Purification, Methanation or any other process	

	required to convert synthesis gas to Synthetic natural gas and		
	High Pressure Steam handling or the bidder possess his own		
	technology? In case of letter of Support/MOU from the		
	process Licensor, mention the name of the process licensor		
	for proposed Synthesis Gas Cleaning, Purification,		
	Methanation or any other process required to convert		
	synthesis gas to Synthetic natural gas and High Pressure		
	Steam handling.		
7	Any other Details		

# **B. EXPERIENCE CRITERIA**

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	The Bidder should possess experience of successfully built plant	
	in any one or more in the field of Coal Gasification/Coal to	
	Synthetic Natural Gas (SNG)/Coal to Oil/Coal Bed Methane	
	(CBM)/Coal to Liquid/Coal to Chemical/Oil & Gas/ Refinery/	,
	Hydrocarbon/Petrochemicals/Ammonia/Fertilizer/Methanol.	
	Such plant should have been in satisfactory commercial	
	operation for at least 02 (two) continuous year in the last 10	
	years period reckoned from last day of the month previous to the	
	one in which bid is invited.	

4	<ul><li>a. Date/ Month/Year of award/ commencement of project</li><li>b. Date/ Month/Year of commissioning of project</li></ul>
5	Name of Owner, Postal Address ,Phone/Fax No./
	E- mail Address:
6	Type of Plant [Coal Gasification/Coal to Synthetic Natural Gas
	(SNG)/Coal to Oil/Coal Bed Methane (CBM)/Coal to Liquid/
	Coal to Chemical/ Oil & Gas/Refinery/Hydrocarbon/
	Petrochemicals/Ammonia/ Fertilizer/Methanol]
7	Period of Operation (commercial operation for a continuous
	minimum period of 02 (two) year in last 10 years period)
8	Performance data of the plant for at least two continuous year
9	Any other Details

# EXHIBIT -3

SI.	Particulars	Reply
No.		
1.0	Financial Qualification requirement	
	a) Bank reference (with full name and address of all bankers).	
	b) Average Annual Financial Turnover	
	Year 1:	
	Year 2:	
	Year 3:	

# 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 b	ehalf 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 D	vigital Signature Certificate.

#### OR

b) I bei	ing (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 author	orise 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 Digita	l 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

# **EXHIBIT-5**

# **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.)