

NEELACHAL ISPAT NIGAM LIMITED

INVITES

GLOBAL EXPRESSION OF INTEREST (EOI)

FOR

SETTING UP OF COKE OVEN COMPLEX

AT

NINL's INTEGRATED STEEL PLANT,

DUBURI, ODISHA, INDIA

ON

BUILD OWN OPERATE TRANSFER (BOOT) BASIS

NOTICE INVITING EOI

M/s NEELACHAL ISPAT NIGAM LIMITED (here in after referred to as NINL), Kalinganagar, Duburi, Odisha, India invites Global EOI for setting up a new Coke Oven Complex including Battery, CDCP, By-product Plant, CHP and CSP etc. at Kalinganagar, Duburi, Odisha, India, on Build, Own, Operate & Transfer (BOOT) basis from interested bidders as detailed herein below:

Accordingly, it is proposed for installation of 7 m tall coke oven battery of 0.88 MTPA capacity having 67 ovens along with CDCP, By- product Plant and other facilities to meet the requirement of the proposed plant.

Interested bidders may furnish their EOI with an approach paper and all other necessary documents in a sealed envelope along with the covering letter duly signed by an authorized signatory in conformity to the details furnished below:

- 1.0 EOI notice No. : NINL/CM/SSS/COKE OVEN/EOI/2019 dated 05.01.2019
- 2.0 Type of EOI : Open (Global)
- 3.0 Participants : Sole Bidder/Partnership/Company/Consortium
- 4.0 Name of work : Setting up a new Coke Oven Complex including Battery, CDCP, By-product Plant, CHP and CSP etc.
- 5.0 Location of work : Neelachal Ispat Nigam Limited, Kalinganagar Industrial Complex, Duburi, Dist. Jajpur, Odisha, India.
- 6.0 Mode of work : Build-Own-Operate-Transfer (BOOT)
- 7.0 EOI Documents
Download Start Date & Time from Website : 07.01.2019 (10.00 Hrs) (IST)
- 8.0 Last Date &Time of submission of EOI : 30.01.2019 (15.00 Hrs) (IST)
EOI Opening : 30.01.2019 (15.30 Hrs) (IST)

- 9.0 Website on which EOI notice available : www.ninl.in
- 10.0 (a) Address for submission of EOI : DGM (Commercial),
Neelachal Ispat Nigam Limited,
Kalinganagar Industrial Complex,
Duburi, Dist. : Jajpur, Odisha – 755 026, India.
- (b) Address for Pre-bid Meeting : Neelachal Ispat Nigam Limited,
IPICOL House, Annexe Building (1st Floor)
Janpath, Bhubaneswar – 751 022, Odisha, India
- 11.0 Contact Person : Name: Mr.S.S.Sahu
Dy.General Manager (Commercial)
Email ID: sahuss@ninl.in
- 12.0 Cost of EOI document : NIL
- 13.0 Earnest Money Deposit : NIL
- 14.0 Language of BID : The EOI bid prepared and submitted by the bidder and all correspondence & documents related to the EOI bid exchanged between the bidder and NINL, shall be written in English language.
- Wherever such supporting documents are in language(s) other than English, these must be accompanied by an accurate translation of the relevant passages which the applicant considers it necessary to be taken into account in evaluation of its bid by NINL in English language. In such case(s), for the purpose of interpretation of these documents, this English translation shall govern.
- 15.0 Venue & Deadline for submission of EOI application : EOI bids, in its complete form in all respects as specified in the EOI notice, shall be submitted to NINL at the address specified above on or before the specified due date & time of submission. NINL may, at its discretion, extend the deadline for submission of EOI bids by issuing an addendum to be made available on the website mentioned above.
- Any amendment issued prior to due date of submission would be put on the above mentioned website. It would be presumed that bidders have examined all amendments on the website and have submitted their bids accordingly.

16.0 Objective of EOI

The objective of this EOI is to find out prospective bidders having expertise, experience, resources and interest to team up with NINL and set up a new Coke Oven Complex including Battery, CDCP, By-product Plant, CHP and CSP etc. facility, similar to the existing operating Coke Oven of NINL under BOOT basis. The Coke Oven Complex shall be designed with state of the art technology. The role of NINL in the tender will be as a facilitator and enabler for setting up the Coke Oven Complex.

The concession period before transferring the plant to NINL will be for a period of five (05) years (further extendable as per mutual consent).

NINL shall provide requisite quantity of coal for the Coke Oven and the entire production of all products so produced will be the property of NINL and the same would be taken from the BOOT operator under a long term conversion agreement .

17.0 EXISTING FACILITIES

M/s NINL is running a 7 m tall Coke Oven Battery (COB#1) of capacity 0.88 MTPA which was commissioned in 2004 with CDCP, By-product Plant (BPP) and Coal Handling & Coke Sorting Plant. The battery has 67 ovens having oven volume 41.6 m³ . The CDCP has three chambers – boiler module, each having a capacity of 52-56 tons/hr. The nitrogen required for coke cooling in CDCP is fulfilled from the Nitrogen Plant. The capacity of By-product Plant is to handle a gas volume of 42,300 m³/hr. The effluent water generated from BPP is treated in the BOD plant.

The Coal Handling Plant is consisting of one rotary Wagon Tippler with side arm charger, 5 nos. RCC coal silos of capacity 1250 tons each, Coal crushing Station with 2 nos. reversible hammer crusher of capacity 350 tons/hr each and one suspended electro magnet. The Coal Tower of COB#1 has capacity

of 4000 tons. The conveyor capacity from wagon tippler to storage yard is 750 tons/hr and from the storage yard to coal tower is 600 tons/hr.

The Coke Sorting Plant is consisting of Coke crusher, grizzly screens and conveyor system to Coke storage yard.

18.0 ENVISAGED FACILITIES:

18.1 Battery Proper:

Since the existing Coke Oven Battery (COB#1) along with Coal Tower and Intermediate Bench was constructed in view of construction of a future battery, the new battery (COB#2) shall be built beside the existing Coal tower. The existing coal tower has capacity to meet the requirement of new battery. Also, it has the intermediate service bench, as such only one end bench is considered. The battery will consist of 67 ovens in single block with oven dimension (cold) as follows:

• Total Length	:	16000 mm
• Height	:	7000 mm
• Avg. width	:	410 mm
• Oven to oven centre	:	1400 mm
• Useful volume	:	41.6m ³
• B.D. with 100% IMP Coal	:	0.76
• Coal Charge/Oven (ton)(dry)	:	31.62 ton
• Coking time (hrs.)	:	16 hrs
• Pushing/Day	:	100
• Gross Coke Yield	:	76%
• Coke from each push	:	24 ton
• Gross Coke (t/yr)	:	877,139
• BF Coke Yield	:	88%
• BF Coke (25 to 80 mm)	:	771,882 t/yr
• Gas make	:	42,160Nm ³ /h

The battery will be similar to the existing Coke Oven Battery No.1 design i.e. compound, twin flue, under jet, regenerative with partial re-circulation of waste gases. The existing battery was built with coal tower and intermediate with capacity to meet the requirement of new battery along with intermediate service bench, as such only one end bench is considered.

The major facilities envisaged for battery proper are as follows:

- i) Battery along with buttresses with 67 ovens in single block
- ii) 1 no. end bench along with maintenance facility equipment
- iii) RCC Chimney
- iv) Hydraulic reversing system
- v) Coke spillage chain conveyor on pusher side & coke side
- vi) Land based Hydro-jet door cleaner
- vii) U-Type gas collecting mains with hydraulic sealed spigot joint & water sealed AP lids.
- viii) High pressure ammoniacal liquor aspiration (HPALA) system for on main charging.
- ix) Land based pushing emission control system for pushing emission control on Coke side.
- x) Utility pipelines including gas mains as per battery/design limit, excluding mixed/BF gas heating system.
- xi) Air Conditioning & Ventilation system
- xii) Fire fighting network piping excluding fire pump house.
- xiii) Electricals including distribution system.
- xiv) Associated instrumentation including computerized combustion control

18.2 Coke Dry Cooling Plant:

General facilities envisaged for CDCP:

- i) Four Nos. of Cooling Chambers associated with dust catching bunkers, Waster Heat Boilers, Dust Cyclones, Main Mill Fan, Aux. Mill Fans, Circulating Gas Ducts, Charging Devices, Discharging Devices etc. as per existing plant.

- ii) Utilities (Compressed air, Instrumentation air, Nitrogen, HP Steam, MP Steam, LP Steam, Service Water, Drinking water, Fire-fighting water, Power, DM Water etc.) requirement and its complete system within battery limit.
- iii) Air Conditioning & Ventilation system
- iv) Auxiliary building
- v) Dust Cleaning Station.
- vi) Pressure Reducing and De-Superheating system.
- vii) Dust pneumatic transport system along with dust settling station
- viii) Electricals including distribution system
- ix) Instrumentation & Automation
- x) Coke Bucket Repair Station.
- xi) Laboratory equipments & facilities.

18.3 Oven Machines:

Oven machines with modern features considered are as follows:

Pusher Car	:	2 sets (1W + 1S)
Charging Car	:	2 sets (1W + 1S)
Transfer Car	:	2 sets (1W + 1S)
Self Propelled Coke Car	:	2 sets (1W + 1S)
Coke Bucket	:	3 sets.

18.4 By-Product Plant:

General facilities are as follows:

- i) 3 nos. Primary Gas Coolers (2 working + 1 standby)
- ii) 2 nos. Electrostatic Tar Precipitators (1 working + 1 standby)
- iii) 2 nos. Electrically driven exhausters (1 working + 1 standby)
- iv) 1 no. NH₃ scrubber, 1 no. H₂S scrubber in operation, plus 1 combi scrubber for stand-by.
- v) 1 no. Naphthalene Scrubbing and 1 no. Naphthalene Stripping Unit.
- vi) Sulphur recovery unit.
- vii) 1 NH₃ stripper, 1 H₂S stripper plus 1 stand by for each.

- viii) 1 Claus plant in operation for capacity of phase 1 only plus 1 stand-by.
- ix) Coarse condensation unit comprising of 1W + 1S Tar Separator, 1W + 1S Tar Decanter, 1W + 1S, Flushing liquor pumps and other auxiliary equipments for cleaning the ammonia liquor.
- x) De-tarred Ammonia unit with suitable stand-by equipment.
- xi) Caustic soda unit with suitable stand-by units.
- xii) 1 no. Sulphur palletization unit.
- xiii) Tar storage unit with suitable storage capacity.
- xiv) BOD Plant.
- xv) Interplant Utility Pipeline from BPP to COB#2.

H₂S content in raw gas & clean gas shall be 5 g/Nm³ & 200 mg/ Nm³ respectively for plant design during detail engineering.

18.5 Material Handling:

The Coal Handling system for proposed Coke Oven will consist of following units:

- i) New conveyors from existing junction house to feed new coal storage yards.
- ii) New Coal Storage yard with Yard equipment.
- iii) New Blending Cum storage Silos.
- iv) Extension of existing crusher house with provision of new crushers.
- v) Provision of New Wagon Tiplers.
- vi) Associated conveyors & equipment.
- vii) The Coke Handling system for proposed Coke Oven will consists of following units:
 - a) New conveyors from proposed CDCP to existing Coke de-dusting unit.
 - b) Extension of existing emergency coke storage yard.
 - c) Coke conveyor for feeding coke to existing BF coke conveyors
 - d) Associated equipment.

Further, auxiliary facilities like civil, structural, electrics, instrumentation, pollution control measured like Dust Extraction/Suppression system, fire fighting system & other utilities for above mentioned coal & coke handling system has been

considered.

Required hoisting & handling facilities for proposed coke oven complex has also been considered.

18.6 Power Plant:

One no. of Steam Turbo- Generator of 14 MW has been envisaged for generating power from the steam generated from Coke Dry Cooling Plant. It has been assumed that the excess coke oven gas is to be connected to the existing CO gas network at the battery limit.

18.7 DM Water Plant:

DM Water plant of suitable capacity has been envisaged to cater the requirement of CDCP, By-product plant and power plant.

18.8 Chiller Plant for By-Product:

Chiller plant of suitable capacity has been envisaged to cater the requirement of By-product plant & AC & Ventilation System.

19.0 Indicative Scope of work for the BOOT operator:

- (a) The scope of work for installation of New Coke Oven Battery (COB#2) will include design, engineering, procurement, inspection, erection and construction supervision, testing at site, trial runs, heating-up, commissioning, stabilization & conducting performance guarantee tests of the coke oven battery for a plant life of minimum thirty (30) years along with pollution control facilities within design limits in a fully coordinated and integrated manner.
- (b) The scope of work will also include design and engineering for plant & equipment, electrics, refractory work, utility pipelines, services, ancillary facilities, steel structures, handling and hoisting facilities, repair facilities, instrumentation & automation and fire fighting facilities' within battery limits. The scope of work will also include Project Management Services consisting of procurement and contract engineering services, inspection, project and construction management services etc.
- (c) Obtain various statutory clearances connected with the project.

- (d) Operation & maintenance of plant for the concession period. Successful bidder to carry out necessary maintenance of the Coke oven & all its ancillary units so as to operate the Plant at full capacity all the time.
- (e) Comply with the Environmental & Pollution Control norms of Govt. & all statutory bodies.
- (f) Transfer of well maintained Coke oven plant along with all its ancillary units in good operating condition after replacing all the wear & tear parts and other equipments ensuring operation at full capacity to NINL or as decided by NINL at that time.

20.0 Consultant:

NINL may appoint a consultant to provide consultancy services for developing the Request for Proposal (RFP) document, selection of parties and for providing consultancy services during the stage of evaluation of the bids and for supervision, monitoring and installation of the Coke Oven plant.

21.0 Concession Period:

Five (05) years of plant operation & maintenance shall be considered as concession period. NINL reserves the right to extend the concession period based on mutual consent or decide otherwise afterwards.

22.0 Responsibility of NINL:

- (i) Land: Land shall be made available by NINL to the BOOT operator for setting up of the proposed new Coke Oven project. NINL shall retain the land rights all the time.
- (ii) Construction Power during construction phase at a pre-decided price.
- (iii) Water required during construction phase and for operation shall be provisioned at a pre-decided price.
- (iv) Supply of Coking Coal to the BOOT operator.
- (v) Receipt of all out put products including all by-Products from the BOOT operator based on long term conversion agreement.

23.0 Responsibility of BOOT Operator:

- (i) Installation of the Coke Oven along with all associated plants as per Clause 18.0 and its operation & maintenance for continuous operation.
- (ii) Receipt of Coking Coal from NINL.
- (iii) Arranging all other raw materials (except Coking Coal), consumables, O & M spares etc.
- (iv) Storage of all out put products of the New Coke oven complex and assistance for dispatch.

24.0 Time Schedule:

The time schedule of the above scope of the work may be considered to be 18 months (max.) from the Effective date of Contract for start of commencement of production after installation of proposed plant.

25.0 Approach Paper to be submitted by the Prospective Bidder along with the EOI:

The prospective bidder is required to submit an approach paper on the methodology proposed for implementing the project, which inter-alia should include the following details:

General:

- (i) Participating as a single entity or in the form of a consortium.
- (ii) In case of consortium, name of the consortium members.
- (iii) Lead member in the consortium (It is preferred that the lead member would be an Indian Entity).
- (iv) Roles & Responsibilities of the consortium members.
- (v) Tentative share holding pattern amongst the consortium members.
- (vi) Proposed tie-up arrangement between the consortium members at the time of setting up & operating the plant.
- (vii) Is any member of the consortium barred by the Government of India/Any

State Government, or any entity controlled by it, from participating in any Bid, and if the bar subsists as on the date of submission of the Bid.

Technology:

- (i) Name of the proposed technology partner.
- (ii) Experience of the technology partner in installation, commissioning / operating of Coke oven inter- alia including details i.e Capacity (tons per annum), Year of setting up of the plant, Number of years plant has operated, Maximum capacity achieved by the Plant, Other by-products being produced, Source of technology for the above plant etc.

Financial:

- (i) Proposed source of finance for the project
- (ii) Details on the financial capabilities of the consortium members.

26.0 Pre-Bid Meeting

A pre-bid meeting will be held on 17.01.2019 at NINL's office at Bhubaneswar in order to clarify any doubts of the intending bidders. During the meeting, the bidders are required to present techno-commercial aspects to be offered by them inter-alia including parameters such as technical specifications, quality bench marks, delivery milestones, etc. Bidders interested in participation in the Pre-Bid Meeting may submit their consent through email prior to the pre-bid meeting:

27.0 Right to the content of the proposal:

For all the EOI bids received before the last date and time of EOI submission, the EOI will become the property of NINL and will not be returned after opening of the EOIs. NINL is not restricted in its rights to use or disclose any or all of the information contained in the EOI and can do so without compensation to the applicants. NINL shall not be bound by any language in the applications indicating the confidentiality of the EOI applications or any other restriction on its use or disclosure.

28.0 Acknowledgement of Understanding of Terms

By submitting an EOI application, each applicant shall be deemed to acknowledge that it has carefully read all sections of this EOI, including all

forms, schedules and annexure here to, and has fully informed itself as to all existing conditions and limitations.

29.0 Submission of EOI Bid:

All pages of the EOI bid document shall be stamped & signed by the authorized person of the firm/company/organization of applicant. Power of Attorney in favour of signatory to EOI application shall be submitted along with the Proposal.

EOI application shall be prepared and submitted in one (1) Original and two (2) copies in a sealed envelope superscribing “**EOI for Installation of Coke Oven Complex at NINL**” and addressed as per Clause 10.0 of this document.

(S.S.Sahu)

Dy.General Manager(Commercial)

Neelachal Ispat Nigam Limited