

**INDUSTRIAL ENERGY LIMITED**  
**INTERNATIONAL COMPETITIVE BIDDING (ICB)**  
**INVITATION FOR BID (IFB)**

**PROJECT: 3 x 150 MW COAL CUM GAS BASED THERMAL POWER PLANT**

**LOCATION: KALINGANAGAR (ADJACENT TO STEEL PLANT OF TATA STEEL LIMITED),  
ODISHA STATE, INDIA**

The Tata Power Company Limited (Tata Power), for and on behalf of Industrial Energy Limited (IEL) invites sealed bids from eligible bidders for supply of all materials, construction, fabrication, and erection of **General Civil Works Package** for coal cum gas (BFG, COG & LDG) based Power Plant of 3 x 150 MW capacity as detailed in the Tender Document No. "TCE.9545A-F-GCW-002" for the said Project.

**IEL OVERVIEW**

IEL is a joint venture company between Tata Power and Tata Steel Limited (TSL). IEL proposes to set up a 3 x 150 MW Coal cum Gas based Thermal Power Project adjacent to Steel Plant of TSL at Kalinganagar in the State of Odisha, India.

The project information for the proposed 3 x 150 MW project is given hereunder:

**Project Information**

OWNER	:	Industrial Energy Limited, Registered office: C/o- The Tata Power Company Limited Corporate Center, A Block, 34, Sant Tukaram Road, Carnac Bunder Mumbai- 400 009.
PROJECT MANAGER	:	The Tata Power Company Limited, Eastern Region Projects Office, Plot No. C-43, Sector-62, Noida-201307, Uttar Pradesh, India Ph:- +91-120-6663000 Fax:- +91-120-6663029
CONSULTANT TO PROJECT MANAGER	:	Tata Consulting Engineers Limited, Pipeline Road, Sakchi, Jamshedpur – 831 001
PROJECT	:	3 x 150 MW coal cum gas based Thermal Power Plant
LOCATION	:	Kalinganagar, Jajpur District, Odisha, India.

Latitude : 20° 57'15" N to 20° 58'13" N  
Longitude : 85° 01'58" E to 86° 02'34" E

ELEVATION ABOVE MEAN SEA LEVEL : 51 m above Mean Sea Level

ACCESS TO SITE : Nearest Railway station: Jakhapura  
Nearest town: Jajpur  
Nearest airport: Bhubaneswar

The brief scope of work, pre-qualification requirements, cost of bid documents, Bid Guarantee, validity of bids and schedule of Bid activities etc. are given below.

## 1.0 SCOPE OF WORK

1.1 The works covered in this section consists of collection of all site related data regarding availability of men and materials for construction, fabrication, erection, supply of all materials and testing where necessary, of all structures required for housing all equipment and civil works for all services required for the successful completion of 3 x 150 MW coal cum gas based Thermal Power Plant. The Scope will cover but not limited to the following buildings / structures / systems / facilities.

### 1.2 Site development works, consisting of

- a) Site Grading for entire power plant
- b) Roads, drains, culverts and bridges
- c) Storm water drainage
- d) Sewage / waste water drainage

### 1.3 Construction enabling works

- a) Distribution of construction water beyond terminal point for all works pertaining to this Contract.
- b) Distribution of construction power beyond terminal point for all works pertaining to this Contract.
- c) Construction of Temporary Buildings including site office for Owner/Owner representatives.

### 1.4 Construction of substructure, superstructure for buildings, structures and services for:

1.4.1 **Station Building & Control Room Building:** Substructure such as but not limited to, column foundation, plinth beams, foundations for equipment such as Turbo Generator, Boiler Feed pumps, Condensate extraction pumps etc., encasements of column base, trenches, sumps, grade slab etc., structural steel works, suspended RCC floors, roofing arrangements, walling/cladding, floor finish, roof waterproofing, roof drainage, false ceiling, plumbing, water supply, drainage around building etc.,

- 1.4.2 Boiler Area:** Foundations for Boilers, ESP, and miscellaneous structures in the area, Mill and bunker supporting structure with foundation, intermediate floors, tripper floor with RCC roof, foundations for equipment such as PA fans, FD fans, ID fans etc., foundation of elevator supporting structures, encasement of column bases, provision of trenches, sumps etc., RCC paving of the entire area, civil structure related to U seal, water sump, foundation of dewatering & re-filling pumps along with drainage arrangements and provision of passage way for maintenance of equipment etc.,
- 1.4.3 ESP Control and Switch Gear Room:** Foundation, plinth beam, RCC superstructure, cladding, finishing works roof drainage plumbing and water supply works, including civil works for auxiliary transformer.
- 1.4.4 RCC Chimney:** All civil, structural and miscellaneous works for one number RCC stack of 220 m height with three steel flues.
- 1.4.5 Transformer Yard :** Foundations for transformers including soak pits, fire barrier wall, rail foundations including rails, foundations for other equipment and structures in the transformer yard, oil drainage arrangements, oil collection and separation pits, trenches and duct banks, paving of the transformer yard including drainage arrangement for the yard, fencing around the yard with gate for movement of equipment etc.,  
Same as above for auxiliary transformer in fuel tank form area.
- 1.4.6 Cable Tunnel:** All civil and structural works.
- 1.4.7 Fuel Oil Handling System:** Fuel oil pump house, fuel oil decantation platform along with its drainage, civil work in fuel oil tank farm area covering tank foundations, bund wall, paving the tank farm with drainage arrangement, miscellaneous pipe and equipment foundation inside tank farm, fencing all round the tank farm.
- 1.4.8 Ash Pond:** Ash bund, roadway on top of bund, approach road to the top of bund, energy dissipating RCC structures, clear water recovery well, geomembrane lining etc.
- 1.4.9 Pipe and Cable Racks:** Foundation as well as structural steel works.
- 1.4.10 Other Technical Buildings:** Service building, workshop, GIS buildings, control room and foundation for weigh bridge and other buildings as identified in plot plan and required during execution of the project.
- 1.4.11 Plant Water System:** DM plant, DM water storage tank, Portable water tank circulating water pump house, clarified water pump house, staging and foundation work for service water

overhead tank, guard pond, foundation for acid/alkali storage tanks, neutralizing pit, CW channel, fore-bay and condensate storage tanks.

**1.4.12 Non-Technical Buildings:** Administration building including first aid center, , store, warehouse, canteen, contractor's canteen, fire station, Car Parking Area, Worker's rest room, toilets, Admin Gate Complex including security gate, watch tower and gate house, etc and other buildings as identified in plot plan, as required during execution of the project and as required by statutory agencies.

**1.5 Major works covered under this contract are the following:**

- 1.5.1 Excavation in all kinds of soils and rock for the substructure, back filling using select excavated earth, compacting the fill using vibro compactors, and disposal surplus earth as directed by the Owner.
- 1.5.2 Piling work in all kinds of soil. Piling rigs shall be able to provide a bored-cast-in-situ pile of 20 m to 30 m length or as per site requirement.
- 1.5.3 RCC in different grades of concrete in substructure, such as but not limited to foundations for columns, both steel and RCC columns, grouting of the base of steel columns, encasement of base of columns, plinth beams, sumps, basements, grade slabs etc., including location of all steel embedment / anchorage to correct line and level.
- 1.5.4 RCC in the superstructure in suspended slabs, roofs, beams, columns, walls, wall beams, encasement of structural steel wall beams, tanks etc.,
- 1.5.5 RCC works in foundations for major equipments such as Turbo Generator, Boiler Feed pumps, Mills, P.A fans, F.D fans, I.D fans, Condensate extraction pumps etc., which requires large volume of uninterrupted concreting, temperature control of concrete , and very accurate embedment of all types of inserts.
- 1.5.6 RCC works in water retaining structures below grade level, with approved water proofing additives, provision of external water proofing, barrier, testing of the structures, and grouting in case of any leakages.
- 1.5.7 Providing reinforcement steel for various RCC works including cutting bending etc., using HYSD bars or mild steel bars as the case may be.
- 1.5.8 Providing colour coated Galvalume sheets for roof side cladding.
- 1.5.9 Wall cladding of brickwork or concrete block work in cement mortar with internal and external plastering.
- 1.5.10 Cladding using colour coated single Galvalume sheets or sandwiched sheets with insulation in between sheets.
- 1.5.11 Roofing using heavier gauge Galvalume sandwich sheets for station building.

- 1.5.12 Water proofing of roof and roof drainage arrangements.
- 1.5.13 Doors, windows and ventilators of steel or aluminium glazed type, glazed aluminium partitions, aluminium glazed doors/swing/sliding doors, gypsum board/ plywood partitions, PVC doors including PVC framing, Steel rolling shutters, steel sliding doors etc., along with the necessary hardware as specified.
- 1.5.14 Floor finishes such as but not limited to granolithic, in-situ-terrazzo, heavy duty ceramic tiles, anti static PVC tiles, mosaic tiles, carborundum tiles, acid/alkali resistant tiles etc., with matching skirting/dado over walls.
- 1.5.15 False ceiling in A/C areas with preformed Galvalume sheets or gypsum board with aluminium framing and MS suspenders.
- 1.5.16 Under-deck insulation in all air-conditioned areas exposed to sun.
- 1.5.17 Fabrication and erection of structural steel works including preparation of fabrication drawings for all types of steel structures such as columns, beams, girders, trusses, anchor bolts, chequered plate platforms, grating platform, staircases, handrails, pipe racks etc including painting of structural steel.
- 1.5.18 All related RCC and structural work required for plant water supply system as detailed in Sl. No. 1.4.11 above.
- 1.5.19 Supply, fabrication and laying of CW piping and associated civil works
- 1.5.20 Painting of exterior and interior surface of all walls.
- 1.5.21 Plumbing and sanitation works for all buildings.
- 1.5.22 Approach Road from property boundary to power block area, Plant roads with flexible or rigid paving
- 1.5.23 Storm water drainage structures such as RCC drains, culverts etc., Provision of connecting storm water drain outlet to raw water reservoir with control arrangement. Floor and roof drainage system for all buildings. Roof top rain Water Harvesting of all the major buildings.
- 1.5.24 Sewage handling system works including sewage treatment plant.
- 1.5.25 Chain link fencing with GI barbed wire or PVC coated steel chain link fencing around coal stack area, fuel oil storage area, power block area and other protected area.
- 1.5.26 Earthwork including geomembrane lining for Ash Bund.
- 1.5.27 Main networks of drains around Coal Handling Area including pile drains.

## **2.0 BID QUALIFICATION REQUIREMENTS**

- 2.1 The Bidder should have executed civil works contract for at least two (2) thermal power / petro-chemical projects during the past five (5) years. The value of each of these works shall

at least be Rs.2,000 million. During the execution of one of such contract, they should have exceeded the quantum of major item of work as listed below during one year and at least twice during the past five years.

<u>Particulars</u>	<u>Quantity</u>
Earthwork (m <sup>3</sup> )	3,00,000
Concrete (m <sup>3</sup> )	40,000
Reinforced Steel (MT)	3,000
Structural Steel (MT)	6,000

In addition to above, the bidder should have completed construction of at least two RCC Multi flue chimneys of minimum height of 220 metres during the period of last 5 years. In case bidder himself has not executed work for construction of RCC chimney, he should have tie-up with other agency who qualify for the above requirement, i.e. at least two RCC Multi flue chimneys of minimum height of 220 metres during the period of last 5 years. A copy of the MOU regarding the tie-up shall be furnished along with the bid.

- 2.2 Bidder should have automated weigh-batching plant of 10 to 20 cum per hour capacity and the batching plant should have been fitted with in-built printer facility for recording and better quality control.
- 2.3 The Bidder shall furnish documentary evidence from the project authority to justify their claim on quantum of work executed.
- 2.4 If a Bidder intends to subcontract parts of the works, a tentative listing of the elements of works to be subcontracted shall be stated in the bid along with credentials/experience of such sub-contracting firms. Such sub-contracting firms will be subject to the approval of the OWNER.
- 2.5 The OWNER/PROJECT MANAGER reserves the right to waive minor deviations in the Qualification Criteria if they do not materially affect the capability of any Bidder to perform the Contract.
- 2.6 The OWNER/PROJECT MANAGER also reserves the right to reject the proposal of any Bidder, if in the opinion of the OWNER/PROJECT MANAGER, the Qualification Data is incomplete or the Bidder is found not Qualified to satisfactorily perform the works.
- 2.7 The requirements stated in these "Tender Documents" are a minimum. Notwithstanding anything stated in these Documents, OWNER/PROJECT MANAGER also reserves the right to assess the Bidder's / respective subcontractor's capability and capacity to perform the Contract should the circumstances warrant such an assessment in the overall interest of the OWNER

### **3.0 ONE BID PER BIDDER**

Only one bid will be accepted from one bidder.

#### **4.0 FINANCIAL**

The Bidder shall have adequate financial resources to execute the Contract concurrently with his other commitments and shall meet the following conditions.

- 4.1 The BIDDER shall have during the last three financial years an Average Annual Turn Over of not less than Rs. 2,500 million or its equivalent in any other currency.
- 4.2 The Net Worth of the Bidder as on the last day of the preceding financial year is at least equal to or more than the paid-up share capital.
- 4.3 The Bidder should submit copies of their profit and loss account and audited Balance sheet for the last three preceding financial years along with the Bid Document. In cases, where audited results for the last preceding financial year are not available, certification of financial statements from a practicing Chartered Accountant shall also be considered acceptable.

Notes for Clause No. 4.0:

- (i) Net Worth means the sum total of the paid up share capital and free reserves. Free reserves means all reserves credited out of the profits and share premium account but do not include reserves credited out of the revaluation of assets, write back of depreciation provisions and amalgamation. Further, any debit balance of profit and loss account and miscellaneous expenses to the extent not adjusted or written off, if any, shall be reduced from Reserves & Surplus.
- (ii) Other income shall not be considered for arriving at annual turnover.

#### **5.0 BID DOCUMENT**

Bid (Tender) Documents may be collected by any eligible bidder or his authorized representative on submission of a written request to: **The Chief Manager-Contracts & Procurement, The Tata Power Company Limited, C-43, Sector-62, Noida-201307, Uttar Pradesh, India** and on payment of Rs. 25,000 /- (Rupees twenty five thousand only) or equivalent price in US Dollars drawn on any Indian Nationalized bank or its foreign branch or issued by a foreign bank and countersigned by an Indian Nationalized bank or its foreign branch as the cost of document (non-refundable) in the form of crossed Account Payee Demand Draft drawn in favor of "Industrial Energy Limited", payable at Mumbai.

#### **6.0 BID GUARANTEE AND VALIDITY OF BIDS**

The Bids must be accompanied by Bid Guarantee for an amount of Rs. 25 million (Rupees twenty five million) or equivalent US dollars in the form of Bank Guarantee. The Bid offer and Bid Guarantee shall be valid for a period of 180 days from the date of opening of techno-commercial Bids.

## 7.0 SCHEDULE

Sale of Bid Documents:	From 10 <sup>th</sup> June 2011 to 1 <sup>st</sup> July 2011, from 10.00 Hrs IST to 18.00 Hrs IST
Bid submission (latest by):	1 <sup>st</sup> Aug. 2011, before 14.00 Hrs IST
Bid opening (Bid Security, Qualification Bid, Technical and Un-priced commercial Bid):	1 <sup>st</sup> Aug. 2011, at 15.00 Hrs IST
Submission of Price Implication Bid:	To be notified later.
Bid opening (Price Bid & Price Implication Bid):	To be notified later.

## 8.0 SITE VISIT

The Bidder and any of his personnel or agents are advised to visit and examine the Project Site and its surroundings including access to and from the Site, infrastructure & other facilities, including road, rail and other transport facilities to and from the Site and obtain for himself on his own responsibility all information that may be necessary for preparing the Bid and entering into a Contract. Bidder himself will be responsible for any incidental or consequential damage or loss, and expenses incurred as a result of the Project Site visit. The costs of visiting the Site shall be at the Bidder's own expense.

## 9.0 GENERAL

- 9.1 Bid Documents are not transferable. Bids received from those who have not purchased the Bid Documents will be rejected.
- 9.2 Purchase of Bid Document will not automatically mean that the Bidder is considered qualified.
- 9.3 E-mail and fax Bid will not be accepted.
- 9.4 Part Bids are not acceptable.
- 9.5 The following information is to be provided by the Bidder along with the Bid:
- a) Bidder does not anticipate change in his ownership during the proposed period of the Work. (If such a change is anticipated, the scope and effect thereof shall be defined).
  - b) Bidder shall furnish his audited profit and loss account and balance sheet for the last three (3) years. In case, where audited results for the last preceding financial year are not available, certification of the financial statements from practicing Chartered accountant can also be considered acceptable.
  - c) Bidder shall furnish documentation to establish that he has adequate financial stability and status to meet obligations pursuant to scope of the Contract.
  - d) Credit rating by reputed agencies, if any.

- e) Contracts in hand/pending jobs and their status.
- f) Major legal cases and their statutory liabilities.
- g) Recent power plant orders and their status.
- h) Bank solvency certificate.
- i) Documents related to safety standards & safety records on past projects executed by bidder.
- j) Documents in proof of on-time payment to sub-contractors.
- k) Documents related to quality of construction activities.
- l) Documents related to project execution plan including project management and construction management experience.
- n) Documentary evidence to satisfy the qualifying requirement mentioned above. Bidder shall submit the necessary MOU as applicable.

9.6 Bidders shall note that the above records will be evaluated and due consideration will be given to those bidders with proven track record.

9.7 Bids not meeting the requirements as stated above shall be rejected.

9.8 The Bidders shall bear all the costs incurred by them for the preparation of their Bid. Owner/Project Manager would not be responsible or liable for any such costs under any circumstances whatsoever.

9.9 In case of disputes of any items / sentences / interpretations, Owner's/Project Manager's view on the same shall be final and binding on the Bidders.

9.10 Further, notwithstanding the above, Owner/Project Manager reserves the right to accept or reject any Bid and to annul the process of submission of Bid, at any time without assigning any reason thereof.

## **10.0 ADDRESS FOR COMMUNICATION**

All communication in respect of this bid shall be addressed to:

**The Chief Manager - Contracts & Procurement (ERP),**

The Tata Power Company Limited,  
Eastern Region Projects Office,  
Plot No. C-43, Sector-62,  
Noida-201307, Uttar Pradesh , India  
Ph:- +91-120-6663000  
Fax:- +91-120-6663029  
E-mail: [anil.agarwal@tatapower.com](mailto:anil.agarwal@tatapower.com)