



**Astarc Power Pvt. Ltd.**  
**Astarc House, 76/79 Makwana Lane, Takpada,**  
**Off. Andheri Kurla Road, Marol, Andheri (E), Mumbai – 400059, India**

**NOTICE INVITING TENDER (NIT) FOR 2 X660MW COAL-BASED SUPERCRITICAL THERMAL  
POWER PROJECT NEAR UMRED IN NAGPUR DISTRICT, MAHARASHTRA, INDIA.  
(INTERNATIONAL COMPETITIVE BIDDING)**

**NIT: APPL – ICB – 01**

**Date: 16<sup>th</sup> June 2011**

**Astarc Power Pvt. Ltd. (APPL)**, a Astarc Group Company, invites sealed Bids in two parts for EPC Contract for Boiler-Turbine-Generator (BTG) Island from eligible parties for its proposed 2X660MW Coal-based Supercritical Thermal Power Project in Umred Tehsil of Nagpur District, in Maharashtra, India.

**SCOPE OF WORK:**

1. The brief Scope of Work for EPC Contractor for Boiler-Turbine-Generator (BTG) Island for proposed 2X660MW Power Project shall include, but not limited to the following:

Basic and Detailed Design, Engineering, Manufacture, Procurement, Supply, Loading, Transportation to site, Unloading, Handling, Transit and storage at site, Project management, Insurance upto taking over, Stores management, Installation and Construction of equipment foundations, Testing, Commissioning, Performance Testing and handing over of the Steam Generators, Steam Turbine Generators and auxiliaries with state-of-the-art Controls and Instrumentation (C&I) and other associated auxiliaries comprising of :-

- Super critical Steam Generators, Steam Turbine Generators and associated auxiliaries compatible to operate in tandem with pulverized coal fired super critical steam generators.
  - Each unit shall include the following systems and each system complete with the necessary equipment, structures, foundation bolts and grouting materials, piping, valves and fitting, instrumentation and control equipment with installation hardware, special cabling, electrical systems/equipment etc., as specified in Tender Documents.
    - HP and LP bypass Steam System
    - Steam Condensing Plant And Accessories
    - Condenser Air Evacuation System
    - Condensate Extraction System
    - Feed Heating Plant and Accessories
    - Boiler Feed Pump and Accessories
    - DM Cooling and Auxiliary Cooling Water System
    - Auxiliary Steam System
    - Instrument / Service Air System
    - Piping, Valves and Fittings
    - Generator and Electrical System
    - Instrumentation and Control Systems including State of Art Distributed Control System (DCS) for the Plant.
    - Condensate Polishing Unit (CPU)
    - Chemical Dosing System
    - N<sub>2</sub>, O<sub>2</sub>, H<sub>2</sub> and CO<sub>2</sub> Cylinders
    - Air Preheater Washing System
    - Miscellaneous Pumps, Drains and Vents & Miscellaneous auxiliaries
2. The detailed Terminal points and Scope of Work for EPC Contractor for Boiler-Turbine-Generator (BTG) Island are described in the Bid Specifications.
  3. All approvals, consents, and permits during Construction and Commissioning shall be obtained by the EPC Contractor from concerned Authorities.

APPL reserves the right to make suitable changes in above scope to meet Project requirements without assigning any reasons or any liability thereof.

### **BIDDING SCHEDULE:**

Issue of Tender Documents	:	16 <sup>th</sup> June 2011 to 15 <sup>th</sup> July 2011 on all working days between 1000 hrs to 1700 hrs (IST)
Pre-Bid discussions	:	Around 25 <sup>th</sup> July 2011
Submission of Techno-Commercial Proposal	:	Before 1400 hrs (IST) of 16 <sup>th</sup> September 2011
Bid Opening (Techno-Commercial Bid)	:	16 <sup>th</sup> September 2011 at 1500 hrs (IST)
Price Bid Opening	:	Will be intimated later
Cost of Bid Document	:	Indian Rs. 50,000/- (for Indian bidders) or US\$ 1000 (for Foreign bidders)

### **ISSUE OF TENDER DOCUMENTS:**

Tender documents will be issued to the authorized representative of the Bidders who meet the specified qualification criteria specified below, from the address given below upon payment of **non-refundable Cost** of Bid Document through Demand Draft drawn in favour of Astarc Power Pvt. Ltd., payable at Mumbai.

#### **Vice President – Power Projects**

#### **Astarc Power Private Limited**

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### **BIDDER QUALIFICATION REQUIREMENTS:**

The technical and financial qualification requirements for the bidders are as given hereunder:

#### **1. Technical Qualification Requirements**

The bidder should either be a Licensor of Steam Generator (SG) and/ or Steam Turbine Generator (STG) or Engineering, Procurement and Construction (EPC) Company or Bidding Consortium or a Licensee; and should meet the qualifying requirements as follows:

##### **1.1 Category I – Bidder is a Licensor**

- i. The bidder should have supercritical boiler or supercritical steam turbine generator set for 660MW or higher size units in its manufacturing range on the date of submission of bid

**AND**

- ii. The bidder should have designed, engineered, manufactured, erected and commissioned and if not erected and commissioned on its own, it should have supervised erection and commissioning on turnkey basis of at least one (1) no. of BTG (steam generator and steam turbine generator) island of 300MW unit(s) or higher, which is under successful, safe and reliable commercial operation for a period of at least one (1) year as on the Bid Submission Date.

**AND**

- iii. In case the licensor bidder is a manufacturer of either STG or SG but not the manufacturer of both STG and SG then for which (STG or SG), the bidder is not the manufacturer, he may associate with other manufacturer, who qualifies under 1.1 (i), in which case, the associate manufacturer shall be jointly responsible for performance of SG or STG, as the case may be; and submit a joint deed of undertaking along with the bid, failing which the bidder shall be disqualified and bid rejected.

**AND**

- iv. The bidder should have a valid license to supply BTG under supercritical technology for the projects in India. In such a case, the bidder is required to submit a suitable undertaking along

with the bid that there would not be any violation of Intellectual Property Rights in order to totally indemnify the Owner on Intellectual Property Rights (IPR) issues.

**AND**

- v. In case of bidder outside of India, aforesaid experience outside his own country is essential and will only be considered for the purpose of qualification.

## 1.2 **Category II – Bidder is an EPC company**

- i. The EPC bidder should have executed turnkey EPC contract including , engineering, supply, pre-commissioning and commissioning of at least one (1) no. of Steam Generator and Steam Turbine Generator (BTG Package) of a subcritical / supercritical power plant of 600MW unit(s) or higher with unit size not less than 600MW with all associated auxiliary equipments and systems, which is under successful, safe and reliable operation for a period of at least one (1) year and with not less than 6000 Hours of operation from the date of successful Reliability Run Test, if the unit is commissioned within last one year as on the Bid Submission Date.

**OR**

The EPC bidder shall be Turnkey Management and Contracting Company who has executed on EPC basis in association with a Supplier who has designed, engineered, manufactured, supplied, erected/ supervised erection and commissioned at least one (1) no. of Steam Generator and Steam Turbine Generator unit(s) of a subcritical / supercritical power plant with unit size not less than 600MW with all associated auxiliary equipments and systems, which is under successful, safe and reliable operation for a period of at least one (1) year and with not less than 6000 Hours of operation from the date of successful Reliability Run Test, if the unit is commissioned within last one year as on the Bid Submission Date.

**AND**

EPC Bidder shall submit joint undertaking along with the supplier of supercritical Steam Generator and TG manufacturer that there is a valid license to manufacture and supply to a project site in India and also that there would not be any violation of Intellectual Property Rights in order to totally indemnify the owner on IPR issues.

Also the supplier of SG and STG shall be jointly responsible for performance of SG/ STG, as the case may be and submit a joint deed of undertaking with the bidder along with the bid, failing which the bidder shall be disqualified and rejected.

In case, of award, the Supplier for SG and STG will be required to furnish an on demand bank guarantee for 1.0% of the contract price for steam generator sets and/ or steam turbine and generator sets in addition to the contract performance security to be furnished by the bidder.

**OR**

- ii. The EPC bidder shall be an Engineering, Procurement and Construction (EPC) organization and has engineered, supplied, erected and commissioned at least one (1) number coal / lignite / gas fired power plant of 300 MW or higher capacity (in case of Gas based Combined Cycle Power Plant the total capacity of plant in CCGT mode shall be considered as unit capacity) including civil works on EPC basis, which is in successful, safe and reliable operation for a period of at least two (2) years.

Such EPC bidder shall source the Steam Generator (SG) and Steam Turbine Generator (STG) from its Joint Venture Companies (JVCs) incorporated in India for manufacturing of Steam Generators (SG) and Steam Turbine Generators (STG), wherein the Bidder is the majority stake holder and who shall maintain a minimum equity participation of fifty one percent (51%) in both the Joint Venture Companies for a period of seven years from the date of incorporation of respective Joint Venture Companies.

In such case, the foreign promoter of the JVCs of Steam Generator (SG) and Steam Turbine Generator (STG) should have designed, engineered, manufactured, supplied, erected and commissioned at least one (1) no. of Steam Generator and Steam Turbine Generator unit(s) of a supercritical power plant with unit size not less than 600MW which is under successful, safe and reliable operation for a period of at least one (1) year as on the Bid Submission Date.

**AND**

In case, of award, the Supplier / JVCs for SG and STG will be required to furnish an on demand bank guarantee for 1.0% of the contract price for steam generator sets and/ or steam turbine and generator sets in addition to the contract performance security to be furnished by the bidder.

### **1.3 Category III – Bidding under Consortium basis**

- i. The bidder should be the Lead Member of such a consortium formed and the consortium must collectively meet all the qualification requirements mentioned under 1.1 or under 1.2 above

**AND**

- ii. Consortium shall submit the undertaking to the project owner that the Lead Member of such a Consortium along with licensor/ associate manufacturer would form a consortium team and the consortium member shall be jointly and severally responsible for performance of SG and TG or BTG, as the case may be

**AND**

- iii. The bidder should submit a suitable agreement from the associate manufacturer and or licensor of supercritical steam generator and TG that there is a valid license to manufacture and supply to a project site in India and also that there would not be any violation of Intellectual Property Rights in order to totally indemnify the owner on IPR issues.

### **1.4 Category IV – Bidder is a Licensee**

- i. The bidder should have boiler or steam turbine generator set for 500MW size units in its manufacturing range on the date of submission of bid, who associates with a licensor for manufacture of supercritical boiler or steam turbine generator, who qualifies based on the requirements listed under 1.1(i) above.

In such an event the bidder shall furnish undertaking jointly executed by him and his associate/ collaborator for the successful performance of SG and/or STG as per the format enclosed in the tender specification. The deed of joint undertaking shall be submitted along with the bid, failing which the bid shall be disqualified and rejected.

In case of award, the associate/collaborator will be required to furnish

- a) either a separate on demand bank guarantee for 1.0 (one) percent of the total contract price in addition to the contract performance securities to be furnished by the bidder or
- b) the associate/ collaborator shall furnish corporate guarantee for satisfactory fulfilment of the obligations of the associate/ collaborator in line with joint undertaking.
- c) the associate/ collaborator shall submit resolutions from their Board of Directors regarding fulfilment of the above obligations at Cl. 1.4(i)(b).

**AND**

- ii. The bidder should have designed, engineered, manufactured, erected and commissioned and if not erected and commissioned on its own, it should have supervised erection and commissioning on turnkey basis of at least one (1) no. of BTG (steam generator and steam turbine generator) island of 300MW unit(s) or higher, which is under successful, safe and reliable commercial operation for a period of at least one (1) year as on the Bid Submission Date.

**AND**

- iii. In case the licensee bidder is manufacturer of either STG or SG but not the manufacturer of both STG and SG then for which (STG or SG), the bidder is not the manufacturer, it may associate with other manufacturer/ licensor, who qualifies under 1.1 (i) or manufacturer/ licensee, who qualifies under 1.4 (i), in which case, the associate manufacturer shall be jointly responsible for performance of SG or STG, as the case may be; and submit a joint deed of undertaking and other requirements as applicable, along with the bid, failing which the bidder shall be disqualified and rejected

**AND**

- iv. The bidder should have a valid license necessary to manufacture and supply BTG under supercritical technology for a project in India. Also bidder is required to submit a suitable undertaking along with the bid that there would not be any violation of Intellectual Property Rights in order to totally indemnify the owner on Intellectual Property Rights (IPR) issues.

**AND**

- v. In case of bidder outside of India, aforesaid experience outside its own country is essential and will only be considered for the purpose of qualification.

1.5 Manufacturers of condenser, feed water heaters, deaerator, condensate extraction pumps, boiler feed pumps, CPU and EOT crane shall have previous experience of manufacturing the respective equipment of the type and capacity equal to or higher than the capacity offered for the proposed project, which are in successful operation for a minimum period of 1 year in at least one power plant as on the date of Bid Submission.

1.6 In case the manufacturer(s) does not have requisite experience as called for in Cl 1.5 above but is a regular manufacturer of equipment for units of at least 300 MW rating, such manufacturer is qualified to manufacture such equipment for the proposed project, provided he has collaboration or valid licensing agreement for design, engineering and manufacture of such equipment. The licensor/collaborator shall qualify as per Cl 1.5 for the respective equipment.

Further the licensor/collaborator shall provide all required design and design calculations, manufacturing drawings, technical and quality surveillance assistance and also assistance in site services as and when required.

The Owner reserves the right to fully satisfy himself regarding capability and capacity of manufacturers and licensing/ collaboration agreement made for the respective equipment.

For all other equipment, instruments etc, bidder shall specifically obtain Owner's approval for his sub vendors list.

## **2. Financial Qualification Requirements**

### **2.1 Financial Capability of Bidder (sole bidder or Joint undertaking or JV)**

2.1.1 The average annual turnover of the bidder (sole, consortium partners), in the preceding three (3) financial years as on the date of bid opening, shall not be less than 12,500 million INR or 250 million US dollars or equivalent. In case of consortium partners, the average annual turnover shall be at least the total turnover of all the consortium members. In addition, the Bidder shall also have positive Net Worth as on the last day of preceding financial year. Financial status of the Bidder shall also be one of the criteria for qualification.

2.1.2 In case the bidder is not able to furnish its audited financial statements on standalone entity basis, the un-audited unconsolidated financial statements of the bidder can be considered acceptable provided the bidder furnishes the following further documents on substantiation of its qualification:

- i) Copies of the un-audited unconsolidated financial statements of the bidder along with copies of the audited consolidated financial statements of the Holding Company.
  - ii) A Certificate from the CEO/CFO of the Holding Company, stating that the unaudited unconsolidated financial statements form part of the Consolidated Annual Report of the company.
- 2.1.3 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.
- 2.1.4 In case a bidder does not satisfy the financial criteria, stipulated at clause 2.1.1 and/or 2.1.2 above on its own, the holding company would be required to meet the stipulated turnover requirements at clause 2.1.1 above, provided that the net worth of such holding company as on the last day of the preceding financial year is at least equal to or more than the paid-up share capital of the holding company. In such an event, the bidder would be required to furnish along with its bid, a Letter of Undertaking from the holding company, supported by Board Resolution, pledging unconditional and irrevocable financial support for the execution of the Contract by the bidder in case of award.
- 2.1.5 The unutilized line of credit for fund based and non-fund based limits with cash and bank balances including fixed deposits of the Bidder as on a date not earlier than 15 days prior to date of Bid opening, duly certified by the Bankers shall not be less than 10,000 million INR or 200 million US dollars or equivalent. In case certificates from more than one bank are submitted, the certified unutilized limits shall be of the same date from all such banks.
- 2.1.6 Where another Company of the group acting as the Treasury Centre is responsible for Treasury Management of the bidder having combined credit/ guarantee limit for the whole group, the bidder would be required to provide a Banker's certificate regarding the unutilized line of credit for fund based and non-fund based limits together with cash and bank balances including fixed deposits available to such Treasury Centre. Further, Treasury Centre shall certify that out of the aforesaid limits certified by the banker's, the Bidder shall have access to the line of credit of a level not less than the amount specified at clause 2.1.6 above. In proof of this, the bidder would be required to furnish along with the bid, a Letter of Undertaking from the Treasury Centre, supported by a resolution passed by the Board of Directors of the holding company, pledging unconditional and irrevocable financial support for the execution of the Contract by the bidder in case of award.
- 2.1.7 In case the bidder's unutilized line of credit for fund based and non-fund based limits stipulated at clause 2.1.5 above is not sufficient, a comfort letter from one of the bankers specified in the bidding document unequivocally stating that in case the bidder is awarded the contract, the Bank would enhance the line of credit for fund based and non-fund based limits to a level not less than the specified amounts to the bidder or to the Treasury Management centre, as the case may be, shall be acceptable.

*Note:*

- a) *For unutilized line of credit for fund based and non-fund based limits and Turnover indicated in foreign currency, the exchange rate as on 7 days prior to the date of bid opening shall be used.*
- b) *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 does 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.*
- c) *Other income shall not be considered for arriving at annual turnover.*

3. Notwithstanding anything stated above, the Owner reserves the right to assess the capabilities and capacity of the bidder / his collaborators / associates to perform the contract, should the circumstances warrant such assessment in the overall interest of the Owner.

#### **BENEFITS/ EXEMPTIONS TO SUPPLIERS OF MEGA POWER PROJECTS**

- The Project will be eligible for 'Mega Power Project' status as provided by the Ministry of Power, GOI; and the Owner is in the process of obtaining the necessary approvals from the Govt. of India. 'Mega Power Project' Status will enable the Project to get various fiscal benefits. Accordingly, supplies of the goods for the above Contract will be eligible for benefits / exemptions as per the provisions of relevant notifications of the GOI.
- Tender Documents issued are not transferable.
- APPL reserve the right to cancel any or all bidding process without assigning any reason or any liability thereof.