



NTPC BHEL Power Projects Pvt. Ltd.
(A joint venture Company of NTPC & BHEL)

Technical/Commercial tie-up for Coal Handling and Ash Handling Plant

Expression of Interest (EOI) is invited from interested parties for collaboration for System Design, Product Design and Manufacture of Coal Handling & Ash Handling Plant System and associated equipments as per details given below.

Last date for receipt of EOI - 20.11.2009

Executive Director (P & B), NBPPL

Expression of Interest

1. **Title:**

Expression of Interest (EOI) for "Collaboration for Design and Manufacture of Ash Handling Plant Equipment+.

2. **General:**

M/s Bharat Heavy Electricals Limited (BHEL) is the largest engineering and manufacturing enterprise of its kind in India and is one of the leading international companies in the field of power plant equipment with state of the art technologies. BHEL's range of services extend from project feasibility through design, manufacture, supply, erection and commissioning to after sales service of equipment required for generation, transmission and distribution of coal, gas hydro, nuclear and non-conventional energy.

M/s NTPC Ltd. (NTPC) is a premier power generation company in India having expertise and strength in areas such as setting up of coal, gas and hydro based power projects, operation and maintenance of power stations and sale of power to various State power utilities and other bulk consumers. NTPC has developed comprehensive in-house expertise in various facets of power generation from concept to commissioning, efficient operation to nurturing of ecology and environment in accordance with National Power Policy of the Government of India.

M/s BHEL and M/S NTPC, both Public Sector Undertakings (PSU) have joined together and promoted a Joint Venture Company, NTPC BHEL Power Projects Private Ltd. (NBPPL), with the objective:

To explore, secure and execute Engineering, Procurement and Construction Contracts (EPC) for Power Plants and other Infrastructure Projects in India and abroad including plant engineering, project management, quality assurance, erection and commissioning.

To engage in manufacture and supply of equipment for Power Plants and other Infrastructure Projects in India and abroad.

BHEL has a very strong presence in execution of Power Plants on Turnkey basis and leader in main plant equipments like Boiler, Turbine, ESP, Generator, Transformer, etc. However BOP packages including Coal & Ash plants are outsourced from various reputed suppliers within India or from outside India. The 11th 5-year plan (2007-2012) of Government of India envisaged power generation capacity of approximately 78000 MW and in the 12th 5-year plan (2012-2017), further addition of 82000 MW power generation capacity is proposed. There is a limited basket of vendors who are dominating Indian market and are heavily booked. Country is therefore facing severe constraints in execution of EPC / turnkey contracts on account of longer deliveries and abnormally high prices quoted by the limited vendors specially for CHP and AHP. A need has therefore been felt for establishing manufacturing facilities to manufacture Coal and Ash Handling equipment in India.

NBPPL initially plans to manufacture and supply complete Ash Handling Plants and intends to achieve the capacity to manufacture and supply of around 10 sets of Ash Handling Plant for 500 MW sets or equivalent capacity. NBPPL will like to take up complete job from concept to commissioning i.e. system engineering, manufacturing of major components, erection, commissioning and testing.

NBPPL invites Expression of Interest (EOI) from interested parties for collaboration for System design, product design and manufacture of Ash Handling plant system and associated equipment besides erection & commissioning and operation and maintenance of the plants.

The interested parties may submit their Expression of Interest along with the requisite details latest by 20.11.2009 at the following address.

Mr. U. K. Singhal
NTPC BHEL Power Projects Pvt. Ltd.,
Tower . B, Lobe . 4, The Corenthum+,
A-41, Sector-62, NOIDA-201309,
India.
Ph: +91 120 4001316, M: + 91 9968310045
Fax: +91 120 4001301/1322
E mail: uksinghal.nbpl@gmail.com

All clarifications and correspondences regarding the EOI shall be address to above person.

3. Scope of Collaboration:

The collaboration for System Design, Product Design and Manufacture of Ash Handling Plant system and associated equipment besides erection & commissioning and operation & maintenance as per details indicated below:

3. (a) System design for Complete Ash Handling Plant and design for manufacturing equipment for the following:

(i) Bottom Ash Handling System

- a) Bottom Ash Handling system (jet pumping type with or without Dewatering bins, water recirculation & clarification system)
- b) Bottom ash handling system with Scraper Chain Conveyor System.
- c) Dry Bottom ash handling system

(ii) Fly Ash handling System

- a) Vacuum extraction system with option of dry conveying/collection or wet disposal system.
- b) Long distance Pneumatic Pressure conveying system.
- c) Fly Ash storage system with RCC/Steel silos, unloading equipment with telescopic spouts or dust conditioners etc.

(iii) Slurry pumping system

- a) Slurry pumping system (Conventional)
- b) High Concentration Slurry Disposal (HCSD) system.

(iv) Recovery water System and water clarification system

3. (b) Know-How & Information Transfer

- i. Providing technology in the form of system design and system/equipment sizing calculation methods to enable designing of the complete Ash Handling Plant for various subsystems.
- ii. Collaborator shall impart, transfer and convey to NBPPL the Know . How & Know . Why for complete AHP. The technical information transferred shall be complete, adequate, updated and accurate for design, manufacturing, assembly, quality control, inspection, testing, erection, commissioning, retrofitting, repair, servicing, trouble shooting etc. for reliable operation of AHPs up to 800 MW.
- iii. Transfer design & drawings for reference projects already executed by the collaborator for each of the ratings / applications selected by NBPPL.
- iv. Transfer design & drawings including other activities as per 3. (b) (ii) above, for two actual projects of different ratings for which order received by NBPPL and design entrusted to Collaborator.
- v. Supply of the initial lot of equipments designed under 3.b (iv) above as completely built unit or semi knocked condition for integration against projects as per requirement and mutually agreed upon.
- vi. Details of Machine tools required for establishment of technology/manufacturing facilities.

3. (c) Technical Support:

- i. Extend technological assistance, if required by NBPPL to prepare offers for clients;
- ii. For promoting the technology with prospective clients, so that NBPPL gets qualified to supply against clients tender. Collaborator would support NBPPL by deputing its experienced engineers to clients offices for discussions, presentations and explanations;

- iii. If so required by the clients, Collaborator would provide support letters to NBPPL for securing orders;
- iv. Carry out the complete basic and detailed design for two projects of different ratings from 60 MW to 800 MW as required by NBPPL;
- v. Depute their personnel to the offices/works of NBPPL for the complete technology establishment and developmental support to NBPP as well as query support through letters.

3. (d) Training of NBPPL Engineers:

- i. Train NBPPL's engineers at their design offices, manufacturing works & installation sites.
- ii. Depute their personnel to works of NBPPL and to the installation sites / design offices for training NBPPL engineers.

3. (e) Business Cooperation:

NBPPL may agree to source from the collaborator the AHP systems as per terms & conditions mutually agreed.

4. Qualification Criteria

4.1 Technical Capability

The Bidder should have designed, manufactured and supplied Ash Handling Plants of different types in any part of the globe with different capacity as per their own design without infringing to any others patented/copyright design.

The bidder should be capable of designing the Ash Handling Plant on the details as furnished by customer and the AHP performance requirements in line with customer's requirements.

The bidder should be able to prove the compatibility of equipment with the proposed plants and demonstrate performance through calculations, modeling techniques etc.

4.2 Experience

The bidder should have at least 7 years experience in this field. The bidder should produce the experience certificate of end user / client for the successful operation of the plant for more than two years in the past 10 years. The equipment supplied should be of proven design & working satisfactorily and they should be the pioneer of design of equipment being manufactured and supplied by them. A list of major customers with type of system/equipment (with capacities) supplied may be furnished in support of this.

4.3 Information Transfer

Bidder should be willing to transfer the information on exclusive basis to NBPPL for Know - How / Know - Why for design, manufacture, inspection, testing, commissioning, trouble shooting, servicing/maintenance, quality assurance etc., for Ash Handling Plant and associated equipment supply as per scope defined in Clause 3.

All information to be provided in English language only

5. Documents Submission

The following details may be submitted by the parties along with the response.

- a) Organization details covering product range, manpower strength in each function, number of production units.
- b) Financial status of company like turnover, total assets.
- c) Profit and Loss account and Balance Sheet (or list of financial operations thereof) for last three years.
- d) Details of equipments & facilities available at their works for the subject area.
- e) List of major customers for the subject area.
- f) Details of quality system followed in the company.

6. Acceptance Document:

The party shall provide satisfactory evidence acceptable to the customer to show that:

- a) He is the supplier who has adequate technical knowledge and practical experience.
- b) He has adequate plant and manufacturing capacity to manufacture and supply for items offered within the delivery schedule offered by him.

- c) He has an established quality assurance system and organization to ensure that there is adequate control at all stages of manufacturing process.

7. **General**

- a) The Party offering only System Engineering or Product Design or Manufacturing or a combination of any of these, may also submit their offer for further examination.
- b) The complete EOI including all documents submitted in response to this EOI shall be sent in a sealed cover envelope.
- c) The EOI shall be submitted on or before the time & date specified & shall be addressed to the official as mentioned in the EOI.
- d) Based on the response, suitable parties will be short listed for the collaboration arrangement. NBPPL decision for short-listing based on the overall suitability shall be binding and final.