

	<p align="center"><b>ORISSA POWER GENERATION CORPORATION LIMITED</b>  <b>IB THERMAL POWER STATION</b>  <b>At/PO: BANHARPALI, DIST: JHARSUGUDA – 768 234 (ORISSA)</b>  <b>TELEFAX: (06645) 289 317, Email: <a href="mailto:contract@opgc.co.in">contract@opgc.co.in</a></b></p>
<p align="center"><b>NOTICE INVITING EXPRESSION OF INTEREST</b></p> <p><b>EOI No .ITPS/CC-22/2011/14</b> <span style="float: right;"><b>Date: 20/10/2011</b></span></p>	
<p>Expression of interest is invited from the reputed registered Firms / Companies having online experience, Provident Fund Registration Certificate, Service Tax Registration Certificate, valid Income Tax PAN for " Providing Consultancy Services for the following works at IBTPS, Banharpali.</p> <ol style="list-style-type: none"> <li>1. Switching over to HCSD system from existing conventional ash slurry discharge system.</li> <li>2. Up-gradation of Electrostatic Precipitator (ESP).</li> </ol> <p align="center"><b>Last date of submission of EOI: up to <del>18/11/2011</del> 28/11/2011</b></p> <p>For detail information; please visit to our website "<a href="http://www.opgc.co.in">www.opgc.co.in</a>"</p> <p align="center"><b>Sd/-Chief Manager (PSM)-Purchase Contracts (Mob.9338715424)</b></p>	
<p align="center"><b>SAFE &amp; CLEAN POWER IS OUR COMMITMENT</b></p>	

**Brief about OPGC:**

OPGC is a joint venture company with 51% stake of Govt. of Orissa and 49% stake of AES India.

The Company has two Coal fired Units of BHEL make of capacity 2x210MW located at IB Thermal Power Station, Banharpali in the district of Jharsuguda, Odisha. It is an ISO-14001 and OHSAS-18001 certified company

**Brief description of the proposed works:**

1. Switching over to HCSD (High Concentration slurry discharge) system from existing conventional lean ash slurry discharge system:

OPGC currently has the conventional lean ash slurry disposal system at ITPS, Banharpali. As per the present guide line of Odisha Sate Pollution Control Board (OSPCB), all the conventional ash slurry disposal systems existing in thermal plants in the district of Jharsuguda, which is declared as a high emission zone, are to be converted to High Concentrated slurry disposal System.

2. In view of the above, OPGC is planning to switch over to the HCSD System from its existing lean ash slurry disposal and ash water recycling system. It is proposed to hire a consultancy service from an external agency to carry out a detailed survey /study on the existing slurry disposal system and to suggest for a HCSD System along with estimated budget requirement for supply, erection, commissioning and the time line. The scope also includes the study and recommendation of aux system upgrade requirement for Fly ash Hopper evacuation, Bottom ash evacuation, ash slurry pumps, ash water pumps, ash water recycling pump house etc. Further, the requirement for using the system for filling mining void located at a distance of about 15Kms from the plant.

**Deliverables:**

- a) Survey of the existing Ash Slurry Disposal System.
- b) Study on HCSD System possibility at ITPS (HCSD System to discharge ash to the existing ash pond located at 6km distance and additional requirement for using the system for mine void filling of MCL (approximate distance 15km).
- c) Specification of proposed HCSD System for ITPS, OPGC.

- d) Approximate budget estimate for HCSD System for supply, erection, commissioning and the timeline.
- e) The study & recommendation of aux system up gradation requirement for Fly ash Hopper evacuation, Bottom ash evacuation, ash water recycling pump house etc.
- f) This also includes the requirement for using the system for filling mining void located at a distance of about 15Kms from the plant.

**Consultant's organisation & experience:**

The Consultant is expected to have adequate expertise & experience in providing consultancy service in the field of such slurry disposal systems. All the interested Consultants/Agencies shall have to submit their credentials along with their EOI Through mail or by post/First Flight Courier service.

**Evaluation process:**

The interested bidders shall be called to site at ITPS to give their presentation on this field and their experience. Based on the credentials and the presentation the agencies shall be shortlisted. RFQ shall be invited only from the short listed agency/ consultants.

Time period: Three months for complete study and submission of report.

EOI must contain the name of the company/Firm, credentials, name of the contact person with address, contact number (cell No., Fax no., e-mail ID etc.). The agency must have taken at least one such project in last five years.

**2. Up-gradation of Electrostatic Precipitator (ESP):**

OPGC has been operating 2x210MW Units at ITPS, Banharpali in the district of Jharsuguda, Odisha for last seventeen years. Each of the unit is provided with ESP. As per the present norms of Odisha State Pollution Control Board (OSPCB), the emission level is to be maintained at or below 150 mg/NM<sup>3</sup>. Now, Jharsuguda district is identified as a critical polluted zone by OSPCB. Following this notification all the Thermal Power Plants in the district are required to reduce the emission level below 50 mg/NM<sup>3</sup>, against existing limit of 150 mg/NM<sup>3</sup>.

In view of the above, OPGC is planning to upgrade the existing ESP system to bring down the particulate emission and convert the ash disposal system from wet to HCSD. It is proposed to hire a consultancy services from an experienced Engineering Consultant (the "Consultant") to survey and study the existing ESP system and suggest (i) changes and/or modification to be carried out for reducing the emission to the level of 50 mg/NM<sup>3</sup>; (ii) BOQ and cost estimate for supply, erection, commissioning; (iii) schedule for engineering, procurement and construction . Based on the agreed recommendations with OPGC, the Consultant will develop a complete Scope of Work comprised of the engineering, design, procurement, manufacture and supply of materials and equipment and related services as necessary so that OPGC may subsequently use the Scope of Work for competitive bidding in seeking out the EPC(s) to carry out the recommendations.

The scope and deliverables of consultancy assignment shall include:

**Part A**

- a) Study and necessary testing of existing equipment to establish baseline data/information for ESP upgrade/retrofit.
- b) Recommend suitable modifications and/or technology retrofits to the existing ESP system to bring the particulate emission down to 50 mg/NM<sup>3</sup>.
- c) Techno-economic comparison of various modification and retrofit options considering life time cost and technical feasibility of recommended options.
- d) Bill of Quantity and EPC cost estimate for Retrofit/ Modification ESP System, for recommended option.
- e) Engineering, Procurement and Construction Schedule.

**Part B**

- I) Scope of Work for EPC of ESP modification/retrofit shall include the following content:
  - a. Scope of engineering, design, supply, and construction work including technical findings, considerations, and performance requirements
  - b. Project schedule
  - c. Quality control, commissioning, and testing requirements
  - d. Equipment, spare parts, special tools, wear parts and consumables
  - e. Technical specifications
  - f. Documentation requirements
  - g. Other information as needed to clearly and fully express the Scope of Work
- II) Technical evaluation of EPC bids

**Consultant’s organisation & experience:**

The Consultant shall have adequate expertise & experience in providing consultancy service in the field of ESP modifications and ESP retrofits in PC units of capacity 200 MW and above. The consultant shall provide details of at least two reference PC plants in their EOI, where the Consultant has provided consultancy services for ESP upgrade and/or retrofit and the plants have met emission limits of below 50 mg/NM3 after ESP modification/retrofit. The information regarding reference plants shall include details as required in the table below:

No.	Details of Consultancy assignment Bidder’s Name:[.....]	Reference Plant 1	Reference Plant 2
1	Name of the reference plant		
2	Location and address		
3	Name of contact person at the plant and his contact address		
4	Size (MW) and number of units		
5	Scope of consultancy assignment (tick Yes or No, as applicable)		
5.1	Performance testing of ESP before modification/retrofit	Yes/No	Yes/No
5.2	Comparison of technology options (comprising of at least ESP, bag filters, any other particulate control technology)	Yes/No	Yes/No
5.3	Techno-economic feasibility of selected ESP upgrade/retrofit option	Yes/No	Yes/No
5.4	EPC cost estimate and schedule	Yes/No	Yes/No
5.5	Preparation of technical specifications for ESP upgrade/retrofit	Yes/No	Yes/No
5.6	Whether the Consultant has himself carried out ESP upgrade/retrofit	Yes/No	Yes/No
6	Particulate emission before Retrofit and/or Modification (R&M), mg/NM3		
7	Particulate emission guaranteed after R&M, mg/NM3		
8	Particulate emission achieved after R&M, mg/NM3		
9	Total schedule of EPC and duration of unit shutdown required for R&M		
10	Year in which the R&M was carried out/completed.		

The interested Consultants/Agencies shall submit their credentials along with their EOI through mail or by post/First Flight Courier service.

**Evaluation process:**

The interested bidders shall be called to site at ITPS to give their presentation on execution plan for above consultancy assignments and their experience on this subject. Based on the credentials and the presentation the agencies shall be shortlisted. RFQ shall be invited only from the short listed agency/ Consultants.

Time period: Three months for complete study and submission of report for Part A & B.  
EOI must contain the name of the company/Firm, credentials, name of the contact person with address, contact number (cell No., Fax no., e-mail ID etc.). The agency must have executed at least one such project in last five years.

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