THE WEST BENGAL POWER DEVELOPMENT CORPORATION LIMITED
(A Government of West Bengal Enterprise)
CIN : U40104WB1985SGC039154

Registered & Corporate Office:
Bidyut Unnayan Bhaban,
Block - LA,Plot No. 3/C,
Sector–I I I,Salt Lake City,
Kolkata – 700106

NOTICE INVITING "EXPRESSION OF INTEREST (EOI)"

FOR

" ENVIRONMENTAL, SOCIO-ECONOMIC, ECONOMIC AND FINANCIAL ANALYSIS ON THE IMPLICATIONS OF RETIRING THE BARJORA AND GANGARAMCHAK & GANGARAMCHAK-BHADULIA COAL MINES OF THE WBPDCL"

EOI NOTICE NO. WBPDCL/CORP/M&C/EOI/2022-23/41 DATED.07.11.2022

The West Bengal Power Development Corporation Ltd.(WBPDCL) is interested to engage a consultant/Consulting firm through tendering process with an objective to better understand the direct and indirect technical, environmental, socio-economic and economic and financial implications of retiring the Barjora and Gangaramchak & Gangaramchak-Bhadulia Coal Mines as it will be key to meet global climate change goals.

For this purpose, WBPDCL invites Expression of Interest (EOI) from the interested, established and reputed business organizations/agencies/firms.

Interested parties are requested to refer the terms and conditions as laid down under "Information to the interested parties" of this notice and submit their EOI as per Annexure-I within **30.11.2022 at 15:00 hrs**. at the office of The General Manager(M&C) , Corporate ,
The West Bengal Power Development Corp. Ltd. , Bidyut Unnayan Bhaban, Plot No. 3/C LA-Block, Sector-III, Bidhannagar,Kolkata-700 106 .

The details may be submitted in sealed envelopes as per the format. It may be noted that submission of EOI does not in any way constitute any kind of commitment on the part of WBPDCL.

For more details necessary correspondences have to be made with :
The Manager, M&C, Corporate,
West Bengal Power Development Corporation Limited,
Bidyut Unnayan Bhaban, 6th Floor, 3/C, LA Block, Sector-III, Bidhan Nagar, Kolkata-700106.
Contact No: +91: 033 -2339 3625 / 9830616477
Email id: ichaudhuri@wbpdcl.co.in /managermnc21@gmail.com

INFORMATION TO THE INTERESTED PARTIES

1. Introduction

The West Bengal Power Development Corporation Limited (WBPDCL), a Govt. of West Bengal Enterprise, has been allotted with 6 captive coal mines by the Nominated Authority, Ministry of Coal, GoI in March'2015. The details of 6 allotted coal mines are as follows:

i. Barjora (North) Coal Mine –situated in the District of Bankura, West Bengal.
ii. Barjora Coal Mine–situated in the District of Birbhum, West Bengal.
iii. Gangaramchak & Gangaramchak-Bhadulia Coal Mine –situated in the District of Birbhum, West Bengal.
iv. Tara (East & West) Coal Mine –situated in the District of Paschim Burdwan, West Bengal.
v. Kasta (East) Coal Mine–situated in the District of Birbhum, West Bengal.
vi. Pachhwara (North) Coal Mine –situated in the District of Pakur, Jharkhand.

Among coal mines under the WBPDCL, details of Barjora Coal Mine and Gangaramchak & Gangaramchak-Bhadulia Coal Mine are as follows :

Coal Mines	CCO Permission obtained	Mine start date	Coal production start date	Balance life of the mine
Barjora	29.08.2017	16.10.2017	04.04.2018	0
Gangaramchak & Gangaramchak-Bhadulia	24.04.2019	18.10.2019	26.02.2020	4

So minable reserve of Barjora Coal Mine is already exhausted & going to retire soon and balance life of Gangaramchak & Gangaramchak-Bhadulia Coal Mine is only four years.

There will be different technical, environmental, socioeconomic and economic and financial implications associated with the retirement of these mines.

To analyze & understand direct and indirect technical, environmental, socio-economic and economic and financial implications of retiring the Barjora and Gangaramchak-Bhadulia Coal Mines and for effective utilization of the land & other available resources through repurposing one consultant having experience & expertise of handling such project, is needed to be engaged**.**

2. Intent of the EOI

2.1 After completion of the EOI process, tender on the respective job will be floated with specific eligibility criteria , scope and terms and conditions. Shortlisted consulting firm/bidders of EOI process will be allowed to participate in the tender process subject to fulfillment of tender eligibility criteria.

2.2 Through tender process eligible bidder who quotes the lowest offered value will be selected as successful bidder for the respective job.

2.3 The WBPDCL will issue "Service Contract" towards placement of Letter of Award" on the successful bidder for the respective job with specific terms & conditions and scope of work. The exact period of contract and exact terms and conditions will be communicated later during the tender phase.

3. Scope of work

3.1 There are three key tasks for the analysis of the above mentioned two mines in West Bengal, India under the assignment, namely:

i. **Environmental analysis**: to conduct a preliminary analysis of environmental risks and impacts, taking into account the institutional framework, capacities, applicable legislative requirements and relevant good international industry practice and standards. The preliminary analysis should address the potential retiring and repurposing of the two coal mines, including technology options, site conditions including any legacy contamination to soil and groundwater and propose further assessments or studies that may be needed at a later stage keeping in mind that such assessments and studies would be carried out by the WBPDCL if and when they decide to pursue a feasibility phase

ii. **Socio-economic analysis**: to conduct a preliminary analysis of potential social risks and impacts, taking into account the institutional framework, capacities, applicable legislative requirements and relevant good international industry practice. The socio-economic analysis should take into consideration direct and indirect impacts of retiring, repurposing and activities at associated mines both on a regional and local level including a survey of current socio-economic alternatives under consideration in the relevant regions/provinces.

iii. **Economic and financial analysis**: to conduct economic and financial analysis to demonstrate the costs and benefits of the potential options at each site considered for retiring the coal mines. Set out potential financing structures that may be adopted for repurposing, highlighting the pros and cons within the country and WBPDCL context.

3.2 It is important to note that this work will produce a general overview assessment and analysis of the technical, environmental, socio-economic, economic and financial impacts of coal mine retirement for WBPDCL. Detailed site specific analysis would need to be conducted to determine specific solutions and impacts, risk and mitigation actions, as and when WBPDCL decide to pursue further action. This work will rely on cross country experiences and international best practices for the analysis.

3.3 TASK 1: PRELIMINARY ENVIRONMENTAL ANALYSIS

Undertake a preliminary analysis of the current policy, national legal, regulatory requirement and relevant good international industry practice and standards for retiring

coal mines. The preliminary analysis should consider environmental aspects associated with the retiring of the existing identified coal mines; the new technology options and potential environmental liabilities, such as legacy contamination.

A. **Existing two coal mines facilities**:

a) Legal review

- Review the applicable legal and regulatory requirements for the retiring of the selected existing coal mine facilities;
- Identify relevant good international industry practice, including international standards of best practice applicable to the analysis and management of risks and impacts from the retiring the identified existing coal mine facilities;

b) Legacy contamination

- Prepare a site plan for each facility showing a mapping of current and historical location of structures that may have affected the distribution of contamination, local water drainage and other locally significant features both on- and immediately off-site;

- Develop a site history for each facility that includes, as relevant:
  (i) a chronological list of site ownership and uses;
  (ii) contaminants of concern associated with each use;
  (iii) any relevant current and historical permits, licenses, approvals and waste agreements, with records of compliance;
  (iv) local usage of ground and surface water resources;
  (v) inventory of materials and waste products associated with site use and their on-site storage and/ or disposal locations;
  (vi) recorded authorized and unauthorized discharges and/or spills;
  (vii) details and locations of current and former underground and aboveground storage tanks, with details of any previous integrity testing;
  (viii) potential contaminant source areas and pathways; and
  (ix) existing current and historically available soil and groundwater monitoring data.

- Preliminary assessment of whether the site history indicates future research and assessment is warranted for legacy contamination and other environmental liabilities should the government choose to follow up;

- Based on available information, identify possible future studies that could be prepared should the government choose to follow up to satisfy the applicable E&S requirements and standards identified by the legal review and relevant good international industry practice and standards.

c) Preliminary environmental impacts of repurposing

- Describe the current environmental site conditions and determine the potential preliminary environmental risk and impacts (both positive and negative) of each of the possible repurposing technology, guided by relevant good international industry practice and standards and include, but not limited to the following aspects:
  biodiversity, hydrology and geohydrology, climate change and greenhouse emissions, air quality, visual and heritage; and

- Provide an overview and compare the potential environmental risks/impacts and benefit for each technology at each location.

3.4 TASK 2: PRELIMINARY SOCIO-ECONOMIC ANALYSIS

For the preliminary socio-economic component; the analysis at the prefeasibility stage should consider all socioeconomic aspects relevant to the retiring of the identified coal mines. The analysis will be undertaken with the aim to establish preliminary socio-economic baseline conditions and potential impacts of the retiring identified coal mine facilities

(a) Assess available socio-economic information related to the power plant and associated mine workers, community, local household level socio-economic aspects, ethnic groups, surrounding land use, community health indicators, livelihood, local and regional migration and identify key social information or studies that may be needed to establish a socio-economic baseline of the sites and regional area should any further work be carried out by WBPDCL;

(b) Undertake a socio-economic analysis; based on available information; to determine potential positive benefits and negative short- and long-term impacts and risks associated with the retiring and repurposing options. The socioeconomic analysis should take into consideration potential impacts on both a local and regional level and a survey of current socio-economic alternatives under consideration in the region;

(c) The socio-economic analysis should include potential impacts on adjacent communities; municipalities, provincial and national government, businesses and service providers etc.;

(d) Assess any potential land acquisition and resettlement options should there be a need to acquire additional land for repurposing options;

(e) Assess the potential labor issues including a robust profile of the affected employees and others, taking into consideration their age, gender, education level, family size and other relevant characteristics, and estimate the opportunities for re- employment as well in the supply chain (local businesses, construction contractors, miners, etc.);

(f) Assess the potential socio-economic impacts and risks associated with the mines at both local and regional levels. This should include among others an analysis of the potential socio-economic impacts and possible risks on indirect activities related to the

mines such as service providers, down-stream supply chain and adjacent communities, and ;

(g) Assess the general institutional capacity at various levels in the management of site-specific socio-economic impacts and risks of retiring and repurposing of power options, and mines.

The outcome of the preliminary socio-economic analysis should be a written report on the anticipated socioeconomic impacts (positive and negative) of the coal plant retiring and mine notable on the local expenditure, tax revenues and provide an analysis of potential socio-economic alternatives which may be considered as when needed.

3.5 TASK 3: ECONOMIC AND FINANCIAL ANALYSIS

a) **Task 3.1: Review of implementation structures:**

Literature review of the relevant international experience (USA, Europe, or other relevant examples as may exist in the global experience) of large coal project retiring and repurposing focused on the following issues (to the extent such information is actually available, it being understood that some of the information may be confidential and/or not in the public domain) :

- Sale or leasing of the retired/repurposed site by the original owner, and extent to which the original owner participated in (and benefitted from) the repurposed project.
- In cases of outright sale, what entity purchased the site, how long did it take for sale to be realized, and for what purpose was the site then used.
- Extent of private participation (equity, debt) in new entities created for the repurposed project
- For private sector participation, any examples of difficulties uncovered in due diligence (e.g. arrangements for liabilities associated with any legacy environmental issues, or problems of valuation of assets made available to the new operator)
- Examples of financing or Government support for mitigation of social impacts of plant closures/ mothballing/repurposing (amounts, modalities and duration of support)
- The total CAPEX for repurposed project (and to what schedule- time between start of detailed FS to financial close and then to commercial operations date of new facility)
- Examples of additional land acquisition or land disposals for the repurposed project and how financed, for example, in the case of coal to gas repurposing, what was the fate of land previously needed for coal storage and ash ponds.

The intent is to inform the WBPDCL about the possible options that may be considered for the identified coal mines, and to inform the economic and financial analysis of the repurposed projects.

b) **Task 3.2: Economic and financial analysis**

For each of the identified coal mines, the economic and financial analysis needs to compare the costs and benefits of the following:

i. Retiring without any repurposing. This may have several variants, depending on the most likely future utilization of the site (other than repurposing). Remediation for a future industrial user (who might benefit from existing railway and HV electricity access, i.e. to "brownfield") may entail lower costs than for future agricultural or residential use ("greenfield"). A critical factor will be the land value for these alternative (non-power generation) uses, and the extent to which this value can be realized to the present site owner.

ii. For utilization of the site for the most promising repurposing option(s) the costs and benefits of that option, including the costs and benefit (salvage value) of the necessary level of retiring, and the costs and benefits of the repurposed option.

This analysis together with the socio-economic study (Task 2) need to answer the following key questions:

- For each of the alternatives listed above, what are the magnitude of the potential costs and benefits to each group of stakeholders(WBPDCL, electricity consumers, employees of the coal project, local and national government, associated coal mine Mine Developer & Operator(MDO), transportation sector etc.)

- To what extent can the potential economic benefits of a repurposing (assuming there are economically viable options) be used to compensate the negative socio-economic impacts of coal plant retiring and mines (notably compensation for former employees of the coal project, and reduced local expenditure,and reduced tax revenues to municipalities, provincial and national government).

It is important to be clear about the distinction between the potential environmental benefits of the transition from coal to renewable, and the potential benefits of repurposing (which is the differential impact of, say, a PV project at the coal project site, and an equivalent PV project located at a different site that is the counterfactual for repurposing).

It is important also for the analysis to be clear for each of the potential options, what are the CAPEX components that are potentially reduced by use of the coal project site, and what are the components that are not. For the estimated retiring costs, estimated environmental remediation costs need to be broken down into those expressly required by environmental laws and regulations, and those as may be

additionally required to realize the value of land for sale(in the no repurposing option).

The deliverable will include an EXCEL of the spreadsheet of the integrated economic analysis and financial analysis model.

4. Implementation Arrangements

A consortium of expert which compromises of strong local expertise related to technical, social and environmental aspects of the assignment would be necessary. The Consultant must propose a team which has demonstrated its capability to successfully carrying out all such tasks as mentioned in the EOI.

5. Terms and conditions

5.1. The WBPDCL reserves the right to close /cancel this Expression of Interest at any stage without assigning any reason whatsoever.

5.2. The submissions of the EOI document do not in any way commit or otherwise oblige the WBPDCL to proceed with accepting the EOI.

5.3. Site Visit : Any bidder who requires to visit the site shall make his own arrangement for the same.

5.4. Each bidder is responsible and liable for all costs , expenses and liabilities incurred by it in connection with or incidental to the submission of EOI.

ANNEXURE –I

SUBMISSION OF EOI FOR ENVIRONMENTAL, SOCIO-ECONOMIC, ECONOMIC AND FINANCIAL ANALYSIS ON THE IMPLICATIONS OF RETIRING THE BARJORA AND GANGARAMCHAK & GANGARAMCHAK-BHADULIA COAL MINES OF THE WBPDCL

(To be printed on the letter head of the interested party/agency and duly signed and stamped)

[This EOI form supported by respective documentary evidence, duly filled , signed and sealed in original is to be submitted to the office of GM(M&C), Corporate, WBPDCL within **30.11.2022** *at 15:00 hrs.]*

To
The General Manager (M&C) ,
Corporate , WBPDCL

Dear Sir,

We are interested for the job of environmental, socio-economic, economic and financial analysis on the implications of retiring the BARJORA and GANGARAMCHAK & GANGARAMCHAK-BHADULIA coal mines of the WBPDCL . We have gone through the terms and conditions and scope of the work as detailed in the notice of inviting the EOI.
The following are the details of our firm which are supported by documentary evidence**:**

Name of the Company /firm	
Registered office address and contact details	
Name and designation of authorized signatory for this EOI	
Address for communication of authorized signatory with contact details	
Details of business owned by the company/firm	
Organization details CIN GSTIN PAN PF Account No. ESI code Shareholding pattern MSME(if applicable) Other details	
Average Annual Turnover of last three consecutive financial years	
Credentials towards having experience on similar nature of job	

We are submitting our proposal along with indicative plan, budgetary offer for the job of environmental, socio-economic, economic and financial analysis on the implications of retiring the BARJORA and GANGARAMCHAK & GANGARAMCHAK-BHADULIA coal mines of the WBPDCL.

We have enclosed the Audited Accounts alongwith Audit report for last three consecutive financial years alongwith company credentials.

SEAL OF COMPANY

Name : .....Designation : .....

Authorized Signature, Name & Designation