



Paschimanchal Gas Company Limited

(A Company of Petrobangla)

Head Office: Nalka, Sirajganj.


Bangladesh



Re-Request for Expression of Interest (Re-REoI) (National)

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|----------------------------------|--|---|--|
| 01. | Ministry/ Division | : | Ministry of Power, Energy & Mineral Resources / Energy & Mineral Resources Division |
| 02. | Agency | : | Bangladesh Oil, Gas and Mineral Corporation (Petrobangla) |
| 03. | Name of Procuring Entity | : | Pashchimanchal Gas Company Limited (PGCL) |
| 04. | Title of the Service | : | “Consultancy Services for Installation of Smart Pre-paid Gas Meters at PGCL Franchise Area”. |
| 05. | Procuring Entity Code | : | Not Applicable |
| 06. | Procuring Entity District | : | Sirajganj, Bangladesh. |
| 07. | Expression of Interest for selection of | : | Consulting Firm (National) |
| 08. | EOI Ref No. | : | 28.18.0000.087.14.004.24 |
| 09. | Date | : | 28/03/2024 |
| KEY INFORMATION | | | |
| 10. | Procurement Method | : | Quality and Cost Based Selection (QCBS) |
| FUNDING INFORMATION | | | |
| 11. | Source of Funds | : | PGCL Own Fund |
| 12. | Development Partners | : | World Bank |
| PARTICULAR INFORMATION | | | |
| 13. | Project Code | : | 224390600 |
| 14. | Project Name | : | “Installation of Smart Prepaid Gas Meters, SCADA & GIS at PGCL Franchise Area”. |
| 15. | EOI closing date and time | : | 22/04 /2024 ; 11:30 AM (BST) |
| INFORMATION FOR APPLICANT | | | |
| 16. | Brief description of assignment | : | <p>Pashchimanchal Gas Company Limited (PGCL), a company of Petrobangla, intends to appoint a National Consulting Firm in order to provide Consultancy Services for Installation of 1,28,000 (One lac twenty eight thousands) Smart Prepaid Gas Meters (SPGM) for domestic customers under the regional offices in its Franchise Area.</p> <p>The services to be provided by the consulting firm include review of all related study reports, administrate all types of engineering works, assistance in all procurement tendering including preparation of tender documents & evaluation, project management, detailed engineering, procurement contract management, field construction & commissioning, monitoring & supervising the project activities, deliver the appropriate suggestions & recommendations etc., all as necessary and appropriate for successful implementation and completion of Smart Prepaid Gas Meters Installation under the Project. The detailed description of the Assignment is mentioned in the Terms of Reference (TOR). The TOR and the EOI Documents will be available at PGCL website: www.pgcl.org.bd, Petrobangla website: www.petrobangla.org.bd; and CPTU website: www.cptu.gov.bd.</p> |
| 17. | Experience, resources and delivery capacity required | : | <p>The Client will conduct the short-listing of interested consulting firms for the above-mentioned consultancy services. The firm must have following experiences of consulting services:</p> <ol style="list-style-type: none"> The consulting firm /JV shall have 5 (five) years of experience in consultancy services in project management, procurement assistance, engineering and supervision of construction; The consulting firm or one of the JV partners (in case of JV) shall have experience in successfully completion of one such related project i.e consultancy services for establishment of prepaid gas metering system or prepaid utility (Water/ Electricity, etc) metering system in last ten years; The consulting firm shall have experience of engineering works for the establishment of Web- Based Data Management System; The consulting firm shall have experience of engineering works for the establishment of facilities related to gas supply systems; The consulting firm or Lead Firm (in case of JV) shall have an ISO 9001 certification. <p>N.B. Years shall be counting backward from the date of closing the EOI.</p> |
| 18. | Other details | : | <p>Association with other firms is encouraged. The interested consulting firms may associate with other firms but should clearly indicate whether the association is in the form of a joint venture and/or a sub consultancy. In the case of a JV, all members of such JV should have real and well-defined inputs to the assignment and the number of firms in the JV shall be limited to a maximum of three (3) including the lead Firm. All JV partners shall be “Jointly and Severally” responsible for the assignment. An appropriate Declaration of Intent in that regard and signed by all JV partners mentioning the name of the lead partner and the name of the authorized signatory shall be submitted with the EOI application. The qualification/experience of only the interested JV partners will be evaluated while the qualification/ experience of the Sub-consultants will not be considered in the evaluation of EOIs for shortlisting process.</p> <p>This EOI would be processed following PPA-2006 & PPR-2008 in Bangladesh.</p> <p>The EOI should include documents in the following order:</p> |

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|---------------------------------|--|--|
| | | <ol style="list-style-type: none"> 1) Application for Expression of Interest; 2) The firm's registration/ incorporation / valid trade license certificate; 3) The firm's up to date VAT registration and income tax clearance certificate; 4) Constitutional documents of the Firm; 5) Availability of appropriate skilled staffs list of relevant professional, their qualification and experience. 6) Company profile/brochure covering general and overall experience, basic data of the Firm, its Management, key expertise, Firm's specialty etc.; 7) ISO 9001 certificate (1st issued and Current valid certificate); 8) Duly filled and signed EOI forms i.e form (1), (2), (3), (4), (5) 9) Supporting Documents of qualification experiences; 10) Bank Solvency Certificate; 11) The latest Annual Report, Audited financial statement (Balance Sheet, Profit & Loss Account, and Cash Flow Statement) in last 03 (three) years to check for the financial capability. <p>The interested Consulting Firm should sign and stamp the Original EOI Application at all pages and submit the EOI bearing Name & address of the Firm, EOI No. & Date and be addressed Project Director, Installation of Smart Prepaid Gas Meters, SCADA & GIS at PGCL Franchise Area Project, PGCL, Nalka, Sirajganj, Bangladesh in 03 (Three) Copies [(01 marked as ORIGINAL + 02 marked as COPIES) and a soft copy in CD or Pen-drive] in an envelope duly marked as "RE-REQUEST FOR EXPRESSION OF INTEREST (EOI) for CONSULTANCY SERVICES FOR INSTALLATION OF SMART PRE-PAID GAS METERS AT PGCL FRANCHISE AREA" on all working days(Sunday to Thursday) within office time at the place of receiving EOI before the closing date and time of EOI with proper information and documents. Any submission received after the submission date and time will not be accepted.</p> <p>Request for Proposal (RFP) documents and relevant papers will be issued to the shortlisted firms only.</p> |
| 19. | Place of receiving of EOI proposals | : PGCL Dhaka Liasion Office, Petrocentre (13 th Floor), Petrobangla, Dhaka. |
| PROCURING ENTITY DETAILS | | |
| 20. | Name of Official Inviting EOI | : Engr. Debdip Barua |
| 21. | Designation of Official Inviting EOI | : Project Director, Installation of Smart Prepaid Gas Meters, SCADA & GIS at PGCL Franchise Area Project |
| 22. | Address of Official Inviting EOI | : PGCL Head Office, Nalka, Sirajganj. |
| 23. | Contact Details of Official Inviting EOI | : Mobile: 01730357230 Telephone: 025888 31522 Email: debdip.barua@pgcl.org.bd . |
| SPECIAL INSTRUCTIONS | | |
| 24. | | : <ol style="list-style-type: none"> a) The procuring entity reserves the right to accept or reject any or all EOIs without assigning any reason whatsoever. b) If it is not possible to receive/open the EOI on the schedule date due to any unavoidable circumstances or holiday, the same will receive/open at the same time and same place on the subsequent/next working day. |


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Project Director

(Installation of Smart Prepaid Gas Meters,
SCADA & GIS at PGCL Franchise Area Project)

“Consultancy Services for Installation of Smart Prepaid Gas Meters at PGCL Franchise Area”

Terms of Reference (TOR)

1. Title of the Service:

“Consultancy Services for Installation of Smart Prepaid Gas Meters at PGCL Franchise Area”

2. Background of the Service:

Ensuring efficient utilization of natural gas is one of the major policies of Government of Bangladesh at the backdrop of declining natural gas reserve in Bangladesh. Most of the domestic customers of Pashchimanchal Gas Company Limited (PGCL) use non-metered gas. They pay a fixed amount gas bill against whatever may be the quantity of their gas consumption. As they do not pay for every unit of gas, they use gas for drying clothes, keeping the room warm in winter and don't turn off the burner while not using etc. and thus waste natural gas.

For these reasons, most of the domestic customers do not pay any heed to use natural gas efficiently; they do not use efficient gas appliances to reduce the wastage of gas. Some dishonest customers indulge in gas pilferage as well as, using gas in unauthorized appliances. This is one of the crucial factors which contribute to the wastage and system loss of our non-renewable natural gas. Gas pilferage and management inefficiency are two other factors behind this.

Thus, it is imperative to take appropriate measures to combat wastage of gas in domestic sector and gas utilization inefficiency with a view to contributing to energy saving and national energy security and thus create a positive environmental impact.

It is seen that the domestic customers are not aware of huge wastage of gas due to the leakage of internal GI line and also does not inform the company about the matter. If smart pre-paid meters are installed, the customer will take immediate action to repair the GI line leakage because the customer has to pay for the leaked gas. This will prevent a huge amount of gas wastage as well as prevent unwanted accidents by ensuring overall safety. At present our domestic customers pay gas bill amounting to 1080 taka for each double burner for whatever quantity of gas they use. According to the Bangladesh Energy Regulatory Commission (BERC), gas tariff rate of domestic purpose (Tk. 18.00 per cubic meter), consumer should not use gas more than 60 cubic meter. If prepaid meters are installed the customers will have to pay for each volume of gas they consume. Also, in prepaid metering arrangement they will have to pay their gas bill in advance, This fact will make them concerned against wastage and misuse of gas.

So, Installation of Smart Prepaid Gas Meters (**SPGM**) at PGCL Franchise Area is essential to ensure affordable, reliable and sustainable energy supply for all domestic customers, including increasing energy efficiency and ensuring optimal use of gas.

For these purposes, a project named “Installation of Smart Prepaid Gas Meters, SCADA & GIS system at PGCL franchise Area” has been taken with the financing of Government of Bangladesh (GoB), World Bank and PGCL Own fund. The project will help promote efficient and safe use of gas in PGCL franchise area. The scope of the SPGM installation under the project includes the following:

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- a. Supply, installation, and commissioning of 1,28,000 SPGMs with web system including data center, data recovery center.
- b. Supply, installation, and commissioning of Meter Calibration System.
- c. Supply, installation, and commissioning of Grievance Redress Mechanism etc.

Other Relevant Information:

(a) Technical information

In this project the technical standards to be followed will be mainly international standards such as IEC and ISO.

(b) Relevant Laws and regulations

3. Location of the Service:

The project will be implemented in the regional offices under the PGCL franchise area. The location of the regional offices are as follows:

| Country | Division | District | City Corporation/Pouroshova/Upazila |
|------------|----------|-----------|--|
| Bangladesh | Rajshahi | Rajshahi | Rajshahi City Corporation & its adjoining area |
| | | Sirajganj | Sirajganj Sadar Upazila Kamarkhanda Upazila Ullapara Upazilla Shahjadpur Upazila and its adjoining area |
| | | Bogura | Bogura Sadar Upazila Shajanpur Upazila and its adjoining area |
| | | Pabna | Pabna Sadar Upazila Ishwardi Upazila Bera Upazila Santia Upazila and its adjoining area |

- Consultant's duty station is Sirajganj Sadar Upazilla, Sirajganj.

4. Objective of the Service:

Pashchimanchal Gas Company Limited (PGCL), a state-owned company, has taken a Project named " Installation of Smart Pre-paid Gas meters, SCADA & GIS System at PGCL Franchise Area" for the efficient and effective use of Natural Gas by domestic category customer under PGCL. Introduction of smart pre-paid gas meters will contribute in reduction of wastage of natural gas, establishment a proper tariff collection system, improvement of consumer's energy saving mindset and conservation of environment. Pashchimanchal Gas Company Limited (PGCL) intends to appoint a National Consulting Firm in order to provide Consultancy Services for Installation of Smart Pre-paid Gas Meters for domestic customers in PGCL Franchise Area in compliance with all requirements including World Bank (WB)'s environment and social safeguard policies, financing agreement between WB and the government of Bangladesh , and applicable laws and regulations in Bangladesh.

5. Scope of Consulting Services

The Services to be provided by the Consulting firm will include review of all related study reports, administrate all types of engineering works of the project, assistance in all procurement tendering including preparation of tender documents & evaluation, project

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management, detailed engineering, procurement contract management, field construction & commissioning, monitoring & supervising the project activities, deliver the appropriate suggestions & recommendations etc., all as necessary and appropriate for successful implementation and completion of SPGM installation under the Project. The Consultant will keep PGCL fully informed on all matters relating to the Services and the Project at all times during the period of the Service. This can be done through oral communications and will be confirmed by the submission of letters, monthly correspondence, weekly correspondence, and other reports in writing, as appropriate for the purpose.

6. Duration of the Service:

The duration of the service will be 40 (Forty) months.

7. Qualification of the Consulting Firm:

The Interested Consulting Firm must prove that they have a solid technical background and operational strength to undertake the above-mentioned assignment and take this work forward without any hindrances. Consulting Firm must also have adequate technical ability, resources, human resources, and processes. The firm must have following minimum eligible criteria:

- a) The consulting firm / JV shall have 5 (five) years of experience in consultancy services in project management, procurement assistance, engineering and supervision of construction
- b) The consulting firm or one of the JV partners (in case of JV) shall have experience in successfully completion of one such related project i.e consultancy services for establishment of prepaid gas metering system or prepaid utility (Water/ Electricity, etc) metering system in last ten years.
- c) The consulting firm shall have experience of engineering works for the establishment of Web- Based Data Management System.
- d) The consulting firm shall have experience of engineering works for the establishment of facilities related to gas supply systems.
- e) The consulting firm or Lead Firm (in case of JV) shall have an ISO 9001 certification.

N.B. Years shall be counting backward from the date of closing the EOI.

Other Details:

- Association with other firms is encouraged. The interested consulting firms may associate with other firms but should clearly indicate whether the association is in the form of a joint venture and/or a sub consultancy. In the case of a JV, all members of such JV should have real and well-defined inputs to the assignment and the number of firms in the JV shall be limited to a maximum of three (3) including the lead Firm. All JV partners shall be "Jointly and Severally" responsible for the assignment. An appropriate Declaration of Intent in that regard and signed by all JV partners mentioning the name of the lead partner and the name of the authorized signatory shall be submitted with the EOI application. The qualification/experience of only the interested JV partners will be evaluated while the qualification/ experience of the Sub-consultants will not be considered in the evaluation of EOIs for shortlisting process.

- The interested firm (s) who has records of litigation and delaying the works strongly discouraged to apply for the Expression of Interest.

- This RFP would be processed following the PPA-2006 & PPR-2008.

8. SCOPE OF WORKS OF THE CONSULTANTS:

The services to be provided by the consultant will include review of all related study reports, assistance in bidding, including preparation of bid documents and bid evaluation, and project management for the detailed engineering, procurement, field construction and commissioning all as necessary and appropriate for successful implementation and completion of the Smart Prepaid Gas Meters installation under the project.

The consultant will keep PGCL fully informed on all matters relating to the Services and the project at all times during the period of the service. This can be done through oral communications and will be confirmed by the submission of letters, monthly correspondence, weekly correspondence and other reports in writing, all as appropriate for the purpose.

TOR in Brief

Pashchimanchal Gas Company Limited (PGCL), a company of Petrobangla, intends to appoint the Consulting Firm in order to provide Consultancy Services for Installation of 128,000 nos Smart Prepaid Gas Meter for domestic customers in PGCL franchise area.

The professional experts will be a part of PGCL's related team. The Consulting Firm shall use its expertise and state-of-art technology for monitoring the required services referred to be in the Contract and shall be fully responsible for overseeing the successful execution of SPGMs installation under the project. They will be responsible for reporting to the Project Director or authorized representative or person-in-charge of PGCL and will work in close co-ordination with PGCL's project personnel. The Services to be provided by the Consulting firm will include review of all related study reports, administrate all types of engineering works of the project, assistance in all procurement tendering including preparation of tender documents & evaluation, project management, detailed engineering, procurement contract management, field construction & commissioning, monitoring & supervising the project activities, deliver the appropriate suggestions & recommendations etc., all as necessary and appropriate for successful implementation and completion of the SPGM installation under the Project. The Consultant will keep PGCL fully informed on all matters relating to the Services and the Project at all times during the period of the Service. This can be done through oral communications and will be confirmed by the submission of letters, monthly correspondence, weekly correspondence, and other reports in writing, as appropriate for the purpose.

The Consulting Services by the firm for the above project shall be carried out, but not limited to, in accordance with the following major scope of works:

Task A: Services for Pre- Installation Stage

- Project Management.
- Review, Update Data /Information of Existing Studies.
- Pre-survey to assess the level of awareness and understanding of residential customers on safe and efficient use of domestic gas appliances and SPGMS.
- Site Survey to finalize the customers for SPGM installation.
- Basic Design, Drawing and Engineering of SPGM, Meter Calibration system, Web system (Data center, Data recovery center) & Automated Grievance Redress center etc.;
- Cost Estimate based on the Basic of Survey Design.

- Procurement Assistance including preparation of tender documents, tender evaluation, contracting for EPC contractor, O&M Service agreement etc.)
- Institutional capacity development of PGCL.

Task B: Services for Installation Stage

- Project management at all levels including periodic review of budget estimate and administration of project cash flows.
- Project management for installation, planning, and coordination with Rajshahi city corporation, Sirajganj Sadar, Ullahpara Upazilla, Shahjadpur Upazila, Bogura Sadar, Shajanpur Upazila, Pabna Sadar, Ishwardi Upazila, Bera Upazila, Santia Upazila and their adjoining area.
- Assessment of existing distribution networks at customer premises, preparing design for appropriate adjustment of existing layout to create efficient space management, Assist PGCL for customer management required for the installation of Smart Pre-paid Gas meters etc.
- Supervision for Detailed Engineering, Procurement, Installation, Commissioning and Testing of SPGM System, Meter Calibration System, Web system (Data center, Data recovery center) & Automated Grievance Redress center etc.;
- Plan and arrange Public Awareness Building Campaign for efficient use of gas.
- Examination of gas price and recommendation to adjust.
- Institutional Development (Monitoring of training and technology transfer to PGCL personnel/operation team by the contractor).
- Responsible for effective implementation, monitoring and supervision tools are developed & implemented, quality assurance system for the installation of Smart Pre-paid Gas meters, Meter calibration system, Web system (Data center, Data recovery center) & Automated Grievance Redress center in PGCL franchise area;
- Preparing project interim and completion reports whenever necessary and maintain all the relevant project records.

Task C: Services for Post-Installation Stage:

- The Consultant shall inspect, assist and advice PGCL to issue work completion report to the Contractor (s) for effective and efficient completion of Smart Prepaid Gas Meters Installation under the Project and preparation of all reports including Project Completion Reports.
- Post- Survey to assess whether awareness of residential customers on safe and efficient use of gas has been enhanced compared with the base line and measurement of the monthly gas consumption per customer and
- Any other work (if required) for effective and efficient completion of the Project.

TOR Details

Task A: Services for Pre- Installation Stage:

A.1 Project Management

A.1.1 Overall Project implementation Program

The first task is preparation of overall project implementation program to achieve the successful installation, commissioning and operation of Smart Prepaid Gas Metering System, Meter calibration system, Web system (Data center, Data recovery center) & Automated Grievance Redress center. This

program has to clearly identify actions with time schedule and funding requirement of all components and concerned parties, who is going to do what in how much. It will be the basis of the Project implementation and reviewed and revised at the end of Basic Design Stage.

A.1.2 Project Management Plan (Pre-Installation Stage)

The Consultant shall establish the system of project management and prepare the Project Management Plan (Pre-Construction Stage). The Project Management Plan should take the following into the consideration:

- a. Identification of responsibility and authority of the Employer, the concerned agency/party and PIU (Project Implementation Unit);
- b. Decision making process.
- c. Coordination among the concerned agency/party.
- d. Communication/information dissemination.
- e. Monitoring and reporting

A.2 Update and Upgrade of Data / Information of Existing Studies

A.2.1 Review of Existing Studies and Data

Carefully review the previous feasibility study documents, including all data and information related to this Project such as conceptual study result, project implementation schedule, and preliminary cost estimation. The Consultant shall obtain all the latest data information necessary for basic engineering from PGCL.

A.2.2 Site Survey

Consultant shall conduct the following site surveys with PGCL to finalize the customers to be equipped with Smart Pre-paid Meters for pilot installation and full-scale installation, and to finalize the installation sites and conditions for WEB system and POS (if necessary);

- a. Examine the cases where gas is supplied to multiple kitchens from a single riser through site surveys and discussions with PGCL and find out the appropriate installation method for such cases by mutual consent of PGCL and customers.
- b. Select the installation site for before-after analysis of actual gas consumption from the customer data in different regional offices under PGCL franchise area.
- c. Finalize the sites and conditions for the installation of SPGMs with WEB system including data center and data recovery center and POS (if necessary) with consent of PGCL.

A.3 Basic Design and Engineering

The Consultant shall carry out Basic Engineering works, and provide result of works in the bid document accordingly. The Contractor will carry out the detail engineering works prior to procurement/construction.

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A.3.1 Basic Design and Engineering for Smart Pre-paid Gas Metering System for Bidders and Contract documents

The Consultant shall draw the basic design for proposed Smart pre-paid gas metering system. The design shall include but not limited to the following;

- a. Conditions for Gas service line (customer side) and Distribution pipeline
- b. Conditions of Header, Regulator, Lock wing cock, Bush (Insulator) etc.
- c. Service line replacement, modification. Removal etc.
- d. Type of Smart Pre-paid Gas meters
- e. Installation method of the Smart Pre-paid Gas meter Protection device (weather/shelter) and/or
- f. Reliability, availability, maintenance ability and safety
- g. Authorized constructor skills, piping design rules, etc. for piping works

A.3.2 The Consultant shall draw the basic design for proposed WEB system, Meter Calibration system & Automated Grievance Redress center system for Smart Meter for Bidders and Contract documents. The design shall include but not limited to the following:

- a. Internet Condition and site conditions for the establishment of WEB system for Smart Pre-paid Gas Meter.
- b. Conditions of local office as technical support center
- c. Conditions of Smart Pre-paid Gas meter in Customer premises to connect with WEB system (Data center, Data recovery center) & Automated Grievance Redress center.
- d. Technical Specifications of SPGM, Meter Calibration system & Automated Grievance Redress center

A.3.3 Cost Estimation

Based on the Basic Design, the Consultant shall estimate the preliminary cost of the Project. In case any cost increase is observed due to unexpected reasons, compared with feasibility study report, the alternative proposal shall be prepared.

A.3.4 Review of Bidding Documents

Based on the Basic Design and cost estimation, the consultant shall review the proposed bidding package in consideration of the following phases for the smooth implementation of the project.

- a. Installation of WEB system (Data center, Data recovery center) & for Smart Pre-paid Gas meter for pilot installation.
- b. Full scale installation (meters with SIM Card and POS (if necessary)).
Bidding packages shall be sized to attract international contractors/suppliers for competition. Review and update the above-mentioned documents based on PGCL comments.
- c. Commissioning, integration , testing and functional guarantee;
- d. Operational acceptance.
- e. Prepare, qualification criteria including, but not limited to, eligibility, joint venture, general experience, specific experience, financial capability, organizational capacity, and others with the consent of PGCL.

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A.4 Procurement Assistance:

A.4.3 Bid Document

A.4.1 Bid Document

Prepare, check and review Tender documents for the full turnkey contracts based on the Standard Tender Documents under the World Bank guideline for procurement. General terms and conditions for tendering purpose conditions of contract, technical specification and drawings for tendering purpose, schedule and forms for tendering purpose with due coordination with guidelines of World Bank. The consultant shall duly communicate with PGCL. The required Tender documents in order to invite substantially responsive bidders.

- a. Assist PGCL for pre-Tender conference.

A.4.2 Tender call and Pre-Tender conference and Clarification

After the concurrence of evaluation of the Pre-Qualification and the tender Documents, the Consultant shall give notification to applicants to collect bid document from PGCL's office. The Consultant will advise the time and venue of the pre-bid conference. The pre-bid conference shall be organized at a reasonable location. The pre-tender conference shall be held one month before the tender closing.

- a. Assist PGCL in replying Bidders question and in issuing addenda to Bid documents.

A.4.3 Tender Evaluation

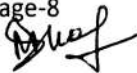
The Consultant shall assist PGCL in international tendering process based on the Evaluation Guide for Bidding under the guideline for procurement of World Bank. Consultant's activities shall include but not limited to the following;

- a. Examine and evaluate the technical Bids received (on qualification and technical aspects) in accordance with World Bank guideline for procurement and PGCL approved criteria.
- b. Prepare draft evaluation report of PGCL and assist PGCL in selecting technically responsible Bidders.
- c. Evaluate and tabulate contents of all Bids for compliance with the Bid documents, reasonableness of price and proposed time for completion of the work and World Bank applicable guideline for procurement. If the reasonableness of the Tenderer's proposal, especially on the proposed price and/or time of the work is found substantially lower than the previously estimated cost or time, the Consultant shall duly investigate the responsiveness of the tenderer.
- d. Prepare final evaluation reports and recommend for award of contract taking into consideration to comments of PGCL draft evaluation report.
- e. Prepare draft contract agreement issued by PGCL to successful Tenderer.



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A.4.4 Contracting

The Consultant shall ensure that the contract documents duly incorporate the provisions for the right of the PGCL to terminate the contract, and clearly define the conditions for the termination of the contract.

A.5 Institutional Development

A.5.1 Assistance for Staff Assignment

According to the overall project implementation plan, the Consultant shall advise PGCL for the assignment of staff required for the project implementation as well as operation and maintenance.

Task B: Services for Installation Stage

B.1 Project management at all levels including periodic review of budget estimate and administration of project cash flows

B.1.1 Establishment of project management system

The consultant shall establish a project management system for installation stage, acceptable to PGCL, which will be used to monitor, track and pin point problem. The works involved will include but not limited to the following;

- a) Establish the basic overall project construction schedule, budget and cash disbursement schedule for both foreign and local portion.
- b) Establish and implement a project management system and procedures to monitor and control the cost and time schedule to enable timely corrective measures.
- c) Support, co-coordinate, supervise and make decision and issue instruction for all design and engineering related to the all-construction activities to PGCL from view point of ensuring the engineering standards, quality assurance and safety of the project.
- d) Set up a quality reporting management system of project progress and status to PGCL.
- e) Manage claims by and against the contractor properly and reasonably within reasonable time considering the best interest of PGCL.
- f) Anticipate and identify potential difficulties or conflicts and their effect on the implementation schedule and recommended and agree steps to be taken by the contractor or recommending steps to be taken by PGCL to overcome the difficulties and to avoid delays. In this project, Smart pre-paid metering installation may encounter the refusal from residents. So, public awareness campaign support should be required for PGCL's setting up the public meeting and media announce to mitigate these issues for candidate installation site customers well recognition.
- g) Prepare and/or evaluate recommendations to PGCL regarding any change proposals, technical amendments and change in the scope of work, if any, the appropriateness of their pricing and if agreed by PGCL the timely issuance to the contractor of charged order, as per the conditions of the supply and installation contract.

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B.2 Supervision for Detailed Engineering, Procurement, Installation, Commissioning and Testing.

B.2.1 Supervision of Detailed Engineering by the Contractor

The Consultant shall check and review the detailed design and engineering works by the Contractor by the following activities;

- a. Monitor the progress of detailed design and engineering works.
- b. Check and review the detailed engineering designs, specifications, shop drawings of the works, procurement and engineering plans, schedules, training, procedures, and the like: and
- c. Ensure that all the detailed design objectives, such as including quality and safety control design sheet, etc. site installation design and system development plan, etc. are met in accordance with the requirements of the contract.

B.2.2 Supervision of Procurement

The Consultant shall check and review Contractor's activities for the procurement of Smart Prepaid Gas meters, Meter Calibration System, WEB system (Data center, Data recovery center) & Automated Grievance Redress center equipment, materials, etc. by the following activities;

B.2.2.1 Vender Check, Approval and Monitoring

- a. Check and review Contractor's proposed vendor list for all equipment and materials. The Consultant shall make a recommendation to PGCL regarding acceptance or rejection of the Contractor's proposal.
- b. Ensure that Contractor employs only the approved suppliers, vendors, and subcontractors with detailed installation plan and O&M support structure.
- c. Evaluate and comment on the sample system demonstration, software and hardware samples of material, and equipment proposed by the Contractor.
- d. Monitor Contractor's procurement and delivery schedules for major of critical equipment and materials.

B.2.2.2 Acceptance Audit and Inspection, Testing and Delivery control during manufacturing. The consultant with PGCL participation shall undertake to implement the following:

- a. Monitor and supervise the quality assurance program prepaid by the contractor.
- b. Regularly review production and delivery schedule submitted by contractor.
- c. Check and approve factory testing procedures and factory test results submitted by the contractor.
- d. Monitor manufacturing progress by testing regular inspections to ensure compliance to contract documents.
- e. Supervise shop test and site test to be conducted according to the specifications on behalf of PGCL for major and critical equipment.
- f. Witness factory test of and site demonstration test in the pilot stage, which preparation of corresponding certificates (test items to be witnessed are to be agreed between PGCL and the contractor).
- g. Check and review inspection report of all routine test submitted by the contractor.
- h. Ensure that all goods received on site are inspected by the Consultant as necessary to monitor the compliance to standards and specifications.

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B.2.3 Supervision for the Installation

The Consultant shall check and review the Contractor's installation activities by the following activities;

- a. Examine, accept, or suggest modification to the Contractor's alternative proposals. If any.
- b. Manage effectively all project interfaces.
- c. Ensure proper submission of documents to be delivered by the contractors.
- d. Monitor and verify quality of Contractor's work to ensure that all works will fit to the purpose of the Project.
- e. Review suitability of Contractor's key and supervisory personnel.
- f. Issue all necessary instructions to the contractor, to ensure that the works are carried out in conformance with the applicable regulations and the requirements of the Contract.
- g. Anticipate and identify potential difficulties or conflicts and their effect on the implementation schedule and recommended and agree steps to be taken by the contractor or recommending steps to be taken by PGCL to overcome the difficulties and to avoid delays. In this Project, pre-paid metering installation may encounter the refusal from residents.
- h. Prepare and maintain an up-to-date progress schedule of the major items of the works showing the expected date of completion of the works, which can readily be used for discussion with the contractor.
- i. Prepare change orders from PGCL for issuance to the Contractors and prepare cost estimates thereof. Review and negotiate the cost proposal from Contractor as necessary, and make recommendation to PGCL regarding approval.
- j. Review, verify the Contractor's invoices and make recommendations regarding issuance of certification of Contractor's progress payment claims.
- k. Assess the amounts of penalties and liquidated damages caused by delay of progress of work. If any, and prepare recommendations to PGCL for taking necessary action.
- l. Maintain records of all measurements made of the works quantities as may be necessary for payment to the Contractor. Also maintain records of the results of all tests made on materials and equipment used in the works.
- m. Make recommendations regarding issuance of certificate to the Contractors.
- n. Monitor Contractors compliance with safety regulations and labour regulations and advise PGCL of any violations or accidents.
- o. Attend various meetings with PGCL, the relevant authorities, and/or the Contractors and advise PGCL as necessary and appropriate.
- p. Check and review as-built drawing to be submitted by the Contractors and make a recommendation to PGCL regarding acceptance.

B.2.4 Supervision for the Commissioning and Testing

The Consultant shall supervise the Commissioning and Testing for Smart PGM, WEB system (Data center, Data recovery center) & Automated Grievance Redress center by the following activities;

- a. Monitor and verify that all pre-commissioning activities carried out by the contractor in compliance with safety and environmental requirements, schedules, and procedures.

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- b. Check and review Contractor's planning and procedures for the commissioning, start-up and test runs of the project.
- c. Witness and verify the commissioning and start-up activities of the project.
- d. Verify completion of all items on the Contractor's checklists for any defects or rectifications and make recommendations to PGCL regarding the issue of completion certificates, as and when appropriate.

B.3 Public Awareness Campaign

Prior to the activation of Smart PGM system, the consultant shall assist PGCL to implement the Public Awareness Campaign Program to improve the energy-saving mind-set of domestic customers by following activities:

- a. Check and review the awareness Campaign Program that will be proposed by the Contractor.
- b. Assist PGCL to finalize the Awareness Campaign Program.
- c. Monitor the execution of Public Awareness Campaign and ensure its effectiveness.
- d. Propose Public Awareness Campaign for the nationwide expansion of Smart PGM system in future

B.4 Examination for revision of gas price

Prior to the full-scale installation of Smart PGM system, the Consultant shall examine the necessary for revision of gas price (including the block tariff system) in order to ensure the efficient use of gas based on the result of pilot installation and propose the plan for gas price revision if it is required.

B.5 Institutional Development

B.5.1 Training to Operating staff of PGCL (Technology Transfer)

The Consultant verify and monitor the training to PGCL O&M team provided by the Contractor and ensure that PGCL will be capable to operate and maintain entire Smart PGM system, meter calibration system & Automated Grievance Redress system after taking over by the following activities:

- a. Assist PGCL to define the required skills and experiences for the operation and maintenance of PGCL operation team (Smart Prepaid Gas Meters, WEB system (Data center, Data recovery center), meter calibration system, Automated Grievance Redress center & connectivity between Meter & Web System, Technical Support center).
- b. Check and review the Contractor's plan for technology transfer to PGCL operation team, based on the defined skills and experience. Revise the definition of the skills and experience with consultation, in accordance with the actual implementation status and situation.
- c. Monitor and ensure the technology required for operation and maintenance is duty transferred to PGCL during the project implementation.

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Task C: Services for Post-Construction Stage

Final Acceptance

- Defects liability period

Inspect and report on the contractor(s)' performance during the Defects Liability Period, one year for the system after the handing over. The Defect Liability Period will start from the date specified in the corresponding contract(s).

- Final taking over

Upon completion of defects liability period for the entire system, advise PGCL to issue the Final Taking Over Certificate(s) according to the stipulation of the contract(s).

- Project completion report

Within 6 months after the commencement of commercial operation of the entire project, prepare and submit the Project Completion Report to PGCL.

- Any other works (if required) for effective and efficient completion of the Project.

REPORTS & DOCUMENTS

The consultant shall prepare and submit to PGCL the following documents reports. All reports and documents shall be 01 original with signature of team leader and 02 copies and softcopy in format of PDF in English. Timing of submission will be decided and notified to the Consultant by the Client reasonably.

The reports and deliverables to be prepared and submitted to PGCL by the Consultant include, but not be limited to, the following:

| Sl no. | Type of Reports and deliverables | Timeline (Tentative timeline to be finalized after negotiation) |
|--------|--|---|
| i) | Inception report (including schedule); | 1 (One) month from the date of the signing of the contract. |
| ii) | Engineering report (including basic design report); | 2 (Two) months from the date of the signing of the contract. |
| iii) | Installation schedule and cost estimates; | 2.5 (Two & Half) months from the date of the signing of the contract. |
| iv) | Draft bid documents including evaluation and qualification criteria; | 3 (Three) months from the date of the signing of the contract. |
| v) | Draft bid evaluation reports; | 1 (One) month after the bid opening. |
| vi) | Monthly progress reports; | 1 st week of the following month. |
| vii) | Quarterly progress reports; and | 1 st week of the following quarter. |
| viii) | Final report along with draft Project completion report. | Within 2 (Two) months after the project completion. |

- a. The Consultant should submit a well informative and good standard daily report to the Person-in-Charge of PGCL during the project activities. After successful

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completion of the project, the Consultants shall submit the related reports in different formats and standards. After completing the project, the relevant DRAFT report shall be prepared in accordance with the international acceptable standards. The related project basis DRAFT report shall have to be submitted by the Consulting Firm. The DRAFT reports have to be in color printed hard copy in two sets (with PDF file) for each project.

- b. The PGCL will review the DRAFT reports and will give feedback (comments and suggestions) within ten working days for the improvement of the report. After incorporating all the comments and suggestions given by PGCL (the Client) on the DRAFT reports, the Consulting Firm shall submit five sets of color printed FINAL reports (with PDF file).

Key Personel (Requirement and responsibilities)

1) Team Leader (Web System Specialist)

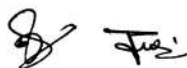
1.1 Position Requirements

- a. A qualified Computer Science Engineer or electrical or Information Technology (IT) engineer, with at least bachelor's degree and/or a relevant post-graduate qualification.
- b. Registered Engineer with the Institution of Engineers Bangladesh (IEB) or internationally recognize Professional body.
- c. Knowledge in C⁺⁺, Java, HTML, MSSQL/Oracle is advantageous.
- d. Experienced in installation, operation and maintenance of Data Center (DR) and Data Recovery Center (DRC) hardware equipments.
- e. Expert in trouble shooting, maintaining network/hardware/software/web system including firewall, router/switches, LAN/WAN and network security for overall networks and wireless communication & protocol.
- f. Knowledgeable about all aspects of current international best practices for smart Prepaid Gas Meter system solution, especially for safety protection solution and human interface.
- g. At least 10 years of experience in planning, design, construction and maintenance of similar infrastructure in developing countries, including a minimum of 3 years of experience serving as deputy team leader or similar higher position on prepaid gas meter development projects in similar geographical condition like Bangladesh.
- h. Age is above 45 years but not exceeding 65 years.

1.2 Job Description & Responsibilities

Working closely in collaboration with, and reporting to the Project Implementation Unit (PIU). Team Leader will be responsible for the overall management, coordination and reporting of the consulting services, for the efficient and effective delivery of the services to meet the defined objectives, and for liaison with PGCL for Project matters. Team Leader will also be expected to apply significant international experience to guiding and supporting all technical and social aspects of the consultant assistance. Specifically the Smart PGM system specialist/Team Leader will:

- a. Leading, coordinating & managing the technical, managerial activities of the team.



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- b. Provide overall management and supervision of the consultant staff, quality assurance of all consultant outputs and coordinate closely with PIU, advice and support them on all aspects of the implementation.
- c. Provide PIU to ensure that all requirements related to the implementation to be effectively met.
- d. Provide PIU in Project reporting to PD, and be directly responsible for reporting on the progress of the consulting services regarding project activities.
- e. Generally support PIU in achieving the project objectives, including problem-solving and responding to unexpected events or developments that may impact on project implementation.
- f. Provide PIU in planning, preparation and implementation of all Project works, tendering, and procurement of Smart Prepaid Gas Meter system application.
- g. Provide support to the network system and database team in the preparation, monitoring and reporting of the WEB system establishment and grievance redress mechanism center.
- h. With the PIU finalize the methodology of WEB system, define the customer data base requirements for planning.
- i. Advise and assist the PIU to collect system error, test and evaluate, the all system procedure in each project site (KISOK and head office).
- j. Advise and assist the PIU to enhance the capacity and their knowledge by using the system tool in gas saving consumption analysis skill transferring.
- k. Recommend to PIU with training program for the key human resource development needs in local training and study tours – for improved customer database management and system O&M management under the Project.
- l. Assist PGCL in fulfilling their responsibilities for engineering, construction, training, monitoring for Smart Prepaid Gas Meter full scale installation and O&M work, evaluating of quality, commissioning.
- m. With PIU, supervise all construction and O&M works through frequent site inspection, checking of their outputs and compliance with contract terms, measurement, and site demonstration and testing.
- n. Advise PIU on actions to address problems arising in the Smart Prepaid Gas Meter system, to monitor and report on the physical and financial progress of Smart Prepaid Gas Metering system.
- o. Assist PIU in implementing and O&M plan, resolving the issues (if any) between the EPC contractor and PIU for Smart Prepaid Gas Metering system.
- p. Any other jobs related with Smart Prepaid Gas Metering System/Project assigned by PIU.

2) Web System Specialist

2.1 Position Requirements

- a. A qualified Electrical & Electronics Engineer or Computer Science Engineer or Telecom Engineer with a bachelor's degree and/or a relevant post-graduate qualification.
- b. Minimum 07 years of working experience and out of which 05 years of experience in Power/Energy/Telecommunication Sectors in planning, design, construction, maintenance and operations of WEB System & in associated with prepaid meter billing software.
- c. Experience in Data center/Data recovery center design, installation, operation

and maintenance is Must.

- d. CCNA vendor certification and Knowledge in latest security issue is advantageous.

2.2 Job Description & Responsibilities

- a. Under the direction of the Team Leader and in collaboration with other members of the consultant team, provide PIU in planning, design, tendering and procurement of Data center, DRC & WEB system application.
- b. Database design, performance & load testing of database, integration testing, security testing, monitoring performance of server after deployment.
- c. Acceptance testing of Smart prepaid gas meter web system during implementation and after deployment.
- d. Support PIU in the preparation, supervision, progress monitoring of the project, reporting of the project progress and the solution of issue specifically the WEB System & Mobile Apps (Android, IOS).
- e. Advise PIU on actions to address problems arising in the WEB system, implementing and O&M plan for WEB system.
- f. Assist PGCL in fulfilling their responsibilities for engineering, construction, training, monitoring for WEB system installation and O&M work, evaluating of quality, commissioning.
- g. With PIU, supervise all construction and O&M works through frequent site inspection, checking of their outputs and compliance with contract terms, measurement, site demonstration and testing.
- h. Assist Team Leader of the consultant team in carrying out their assigned activities.
- i. Assist PIU in planning, preparation and implementation of all Project works.
- j. Any other jobs assigned by team leader and or PIU.

2) Software Specialist

3.1 Position Requirements

- a. A qualified Electrical & Electronics Engineer or Computer Science Engineer or Telecom Engineer with a bachelor's degree and/or a relevant post-graduate qualification.
- b. Minimum 05 years of working experience and out of which 03 years of experience in Power/Energy/Telecommunication Sectors in planning, design, construction, maintenance and operations.
- c. Knowledge in PHP, C++, Java, HTML, MSSQL/Oracle is advantageous.
- d. Knowledge in latest cyber security issue is advantageous.
- e. Experience in Data center/Data recovery center design, installation, operation and maintenance is appreciable.

3.2 Job Description & Responsibilities

- a. Under the direction of the Team Leader and in collaboration with other members of the consultant team, all necessary software related works.
- b. Support PIU in the preparation, supervision, progress monitoring of the project, reporting of the project progress and the solution of issue specifically the WEB System.

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- c. Assist PIU in planning, design, tendering, procurement of cost effective Data Center, DRC & WEB system application.
- d. Assist PGCL in fulfilling their responsibilities for engineering, construction, training, monitoring for WEB system installation and O&M work, evaluating of quality, commissioning.
- e. Security assessment of DR & DRC, final acceptance testing of infrastructure (DR, DRC).
- f. Assist Team Leader of the consultant team in carrying out their assigned activities.
- g. Assist PIU on actions to address problems arising in the WEB system.
- h. Assist PIU in implementing and O&M plan for WEB system.
- i. Any other jobs assigned by team leader and or PIU.

4) Network/Hardware Engineer/Expert

4.1 Position Requirements

- a. A qualified Electrical & Electronics Engineer or Computer Science Engineer or Telecom Engineer with a bachelor's degree and/or a relevant post-graduate qualification.
- b. Minimum 05 years of working experience and out of which 03 years of experience in Power/Energy/Telecommunication Sectors in planning, design, construction, maintenance and operations.
- c. CCNA vendor certification and Knowledge in latest cyber security issue is advantageous.
- d. Experience in Data center/Data recovery center design, installation, operation and maintenance is appreciable.

4.2 Job Description & Responsibilities

- a. Under the direction of the Team Leader and in collaboration with other members of the consultant team, all necessary networking/hardware and related electrical work.
- b. Support PIU in the preparation, supervision, progress monitoring of the project, reporting of the project progress and the solution of issue. Specifically the WEB System.
- c. Assist PIU in planning, design, tendering, procurement of cost effective Data Center, DRC & WEB system application.
- d. Assist PGCL in fulfilling their responsibilities for engineering, construction, training, monitoring for WEB system installation and O&M work, evaluating of quality, commissioning.
- e. Assisting in server's deployment, testing hardware infrastructure according to specification.
- f. Security assessment of DR & DRC, final acceptance testing of infrastructure (DR, DRC).
- g. With PIU, supervise all construction and O&M works through frequent site inspection, checking of their outputs and compliance with contract terms, measurement, site demonstration and testing.
- h. Assist Team Leader of the consultant team in carrying out their assigned activities.

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- i. Assist PIU in planning, preparation, implementation and training of all Project works.
- j. Assist PIU on actions to address problems arising in the WEB system.
- k. Assist PIU in implementing and O&M plan for WEB system.
- l. Any other jobs assigned by team leader and or PIU.

5) Procurement Specialist/Expert

Position Requirements

- a. At least bachelor's degree in engineering, or a master's degree in economics, business administration, or other relevant field.
- b. Minimum 07 years of work experience and out of which 03 years of experience directly related to the relevant tasks of procurement planning, tendering, and contract management and administration in developing countries or similar geographical condition like Bangladesh.
- c. Sufficient Knowledge in procurement under GoB and Development Partner assisted project;
- d. Sufficient Knowledge in DPP (Development Project Proposal).
- e. Thorough understanding of the procurement guidelines and procurement process of the World Bank, PPA-2006, PPR-2008 and related circulars in Bangladesh.
- f. Must have domain knowledge of inventory, procurement/purchase and asset management process in Govt./semi govt./autonomous body/MNC.
- g. Procurement specialization/certification from any reputed institution is preferable.

Job Description & Responsibilities

Under the direction of the Team Leader and in collaboration with other members of the consultant team the Procurement and Contract Management Specialist will support PIU in all aspects of procurement and contract management of works and goods by the Project Specifically, the Procurement and Contract Management Specialist will:

- a. Review the procurement plan of the Project, procurement thresholds, procurement methods and approval requirements (prior or post) in connection with procurement of goods and works under the Project as adviser for PIU on its application.
- b. Support and advice PIU in preparing, monitoring and reporting on their procurement plans for goods, works and spare goods, and in resolving any significant problems and issues arising.
- c. Liaise with PIU to support the EPC contract, including preparation of specification and bid documents, tendering and contract award.
- d. Assist and provide advisory support to PIU in the preparation of tender and contract documents in the tendering and evaluation process, contract award, contract management and administration, all in accordance with the procurement guidelines and procurement process of the World Bank. Advise PIU in resolving any significant issues and problems that arise in procurement and contract management.
- e. Any other jobs assigned by team leader and or PIU.


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6) Key and Non-key Persons/Experts Requirement:

The consultancy services to be provided by the firm shall include the following expertise:

| Category of Persons/Experts | No of Person | Nationality | Man-Month |
|--|--------------|-------------|-----------|
| Key Persons/Experts | | | |
| Team Leader (Web system specialist) | 01 | Bangladeshi | 40 |
| Web System Specialist | 01 | Bangladeshi | 24 |
| Software Specialist | 01 | Bangladeshi | 24 |
| Network/Hardware Engineer/Specialist | 01 | Bangladeshi | 24 |
| Procurement Specialist | 01 | Bangladeshi | 12 |
| Non Key Persons/Experts | | | |
| Manager | 01 | Bangladeshi | 40 |
| Computer Operator | 01 | Bangladeshi | 40 |
| Office Assistant | 01 | Bangladeshi | 40 |
| Total Man-Month: 244 | | | |
| N.B. The Non-Key Experts may be recruited by the Firm after awarding the Contract. | | | |

The key experts shall have excellent interpersonal communication and negotiation skills with high level counterparts and excellent Bengali and English language communication. The Consulting Firm shall use its expertise and state-of-art technology for monitoring the required services referred to be in the Contract and shall be fully responsible for oversee the successful execution of the project. They will be responsible for reporting to Project Director or authorized representative or person-in-charge of PGCL and will work in close co-ordination with PGCL's project personnel.

9. Remote Cooperation

Using the electronic system (email, fax or any other online system) the Client (PGCL) shall send the relevant document or report to the Consulting Firm or to the listed contract approved Consultants for review. Staying anywhere in Bangladesh the related Consultant shall respond (with suggestion and recommendation) electronically as soon as possible after reviewing the documents. Hence the Client shall not pay any cost for this remote cooperation and service. The remote cooperation time will commence at the start of the project and will finish in one year after the expiration of the project period.

10. Transfer of Knowledge (Training)

The Consultants shall deliver the hands-on training for the personnel engaged with Smart Prepaid Gas Metering system, web system, meter calibration system & Automated Grievance Redress center of PGCL within one year of the Contract so that the PGCL employees can use the related knowledge during implementation. During training the experienced instructors have to be provided by the Consulting Firm.

- Training for the installation, operation, and maintenance of smart pre-paid gas meters
- Training for the operation and maintenance of WEB system (Data center, Data recovery center), meter calibration system & Automated Grievance Redress Mechanism.

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11. Quality of Services

PGCL shall review, on a continuous basis, all Services rendered or performed by Consultant. All the individual Experts (in all categories) should have affiliation, membership, and accreditation or certified by the relevant professional organization or institution. All Services will be performed in accordance with currently accepted professional practices by appropriately qualified people who are trained and experienced in the applicable field. Consultant shall use its best efforts to achieve satisfactory results. PGCL shall notify Consultant, in writing, if all or any parts of the Services are not acceptable. PGCL shall supply a written explanation of the reasons why the Services have been deemed unacceptable. Such notice shall be supplied no later than ten (10) days following the conclusion of the billing period in which unsatisfactory performance occurred. Consultant shall thereafter, at no additional charge, modify and/or remedy its performance so as to make the Services reasonably acceptable to PGCL. The provisions of this paragraph shall be in addition to any express warranties provided by or through Consultant under this Agreement.

Consultant represents and warrants that it has the valid and legal right to enter into this Agreement and that the performance of its obligations hereunder will not violate the terms of any other agreement or understanding to which it is a party, nor conflict with the rights of any third party. Consultant will not become engaged during the term of this Agreement with any third party contracts that will interfere with the performance of Consultant's obligations hereunder. Consultant shall promptly replace any Consultant personnel conduct PGCL deems unsatisfactory.

The Professional Experts will be a part of PGCL's related team. They will be responsible for reporting to the Project Director of PGCL and will work in close co-ordination with the Company's other project personnel.

In all the reports, the Consulting Firm shall try to produce related maps, figures, models, diagrams etc. After completing the assignment, the Consulting Firm shall provide the FINAL reports, maps, figures, models, diagrams etc in CD and master copy & copies. Along with the color printed hard copies (five sets), the PDF files of all the related FINAL reports shall have to be delivered to the Client on time. All the reports have to be in original color printed and to be signed originally by the related Experts

12. Audit

PGCL reserves the right to perform an audit of all books and records of Consultant as they may relate to performance of this Agreement at any time. Consultant shall maintain accurate records at all times. Upon three (3) days' notice, Consultant shall provide PGCL reasonable access to Consultant's records to verify that pricing, billing and changes in Services conform to the terms of this Agreement. PGCL will be permitted to conduct these audits with its own internal resources or by securing the services of a third party accounting/audit firm, solely at PGCL's election. PGCL shall have the right to copy, at its own expense, any record related to the Services performed.

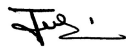
13. Tentative Flow Diagram/Time Schedule (Gantt Chart)

The Consulting Firm shall provide a tentative Work Plan (with graphical flow chart) showing step-by-step work for the proposed services. The relevant Experts should be mentioned in every steps of the flow chart. Using more than one Expert in any particular category, the Consulting Firm should have to work parallel in order to complete the assignment on time.

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Expression of Interest Forms: Contents

1. Form of Letter of "Expression of Interest"
2. Form (1) GENERAL INFORMATION
 - A1. The Consulting Firm's Information
 - A2. General information of the Consulting Firm
 - A-3. Overall Experience of the Consulting Firm
3. Form (2) Firm's Experience Record
4. Form (3) Financial Capacity
5. Form (4) Available Resource Personnel
6. Form (5) Available Office Facilities



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Letter of Expression of Interest

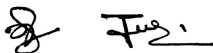
[Letter head paper of the Applicant including full postal address, telephone no., email no., and fax no.] Date:.....

To:

**Project Director
Installation of Smart Prepaid Gas Meters, SCADA & GIS at PGCL Franchise Area
Project, Nalka, Sirajganj.**

Sir,

1. Being duly authorized to represent and act on behalf of (hereinafter referred to as "the Applicant"), and having reviewed and fully understood all of the information provided in the Notice Inviting Expression of Interest, the undersigned hereby expresses its interest in and applies to be short-listed by yourselves as a submitter of proposal for preparing RFP document including its TOR for Consultancy services for Installation of 1,28,000 Smart Pre-paid Gas Meters at PGCL Franchise Area.
2. Attached to this Expression of Interest are copies of original documents defining:
 - (a) the Applicant's legal status; and
 - (b) the place of incorporation/ organization/ institution (for applicants who are firms/ institutes), or the place of registration and the nationality of the owners (for applicants individually-owned firms).
3. Project Director, Installation of Smart Prepaid Gas Meters, SCADA & GIS at PGCL Franchise Area Project and its authorized representatives are here by authorized to conduct any inquiries or investigations to verify the statements, documents and information submitted in connection with this Expression of Interest, and to seek clarification from our bankers and clients regarding any financial and technical aspects. This Expression of Interest will also serve as authorization to any individual or authorized representative of any institution referred to in the supporting information, to provide such information deemed necessary and as requested by Bangladesh Bank to verify statements and information provided in this Expression of Interest, such as the human resources, experience, and competence of the Applicant.



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4. Project Director, Installation of Smart Prepaid Gas Meters, SCADA & GIS at PGCL Franchise Area Project and its authorized representatives may contact the following persons for further information.

| | |
|----------------------|-----------|
| Experience inquiries | |
| Contact | Telephone |
| Personnel inquiries | |
| Contact | Telephone |
| Financial inquiries | |
| Contact | Telephone |

5. This Expression of Interest is made with the full understanding that:
- (a) all information submitted in this Expression of Interest for qualification and selection for short listing will be subject to verification at the time of submitting proposal by short-listed applicants;
 - (b) the Company reserves the right to reject or accept any application, cancel the qualification and selection for short-listing process at any stage, and reject all applications;
 - (c) the Company shall not be liable for any such actions and shall be under no obligation to inform the Applicant of the grounds for them.

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Form (1)

General Information







[All Consulting firms applying for short-listing are requested to provide following information in this form. Nationality information should be provided for all owners of firms.]

A1. The Consulting Firm's Information

| | |
|---------------------------------------|--------------------------------------|
| Name of firm | |
| Head office address | |
| Telephone | Contact (Name, position) |
| Fax | |
| Corporate Email | |
| Place of incorporation / registration | Year of incorporation / registration |
| Ownership of office (Own/Rental) | |

A2. General information of the Consulting Firm:

A3. Overall Experience of the Consulting Firm:

Form (2)

Firm's Experience Record

[Note: The Consulting Firm is requested to list all contracts for experience as mentioned in EOI notice being executed by the Firm.]

1. Firm's / JV (all Partners jointly) consultancy experience regarding engineering works for the establishment of facilities related to gas supply system.

| | |
|--|--------------------------|
| Name of the Contract: | Contact (Name, position) |
| Details of Employer | |
| Contract person (Designation, Corporate email, Phone etc.) | |
| Head office address | |
| Telephone | |
| Fax | |
| E-mail | |
| Implementation period of Contract | |
| Scope of the Contract | |
| Firm's input | |

2. Firm's/JV (all Partners jointly) consultancy experience regarding engineering works for web-based data management system:

| | |
|--|--------------------------|
| Name of the Contract: | Contact (Name, position) |
| Details of Employer | |
| Contract person (Designation, Corporate email, Phone etc.) | |
| Head office address | |
| Telephone | |
| Fax | |
| E-mail | |
| Implementation period of Contract | |
| Scope of the Contract | |
| Firm's input | |

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3. Firm's / JV (all Partners jointly) experience in consultancy services in project management, procurement assistance, engineering and supervision of construction;

| | |
|--|--------------------------|
| Name of the Contract: | |
| Details of Employer | Contact (Name, position) |
| Contract person (Designation, Corporate email, Phone etc.) | |
| Head office address | |
| Telephone | |
| Fax | |
| E-mail | |
| Implementation period of Contract | |
| Scope of the Contract | |
| Firm's input | |

4. Firm's/JV (all Partners jointly) consultancy experience in successfully completion of one such related project i.e consultancy services for establishment of prepaid gas metering system or prepaid utility (Water/ Electricity, etc) metering system in last ten years;

| | |
|--|--------------------------|
| Name of the Contract: | |
| Details of Employer | Contact (Name, position) |
| Contract person (Designation, Corporate email, Phone etc.) | |
| Head office address | |
| Telephone | |
| Fax | |
| E-mail | |
| Implementation period of Contract | |
| Scope of the Contract | |
| Firm's input | |

Form (3)

Financial Capacity


[Note: The Consulting Firm is requested to provide audited financial statement (balance sheet, profit & loss account and cash flow statement) in last three (3) years. The Consulting Firm is also requested to provide summary of financial information in the following form.]

| Financial information in Bangladeshi Taka equivalent | Actual: previous 3 years (use the accounting year of the applicant or partner) | | |
|---|--|-------------------|-------------------|
| | Accounting Year 1 | Accounting Year 2 | Accounting Year 3 |
| 1. Total assets | | | |
| 2. Current assets | | | |
| 3. Total liabilities | | | |
| 4. Current liabilities | | | |
| 5. Turnover of which consulting service only | | | |
| 6-1. Gross Profits the firm | | | |
| 6-2. Gross Profits of which consulting service provided only | | | |
| 7-1. Profits after taxes of the firm | | | |
| 7-2. Profits after taxes of which consulting service provide only | | | |



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Form (4)

Available Resource Personnel

[Note: The Consulting Firm is requested to provide all personnel information working with the firm]

| Name of the Resource Personnel | Degree (Bachelor, Master, Doctor) | Year of Professional Experience | Employment Status |
|--------------------------------|-----------------------------------|---------------------------------|-------------------|
| 1. | | | |
| 2. | | | |
| 3. | | | |
| 4. | | | |
| 5. | | | |
| 6. | | | |
| 7. | | | |
| 8. | | | |



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Form (5)

Available Office Facilities

[Note: The Consulting Firm is requested to provide details of resources and other office facilities i.e. office equipment and facilities, list of licensed laboratory Computer hardware/software, list of international journals purchase for firm, library facilities and others if any.]

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Rajiv

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28/03/24
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