PHILIPPINE NATIONAL OIL COMPANY
PNOC BLDG. 6, ENERGY CENTER, RIZAL DRIVE,
BONIFACIO GLOBAL CITY, TAGUIG CITY

PHILIPPINE BIDDING DOCUMENTS

Rebidding for Groundwater Resource Study – Water Balance Analysis for PNOC Industrial Park

REI No.: 2025-06-142

TABLE OF CONTENTS

PART I

Rebidding for Groundwater Resource Study – Water Balance Analysis for PNOC Industrial Park

REI No.: 2025-06-142

PART I

Checklist of Eligibility Requirements

1. Eligibility documents Submission Form (Annex A)

Class "A" Documents

Legal Documents

2. Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) in accordance with Section 8.5.2 of the IRR;

Technical Documents

3. Statement of Consultant's Nationality (Annex B)
4. Curriculum Vitae for the Proposed Professional Staff (Annex C)
5. Statement of Completed Contracts (Annex D)
6. Certificate of Good Standing, Acceptance Report, Certificate of Satisfactory Service Rendered, or Any Proof of Satisfactory Completion of Completed Contracts
7. Statement of Ongoing and Awarded but Not Yet Started Contracts (Annex E)

Class "B" Document

8. Valid Joint Venture Agreement (JVA) if JV is in existence or duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

Section I. Request for Expression of Interest

PHILIPPINE NATIONAL OIL COMPANY
PNOC Building VI, Energy Center
Rizal Drive, BGC, Taguig City
Tel. No.: 789 – 7662
www.pnoc.com.ph
www.philgeps.gov.ph

REQUEST FOR EXPRESSION OF INTEREST

Rebidding for Groundwater Resource Study – Water Balance Analysis for PNOC Industrial Park

Request for Expression of Interest No. 2025-06-142

1. The ***PHILIPPINE NATIONAL OIL COMPANY. (PNOC)***, through the ***2025 Approved Corporate Operating Budget*** intends to apply the sum of ***Fifteen Million Two Hundred Thousand Pesos (PhP 15,200,000.00)***, being the Approved Budget for the Contract (ABC) to payments under the contract for ***Rebidding for Groundwater Resource Study – Water Balance Analysis for PNOC Industrial Park*.** Bids received in excess of the ABC shall be automatically rejected at the opening of the financial proposals.

2. The ***PNOC*** now calls for the submission of eligibility documents for the ***Rebidding for Groundwater Resource Study – Water Balance Analysis for PNOC Industrial Park***. Eligibility documents of interested consultants must be duly received by the BAC Secretariat on or before ***June 26, 2025 (10:00 AM PST)*** at ***PNOC Bldg. 6, Energy Center, Rizal Drive, Bonifacio Global City, Taguig City***. Applications for eligibility will be evaluated based on a non-discretionary "pass/fail" criterion.

3. Interested bidders may obtain further information from the *PNOC Procurement Management Division* and inspect the Bidding Documents at the address given below during ***working days from 8:00 AM to 5:00 PM***.

4. The Bidding Documents (Part 1) may be acquired on ***June 19, 2025*** by interested Consultants from the address below. **Short Listed Consultants** may only be allowed to acquire the *Bidding Documents (Part 2)* and drop their Technical and Financial Proposals upon payment of the applicable bidding documents fee, pursuant to the latest Guidelines issued by the GPPB, in the amount of ***Fifteen Thousand Pesos (PhP 15,000.00).***

   Bidding Documents may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that Bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

5. Opening of Eligibility Documents will immediately follow after the deadline of submission at the given address below. Eligibility Documents shall be opened in the presence of the bidders' representatives who choose to attend the activity. Late submissions shall not be accepted

6. The BAC shall draw up the short list of consultants from those who have submitted Expression of Interest, including the eligibility documents, and have been determined as eligible in accordance with the provisions of Republic Act 9184 (RA 9184), otherwise known as the "Government Procurement Reform Act", and its Implementing Rules and Regulations (IRR). The short list shall consist of maximum three (3) bidders who will obtain at least fifty (50) points out of one hundred (100) and will be eligible to submit bids. The criteria and rating system for short listing are:

a. *Applicable Years of Experience and Track Record of the Consultancy Management Services / Firm*	:	*30%*
b. *Qualification of Personnel to be Assigned to the Project*	:	*50%*
c. *Current Workload Relative to the Capacity*	:	*20%*

7. Bidding will be conducted through open competitive bidding procedures using non-discretionary "pass/fail" criterion as specified in the IRR of RA 9184.

   Bidding is restricted to Filipino citizens/sole proprietorships, cooperatives, and partnerships or organizations with at least sixty percent (60%) interest or outstanding capital stock belonging to citizens of the Philippines.

8. The Procuring Entity shall evaluate bids using the ***Quality - Cost Based Evaluation/Selection (QCBE/QCBS)*** procedure. The weights to be allocated for the Technical Proposal is ***Eighty Percent (80%)*** and Financial Proposal is ***Twenty Percent (20%)***. The criteria and rating system for the evaluation of bids shall be provided in the Instructions to Bidders.

9. The contract shall be completed within ***three hundred thirty (330) calendar days*** upon receipt of Notice to Proceed.

10. The ***PNOC*** reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Section 41 of RA 9184 and its IRR, without thereby incurring any liability to the affected bidder or bidders.

11. For further information, please refer to:

The Secretariat
Bids and Awards Committee
Philippine National Oil Company
G/F PNOC Bldg. 6, Energy Center, Rizal Drive,
Bonifacio Global City, Taguig City
Tel. Nos.: 8789 – 7662
Email: rgvergara@pnoc.com.ph / procurement@pnoc.com.ph
Website: **www.pnoc.com.ph** / **www.philgeps.gov.ph**

MS. MA. ROWENA C. RAYMUNDO
BAC Chairperson

Section II. Eligibility Documents

Notes on the Eligibility Documents

This Section provides the information necessary for prospective bidders to prepare responsive Eligibility Documents in accordance with the requirement of the Procuring Entity.

The provisions contained in this Section are to be used unchanged. Additional information or requirements specific to each procurement shall be specified in the EDS.

1. Eligibility Criteria

1.1. The following persons/entities shall be allowed to participate in the bidding for Consulting Services:

(a) Duly licensed Filipino citizens/sole proprietorships;

(b) Partnerships duly organized under the laws of the Philippines and of which at least sixty percent (60%) of the interest belongs to citizens of the Philippines;

(c) Corporations duly organized under the laws of the Philippines and of which at least sixty percent (60%) of the outstanding capital stock belongs to citizens of the Philippines;

(d) Cooperatives duly organized under the laws of the Philippines; or

(e) Persons/entities forming themselves into a joint venture, *i.e.*, a group of two (2) or more persons/entities that intend to be jointly and severally responsible or liable for a particular contract: Provided, however, That Filipino ownership or interest thereof shall be at least sixty percent (60%). For this purpose, Filipino ownership or interest shall be based on the contributions of each of the members of the joint venture as specified in their JVA.

1.2. When the types and fields of Consulting Services involve the practice of professions regulated by law, those who will actually perform the services shall be Filipino citizens and registered professionals authorized by the appropriate regulatory body to practice those professions and allied professions specified in the **EDS**.

1.3. If the Request for Expression of Interest allows participation of foreign consultants, prospective foreign bidders may be eligible subject to the conditions stated in the **EDS**.

1.4. Government owned or –controlled corporations (GOCCs) may be eligible to participate only if they can establish that they (a) are legally and financially autonomous, (b) operate under commercial law, and (c) are not attached agencies of the Procuring Entity.

2. Eligibility Requirements

2.1. The following eligibility requirements, together with the Eligibility Documents Submission Form, shall be submitted on or before the date of the eligibility check specified in the Request for Expression of Interest and Clause 5 for purposes of determining eligibility of prospective bidders:

(a) Class "A" Documents –

Legal Documents

(i) PhilGEPS Certificate of Registration and Membership in accordance with Section 8.5.2 of the IRR, except for foreign bidders participating in the procurement by a Philippine Foreign Service Office or Post, which shall submit their eligibility documents under Section 24.1 of the IRR, provided, that the winning Consultant shall register with PhilGEPS in accordance with Section 37.1.4 of the IRR;

Technical Documents

(ii) Statement of the prospective bidder of all its ongoing and completed government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid, within the relevant period provided in the **EDS**. The statement shall include, for each contract, the following:

(ii.1) the name and location of the contract;

(ii.2) date of award of the contract;

(ii.3) type and brief description of consulting services;

(ii.4) consultant's role (whether main consultant, subconsultant, or partner in a JV)

(ii.5) amount of contract;

(ii.6) contract duration; and

(ii.7) certificate of satisfactory completion or equivalent document specified in the **EDS** issued by the client, in the case of a completed contract;

(iii) Statement of the consultant specifying its nationality and confirming that those who will actually perform the service are registered professionals authorized by the appropriate regulatory body to practice those professions and allied professions in accordance with Clause 1.2, including their respective curriculum vitae.

(b) Class "B" Document –

If applicable, the Joint Venture Agreement (JVA) in case the joint venture is already in existence, or duly notarized statements from all the potential joint venture partners in accordance with Section 24.1(b) of the IRR of RA 9184.

2.2. The eligibility requirements or statements, the bids, and all other documents to be submitted to the BAC must be in English. If the eligibility requirements or statements, the bids, and all other

documents submitted to the BAC are in foreign language other than English, it must be accompanied by a translation of the documents in English. The documents shall be translated by the relevant foreign government agency, the foreign government agency authorized to translate documents, or a registered translator in the foreign bidder's country; and shall be authenticated by the appropriate Philippine foreign service establishment/post or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. The English translation shall govern, for purposes of interpretation of the bid.

2.3. Prospective bidders may obtain a full range of expertise by associating with individual consultant(s) and/or other consultants or entities through a JV or subcontracting arrangements, as appropriate. However, subconsultants may only participate in the bid of one short listed consultant. Foreign Consultants shall seek the participation of Filipino Consultants by entering into a JV with, or subcontracting part of the project to, Filipino Consultants.

3. Format and Signing of Eligibility Documents

3.1. Prospective bidders shall submit their eligibility documents through their duly authorized representative on or before the deadline specified in Clause 5.

3.2. Prospective bidders shall prepare an original and copies of the eligibility documents. In the event of any discrepancy between the original and the copies, the original shall prevail.

3.3. The Eligibility Documents Submission Form shall be signed by the duly authorized representative/s of the Bidder. Failure to do so shall be a ground for the rejection of the eligibility documents.

3.4. Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the duly authorized representative/s of the prospective bidder.

4. Sealing and Marking of Eligibility Documents

4.1. Prospective bidders shall enclose their original eligibility documents described in Clause 2.1, in a sealed envelope marked "ORIGINAL – ELIGIBILITY DOCUMENTS". Each copy thereof shall be similarly sealed duly marking the envelopes as "COPY NO. ___ - ELIGIBILITY DOCUMENTS". These envelopes containing the original and the copies shall then be enclosed in one single envelope.

4.2. The original and the number of copies of the eligibility documents as indicated in the **EDS** shall be typed or written in ink and shall be signed by the prospective bidder or its duly authorized representative/s.

4.3. All envelopes shall:

(a) contain the name of the contract to be bid in capital letters;

(b) bear the name and address of the prospective bidder in capital letters;

(c) be addressed to the Procuring Entity's BAC specified in the **EDS**;

(d) bear the specific identification of this Project indicated in the **EDS**; and

(e) bear a warning "DO NOT OPEN BEFORE…" the date and time for the opening of eligibility documents, in accordance with Clause 5.

4.4 Eligibility documents that are not properly sealed and marked, as required in the bidding documents, shall not be rejected, but the bidder or its duly authorized representative shall acknowledge such condition of the documents as submitted. The BAC shall assume no responsibility for the misplacement of the contents of the improperly sealed or marked eligibility documents, or for its premature opening.

5. Deadline for Submission of Eligibility Documents

Eligibility documents must be received by the Procuring Entity's BAC at the address and on or before the date and time indicated in the Request for Expression of Interest and the **EDS**.

6. Late Submission of Eligibility Documents

Any eligibility documents submitted after the deadline for submission and receipt prescribed in Clause 0 shall be declared "Late" and shall not be accepted by the Procuring Entity. The BAC shall record in the minutes of submission and opening of eligibility documents, the Bidder's name, its representative and the time the eligibility documents were submitted late.

7. Modification and Withdrawal of Eligibility Documents

7.1. The prospective bidder may modify its eligibility documents after it has been submitted; provided that the modification is received by the Procuring Entity prior to the deadline specified in Clause 5. The prospective bidder shall not be allowed to retrieve its original eligibility documents, but shall be allowed to submit another set equally sealed, properly identified, linked to its original bid marked as "ELIGIBILITY MODIFICATION" and stamped "received" by the BAC. Modifications received after the applicable deadline shall not be considered and shall be returned to the prospective bidder unopened.

7.2. A prospective bidder may, through a letter of withdrawal, withdraw its eligibility documents after it has been submitted, for valid and justifiable reason; provided that the letter of withdrawal is received by the Procuring Entity prior to the deadline prescribed for submission and receipt of eligibility documents.

7.3. Eligibility documents requested to be withdrawn in accordance with this Clause shall be returned unopened to the prospective bidder concerned. A prospective bidder that withdraws its eligibility documents shall not be permitted to submit another set, directly or indirectly, for the same project. A prospective bidder that acquired the eligibility documents may also express its intention not to participate in the bidding through a letter which should reach and be stamped by the BAC before the deadline for submission and receipt of eligibility documents.

8. Opening and Preliminary Examination of Eligibility Documents

8.1. The BAC will open the envelopes containing the eligibility documents in the presence of the prospective bidders' representatives who choose to attend, at the time, on the date, and at the place specified in the **EDS**. The prospective bidders' representatives who are present shall sign a register evidencing their attendance.

In case the submitted eligibility envelopes cannot be opened as scheduled due to justifiable reasons, the BAC shall take custody of the said envelopes and reschedule the opening on the next working day or at the soonest possible time through the issuance of a Notice of Postponement to be posted in the PhilGEPS website and the website of the Procuring Entity concerned.

8.2. Letters of withdrawal shall be read out and recorded during the opening of eligibility documents and the envelope containing the corresponding withdrawn eligibility documents shall be returned unopened to the withdrawing prospective bidder.

8.3. The eligibility documents envelopes and modifications, if any, shall be opened one at a time, and the following read out and recorded:

(a) the name of the prospective bidder;

(b) whether there is a modification or substitution; and

(c) the presence or absence of each document comprising the eligibility documents vis-à-vis a checklist of the required documents.

8.4. The eligibility of each prospective bidder shall be determined by examining each bidder's eligibility requirements or statements against a checklist of requirements, using non-discretionary "pass/fail" criterion, as stated in the Request for Expression of Interest, and shall be determined as either "eligible" or "ineligible." If a prospective bidder submits the specific eligibility document required, he shall be rated "passed" for that particular requirement. In this regard, failure to submit a requirement, or an incomplete or patently insufficient submission, shall be considered "failed" for the particular eligibility requirement concerned. If a prospective bidder is rated "passed" for all the eligibility requirements, he shall be considered eligible to participate in the bidding, and the BAC shall

mark the set of eligibility documents of the prospective bidder concerned as "eligible." If a prospective bidder is rated "failed" in any of the eligibility requirements, he shall be considered ineligible to participate in the bidding, and the BAC shall mark the set of eligibility documents of the prospective bidder concerned as "ineligible." In either case, the BAC chairperson or his duly designated authority shall countersign the markings.

9. Short Listing of Consultants

9.1. Only prospective bidders whose submitted contracts are similar in nature and complexity to the contract to be bid as provided in the **EDS** shall be considered for short listing.

9.2. The BAC shall draw up the short list of prospective bidders from those declared eligible using the detailed set of criteria and rating system to be used specified in the **EDS**.

9.3. Short listed consultants shall be invited to participate in the bidding for this project through a Notice of Eligibility and Short Listing issued by the BAC.

10. Protest Mechanism

Decision of the Procuring Entity at any stage of the procurement process may be questioned in accordance with Section 55 of the IRR of RA 9184.

Section III. Eligibility Data Sheet

Eligibility Data Sheet

Eligibility Documents	
1.2	Consultant shall undertake the following: 1. River Basin Delineation 2. Identification of Aquifiers 3. Spring and Well Point Inventory 4. Water Balance Study 5. Groundwater Quality 6. Determination of the availability of groundwater, demand for groundwater and potential 7. Determination of possible drill points at the PNOC Industrial Park (for future application to NWRB)
1.3	No further instructions.
2.1(a)(ii)	The statement of all ongoing and completed government and private contracts shall include all such contracts within ***five (5) years*** prior to the deadline for the submission and receipt of eligibility documents.
2.1(a)(ii.7)	*Acceptable proof of satisfactory completion of completed contracts:* *a. Certificate of Completion / Acceptance*
4.2	Each prospective bidder shall submit **one (1) original and two (2) copies** of its eligibility documents.
4.3(c)	*All envelopes shall be addressed to:* **MS. MA. ROWENA C. RAYMUNDO** Chairperson Bids and Awards Committee Philippine National Oil Company G/F PNOC Bldg. 6, Energy Center, Rizal Drive, Bonifacio Global City, Taguig City
4.3 (f)	***Rebidding for Groundwater Resource Study – Water Balance Analysis for PNOC Industrial Park*** **Request for Expression of Interest No. 2025-06-142**
5	The address for submission of eligibility documents is *PNOC Bldg. 6, Energy Center, Rizal Drive, Bonifacio Global City, Taguig City* The deadline for submission of eligibility documents is ***June 26, 2025. (10:00 AM PST)***

8.1	The place of opening of eligibility documents is *PNOC Bldg. 6, Energy Center, Rizal Drive, Bonifacio Global City, Taguig City* The opening of eligibility documents shall immediately follow after the deadline of submission.
9.1	Similar contracts shall refer to: Conducted a Groundwater Study / Water Balance Analysis within five (5) years before the deadline of submission of bids.
9.2	*Please refer to the Terms of Reference (Annex F) for the detailed set of criteria and rating system to be used for the short listing of consultants.*

Section IV. Eligibility Submission Forms

ANNEX "A"

ELIGIBILITY DOCUMENTS SUBMISSION FORM

[Date]

[Name and address of the Procuring Entity]

Ladies/Gentlemen:

In connection with your Request for Expression of Interest dated ***June 19, 2025*** for the opening of eligibility documents shall immediately follow after the deadline of submission. under ***2025-06-142***, ***Rebidding for Groundwater Resource Study – Water Balance Analysis for PNOC Industrial Park*** hereby expresses interest in participating in the eligibility and short listing for said Project and submits the attached eligibility documents in compliance with the Eligibility Documents therefor.

In line with this submission, we certify that:

a) ***[Name of Consultant]*** is not blacklisted or barred from bidding by the GOP or any of its agencies, offices, corporations, or LGUs, including foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, and that each of the documents submit; and

b) Each of the documents submitted herewith is an authentic copy of the original, complete, and all statements and information provided therein are true and correct.

We acknowledge and accept the Procuring Entity's right to inspect and audit all records relating to our submission irrespective of whether we are declared eligible and short listed or not.

Yours sincerely,

Signature
Name and Title of Authorized Signatory
Name of Consultant
Address
Email Address

ANNEX "B"

STATEMENT OF THE CONSULTANT'S NATIONALITY

[Name and address of the Procuring Entity]

Ladies/Gentlemen:

In compliance with the requirements of the **Philippine National Oil Company,** for the ***Rebidding for Groundwater Resource Study – Water Balance Analysis for PNOC Industrial Park*** under **2025-06-142,** I/We hereby declare the following:

1. [Select one and delete the rest]

   [*If domestic entity bidder*] That (Name of Bidder) is a domestic *sole proprietorship/partnership/corporation/joint venture* organized or formed under the laws of the Philippines;

   [*If foreign entity bidder*] That (Name of Bidder) is a foreign *sole proprietorship/partnership/corporation/joint venture* organized or formed under the laws of the (Name of Country);

   [*If foreign entity bidder*] That (Name of Bidder) is registered with the Securities and Exchange Commission and/or any agency authorized by the laws of the Philippines;

2. That the following are/is the proposed Consultants:

Name of Proposed Consultant	Proposed Position	Nationality	Proof of Identification
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

3. That attached herewith are the Curriculum Vitae of the abovementioned personnel (*Annex/es* _____*);* and

Very truly yours,

Signature: _____

Name and Title of Authorized Signatory: _____

Name of Consultant/Company: _____

Address: _____

Email Address: _____

Contact Nos: _____

ANNEX "C"

FORMAT OF CURRICULUM VITAE (CV) FOR PROPOSED PROFESSIONAL STAFF

Proposed Position		
Personal Information		
Name of Staff		
Address	Contact No.	Email Address
Date of Birth	Citizenship	Civil Status

Project Experience *(start from the current employment, add rows if necessary)*
Similar and Related to the Project

EMPLOYER (AGENCY / COMPANY NAME) (Write in Full)	CLIENT (COMPANY NAME) (Write in Full)	PROJECT TITLE With Brief Project Description (Write in Full)	PROJECT DURATION (MM/DD/YYYY)		POSITION TITLE (Write in Full)	DETAILED JOB DESCRIPTION
			START	END		

Relevant Training *(start from the most recent, add rows if necessary)*

Course Title	Inclusive Dates		Location	No. of Hours	Conducted / Sponsored by
	From	To			

Education *(start from the most recent, add rows if necessary)*

School	Inclusive Dates		Degree Course (Indicate if Completed)	Scholarships / Academic Honors Received
	From	To		

Technical Expertise	
Database	
Operating Systems	
Application Software	

Professional Licenses, Certificates, Other Credentials	
Title	Date Received

Certification:

I, the undersigned, certify that to the best of my knowledge and belief, these data correctly describe me, my qualifications, and my experience.

_____Date: _____
[Printed Name and Signature of staff member] *MM/DD/YYYY*

CERTIFIED CORRECT:

_____Date: _____
[Printed Name and Signature of authorized representative of the firm] MM/DD/YYYY

ANNEX "D"

STATEMENT OF COMPLETED CONTRACTS

This is to certify that _____(consultant)_____ has the following completed contracts:

PROJECT NAME (including NAME, ADDRESS OF CLIENT, CONTACT NO.)	DATE OF CONTRACT (MM/DD/YYYY)	TYPE OF CONTRACT (BRIEF PROJECT DESCRIPTION)	START DATE (MM/DD/YYYY)	COMPLETION DATE (MM/DD/YYYY)	AMOUNT OF CONTRACT	CONSULTANT'S ROLE (DESCRIPTION OF ACTUAL SERVICES PROVIDED)

_____ _____

Name and Signature of Authorized Representative Date

ANNEX "E"

STATEMENT OF ONGOING CONTRACTS AND AWARDED BUT NOT YET STARTED CONTRACTS

This is to certify that _____(consultant)_____ has the following ongoing and awarded but not yet started contracts:

DATE OF CONTRACT	CONTRACTING PARTY	NAME OF CONTRACT	TYPE OF CONTRACT	BRIEF DESCRIPTION OF CONSULTING SERVICE	AMOUNT OF CONTRACT	VALUE OF OUTSTANDING CONTRACT	CONSULTANT IS: a. main consultant b. subcontractor c. partner in a JV

Note: If the bidder does not have any on-going project, please state "None" in the form above and include the form in the submission of eligibility requirements.

_____ _____

Name and Signature of Authorized Representative Date

ANNEX "F"

TERMS OF REFERENCE

The Groundwater Resource Study – Water Balance Analysis for PNOC Industrial Park will be performed through the conduct of:

A. Hydrologic Modeling for the analysis of rainfall-runoff transform and
B. Groundwater Modeling to identify and delineate equipotential lines of the Park

These major works will require a series of subprocesses to generate the outputs which will be conducted through actual sampling, which will be coordinated with the field surveys, flow measurement, static water level measurement, geologic mapping, and stream mapping in the adjacent watersheds.

I. *SPECIFIC SCOPE OF WORK:*

A. River Basin Delineation

Watershed delineation will be accomplished using *NAMRIA Topographic Maps* and *Shuttle Radar Topography Mission (SRTM) – Digital Elevation Model (DEM) Data*. This activity will show the extent of the catchment area relevant to the location of the PNOC Industrial Park in Bataan. Drainage areas and other basin parameters will be derived and described.

Relevant watershed to the PNOC Industrial Park located between the municipalities of Limay and Mariveles will be identified and delineated using GIS tool. The National Mapping and Resource Information Authority (NAMRIA) Topographic Maps and Shuttle Radar Topography Mission (STRM) digital elevation model (DEM) will be used in this step. The same tool and inputs will be used to generate the river network inside the watershed and its corresponding cross-section.

The deliverables are:

(1) Data showing the extent of the catchment area, drainage areas, and other basin parameters with complete visualization and description
(2) Identified and delineated watershed relevant to the PNOC Industrial Park, the river network inside the watershed, and its corresponding cross-section.

B. Identification of Aquifers

The description of the aquifers in the area will be based on secondary geologic and hydrogeological data.

The deliverable is:
A duly identified aquifers in the project area with a specific description.

C. Spring and Well Point Inventory

Data gathering, field investigations, and formal interviews with well owners and residents will be conducted. Flow measurements will be carried out using the volumetric flow method while stream flow measurements for open channels, if any, will be estimated using the float method.

The deliverables shall include:

a) Summary of Well Inventory
b) Summary and Spring Features

D. Water Balance Study

All the information derived from the activities, as well as PAGASA climate change projections, will then be used for the water balance study. Secondary rainfall and climatologic data of the relevant synoptic/rainfall stations will be obtained from PAGASA. Other important data and information needed will include the thematic maps (contour, soil, geology and use) and these will be sourced from NAMRIA and other government agencies and technical reports.

If there are rivers or streams in the vicinity of the project site, a flow duration analyses will be done based on the estimated monthly flow from these sources. The flow duration curve of a river indicates the exceedance probability or the dependability of a specific stream flow magnitude.

The long-term monthly and annual hydrologic balance will be determined using a climatic water balance model developed by the U.P. National Hydraulic Research Center. The general water balance equation that will be used for computation is given as:

$$P = AE + RO + GWR + \Delta SMS + \Delta SWS + \Delta GWS$$

Where P is the precipitation or rainfall; AE is the actual evapotranspiration; RO is the surface runoff; GWR is the groundwater recharge and ΔSMS, ΔSWS, and ΔGWS are charges on storage of the soil, surface water and groundwater reservoirs, respectively.

This water balance analysis will begin through relevant data gathering, including meteorological information such as precipitation patterns, temperature, and humidity, as well as geographical data on land use, soil typers, and topography.

The deliverables will include:

(1) All information derived, including PAGASA climate change projections, secondary rainfall, and climatologic data of the synoptic/rainfall stations

(2) Thematic maps (contour, soil, geology and use) with technical reports
(3) Flow duration analysis of rivers or streams
(4) Long-term monthly and annual hydrologic balance using the climatic water balance model
(5) Water balance analysis, including precipitation patterns, temperature, humidity, geographical data on land use, soil typers, and topography

E. Groundwater Quality

Water will be taken from stations and will be subjected to laboratory analysis based on parameters specified in the Philippine National Standards for Drinking Water (PNSDW) and those needed for Piper Trilinear Evaluation. These samples will be taken from tapping the lower confined aquifer.

This section shall reflect the ff.

a.) Results of Groundwater Analysis
b.) Groundwater Occurrence and Movement

F. Determination of the availability of groundwater, demand for groundwater, and potential by considering (but not limited to) the following:

Particulars/ Expected Deliverables	**Description**
Volume and distribution of available groundwater in the Park.	Availability of Water Supply Sources (both groundwater and surface water sources) that can be sustainably used by the Park without affecting the resources of the neighboring industries and communities vis-a-vis the total water requirements of the Park
Carrying capacity Analysis	Carrying capacity analysis would determine the maximum safe extraction of groundwater resources in the Park. The 'supply-demand balance analysis' approach is applied to determine the water-use quotas according to the total amount of regional water resources, the available water resources, and the water resource demand. The current and projected water usage, current water consumption, projected water consumption data will be used to identify the Carrying Capacity. Potentially available groundwater in the area will be determined through a water

Particulars/ Expected Deliverables	Description
	balance analysis and by estimating the flow of water flowing through.
Groundwater recharge mechanisms in the Park;	The sum of several distinct flow pathways, including mountain system recharge that consists of mountain block recharge (lateral subsurface flow from mountains to valley aquifers) and mountain front recharge (infiltration of mountain stream runoff), diffuse recharge (direct infiltration of precipitation to basin floor), and focused recharge as a result of stream flow infiltration from ephemeral channels and/or perennial surface water bodies.
Annual safe yield of groundwater extraction	The amount of water that can be withdrawn from it annually without producing any undesired result
Groundwater quality and its limitations;	Physical, chemical, and biological qualities of ground water physical, chemical, and biological qualities of ground water physical, chemical, and biological qualities of ground water. A total of 15 representative groundwater and surface water samples shall be collected from wells and potential surface water sources shall be submitted for analysis to accredited laboratory. The parameters to be analyzed shall include color, pH, TDS, alkalinity, acidity, calcium, magnesium, sodium, potassium, carbonate, bicarbonate, chloride, sulfate, nitrate, nitrite, silica, BOD, and COD. Existing threats to the groundwater quality and surface water shall also be identified and assess. Identification of inherent risks associated with development, the level of uncertainty (plus limitations in data quality) and the range of social pressures
Cost effectiveness of developing groundwater resources;	Cost-effective and easy-to-use methods for augmenting groundwater resources in the alluvial hydro geologic setting
Hydro-geological modelling and mapping;	General or sketch maps, geological maps, hydrological maps, hydro geomorphological maps, hydrogeological maps and hydro geomechanical maps, at diverse scales
Environmental and non-economic factors;	Non-economic analysis of groundwater quality and development

Particulars/ Expected Deliverables	Description
Protection of potential vulnerable aquifers with consideration of water related risks	Shall include climate change
Water balance analysis	Use the supply-demand balance analysis
Available aquifer properties;	Aquifers are characterized by petro-physical properties such as hydraulic conductivity (alternatively called permeability), transmissivity (product of hydraulic conductivity and aquifer thickness) and diffusivity (ratio of transmissivity and storage coefficient). These properties could be examined using geophysical techniques such as Electrical Resistivity, Seismic techniques.
Groundwater Modelling;	Mathematical representation of groundwater flow through an aquifer, which is composed of saturated sediment and rock.
Current and estimated water consumption	Statistical sampling and indirect methods can be used to estimate aggregate water use
Groundwater consumers	Local residents of Brgy. Lamao, Batangas Dos, Alion, Park locators, Orica and other commercial, industrial and institutional establishments
Surface water consumers	DND Arsenal and agricultural area north of Lamao
Projected water consumption;	Projection of water use for the next 10 years
Water balance analysis;	The percentages of precipitation made up by surface flow, evapotranspiration, groundwater recharge and the change of soil storage, all of which are considered useful to the further understanding of the hydrological processes in the Park
Diversion weir	Determining the optimum monthly deliverable flow;

G. Determination of possible drill points at the PNOC Industrial Park (for future application to NWRB)

This will be pre-identified based on the results of groundwater modeling, however, a separate geo-resistivity survey will be conducted to present the potential depth and continuity of the identified aquifers.

The deliverable for this section includes a map showing the possible drill points with descriptions based on the results of the groundwater modeling.

H. Risk Assessment and Sustainability Analysis

Address over-extraction, contamination risks, and seasonal variations

I. Final Reporting

Final Report shall be submitted by the winning bidder in five (5) hard copies and two electronic copies.

The outputs shall include:

1. Regional water resources map
2. Groundwater availability map
3. Hydrogeologic map showing catchment boundaries, water-bearing formations, well and spring locations, drainage system,
4. Tables of well and spring data,
5. Tables of georesistivity data
6. Groundwater contour
7. Groundwater flow direction
8. Sampling points
9. Results of water analysis
10. Hydrogeological systems analysis
11. Water balance results
12. Calculation of groundwater potential
13. Groundwater modeling results
14. Graphs of current and projected water demand

II. *METHODOLOGY*

1. *Mobilization and Data Collection*

   - Organize field personnel, equipment (e.g., resistivity meters, electrodes), and safety gear.
   - Transport equipment to the site and ensure all resources are in place for fieldwork.
   - Secure necessary permits and ensure coordination with local authorities, including PNOC Bataan management.

2. *Identification of Vertical Electrical Sounding (VES) points Location*

   The selection of VES points is crucial for accurate data collection. This involves:

   - Review topographical and geological maps to locate potential VES points.
   - Conduct a site reconnaissance to select ideal locations based on terrain and hydrogeological features.
   - Ensure selected points cover different areas for comprehensive groundwater system data.
   - Output: List of identified and marked VES points for georesistivity surveys.

3. *Set-up*

- *This phase involves setting up the VES equipment at the identified points. It includes placing electrodes in the ground at predetermined intervals and configuring the resistivity meter.*
- *Output: VES equipment set up and ready for georesistivity survey.*

4. *Geo Resistivity Survey (Data Gathering)*

The Geo Resistivity Survey is conducted by introducing electrical currents into the ground and measuring the resulting resistivity values. The data collected gives information about the subsurface layers, helping to:

- *Identify the location of aquifers.*
- *Estimate the depth and thickness of groundwater-bearing formations.*
- *Assess groundwater quality based on resistivity variations.*
- *Output: Georesistivity survey data identifying aquifer locations and depths.*

5. *Inundation Survey*

An inundation survey assesses potential flooding or water accumulation in specific areas of the site. This step helps identify:

- *Areas prone to surface water inundation.*
- *Drainage patterns that affect groundwater recharge.*
- *Impacts of surface water on groundwater levels during high precipitation events.*

6. *Water Pumping Test, Spring and Well Inventory*

- *Water Pumping Test: Involves pumping water from a well at a constant rate to determine the aquifer's capacity to provide water.*
- *Spring and Well Inventory: A detailed survey of existing springs and wells, including their locations, depths, yields, and water quality. This provides baseline data for the current state of groundwater resources in the study area.*
- *Output: Pumping test results showing aquifer yield and water capacity.*

7. *Water Quality Assessment*

- *Sampling and laboratory analysis of water from wells, springs, and surface water sources to assess physical, chemical, and biological parameters.*
- *Output: Water quality report detailing the status of groundwater and its suitability for various uses.*

8. *Hydrologic and Hydraulic Analysis*

    - *This step involves analyzing the movement, distribution, and availability of water in the area. The analysis includes:*

        - *Studying precipitation, evaporation, infiltration, and runoff patterns.*
        - *Calculating the recharge rate of groundwater aquifers.*
        - *Assessing how surface water and groundwater interact.*

    - *Output: Hydrological model with insights on groundwater recharge rates and surface water interactions.*

9. *Groundwater Modeling*

    - Use the output from hydrological models to simulate groundwater flow and delineate equipotential lines.
    - Incorporate geological maps, piezometric data, and georesistivity survey results to enhance model accuracy.
    - Identify potential drilling points based on hydraulic head distribution.
    - Output: Groundwater model with identified drilling points and hydraulic head distribution.

10. *Field Investigations and Stakeholder Interviews*

    - Conduct additional field tests, including pumping tests, resistivity tests, and interviews with well owners and local water districts.
    - Validate model outputs with field data and stakeholder feedback.
    - Output: Comprehensive field report validating groundwater models and inventory data.

11. *Climate Risk Analysis*

    - Use the DOST-PAGASA CLIRAM tool to project future climate changes (rainfall, temperature) for the period 2036–2065.
    - Analyze the potential impacts on groundwater recharge and availability.
    - Output: Climate risk report detailing projected climate impacts on groundwater resources.

12. *Cost-Effectiveness Analysis of Groundwater Development*

    - Assess various groundwater development methods (e.g., rainwater harvesting, artificial recharge) for cost-effectiveness.
    - Recommend the most viable methods based on local hydrogeological settings.
    - Output: Cost-effectiveness report with recommendations for groundwater development.

13. *Final Water Balance Analysis*

- Integrate hydrological, georesistivity, water quality, and groundwater model data.
- Analyze water balance components to assess water stress, surpluses, and potential for sustainable groundwater use.
- Output: Final water balance report, including recommendations for resource management and conservation strategies.

14. *Demobilization*

- Disassemble and transport field equipment back from the study site.
- Ensure proper site clean-up and finalize all field activities.
- Output: Successful demobilization with no environmental impact from fieldwork.

15. *Analysis and Interpretation*

The data collected from the VES, water quality assessment, pumping test, and hydrological analysis is processed and interpreted. Georesistivity data is translated into models of the subsurface to:

- *Define aquifer boundaries.*
- *Estimate the quantity and quality of groundwater.*
- *Provide insight into the sustainability of groundwater resources under different extraction scenarios.*

16.*Final Georesistivity Survey and Hydro Report*

A comprehensive report shall be prepared that consolidates the findings of the study. The report includes:

- Results of Hydrologic Modeling for Rainfall-Runoff Analysis
- Results of Groundwater Modeling for Equipotential Lines
- Maps and models of the groundwater system.
- Results from water quality assessments and pumping tests.
- Recommendations for sustainable groundwater use.
- Analysis of the water balance, including recharge and discharge estimates, to ensure long-term groundwater availability.

III. *PROJECT LOCATION:*

PNOC Industrial Park at Limay and Mariveles, Bataan. Groundwater is what is available within the jurisdiction of the Park while the analysis of the demand will include off-Park consumers who are tapped into the same aquifer resource.

IV. *MATERIALS REQUIREMENT/S:*

- ❖ Personal protective equipment
- ❖ Hydrological Modeling Software
  - Functional Requirements
    - Ability to ingest Digital Elevation Models (DEMs), soil, land use, rainfall, and hydrometeorological data.
    - Support for high processing power to handle complex, large-scale models.
    - Compatibility with GIS systems for spatial analysis.
    - Allows for steady-state and transient simulation modes.
    - Options for 3D visualization and mapping outputs.
  - Desired Outputs:
    - Water Balance Components: Runoff, groundwater recharge, evapotranspiration.
    - Flow Paths and Velocities: Useful for tracking contaminant movement and understanding flow patterns.
    - Water Table and Hydraulic Head Data: Helps define potential areas for groundwater extraction.
    - Flood Inundation and Depth: Important for assessing surface water risks.
    - Time-Series Analysis: Tracks changes in flow, water table, and contaminant concentration over time.

V. *PROJECT EXECUTION REQUIREMENT/S:*

The winning contractor shall directly designate qualified employee to supervise the work from start to end of the contract.

VI. *ADDITIONAL REQUIREMENTS:*

A. General Conditions

1. A joint inspection may be conducted by the Contractor and PNOC Industrial Park Representatives on the specific works to be done for the project.

2. The contractor may inspect and examine the site and surroundings of the proposed project to arrive at an estimate of the labor, materials equipment, facilities and services necessary to carry out the work.

3. The Contractor is required to secure the required surety, performance and guarantee bonds prior to the commencement of work.

4. The Contractor must conduct proper training and safety orientation meeting to all personnel involved in the work prior to commencement.

5. The Contractor is required to coordinate all activities and work relative to the project with the PNOC Industrial Park representative

for proper monitoring and coordination.

6. The Contractor shall commence work on the agreed Start Date and shall carry out the work in accordance with the program of work submitted by the CONTRACTOR, as updated, with the approval of the PNOC Industrial Park representative and complete the project by the completion date as indicated in the Scope of Work.

7. The Contractor shall be liable for all fire and accident claims and other related claims arising from injuries and damages, which may occur in relation to the execution of the project.

8. The contractor shall hold PNOC and its personnel free from any and all liabilities to persons or damages properly occasioned by any act or omissions of the contractor including any and all expenses which may be incurred by PNOC and its personnel in the defense of any claim, occasion or suit.

9. The cost of any and all rework and/or restoration of damaged properties due to Contractor's poor workmanship or negligence shall be borne by the Contractor.

10. The minimum work experience requirements for key personnel are the following:

Key Personnel	Qualifications	Relevant Experience
Project Manager and Hydrogeologist	Licensed Professional (B.S. Geology, B.S. Geological Engineering B.S. Environmental Science, B.S. Civil Engineering, B.S. Chemical Engineering, B.S. Agricultural and Biosystems Engineering)	• Has at least 10 years of cumulative experience in Water resources or environmental projects, Feasibility or hydrological studies, Stakeholder and regulatory coordination (e.g., with DENR, NWRB, LGUs), Conducting groundwater resource assessments, aquifer testing, and well logging, Water balance modeling, infiltration analysis, and groundwater flow simulation (e.g., MODFLOW or similar tools) • Experience in preparation of at least three (3) assessment

Key Personnel	Qualifications	Relevant Experience
		reports
Team Leader and Hydrologist	Licensed Professional (B.S. Geology, B.S. Geological Engineering B.S. Environmental Science, B.S. Civil Engineering, B.S. Chemical Engineering, B.S. Agricultural and Biosystems Engineering)	• At least 5 years leading or managing hydrological or environmental projects, Surface and groundwater hydrology, water balance studies, and aquifer recharge analysis • Has satisfactorily completed at least 2 projects as Team Leader for groundwater study •
Field Hydrogeologist	Licensed Geologist	• Has at least 3 years of cumulative experience in Groundwater Investigation & Mapping, Aquifer Testing & Data Collection, Hydrogeologic Data Analysis, Use of Tools & Software, Groundwater sampling for water quality analysis, Site environmental monitoring, and Supporting water balance or groundwater recharge studies • Has satisfactorily completed at least two (2) groundwater or water resources-related projects, preferably involving aquifer testing, groundwater mapping, or hydrogeologic field investigations
Groundwater Modelling Specialist	Bachelor's Degree Graduate	• Has at least 3 years of cumulative experience in groundwater modelling

Key Personnel	Qualifications	Relevant Experience
		• Has satisfactorily completed at least two (2) groundwater or water resources-related projects
GIS/ CAD Specialist	Bachelor's Degree Graduate	• Has at least 3 years of cumulative experience in GIS/CAD • Has satisfactorily completed at least two (2) groundwater or water resources-related projects

11. The minimum major equipment and software requirement are the following:

	Equipment	**Capacity**	**Number of units**
1	Laptop / Computer	Standard	1
2	Hydrological Modeling Software		1

12. The Contractor must comply with all standard health and safety requirements including, among others, the use of personal protective equipment by all workers, installation of safety signage, proper ID and observe company rules and regulations on safety and security.

13. The work shall be executed in the best and thorough manner throughout the project timeline to the satisfaction of PNOC, as represented by its engineers and supervisors who will jointly interpret the meaning of the scope of work and its conditions and shall have the power to reject any work, method of accomplishing every part of work and material used which in their judgment are not fully in accordance with the specifications and/or description as provided in the scope of work and are deemed to be disadvantageous to PNOC.

    The Contractor shall be liable for all direct and consequential damages arising out of any failure to perform the work accordance with the schedule and with terms and conditions of the contract documents.

b. Site Possession

1. The Contractor confirms that he has inspected/ is knowledgeable of the site where the work will be performed and that he is fully aware of the conditions which might affect the nature, extent and cost of the work required; that PNOC shall in no way be responsible for any costs

or expenses which may be incurred on account of the failure of the Contractor to make an accurate examination of present and/or assessment of future factors that may affect the cost of execution.

2. Tapping of equipment and other related work shall be properly coordinated with the PNOC Park Management Department designated representative for provision of electrical power source for outlets.

3. The Contractor shall be liable for all direct and consequential damages arising out of any failure to perform the work in accordance with the schedule and with terms and conditions of the contract documents.

4. The PNOC shall designate a specific area to be used by the Contractor as temporary facilities/storage area/administration area in connection with the project.

VII. *COMPLETION OF WORK*

Work should be completed within three hundred thirty (330) calendar days upon receipt of the Notice to Proceed (NTP). The Contractor shall submit to PNOC Park Management Department a Gantt chart of activities prior to the start of the project.

Five (5) hard copies and two (2) electronic copies of the final report shall be submitted to PNOC.

VIII. **WARRANTY PROVISIONS**: Not applicable

IX. *SUBMISSION OF REPORTS / OUPUTS/ DELIVERABLES AND PAYMENT SCHEDULE*

The total cost of the project proposal shall be inclusive of all applicable taxes and fees, remuneration, professional fees, and all incidental expenses such as printing of reports/deliverables, transportation/ fuel, communications, etc.

Billing for the remuneration / professional fees shall be in accordance with the following schedule of submission of reports/outputs / deliverables in five (5) printed copies and two (2) electronic files saved in a USB flash drive, subject to the usual standard government accounting and auditing requirements:

Reports/ Outputs/ Deliverables	Timeline	Payment (% of Contract Cost)
Mobilization and submission of Inception Report	Month 1	15%

Reports/ Outputs/ Deliverables	Timeline	Payment (% of Contract Cost)
Upon submission of Progress Report 1 - after dry / wet season	Month 4	20%
Upon submission of Progress Report 2 – after dry / wet season	Month 7	20%
Submission of Draft Report	Month 10	20%
Acceptance of Final Report	Month 11	25%
Total:		100%

X. *DEFINITION OF SIMILAR PROJECT:*

Contracts similar to the Project shall be:

a. Bidders should have at least conducted a Groundwater Study/ Water Balance Analysis
b. Completed within five (5) years before the deadline for the submission and receipt of bids

RATING CRITERIA

1. CRITERIA FOR SHORTLISTING OF BIDDERS:

All bidders shall be prequalified/ shortlisted based on the following criteria. The bidders shall be ranked based on the ratings from the shortlisting process. *A minimum score of 50 points is required for a bidder to be considered for shortlisting.* Only the top three (3) bidders shall be requested to submit the Technical and Financial Proposals:

Criteria	Percentage
I. Applicable Years of Experience and Track Record of the Consultancy Management Services/ Firm	**30**
a. Firm experience and track record in groundwater studies	20
b. Client satisfaction and references	10
II. Qualification of Personnel to be assigned to the Project	**50**
a. Relevant credentials specialization (e.g. Relevant professional degrees or previous work experience)	10
b. Specialized professional trainings and/or participation in international, multi-lateral sponsored projects	15
c. Previous engagement in similar/related/identical projects	25
III. Current Workload Relative to Capacity	**20**
a. Resource Availability (Adequacy of equipment, software, and tools specific to groundwater studies (e.g. Borehole logging tools, groundwater modelling software)	5
b. Team availability (Availability of key personnel with adequate time commitment for the project)	15
Total:	100

$$Score = \left(\frac{Score\ Ia}{5}\right) * 20 + \left(\frac{Score\ Ib}{5}\right) * 10 + \left(\frac{Score\ IIa}{5}\right) * 10 + \left(\frac{Score\ IIb}{5}\right) * 15 + \left(\frac{Score\ IIc}{5}\right) * 25 + \left(\frac{Score\ IIIa}{5}\right) * 5 + \left(\frac{Score\ IIIb}{5}\right) * 15$$

Score = 100%

Where:

- Each Score is rated 1 to 5.
- Divide each individual score by 5 (maximum score per item) to normalize to 100%.
- Multiply by the corresponding weight for each criterion

The proposed rating system for the above criteria is as follows:

Criteria	Wt%	Unit of Measure	1	2	3	4	5
I. Applicable Years of Experience and Track Record of the Consultancy Management Services/ Firm	**30**						
a. Firm experience and track record in groundwater studies	20	Years	3 to 5	6 to 10	11 to 15	16 to 20	More than 20
b. Client satisfaction and references	10	Client Satisfaction Rating			Mixed client feedback with both positive and negative reviews.	Generally positive client feedback with minor areas for improvement.	Outstanding client satisfaction with consistently positive feedback from multiple previous clients
II. Qualification of Personnel to be assigned to the Project	**50**						
a. Relevant credentials specialization (e.g. Relevant professional degrees or previous work experience)	10	Years of experience of personnel	3 yrs	5 yrs	8 yrs	10 yrs	More than 10 yrs
b. Specialized professional trainings and/or participation in international,	15	Hrs. of specialized trainings attended	<16 hours	At least 16 hrs	At least 40 hrs	At least 60 hrs	At least 80 hrs

Criteria	Wt%	Unit of Measure	1	2	3	4	5
multi-lateral sponsored projects							
c. Previous engagement in similar/related/ identical projects	25		<5 years	5 years	8 years	10 years	More than 14 years
III. Current Workload Relative to Capacity	**20**						
a. Resource Availability (Adequacy of equipment, software, and tools specific to groundwater studies (e.g. Borehole logging tools, groundwater modelling software)	5	Resource availability	No access to equipment, software and tools			With rental agreements or partnerships	With ownership of tools and software
b. Team availability (Availability of key personnel with adequate time commitment for the project)	15	Number of Projects of key personnel	More than 20	16 to 20	11 to 15	6 to 10	3 to 5

2. CRITERIA AND SCORING SYSTEM FOR THE EVALUATION OF TECHNICAL AND FINANCIAL BIDS

Evaluation shall be based on the quality-Cost based Evaluation (QCBE) procedure wherein the Technical Proposal together with the Financial Proposal shall be considered.

a. Technical Proposal - 80%

i. Plan of approach and methodology - 40%

Criteria	Weight	Scoring (Points)					Description/Characteristics
		6	9	12	15	20	
Approach and methodology	20%						Timetable for deliverables, qualitative/quantitative assessments, risk management
Work Plan	20%						Presentation of Work programs and schedule of activities

Evaluation Criteria for Plan of Approach and Methodology:

Criteria	Weight	Score	Description/ Characteristics
Approach and methodology	20%	6	Lacks a structured methodology; missing key elements such as risk assessment, qualitative/quantitative evaluations, or project execution strategies.
		9	Basic methodology with minimal integration of qualitative and quantitative assessments; risk management approach is weak or generic.
		12	Methodology is clear and includes moderate qualitative and quantitative assessments; risk management is defined but lacks depth.
		15	Well-structured methodology with strong qualitative and quantitative assessments; risk mitigation strategies are well-defined and applicable.
		20	Comprehensive and innovative methodology with detailed qualitative and quantitative assessments; risk

Criteria	Weight	Score	Description/ Characteristics
			management is proactive, data-driven, and adaptable to project conditions.
Work Plan	20%	6	Work program and schedule are vague or incomplete; lacks logical sequencing of activities.
		9	Basic work plan with a general structure but lacks specificity in activity timelines and dependencies.
		12	Work program is well-defined with a clear activity schedule, showing logical progression and key milestones.
		15	Detailed and realistic work plan with clearly structured activities, dependencies, and resource allocation.
		20	Highly detailed, optimized, and efficient work plan, with well-integrated scheduling, resource planning, and risk-adjusted contingencies.

ii. Technical expertise and qualification of team members/personnel – 40%

a.) Educational Attainment - 10%

Team Members	Scoring (Points)		
	6	8	10
Project Manager and Hydrogeologist	Licensed Professional	MS or MA degree holder	PhD degree holder
Team Leader and Hydrologist	Licensed Professional	MS or MA degree holder	PhD degree holder
Field Hydrogeologist	Bachelor's Degree Graduate	Licensed Professional	MS or MA degree holder
Groundwater Modelling Specialist	Bachelor's Degree Graduate	Licensed Professional	MS or MA degree holder
GIS/ CAD Specialist	Bachelor's Degree Graduate	Licensed Professional	MS or MA degree holder

b.) Number of specialized trainings acquired - 15%

Team Member	Unit of Measure	Scoring (Points)			
		6	9	12	15
Project Manager and Hydrogeologist	Number of hours of Training	At least 16 hrs	At least 40 hrs	At least 60 hrs	At least 80 hrs
Team Leader and Hydrologist	Number of hours of Training	At least 16 hrs	At least 40 hrs	At least 60 hrs	At least 80 hrs
Field Hydrogeologist	Number of hours of Training	At least 16 hrs	At least 40 hrs	At least 60 hrs	At least 80 hrs
Groundwater Modelling Specialist	Number of hours of Training	At least 16 hrs	At least 40 hrs	At least 60 hrs	At least 80 hrs
GIS/ CAD Specialist	Number of hours of Training	At least 16 hrs	At least 40 hrs	At least 60 hrs	At least 80 hrs

c.) Previous engagement in similar/related/identical project - 15%

Team Member	Unit of Measure	Scoring (Points)			
		6	9	12	15
Project Manager and Hydrogeologist	years of experience in similar project	5 years	8 years	10 years	More than 14 years
Team Leader and Hydrologist	years of experience in similar project	5 years	8 years	10 years	More than 14 years
Field Hydrogeologist	years of experience in similar project	3 years	5 years	8 years	More than 10 years
Groundwater Modelling Specialist	years of experience in similar project	3 years	5 years	8 years	More than 10 years
GIS/ CAD Specialist	years of experience in similar project	3 years	5 years	8 years	More than 10 years

iii. Firm Experience and Qualifications - 20%

Criteria	Weight	Unit of Measure	Scoring (Points)				
			2	4	6	8	10
Applicable Years of Experience and Track Record of the Consultancy Management Services	10%	Number of years	3 to 5	6 to 10	11 to 15	16 to 20	More than 20
Number of Government and Private Completed and on-going (at least 50% completed) Similar / Related Projects	10%	Number of projects	3 to 5	6 to 10	11 to 15	16 to 20	More than 20

b. Financial Component – 20%

i. The Approved Budget for the Contract (ABC) shall be the upper limit or ceiling for the acceptable Financial Proposal. Any Financial Proposal received in excess of ABC shall be automatically rejected;

ii. The Financial Proposal shall be computed as follows:

1. The lowest Financial Proposal shall receive the maximum score of 20%.

2. The score of the other Financial Proposals shall be computed using the formula:

$$Financial\ Score = \frac{Lowest\ Financial\ Proposal}{Financial\ Proposal\ of\ the\ proponent} * 100 * 20\%$$

3. Overall Rating. The overall rating of the proponent shall be the sum of the ratings earned for the Technical Proposal and Financial Proposal. The minimum technical point is 55 and the contract shall be awarded to the highest rated points.

The Overall Rating shall be computed using the formula:

$$Overall\ Rating = (technical\ points * 80\%) + Financial\ Score$$


Republic of the Philippines
gppb
Government Procurement Policy Board