



INVITATION FOR BIDS

Hiring of Firm for Hydrogeological / Geophysical Investigation through Pumping Out and Installation of Piezometers/Observation Wells in 10 Km belt Astride of Nara Canal in Sindh

National Engineering Services Pakistan (Pvt.) Limited (NESPAK), invites sealed bids (Technical and Financial in separate sealed envelopes) from drilling Contractors/Companies, registered with Income Tax and Sales Tax Departments and who are on Active Taxpayers List of Federal Board of Revenue and Provincial Revenue Authority having valid PEC registration in relevant category, for carrying out the geotechnical investigations for the subject project.

Bidding documents (i.e. Bid Invitation Letter, BOQ & Qualification Criteria) can be downloaded from **NESPAK** (www.nespak.com.pk) and **PPRA** (www.ppra.org.pk) website or can be obtained on submission of a written application from the address mentioned below.

The bidders shall submit a bid security amounting to **Rs.530,000/- (Rupees five hundred thirty thousand only)** at the time of submission of bids in the form of pay order or bank draft in favor of M/s NESPAK.

Companies capable of carrying out subject work are requested to furnish complete information in accordance with the requirement of bidding documents. Sealed bids (inclusive of all taxes) prepared in accordance with the instructions in the bidding document, must be submitted on or before **April 14, 2025 up to 1500 Hours** at the address mentioned below.

Technical bids would be opened on the same day at **1600 Hours** after their receipt in the presence of those bidders who wish to be present. Financial bids would be opened after evaluation of technical bids, at time, date and venue announced and communicated to the technically responsive bidders in advance. NESPAK reserves the right to accept or reject any/all offers according to provision of PPRA Rules.

**General Manager/Head
Water & Agriculture Division
NESPAK House, 1-C, Block-N, Model Town
Extension, Lahore Pakistan – 54700
Tel: +92-42-99090512/99231939
Fax: +92-42-99231940
E-mail: wa@nespak.com.pk**

NATIONAL ENGINEERING SERVICES PAKISTAN (PVT) LIMITED

NESPAK HOUSE: 1-C, Block-N, Model Town Extension, Lahore - 54700 Pakistan

WATER & AGRICULTURE DIVISION



Ref: 4876/061/MA/01/4338

Date: March 24, 2025

HIRING OF FIRM FOR HYDROGEOLOGICAL/GEOPHYSICAL INVESTIGATION THROUGH PUMPING OUT AND INSTALLATION OF PIEZOMETERS/OBSERVATION WELLS IN 10 KM BELT ASTRIDE OF NARA CANAL IN SINDH

Invitation of Bids for Hydrogeological /Geophysical investigations (Field and Laboratory Works)

Dear Sir,

Sealed bids (**Technical and Financial in separate sealed envelopes**) are invited in accordance with the attached **BOQ** and **qualification criteria** from drilling Contractors / companies for carrying out the hydrogeological/geophysical investigations for the subject project.

The companies capable of carrying out subject work are requested to provide their Company's Profile and the following documents along with their sealed bids:

1. PEC Registration Certificate
2. FBR & Provincial Revenue Authority (PRA) Registration Certificates
3. List of Similar Projects completed during last three years
4. Financial Capability
5. Equipment Capability
6. Personnel Capability
7. Litigation History
8. HSE Policies

The work comprises; execution of 50 Numbers Piezometer/Observation wells up to 100 feet depth below natural surface level (NSL) and drilling, installation of 5 Numbers Tube wells by using reverse rotary / straight rotary drilling method and performance of pumping out tests and submission of analysis report. The field and laboratory work shall have to be completed according to the following time schedule:

| Minimum No. of Straight Rotary Drilling Rigs/ Reverse rotary rigs Required | Time for Completion of Field Investigations | Time for Analysis of Pumping out test report & Submission of Water quality Lab report | Total Time |
|--|---|---|------------|
| 02 | 10 weeks | 2 weeks | 12 weeks |

Your bid shall be valid for a time period of ninety (90) days after the bid opening. The work shall be executed under the instructions and full-time supervision of NESPAK engineers/hydrogeologist and the successful bidder shall mobilize to the site on ten (10) days' notice after issuance of Letter of Award/Acceptance.

The approved laboratory, where testing is to be carried out, shall be pursued by the successful bidder for timely completion of the assigned laboratory testing.

Telephone : +92-42-99090000 Fax : +92-42-99231940
E-mail : wa@nespak.com.pk, P.O. Box : 1351, Lahore, Pakistan
Website : www.nespak.com.pk



The successful bidder shall be responsible for providing the final pumping out analysis report (including tube wells drilling record, installation of casing material, summary of water quality) and detail report of installation of piezometer/observation wells including their coordinates to NESPAK, within the contract period. A premium of up to 25 % will be admissible on the official rates of the laboratory, selected for testing of soil /water samples. This premium has been allowed as compensation to the Contractor for making advance payment to the laboratory and later following-up for obtaining test results in time. The accredited laboratory should be provided on page no. 2 of 2(Annexure-1).

The bidders shall submit a bid security amounting to Rs.530,000/-(Rupees five hundred thirty thousand only) at the time of submission of bids in the form of pay order or bank draft in favor of M/s NESPAK.

Your most competitive sealed bids (inclusive of all taxes) in accordance with the BOQ and qualification criteria, should reach the office of the undersigned by 1500 hours on or before April 14, 2025. Technical bids would be opened on the same day at 1600 hours after their receipt in the presence of those bidders who wish to be present.

Financial bids would be opened after evaluation of Technical bids, at a time, date and venue announced and communicated to the technically responsive bidders in advance. However the final decision to accept/reject any or all the bids as per PPRA rules solely lies with the undersigned. The entire work shall be carried out in accordance with the requirements of the General Bidding Documents for Hydrogeological/Geophysical Investigations available at NESPAK website (www.nespak.com.pk).

for National Engineering Services Pakistan (Pvt.) Ltd.,



(MANSOOR ALI)
General Manager/Head

Hiring of firm for hydrogeological /Geophysical investigation through Pumping out and Installation of Piezometers/Observation Wells in 10Km belt Astride of Nara Canal in Sindh

INSTALLATION OF 50 NOS. PIEZOMETERS/OBSERVATION WELLS

BILL OF QUANTITIES

| S.No. | Item | Unit | Approx. Quantity | Rate (Rs) | Amount (Rs) |
|-------|---|---------|---|-----------|-------------|
| 1 | Boring for tubewell in all water bearing soils from ground level upto100ft. Or 30.5 meter depth i/c sinking and withdrawing of casing pipe. (Item No.N-TUBEWELLS-1 (d), CSR-Sindh 2024) 150 mm dia(6"inch) | Rft | 50 | | |
| 2 | Supplying and installing PVC strainers 'B' class of approved design quality and make i/c necessary sockets etc. complete. (Item No.N-TUBEWELLS-9, CSR-Sindh 2024) a) 100 mm (4" dia) | Rft | 10 | | |
| 3 | Supplying and installing PVC Blind pipe 'B' class of approved design quality and make i/c necessary sockets etc. complete.(Item No.N-TUBEWELLS-14, CSR-Sindh 2024) a) 100 mm (4" dia) | Rft | 40 | | |
| 4 | Pedstal 1.5'x1.5' around 4 Inch Casing Pipe with 1:1 ration (Non CSR) | LS | 1 | | |
| 5 | Development of piezo meter with hand pump. (Provisional) | LS | 1 | | |
| 6 | Providing Bail plug as per approved design at the bottom of PVC Blind pipe 'B' class 0.5 Rft.1:1 Ratio | LS | 1 | | |
| 7 | Shrouding with graded bajri (3/8"to1/8") or (9to3mm) in between bore and blind pipe for the following diameters of strainers. (Item No.N-TUBEWELLS-18, CSR-Sindh 2024) | Rft | 10 | | |
| 8 | Providing bentonite seal around 4 inch PVC 'B' Class Casing (Non-CSR) | P.Pound | 592 | | |
| 9 | Providing and fixing 4-inch PVC clean out with plug for piezometer | Job | 1 | | |
| | | | Cost of 1 No. Piezometer | | |
| | | | Sub-Total-B (Cost of 1No. X 50 Nos.) = | | |
| | | | Total (A+B) | | |

Quantities shown above are tentative and are subject to modification in accordance with actual field conditions encountered during drilling at site.

Establishment of coordinates and ground elevation of all the boreholes using Total station/Differential GPS is included in the scope of work. The coordinates should be provided with reference to a permanenet bench mark established at site.

Reverse/straight rotary drilling method will be used for execution of boreholes in sandy/clayey soil & bedrock.

Contractor will be responsible for arrangement of Personnel Protective Equipment(PPEs) such as safety helmets and jackets for NESPAK site supervisory/visiting staff. However, percission method of boring can be used after approval of the the NESPAK site supervisor (if required).

All lithological /water samples must be labelled, stored and transported as per ASTM requirement.



Hiring of firm for hydrogeological /Geophysical investigation through Pumping out and Installation of Piezometers/Observation Wells in 10Km belt Astride of Nara Canal in Sindh

DRILLING AND INSTALLATION OF 5 NOS. TUBEWELLS, PERFORMANCE OF PUMING OUT TEST AND ANALYSIS

BILL OF QUANTITIES

| Sr.No. | Schedule of Rates 2024,Ch:1, N-Tubewells Govt.of Sindh | Item Description | Unit | Qty | Rate | Amount |
|------------------------------|--|--|----------|-----|---|--------|
| 1 | Ch:1,N-tubewells item mo.1 | Boring for tube well in all water bearing soils from ground level upto 100 ft. or 30.5 meter depth i/c sinking and with drawing of casing pipe i) 450 mm (18" dia) | Rft | 128 | | |
| 3 | Ch:1,N-Tubewells item mo.6 | Taking and preserving 2 LBs (1 Kg) sample of per strata from borre holes. | P.Sample | 26 | | |
| 4 | Ch:1,N-Tubewells item mo.7 | Taking samples of water from bore hole and placing in two separate bottles. | P.Sample | 2 | | |
| 5 | Ch:1N-Tubewells item mo.18 | Shrouding with graded bajri (3/8"to 1/8") or (9 to 3 mm) in betweenbore and blind pipe for the following diameters of strainers. g)300 mm (12" dia) | RFT | 128 | | |
| 6 | Ch:1N-Tubewells item mo.9 | Supplying and installing PVC strainers 'B' class of approved design quality and make i/c necessary sockets etc. complete. f)300 mm (12" dia) | RFT | 50 | | |
| 7 | Ch:1N-Tubewells item mo.14 | Supplying and installing PVC Blind 'B' class of approved design quality and make i/c necessarysockets etc. complete. f)300 mm (12" dia) | RFT | 70 | | |
| Non-Schedule of Rates | | | | | | |
| 8 | Non-CSR | Supplying and installing PVC End plug Blind 'B' class of approved design quality and make i/c necessarysockets etc. complete (12" dia) | Each | 1 | | |
| 9 | Non-CSR | Providing /fixing M.S. centerizers Non-CSR | Each | 3 | | |
| 10 | Non-CSR | Geophysical logging of bore (self potential resistivity Both short normal and Gama) complete in all respect. Non-CSR | Each | 1 | | |
| 11 | Non-CSR | Collection of water sample from Tubewell, transportation of water sample from site to laboratory and performing chemical, physical and arsenic analysis of water from approved water testing Lab. Non-CSR | Each | 1 | | |
| 12 | Non-CSR | Providing and fixing PVC Cap to cover the pump house casing upto 12" dia 1/4" thick including cutting, jointing and welding etc.. Non-CSR | Each | 1 | | |
| 13 | | Installation of 03 Nos. Observation Wells Each 100 ft deep at 5 meter, 10 meter and 30 meter distance from center of main tube well complete in all respect. | | | | |
| 13.1 | Ch:1N-Tubewells item mo.1b | Boring for tubewell in all water bearing soils from ground level upto100ft.or30.5 meter depth i/c sinking and withdrawing of casing pipe. b) 100 mm (4" dia) | Rft | 300 | | |
| 13.2 | Non-CSR | Supply and installation 2" dia uPVC pressure pipe (50mm) class B complete with solvent joint blank/slotted casing including end cap | Rft | 300 | | |
| 14 | Non-CSR | Perform pump out testing (72 hours) as per specifications, analysis and submission of pump out test report. | Job | 1 | | |
| | | | | | Cost of 01 No. Pump Out Test | |
| | | | | | Sub- Total A (cost of 1 No. X 5 Nos.) = | |

Quantities shown above are tentative and are subject to modification in accordance with actual field conditions encountered during drilling at site.

Establishment of coordinates and ground elevation of all the boreholes using Total station/Differential GPS is included in the scope of work. The coordinates should be provided with reference to a permanenet bench mark established at site.

Reverse/straight rotary drilling method will be used for execution of boreholes in sandy/clayey soil & bedrock.

Contractor will be responsible for arrangement of Personnel Protective Equipment(PPEs) such as safety helmets and jackets for NESPAK site supervisory/visiting staff.

All lithological /water samples must be labelled, stored and transported as per ASTM requirement. Furthermore, National Water Quality Laboratory (NWQL) guidelines shall be followed for collection, transportation and testing of representaive samples from accredited laboratory.



QUALIFICATION OF BIDDING CONTRACTORS FOR HYDROGEOLOGICAL /GEOPHYSICAL INVESTIGATIONS FOR FEASIBILITY STUDY FOR EVALUATION OF THE GROUNDWATER POTENTIAL WITHIN THE 10KM BELT ASTRIDE OF NARA CANAL IN SINDH

1. Qualification Criteria

Qualification will be based on the criteria given in the following paras regarding the Applicant's experience, personnel and equipment capabilities, financial position and litigation history, as demonstrated by the Applicant's responses in the Forms attached as Annex-A to this Document. The Employer reserves the right to waive minor deviations, if these do not materially affect the capability of an Applicant to perform the contract by the Applicant.

Experience and resources of the Company intended to be employed as sub-contractor shall not be taken into account in determining the Applicant's compliance with the qualifying criteria. However, for joint venture, collective experience, resources and financial soundness of all partners shall be considered.

1.1 General Information

The Applicant shall provide general information of his firm as per the format specified in the Application Form A-1 attached in Annex-A.

1.2 Experience of the Firm

The Applicant shall meet the following minimum criteria:

- 1) Successful experience as contractor in the execution of at least five (5) projects involving bulk of hydrogeological/geophysical investigations within the last three (03) years. This experience should specifically be of hydrogeological investigations of similar nature. The Applicant will supply information as per the format specified in the Application Form A-2 attached in Annex-A.

1.3 Personnel Capabilities

The Applicant must have in his employment, suitably qualified and experience personnel to fulfill the positions tabulated below. The Applicant will supply information as per the format specified in the Application Form A-3 attached in Annex-A.

| Sr. No | Position | Qualification | Minimum No. with Each Unit | | | | | | Minimum Experience (Years) |
|--------|---|---|----------------------------|--------|-------|--|--|--|----------------------------|
| | | | Unit-1 | Unit-2 | Total | | | | |
| 1 | Groundwater Expert | M. Sc Geology/Water Resources Engineering/ Hydrogeology | 1 | 0 | 01 | | | | 10 |
| 2 | Site Geologist/ Hydrogeologist Supervisor / Site Engineer | M. Sc. Geology/ B.Sc. Civil Engg. | 1 | 1 | 02 | | | | 5 |



| | | | | | | | | | | |
|---|-------------------|----------|-------------|-------------|----|--|--|--|--|----|
| 3 | Driller | Literate | 1 | 1 | 02 | | | | | 10 |
| 4 | Assistant Driller | Literate | 1 | 1 | 02 | | | | | 03 |
| 5 | Foreman | Literate | 1 | - | 01 | | | | | 15 |
| 6 | Welder | Literate | 1 | - | 01 | | | | | 5 |
| 7 | Skilled Labor | - | As required | As required | | | | | | - |

1.4 Equipment Capabilities

The Applicant should own, or have assured access to the following key items of equipment in full working order, and must demonstrate that, based on known commitments; these will be available for deployment on the proposed works.

| Sr. No. | Equipment Type & Characteristics | Minimum Number Required | | | |
|---------|---|-------------------------|----------|-------|--|
| | | Unit- 1 | Unit - 2 | Total | |
| 1 | Reverse/Straight Rotary Drilling rigs complete in all respects including drilling rods, bits (as per dimensions given in BOQs). | 1 | 1 | 02 | |
| 2 | D&T set complete in all respect comprising Suitable Diesel Engine, Turbine pump (1.5 cfs), shaft, column pipe set (100 feet), discharge head, orifice plate, discharge pipe | 1 | 1 | 02 | |
| 3 | Tripod with chain pulley 5 ton | 1 | 1 | 02 | |
| 4 | Water arrangement system for drilling purpose (pumps/water bowser), canvas pipe etc. | 1 | 1 | 02 | |
| 5 | One large tent | 1 | 1 | 02 | |
| 6 | Set of Table with 04 Nos. Chairs | 1 | 1 | 02 | |
| 7 | Water level Indicator | 1 | 1 | 02 | |
| 8 | imhoff cone (1000ml) | 1 | 1 | 02 | |
| 9 | Sounding wire (150 ft long) | 1 | 1 | 02 | |
| 10 | Measuring Tap (100 ft.) | 1 | 1 | 02 | |
| 11 | Digital TDS/EC meter | 1 | 1 | 02 | |
| 12 | Lighting arrangements | 1 | 1 | 02 | |



| Sr. | Equipment Type & | Minimum Number Required | | | | | | |
|-----|---|-------------------------|-------------|----|--|--|--|--|
| | | | | | | | | |
| | complete in all respect with standby generator | | | | | | | |
| 13 | Sample box (Wooden box for the preservation of lithological samples/ polythene bag ½ kg | As required | As required | | | | | |
| 14 | Welding plant complete in all respect | 1 | 1 | 02 | | | | |
| 15 | Transport for mobilization of equipment | As required | As required | | | | | |

The Applicant will supply information as per the format specified in the Application Form A-4 attached in Annex-A.

1.5 Financial Capabilities

The Applicant shall meet the following minimum criteria:

- 1) Annual turnover which is also termed as income from contracting for procurement of geotechnical investigations and is defined as billing for works completed during the last three (3) years of at least Rs. 50 million.

The Applicant shall also provide evidence of financial health such as bank account statements, available line of credits, etc., to show the soundness of the Applicant's financial position for procurement of geotechnical investigations works. The Applicant will provide annual turnover of the geotechnical investigation works carried out by him during the last three years. The Applicant will supply annual turnover information as per the format specified in the Application Form A-5 attached in Annex-A.

1.6 Litigation History

The Applicant should provide accurate information on any litigation or arbitration resulting from Contracts completed or under execution over the last three (03) years. The Applicant will supply information as per the format specified in the Application Form A-6 attached in Annex-A. A consistent/ overwhelming history of award against the Applicant may result in rejection of the application. In case an Applicant claims Nil litigation, he shall submit the same statement on the letter head of his company.

1.7 Application of Health, Safety and Environmental Standards

The Applicant should provide the HSE Policies and supporting documentary evidence for the following:

- i) First Aid Box
- ii) Personnel Protective Equipments (PPEs)
- iii) Standard Operating Procedures (SOPs)
- iv) Health, Safety and Environmental (HSE) Policies
- v) HSE staff



Application Form A-1

Page ___ of ___ Pages

General Information

All individual Applicants applying for qualification are requested to complete the information in this form. Nationality information (if applicable) is also to be provided for foreign owners as required under the PEC Bye-Laws as a Partnership.

| | | |
|----|--|--|
| 1. | Name of Firm | |
| 2. | Head Office Address | |
| 3. | Telephone | Contact Person: Name: Title: Cell No. |
| 4. | Fax | E-mail |
| 5. | Place of Incorporation/Registration Certificates of the firm* | Year of incorporation/registration |

*** Registration certificates must include:**

- Valid registration with Pakistan Engineering Council (PEC)
- Valid registration with Federal Board of Revenue (FBR)
- Valid registration with concerned Provincial Revenue Authority (PRA)
- Proof of active taxpayer of FBR & PRA



Experience of the Firm*Name of Applicant:* _____

| Sr. No. | Name of Project | Value of Geotechnical Contract* (Pak Rs.) | Contract Duration |
|---------|-----------------|---|-------------------|
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**Attach copy of Letter of Awards / Project Completion Certificates for any five (5) latest projects.*

Personnel Capabilities

Name of Applicant: _____

| Sr. No. | Name of Person | Qualification | Designation/ Position* | Total Experience |
|---------|----------------|---------------|------------------------|------------------|
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**Attach CVs of the Key Staff Members.*



Equipment Capabilities

Name of Applicant: _____

| Sr. No. | Equipment Description | Capacity | Number of Equipment | Working Condition a) Very good b) Good c) Satisfactory | Current Location |
|------------|--------------------------|----------|------------------------|---|---------------------|
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Financial Capabilities

Name of Applicant: _____

| Year | Annual Turnover (in PKR) |
|-------------|-----------------------------|
| 2024 – 2025 | |
| 2022 – 2023 | |
| 2020 - 2021 | |

Note: Financial soundness certificate from the bank(s) as specified in section 1.5 must be provided by the Applicant



Litigation History

Name of Applicant: _____

| Year | Award for or against Applicant | Name of Client, cause of litigation, and matter in dispute | Disputed amount (current value Pak Rs. or equivalent) |
|------|--------------------------------|--|---|
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Health, Safety and Environmental (HSE) Policies Personal Protective Equipment (PPE) and Standard Operating Procedures (SOP) of the Contractor

Name of Applicant: _____

The Applicant should provide the following policies/supporting documentary evidence as required in Para 1.7.

A. HSE Policies

Please attach HSE Policies

B. Details of PPE Available with the Contractor

| Sr. No. | Type of PPE | Total Number |
|---------|-------------|--------------|
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C. Details of SOPs of the Contractor

Please attach the copies of SOPs



Transaction Details

28 March, 2025

10:29 AM

From

Muzaffar Ali

035701045960

To

Public Procurem

PK17HABB0004540013100701

Bank

HBL

Status

Paid

Amount
Debited

PKR 15,000



For latest schedule of charges, kindly visit your branch
or UBL Digital website.

www.ubldigital.com