

Ref: P40158/169/SHK/01/0131

Date: As per ad.

**TLS-13-2021: Detailed Survey & Sub-Soil Investigation of Transmission Lines on  
ACSR "Rail" Conductor****Geotechnical Investigations for T/Lines Comprising of Three (03) Lots:**

- LOT-I: 220kV Double Circuit Transmission Line from Mastung G/S-Sibbi G/S  
(Approx.120km)
- LOT-II: 220kV Double Circuit Transmission Line from Mastung G/S-Quetta G/S  
(Approx.50km)
- LOT-III: 220kV Double Circuit Transmission Line from Quetta G/S-Loralai G/S  
(Approx.170km)

**Invitation of Bids for Geotechnical Investigations (Field and Laboratory Works)**

Dear Sir,

Separate Sealed bids for each lot (**Technical and Financial in separate sealed envelopes**) are invited in accordance with the attached **BOQ** and **qualification criteria** from drilling contractors for carrying out geotechnical investigations for the subject project.

The Bidders may quote for one or multiple lots. However, to qualify for multiple lots the bidder shall demonstrate its capability in terms of T&P, Man Power and Financial Resources to complete the works in time as per attached qualification criteria. In case same bidder qualifies for more than one lot, undersigned reserve the right to award the work for any one or multiple lots.

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

1. PEC Registration Certificate
2. Certificates of Income Tax and Provincial Sales Tax on Services
3. List of Similar Projects completed during last five years
4. Financial Capability
5. Equipment Capability
6. Personnel Capability
7. Litigation History
8. HSE Policies

The work comprises; execution of boreholes up to 30 m depth below natural surface level (NSL) in overburden soils and bedrock by straight rotary/heavy percussion drilling method, execution of auger holes up to 6.0 m depth below natural surface level in overburden soil or up to bedrock, performance of SPTs in boreholes, excavation of test pits, collection of disturbed/undisturbed soil/rock samples, rock core samples and laboratory testing of selected soil/rock/water samples and geotechnical investigation report. The field and laboratory work shall have to be completed according to the following time schedule:

Site Location	Minimum No. of Drilling Rigs Required	Minimum No. of Handuger Required	Time for Completion of Field Investigations	Time for Completion of Laboratory Testing	Time for Preparation of Geotechnical Investigation Report	Total Time for Completion of Field and Laboratory Work
220 kV T/Lines LOT-I (kmz file attached **)	6	1	8 weeks	3 weeks	2 weeks	13 weeks
220 kV T/Lines LOT-II (kmz file attached **)	5	1	4 weeks	2 weeks	2 weeks	8 weeks
220 kV T/Lines LOT-III (kmz file attached **)	7	1	10 weeks	4 weeks	3 weeks	17 weeks

**\*\* Note: Google kmz file of the route alignment of transmission line is attached.**

Your bid shall be valid for a time period of ninety (90) days after the bid opening. The field work shall be executed under the instructions and full-time supervision of NESPAK engineers/geologists and the successful Bidder shall mobilize to the site on three (03) days' notice after issuance of Letter of Award/Acceptance. The Contractor shall arrange transport for Engineer's supervisory staff for site duties (from hotel to drilling site, point to point movement along transmission line route and back to hotel). The laboratory testing shall also be carried out under the top supervision of NESPAK engineers.

The coordinates and elevations of all the boreholes/auger holes/test pits by total station/GPS shall have to be provided to NESPAK before completion of investigations at site by the Contractor. The approved laboratory, where testing is to be carried out, shall be pursued by the Contractor for timely completion of the assigned laboratory testing. The Contractor shall be responsible for providing the field borehole/augerhole/test pits logs, summary of samples recovered, core photographs (hard copy and soft in DVD), summary of laboratory test results, detailed laboratory test results and geotechnical investigation report to NESPAK, within the contract period. A premium of up to 25% will be admissible on the official rates of the soil/rock laboratory, selected for testing of 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, and obtaining approval from laboratory for supervision of laboratory testing by NESPAK's staff, as and when deemed necessary. The name of the laboratory should be provided on page 2 of 2 for each lot (Annexure-I).

You are advised to carry out a detailed site visit to obtain firsthand information regarding site conditions before submitting the most competitive rates in the attached BOQs. Please note that the work is of sensitive nature and shall be executed by using appropriate equipment of high quality with utmost care. The Engineer holds the right to inspect the equipment before mobilization and to obtain assurance from Contractor regarding the quality of work.

A Pre-Bid meeting will take place on the date, time and place as follows:

Date: **May 28, 2022**


Time: **1100 hours**

Place: Conference Room  
Power & Mechanical Division  
NESPAK House, I-C, Block N,  
Model Town Extension, Lahore Pakistan - 54700

The Bidders shall submit a bid security amounting to Rs. 300,000/-, Rs. 200,000/- and Rs. 300,000/- for Lot-I, Lot-II and Lot-III respectively at the time of submission of bids in the form of a pay order or a 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 **1300 hours** on **June 06, 2022**. Technical bids would be opened on the same day at **1400 hours** in the presence of those bidders who wish to be present.

Financial bids would be opened after evaluation of Technical Bids, time, date and venue which will be announced and communicated to the technically qualified 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 Geotechnical Investigations available at NESPAK website ([www.nespak.com.pk](http://www.nespak.com.pk)). Payment of the entire work shall be made directly by NESPAK.

for National Engineering Services Pakistan (Pvt.) Limited,



(SHAKIR HAFEEZ)

GM/Head (Transmission Lines)  
Power & Mechanical Division

Contract Document No. T/S-13-2021							
Detailed Survey & Sub-Soil Investigation of 220 kV Transmission Lines on ACSR Rail Conductor Under NTDC's Own Resources							
Lot-1: 220 kV Double Circuit Twin Bundle T-Line from Mastung G/S - Sibbi G/S (Approx. 120 km)							
GEOTECHNICAL INVESTIGATIONS							
BILL OF QUANTITIES							
Sr. No.	Description	Unit	Qty.	Unit Rate	Amount	PST	Total Price including PST
				PKR	PKR	PKR	PKR
1	2	3	4	5	6=4x5	7	8=6+7
<b>A. FIELD INVESTIGATIONS</b>							
A1	Execution of boreholes upto a maximum depth of 15 m below NSL in overburden soils or upto the bedrock, whichever is met earlier, by straight rotary/heavy percussion drilling method including backfilling of boreholes to their original position using cement-sand-bentonite mix. Minimum permissible diameter of borehole is 250 mm for percussion method and 115 mm for straight rotary method.	L.M.	1090				
A2	Execution of boreholes from 15 to 30 m depth below NSL in overburden soils or upto the bedrock, whichever is met earlier, by straight rotary/heavy percussion drilling method including backfilling of boreholes to their original position using cement-sand-bentonite mix. Minimum permissible diameter of borehole is 250 mm for percussion method and 115 mm for straight rotary method.	L.M.	300				
A3	Continuous core drilling (NX Size) in bedrock up to a maximum depth of 5 m below rock strike level by using double tube core barrel, including extraction, preservation of core samples in core boxes, waxing, labelling, packing, photography of rock cores and transportation of core samples to the approved testing laboratory.	L.M.	300				
A4	Execution of twenty four (24) augerholes upto a maximum depth of 6 m below NSL in overburden soils or upto the bedrock, whichever is met earlier, by handauger/light percussion drilling method including backfilling of augerholes to their original position using cement-sand-bentonite mix.	No.	24				
A5	Performance of Standard Penetration Tests (SPTs) in boreholes/augerholes along with collection of SPT samples at 1 m interval in general, or as necessary, including their labelling, packing, storage & transportation to an approved testing laboratory.	No.	1524				
A6	Collection of undisturbed soil samples from boreholes/augerholes through Shelby/Denison/Packer samples, including their waxing, labelling, packing, storage & transportation to an approved testing laboratory.	No.	120				
A7	Excavation of ten (10) test pits up to maximum depth of 3.0 m below NSL at locations specified by the Engineer in overburden soils or up to the bedrock, whichever met earlier along with collection of undisturbed samples, including their labelling, packing, storage & transportation to an approved testing laboratory, including backfilling of pits to their original condition.	L.M.	30				
A8	Performance of field density tests by sand replacement method in test pits generally @ 2 tests/pit at selected locations, including determination of in-situ bulk and dry density and collection of small disturbed samples in moisture bins for moisture content determination in laboratory by oven drying method as well as labelling, packing, storage & transportation to an approved testing laboratory.	No.	20				
A9	Collection of undisturbed block samples (70cm x 70cm x 70cm) from test pits including their waxing, labelling, packing, storage & transportation to an approved testing laboratory.	No.	10				
A10	Collection of water samples from boreholes/augerholes (if encountered) including their labelling, packing, storage & transportation to an approved testing laboratory.	No.	30				
A11	Measure soil resistivity at each borehole along with resistivity survey report	No.	100				
A12	Geotechnical Investigation Report	LUMP SUM					
<b>Sub-Total A =</b>							
Total of Price Schedule Column 6 to be carried forward to Letter of Bid.							
1. Mobilization and demobilization of at least four (04) straight rotary drilling/heavy percussion drilling rigs and one handauger/light percussion drilling equipment along with allied accessories at site including access to the site, setting-up and shifting from one investigation point to another is included in the scope of work. The equipment shall be adequate in quantity and performance to meet the time schedule.							
2. Establishment of coordinates and ground elevations of all the investigation points using total station / GPS is included in the scope of work.							
3. Preferred method of drilling of boreholes will be straight rotary method. Percussion drilling will only be allowed in case of gravelly strata approved by Engineer.							
4. All the disturbed/undisturbed soil/rock samples shall be stored and transported as per ASTM/BS/ISRM or other relevant international standards. The area ratio and cleanliness ratio of the thin walled tube, should be in strict compliance with relevant ASTM standard.							
5. Contractor shall ensure a minimum core recovery of 70% to 80 %. The drilling contractor shall be responsible for required recovery of rock core during coring process. In case of poor core recovery, a supplementary borehole shall be drilled by the Contractor without any extra cost.							
6. Payment shall be made as per actual quantity.							
7. The Contractor shall arrange transport for Engineer's supervisory staff for site duties (from hotel to drilling site, point to point movement along the T.L. route and back to hotel).							

Contract Document No. T/S-13-2021							
Detailed Survey & Sub-Soil Investigation of 220 kV Transmission Lines on ACSR Rail Conductor Under NTDC's Own							
Lot-I: 220 kV Double Circuit Twin Bundle T/Line from Mastung G/S - Sibbi G/S (Approx. 120 km)							
GEOTECHNICAL INVESTIGATIONS							
BILL OF QUANTITIES							
Sr. No.	Description	Unit	Qty.	Unit Rate	Amount	PST	Total Price including PST
				PKR	PKR	PKR	PKR
1	2	3	4	5	6=4x5	7	8=6+7
<b>B. LABORATORY TESTING</b>							
B1	Sieve analysis	No.	300				
B2	Hydrometer analysis (with pretreatment)	No.	50				
B3	Liquid and plastic limits	No.	100				
B4	Bulk and dry density	No.	130				
B5	Consolidation with swell potential measurement	No.	40				
B6	Direct Shear (undisturbed samples)	No.	50				
B7	Unconfined Compression (on soil samples)	No.	70				
B8	Unconfined Compression (on rock samples)	No.	30				
B9	Point Load Index	No.	40				
B10	Sulphate content	No.	25				
B11	Chloride content	No.	25				
B12	Organic matter content	No.	25				
B13	Complete chemical analysis of water samples Le TDS, SO <sub>4</sub> , CL & pH	No.	30				
<b>Sub-Total B =</b>							
<b>Total (A+B)=</b>							
Total of Price Schedule Column 6 to be carried forward to Letter of Bid.							
Name of Laboratory: _____							

Contract Document No. TJS-13-2021							
Detailed Survey & Sub-Soil Investigation of 220 kV Transmission Lines on ACSR Rail Conductor Under NTDC's Own Resources							
Lot-II: 220 kV Double Circuit Twin Bundle TL line from Mashang G/S - Qatta G/S (Approx. 50 km)							
GEO TECHNICAL INVESTIGATIONS							
BILL OF QUANTITIES							
Sr. No.	Description	Unit	Qty.	Unit Rate	Amount	PST	Total Price
				PKR	PKR	PKR	including PST PKR
1	2	3	4	5	6=4x5	7	8=4x7
A.	<b>FIELD INVESTIGATIONS</b>						
A1	Excavation of boreholes upto a maximum depth of 15 m below NSL in overburden soils or upto the bedrock, whichever is met earlier, by straight rotary/heavy percussion drilling method including backfilling of boreholes to their original position using cement-sand-bentonite mix. Minimum permissible diameter of borehole is 250 mm for percussion method and 115 mm for straight rotary method.	L.M.	500				
A2	Excavation of boreholes from 15 to 30 m below NSL in overburden soils or upto the bedrock, whichever is met earlier, by straight rotary/heavy percussion drilling method including backfilling of boreholes to their original position using cement-sand-bentonite mix. Minimum permissible diameter of borehole is 250 mm for percussion method and 115 mm for straight rotary method.	L.M.	150				
A3	Continuous core drilling (NX Size) in bedrock up to a maximum depth of 5 m below rock strike level by using double tube core barrel, including extraction, preservation of core samples in core boxes, washing, labelling, packing, photography of rock cores and transportation of core samples to the approved testing laboratory.	L.M.	100				
A4	Excavation of ten (10) augerholes upto a maximum depth of 6 m below NSL in overburden soils or upto the bedrock, whichever is met earlier, by handauger/light percussion drilling method including backfilling of augerholes to their original position using cement-sand-bentonite mix.	No.	10				
A5	Performance of Standard Penetration Tests (SPTs) in boreholes/augerholes along with collection of SPT samples at 1 m interval in general, or as necessary, including their labelling, packing, storage & transportation to an approved testing laboratory.	No.	660				
A6	Collection of undisturbed soil samples from boreholes/augerholes through Shelby/Tomson/Pitcher samples, including their washing, labelling, packing, storage & transportation to an approved testing laboratory.	No.	50				
A7	Excavation of five (5) test pits up to maximum depth of 3.0 m below NSL at locations specified by the Engineer in overburden soils or up to the bedrock, whichever met earlier along with collection of undisturbed samples, including their labelling, packing, storage & transportation to an approved testing laboratory, including backfilling of pits to their original condition.	L.M.	15				
A8	Performance of field density tests by sand replacement method in test pits generally @ 2 test/pit at selected horizons, including determination of in-situ bulk and dry density and collection of small disturbed samples in moisture tin for moisture content determination in laboratory by oven drying method as well as labelling, packing, storage & transportation to an approved testing laboratory.	No.	10				
A9	Collection of undisturbed block samples (30cm x 30cm x 30cm) from test pits including their washing, labelling, packing, storage & transportation to an approved testing laboratory.	No.	5				
A10	Collection of water samples from boreholes/augerholes (if encountered) including their labelling, packing, storage & transportation to an approved testing laboratory.	No.	10				
A11	Measure soil resistivity at each borehole along with resistivity survey report.	No.	40				
A12	Geotechnical Investigation Report	L1/M/SLIM					
	<b>Sub-Total A =</b>						
Total of Price Schedule Column 6 to be carried forward to Letter of Bid							
1. Mobilization and demobilization of at least three (03) straight rotary drilling/heavy percussion drilling rigs and one handauger/light percussion drilling equipment along with allied accessories at site including access to the site, setting-up and shifting from one investigation point to another is included in the scope of work. The equipment shall be adequate in quantity and performance to meet the time schedule.							
2. Establishment of coordinates and ground elevations of all the investigation points using total station / GPS is included in the scope of work.							
3. Preferred method of drilling of boreholes will be straight rotary method. Percussion drilling will only be allowed in case of gravelly strata/soil approved by Engineer.							
4. All the (disturbed/undisturbed) soil/rock samples shall be stored and transported as per ASTM/BS/ISRM or other relevant international standards. The area ratio and clearance ratio of the thin walled tube, should be in strict compliance with relevant ASTM standard.							
5. Contractor shall ensure a minimum core recovery of 70% as 80 %. The drilling contractor shall be responsible for required recovery of rock core during coring process. In case of poor core recovery, a supplementary borehole shall be drilled by the Contractor without any extra cost.							
6. Payment shall be made as per actual quantity.							
7. The Contractor shall arrange transport for Engineer's supervisory staff for site duties (from hotel to drilling site, point to point movement along the TL, route and back to hotel).							

Contract Document No. T/S-13-2021							
Detailed Survey & Sub-Soil Investigation of 220 kV Transmission Lines on ACSR Rail Conductor Under NTDC's Own							
Lot-II: 220 kV Double Circuit Twin Bundle T/Line from Mastung G/S - Quetta G/S (Approx. 50 km)							
GEOTECHNICAL INVESTIGATIONS							
BILL OF QUANTITIES							
Sr. No.	Description	Unit	Qty.	Unit Rate	Amount	PST	Total Price including PST
				PKR	PKR	PKR	PKR
1	2	3	4	5	6=4x5	7	8=6+7
<b>B. LABORATORY TESTING</b>							
B1	Sieve analysis	No.	175				
B2	Hydrometer analysis (with pretreatment)	No.	30				
B3	Liquid and plastic limits	No.	60				
B4	Bulk and dry density	No.	55				
B5	Consolidation with swell potential measurement	No.	25				
B6	Direct Shear (undisturbed samples)	No.	15				
B7	Unconfined Compression (on soil samples)	No.	40				
B8	Unconfined Compression (on rock samples)	No.	15				
B9	Point Load Index	No.	20				
B10	Sulphate content	No.	10				
B11	Chloride content	No.	10				
B12	Organic matter content	No.	10				
B13	Complete chemical analysis of water samples i.e TDS, SO <sub>4</sub> , CL & pH	No.	10				
		<b>Sub-Total B =</b>					
		<b>Total (A+B)=</b>					
Total of Price Schedule Column 6 to be carried forward to Letter of Bid.							
Name of Laboratory: _____							

Contract Document No. T/S-13-2021							
Detailed Survey & Sub-Soil Investigation of 220 kV Transmission Lines on AC SR Rail Corridor Under NTDC's Own Resources							
Lot-III: 220 kV Double Circuit Twin Bundle TL Line from Quetta G/S - Local G/S (Approx. 170 km)							
GEO TECHNICAL INVESTIGATIONS							
BILL OF QUANTITIES							
Sr. No.	Description	Unit	Qty.	Unit Rate	Amount	PST	Total Price
				PKR	PKR	PKR	Incl. PST PKR
1	2	3	4	5	6=4*5	7	8=6+7
<b>A. FIELD INVESTIGATIONS</b>							
A1	Execution of boreholes upto a maximum depth of 15 m below NSL in overburden soils or upto the bedrock, whichever is met earlier, by straight rotary/heavy percussion drilling method including backfilling of boreholes to their original position using cement-sand-bentonite mix. Minimum permissible diameter of borehole is 250 mm for percussion method and 115 mm for straight rotary method.	L.M.	1500				
A2	Execution of boreholes from 15 to 30 m below NSL in overburden soils or upto the bedrock, whichever is met earlier, by straight rotary/heavy percussion drilling method including backfilling of boreholes to their original position using cement-sand-bentonite mix. Minimum permissible diameter of borehole is 250 mm for percussion method and 115 mm for straight rotary method.	L.M.	400				
A3	Continuous core drilling (NX-Size) in bedrock up to a maximum depth of 5 m below rock strike level by using double tube core barrel, including extraction, preservation of core samples in core boxes, wiring, labelling, packing, photography of rock cores and transportation of core samples to the approved testing laboratory.	L.M.	050				
A4	Execution of thirty four (34) augerholes upto a maximum depth of 6 m below NSL in overburden soils or upto the bedrock, whichever is met earlier, by handauger/light percussion drilling method including backfilling of augerholes to their original position using cement-sand-bentonite mix.	No.	34				
A5	Performance of Standard Penetration Tests (SPTs) in boreholes/augerholes along with collection of SPT samples at 1 m interval in general, or as necessary, including their labelling, packing, storage & transportation to an approved testing laboratory.	No.	2132				
A6	Collection of undisturbed soil samples from boreholes/augerholes through Shelby/Denison/Picker samplers, including their wiring, labelling, packing, storage & transportation to an approved testing laboratory.	No.	170				
A7	Excavation of ten (10) test pits up to maximum depth of 3.0 m below NSL at locations specified by the Engineer in overburden soils or up to the bedrock, whichever met earlier along with collection of undisturbed samples, including their labelling, packing, storage & transportation to an approved testing laboratory, including backfilling of pits to their original condition.	L.M.	20				
A8	Performance of field density tests by sand replacement method in test pits generally @ 2 test/pit at selected locations, including determination of in-situ bulk and dry density and collection of small disturbed samples in moisture tin for moisture content determination in laboratory by oven drying method as well as labelling, packing, storage & transportation to an approved testing laboratory.	No.	20				
A9	Collection of undisturbed block samples (30cm x 30cm x 30cm) from test pits including their wiring, labelling, packing, storage & transportation to an approved testing laboratory.	No.	10				
A10	Collection of water samples from boreholes/augerholes (if encountered) including their labelling, packing, storage & transportation to an approved testing laboratory.	No.	45				
A11	Measure soil resistivity at each borehole along with resistivity survey report	No.	175				
A12	Geotechnical Investigation Report	LUMP SUM					
<b>Sub-Total A =</b>							
Total of Price Schedule Column 6 to be carried forward to Letter of Bid.							
1. Mobilization and demobilization of at least five (05) straight rotary drilling/heavy percussion drilling rigs and one handauger/light percussion drilling equipment along with allied accessories at site including access to the site, setting-up and shifting from one investigation point to another is included in the scope of work. The equipment shall be adequate in quantity and performance to meet the time schedule.							
2. Establishment of coordinates and ground elevations of all the investigation points using total station / GPS is included in the scope of work.							
3. Preferred method of drilling of boreholes will be straight rotary method. Percussion drilling will only be allowed in case of gravelly strata as approved by Engineer.							
4. All the disturbed/undisturbed soil/rock samples shall be stored and transported as per ASTM/D5-1SRM or other relevant international standards. The area ratio and clearance ratio of the thin walled tube, should be in strict compliance with relevant ASTM standard.							
5. Contractor shall ensure a minimum core recovery of 70% to 80%. The drilling contractor shall be responsible for required recovery of rock core during coring process. In case of poor core recovery, a supplementary borehole shall be drilled by the Contractor without any extra cost.							
6. Payment shall be made as per actual quantity.							
7. The Contractor shall arrange transport for Engineer's supervisory staff for site duties (from hotel to drilling site, point to point movement along the TL, route and back to hotel).							



Contract Document No. TIS-13-2021							
Detailed Survey & Sub-Soil Investigation of 220 kV Transmission Lines on ACSR Rail Conductor Under NTDC's Own							
Lot-III: 220 kV Double Circuit Twin Bundle T/Line from Quetta G/S - Loralai G/S (Approx. 170 km)							
GEOTECHNICAL INVESTIGATIONS							
BILL OF QUANTITIES							
Sr. No.	Description	Unit	Qty.	Unit Rate	Amount	PST	Total Price including PST
				PKR	PKR	PKR	PKR
1	2	3	4	5	6=4x5	7	8=6+7
<b>B. LABORATORY TESTING</b>							
B1	Sieve analysis	No.	450				
B2	Hydrometer analysis (with pretreatment)	No.	80				
B3	Liquid and plastic limits	No.	120				
B4	Bulk and dry density	No.	180				
B5	Consolidation with swell potential measurement	No.	50				
B6	Direct Shear (undisturbed samples)	No.	70				
B7	Unconfined Compression (on soil samples)	No.	90				
B8	Unconfined Compression (on rock samples)	No.	45				
B9	Point Load Index	No.	60				
B10	Sulphate content	No.	40				
B11	Chloride content	No.	40				
B12	Organic matter content	No.	40				
B13	Complete chemical analysis of water samples i.e. TDS, SO <sub>4</sub> , CL & pH	No.	45				
		<b>Sub-Total B -</b>					
		<b>Total (A+B)-</b>					
Total of Price Schedule Column 6 to be carried forward to Letter of Bid.							
Name of Laboratory: _____							

**TLS-13-2021: Detailed Survey & Sub-Soil Investigation of 220kV Direct Current Transmission Lines on ACSR "Rail" Conductor comprising of 03 Lots. Detail is as follows:**

1. LOT-I : 220kV Double Circuit Transmission Line from Mastung G/S-Sibbi G/S (Approx.120km)
2. LOT-II : 220kV Double Circuit Transmission Line from Mastung G/S-Quetta G/S (Approx.50km)
3. LOT-III : 220kV Double Circuit Transmission Line from Quetta G/S-Loralai G/S (Approx.170km)

**GEOTECHNICAL INVESTIGATIONS**

**Grand Summary**

Sr. No.	Description	Bid Price (PKR)
1	Total of Price for Lot-I	
2	Total of Price for Lot-II	
3	Total of Price for Lot-III	
<b>Grand Total (Sr. No. 1+2+3)</b>		

**POST QUALIFICATION OF BIDDING CONTRACTORS FOR EXECUTION OF  
TLS-13-2021: Detailed Survey & Sub-Soil Investigation of Transmission Lines on  
ACSR "Rail" Conductor  
Geotechnical Investigations for T/Lines Comprising of Three (03) Lots:**

**LOT-I: 220kV Double Circuit Transmission Line from Mastung G/S-Sibbi G/S (Approx.120km)**

**LOT-II: 220kV Double Circuit Transmission Line from Mastung G/S - Quetta G/S (Approx. 50km)**

**LOT-III: 220kV Double Circuit Transmission Line from Quetta G/S-Loralai G/S (Approx. 170km)**

**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 qualification criteria. However, for joint venture, collective experience, resources and financial soundness of all partners shall be considered.

The Bidders may quote for one or multiple lots. However, to qualify for multiple lots the bidder shall demonstrate its capability in terms of T&P, Man Power and Financial Resources to complete the works in time as per attached qualification criteria. In case same bidder qualifies for all lots, undersigned reserve the right to award the work for any one or multiple lots

**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 (05) projects involving bulk of geotechnical investigations within the last five (05) years. This experience should specifically be of geotechnical 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 for each lot separately.

Sr. No.	Position	Qualification*	No. LOT-I	No. LOT-II	No. LOT-III	Minimum Experience (Years)
1	Technical Manager	B.Sc. Civil Engg.	1	1	1	10
2	**Site Geologist/ Supervisor/ Engineer	M.Sc. Geology/B.Sc. Geological Engg/ B.Sc Geology (4)	6	5	7	5
3	HSE Supervisor	HSE Certification course	1	1	1	1
4	**Driller	Literate	6	5	7	10
5	Skilled Labour	-	As required	As required	As required	-

\*Documentary Proof of Qualification should be provided

\*\* In case, number of rigs increase, persons will also increase, at least one person per rig.

#### 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 for each lot separately.

Sr. No.	Equipment Type & Characteristics	Minimum Number Required LOT-I	Minimum Number Required LOT-II	Minimum Number Required LOT-III
1	Straight Rotary Drilling rigs complete in all respects including rods, bits, mud pumps etc. in excellent condition. The equipment shall be capable to obtain minimum core recovery of 70 to 80% and to complete the investigations within stipulated time.	4	3	5
2	Percussion boring sets (>250 mm diameter) complete in all respect including tripod, chisel/bit etc.	3	2	4
3	Handauger/light percussion Drilling equipment complete in all respects including rods, tripod, pully assembly etc.	1	1	1
4	Casing sets having various diameters of all types of boring at least 30 m in length with casing bits.	6	5	7
5	Core barrel (single tube & double tube), coring bits and casing bits as per site requirement	6	5	7
6	Standard Penetration test equipment complete in all respect including all rods, split spoon sampler, hammer and containers etc.	6	5	7
7	Denison/Pitcher/Shelby samplers	6 each	5 each	7 each
8	Denison/Pitcher/Shelby, Tubes.	As required	As required	As required
8	Hydraulic jacks with all accessories for the extraction of casings.	6	5	7
9	Electrically operated sounders for groundwater level measurement.	6	5	7
10	Field density test apparatus (with 6- and 12-inches dia. cone) complete in all respect.	1 each	1 each	1 each

11	Wooden boxes for the preservation of undisturbed soil samples including wooden separators. The width of the wooden strips should be sufficient for detailing.	As required	As required	As required
12	Wooden core boxes for preservation of rock core samples	As required	As required	As required
13	Transport for mobilization of equipment	As required	As required	As required
14	Transport (4 wheel drive) at site along with temporary site office with all accessories	3	2	4

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) Average 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 five (05) years of at least Rs. ten (10) million for LOT-I and Rs. five (05) million for LOT-II and Rs. fifteen (15) million for LOT-III or the said figure has been achieved in any year during last five (05) years. Documentary proofs of the same shall be required in the form of letter of awards, completion certificates etc.

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 five 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 five (05) 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:

- First Aid Box
- Personnel Protective Equipment's (PPEs)
- Standard Operating Procedures (SOPs)
- Health, Safety and Environmental (HSE) Policies
- 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









**Financial Capabilities***Name of Applicant:* \_\_\_\_\_

<b>Year</b>	<b>Annual Turnover (in PKR)</b>
2020 – 2021	
2019 – 2020	
2018 – 2019	
2019-2018	
2018-2017	

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



