DEENDAYAL PORT AUTHORITY

An ISO 9001 : 2008 & ISO 14001 : 2004 Certified Port

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EXPRESSION OF INTEREST [EOI]

for

"Design, Supply, Erection, Testing & Commissioning work for new Proposed EHT Bhadreshwar-Kandla-II S/C Line"

Executive Engineer (Electrical), DPA invites Expression of Interest for the work of *"Design, Supply, Erection, Testing & Commissioning work for new Proposed 66KV Bhadreshwar-Kandla-II S/C"* from the GETCO registered Vendors, who have executed similar work in Government / public sectors and other leading private organizations. Detailed Scope of Work and technical specifications are enclosed herewith.

Interested firms are requested to submit budgetary quotation for the said work in format enclosed at Annexure I. The complete EOI (Expression of Interest) shall be submitted to the office of the undersigned on or before 21/08/2025.

s/d

Executive Engineer (E)
Deendayal Port Authority

1. Introduction

Deendayal Port Authority (DPA), a Major Port under the Ministry of Ports, Shipping and Waterways, Government of India, intends to strengthen its power transmission network to support increasing port activities and upcoming industrial development in the region.

To achieve this, DPA plans to establish a **dedicated 66kV Single Circuit (S/C) overhead transmission line** between **Bhadreshwar and Tuna (Kandla-II)** using **ACSR Panther Conductor and GI Earthwire**. The line will ensure enhanced power reliability, operational resilience, and seamless integration with the regional transmission system.

DPA invites Expression of Interest (EOI) from qualified contractors for the comprehensive execution of this project, encompassing design, engineering, material supply, erection, testing, and commissioning activities.

2. Objective

The objective of this project is to develop a robust and reliable 66kV transmission line that enhances electrical connectivity between Bhadreshwar and Tuna. This infrastructure is critical for uninterrupted power supply to port operations, upcoming logistics parks, and nearby industrial zones.

All works shall conform to **GETCO (Gujarat Energy Transmission Corporation Limited)** standards, and will be carried out under the **technical supervision and inspection of GETCO**. All major equipment and materials to be used in the project must be of **GETCO-approved make**, ensuring compatibility with the regional grid.

3. Scope of Work

The selected agency shall be responsible for the complete execution of the following scope:

A. Design & Engineering

- Conduct detailed topographical and route surveys, geotechnical investigation, and feasibility assessment.
- Route finalization and tower spotting with due consideration of right-of-way, environmental clearances, and constructability.
- Design of:
    - Transmission towers and foundations,

    - Conductor stringing plans,
    - Sag-tension and wind loading calculations,
    - Earthing systems and safety clearances.
- Preparation and submission of engineering drawings, design reports, and GTPs (Guaranteed Technical Particulars) for approval.
- ROW will be in the scope of contractor.
- The proposed line will be connecting the coordinates: 23°11'30"N 69°57'13"E to 22°54'31.32" N 69°55'25.09" E
- Compliance with GETCO guidelines and applicable Indian/IEC standards.
- Development of:
    - Bill of Materials (BoM),
    - Execution plan,
    - Quality Assurance Plan (QAP),
    - Safety Management Plan.

B. Supply of Materials

- Procurement and supply of:
    - ACSR Panther Conductor,
    - GI Earthwire (7/3.15 mm),
    - Insulators (disc/suspension),
    - Transmission tower materials (Panther type),
    - Tower accessories, clamps, fasteners, vibration dampers,
    - Reinforcement steel, cement, and foundation materials.
- All materials must be of **GETCO-approved make** and must adhere to relevant IS/IEC specifications.
- Manufacturer test reports and third-party inspection certificates (if required) shall be provided prior to dispatch.
- Storage and handling of materials at site with traceability and quality control measures.

C. Erection & Construction

- Mobilization of required workforce, equipment, and logistics.
- Excavation, reinforcement, and concreting of tower foundations in accordance with structural design and soil profile.
- Erection of transmission towers including lifting, bolting, and alignment checks.

- Conductor and earthwire stringing using standard tensioning equipment, ensuring sag-temperature compliance and safety clearances.
- Installation of insulators, spacers, dampers, and all associated accessories.
- Adherence to safety protocols, work-at-height norms, and environmental protection measures.

D. Testing, Inspection & Commissioning

- Pre-commissioning inspections and checks of all towers, hardware, and line components.
- Testing of:
    - Conductor and earthwire continuity,
    - Insulation resistance,
    - Tower earthing system.
- Verification of safety clearances, verticality, and hardware alignment.
- Line energization and grid synchronization in coordination with GETCO.
- Handover of the commissioned line to DPA with complete documentation, including:
    - As-built drawings,
    - Test reports,
    - Operation & Maintenance Manual,
    - Commissioning certificate.

4. Supervision and Standards

- All works will be **monitored and supervised by GETCO**, who will provide necessary inspections at key project milestones.
- The **design, material specifications, construction methodology, and commissioning procedures** shall fully comply with **GETCO standards and practices**.
- All major materials and equipment shall be of **GETCO-approved make**, and the contractor shall obtain prior approval before procurement.

5. Deliverables

- Route Survey & Geotechnical Report
- Detailed Design Documents and GTPs
- Material Inspection & Test Certificates
- Execution Plan and Progress Reports
- Commissioning & Handover Dossier

6. Standards and Regulatory Compliance

- CEA (Technical Standards for Construction of Electrical Plants and Electric Lines), 2022
- GETCO Construction, Safety & Testing Guidelines
- Relevant IS and IEC standards for 66kV lines
- State Utility and Statutory Clearance Requirements

7. Project Timeline

The entire scope of work, including design, procurement, construction, testing, and commissioning, is expected to be completed within **Nine (9) months** from the date of issuance of the Work Order.

8. BOQ

The detailed Bill of Quantities (BOQ) is enclosed in the following sections and categorized into three parts for clarity:

- Part A: Supply of Materials
- Part B: Erection of Transmission Line
- Part C: Civil Works – Pile Foundation

Bidders are required to review and quote as per the structure and specifications mentioned. All quoted rates shall be inclusive of supply, transportation, handling, erection, testing, taxes, duties, and all other incidental charges. The BOQ forms a critical part of the commercial evaluation.

Annexure I

General Details to be submitted with EoI

Sr. No.	Description	Details / documents to be incorporated with EoI
1	Name of Firm	
2	GST Registration Certificate	
	Vendor Registration Certificate issued by GETCO	

Bill of Quantities

Name of Work: "Design, Supply, Erection, Testing & Commissioning work for new Proposed EHT Bhadreshwar-Kandla-II S/C Line."

Part- A – Supply of Material

Sr. No.	**Description**	**Unit**	**Quantity**	**Unit Rate**	**Total**
A.1	Tower Materials				
A.1.1	Steel Part (MS) with Hot dip Galvanized Material	MT	1064.00		
A.1.2	Bolt Nuts	MT	114.00		
A.2	ACSR Panther Conductor	KM	96.00		
A.3	66KV UG Cable				
A.3.1	1 core, 630 sq.mm 66 kV - 4 nos. XLPE power cable, Single ckt (single circuit 3+1 Nos.) with end termination heat shrinkable kit and required accessories, Cable Earthing with required accessories, HDPE pipe, RCC slab (if required), HDPE high durable warning tape, route marker, backfilling etc. required to complete the job as per specifications & GETCO standard	KM	5.00		
A.4	SR Insulators				
A.4.1	66kV, 120kN Tension SRI	Nos.	912		
A.5	Insulator hardware for ACSR Panther Conductor				
A.5.1	Single Tension	Nos.	912		
A.5.2	Vibration Damper	Nos.	912		
A.6	Earthwire - 7/3.15mm	KM	32.000		
A.7	Hardware for Earthwire - 7/3.15mm				
A.7.1	Tension Clamp	Nos.	152		
A.7.2	Cross by Clip	Nos.	152		
A.7.3	Copper Earth Bond	Nos.	152		
Total (Excl GST)					

Part-B – Erection of line: **"***Design, Supply, Erection, Testing & Commissioning work for new Proposed 66KV Bhadreshwar-Kandla-II S/C Line with ACSR Panther Conductor with GI Earthwire on Panther Tower."*

Sr. No.	Description	Unit	Quantity	Unit rate	Total
B	ERECTION OF LINE				
1	Check survey including detailed survey, preparation of profiles and revision in original route alignment, if any.	KM	32.000		
2	Stub-setting with prop or template including back- filling but excluding excavation and concreting etc. for all type of tower/extensions (Weight of stub, cleat & template with Bolt & Nuts of Stub & template shall be counted) up to 12 mtr extension.	MT	250.000		
3	Grounding of towers with pipe type earthing including excavation and back filling and supply of all materials like 32mm dia heavy duty 3 mtr. long G.I. Pipe & 50 x 6 mm G.I. flat, bolt-nuts,salt, coal/charcoal etc. as per drawing.	Set.	152.00		
4	Erection of super structure upto 6 meter extension including tree cutting, fixing of tower accessories, attachments except ACD / DP / NP / CIP / PP and excluding tack welding of bolts. This includes taking delivery of tower materials and bolt-nuts etc.	MT	1064.000		
5	Fixing of Anti-climbing devices including supply of barbed wire	Loc.	152.00		
6	Fixing of DP / NP / PP / CIP including supply of plates and supply of G.I. bolt-nuts & tack welding as per drawings.	Loc.	152.00		

7	Tack welding of nuts up to approx. 10 mtrs. Height or two bottom-most panel from ground level at three places on the nuts diametrically and applying zinc rich paint immediately after tack welding.	Per Bolt	228000.00		
8	Stringing of one ground wires including laying, jointing, tensioning, clamping with accessories, jumpering, & sister wire, vibration damper earth bond etc. & including tree cutting.	RKM	32.000		
9	Stringing of ACSR Panther Conductor - 3 (Three) conductors for double circuit on D/C and M/C tower including laying, jointing, tensioning, clamping with armour rods, hoisting of insulator string, fixing of jumpers, dampers etc. and with required tree cutting on entire length for adequate clearance / safe charging of line.	RKM	32.000		
10	Painting of name of line, location number, colour code and telephone number on tower (all four legs) for information of concerned substation including supply of paints,etc. a) all four legs	per loc	152.00		
11	Laying of 66KV Power cable in excavation in any type of soil with accessories	RKM	6000.00		
12	Installation of Stright Through joint and Termination kit of 66KV cable	Nos.	16		
Total (Excl GST)					

PART-C:

Pile foundation for : **"**Design, Supply, Erection, Testing & Commissioning work for new Proposed EHT Bhadreshwar-Kandla S/C Line*."*

SN	Description	Unit	Quantity	Unit Rate	Total
1	Empty boring through all sorts of strata for providing 450 mm dia R.C.C. bored piles to required depth including providing necessary, bentonite, casting pipes with all plants and equipment's as required etc complete.	Rmt	**29184.00**		
2	Excavation for foundation up to 1.5 M depth including sorting out and stacking of useful materials and disposing of the excavated stuff up to any lead. Black Cotton Soil Dry/Wet	Cmt.	**32832.00**		
3	Providing and laying cement concrete (1:2:4 machine cut (1 cement: 2 coarse sand: 4 graded stone aggregate 20mm nominal size) and curing complete excluding cost of form work in Foundation and plinth.	Cmt	**2432.00**		
4	Providing and laying controlled cement concrete M 30 as per mix design with minimum cement content of 450kg/M3 OPC Cement with C3A content 5 to 8 percent of approved make with tremie concrete for **R.C.C. bored pile**s of any dia including ramming vibrating curing and finishing etc complete.	Cmt	**4864.00**		
5	Providing and casting in situ controlled cement concrete M30 as per mix design with OPC Cement with 5 to 8 percent C3A agent of 450kg/Cmt of approved make for **R.C.C. Pile cap** including necessary formwork vibrating curing and finishing etc complete.	Cmt	**8208.00**		
6	Providing and laying controlled cement concrete M-30 as per mix design with OPC Cement with 5 to 8 percent C3A agent of 450kg/Cmt of approved make exposed work with curing etc. complete including the cost of form work but excluding the cost of reinforcement for **R.C.C. work in Column** Having cross sectional area more than 0.18 Sq. M.	Cmt	**1216.00**		
7	Providing and laying controlled cement concrete M-30 as per mix design with OPC Cement with 5 to 8 percent C3A agent of 450kg/Cmt of approved make exposed work	Cmt	**1216.00**		

	with curing etc. complete including the cost of form work but excluding the cost of reinforcement for **R.C.C. work For Beam** Having cross sectional area more than 0.18 Sq. M.				
8	Stub setting including back-filling but excluding excavation and concreting etc. for all types of towers/extensions except special towers. (weight of stub, creat and template with Bolt and Nuts of stub and template shall be counted)	Kg	**912000.00**		
9	Providing Thermo Mechanically Treated CRS bars/ (coated with fusion boanded epoxy paint) of FE 500 Grade confirmed as per IS 1786 for RCC work including bending, binding and placing in position etc. completed for up to floor two level	Kg	**1368000.00**		
10	Providing steel liner for curbs and staining for wells in cluding fabricating and setting out as per detailed drawing as directed by E.I.C.	MT	**1680.00**		
11	Demolition of RCC work including stacking of serviceable materials and disposal of unserviceable materials with all lead and lift.	Cmt	**8500.00**		
12	Performing Integrity test on each pile before casting of pile cap with accurate instruments, Software etc. complete to determine length or depth, . Whole test shall be conducted as per ASTM D5882-16-Standard test Method for low Strain Integrity Testing of Piles.	Job work	**2432.00**		
13	Performing Lateral load test on a completed cast-in-situ pile in order to evaluate its performance relative to the lateral load/displacement criteria for the design of working pile. The load test shall be carried out for a maximum load of 2.5times the design load for initial test and 1.0 times the designed load for routine tests. includes all required instruments, machinery operations like Excavations for placing hydraulic jack, brackets and datum bars etc. The load and displacement values recorded during the test are plotted on a graph with Load on X-axis and Displacement on Y-axis and analysed according to the procedure given in Clause 7.4 of IS: 2911 part 4. Whole test shall be conducted as per IS: 2911 (Part-4)-2013	Job work	**152.00**		

14	Providing and Applying tar extended two component coating system based on synthesized epoxy resin and amine adduct manufacture as per technical specification of central electro chemical research (CERCI/CSIRKARAIKUDI) to achieve 400-450 microns DFT in two coats as directed. The item includes cleaning the surface before treatment as per manufacturer specification. The coating system EPCO2020TX or equivalent shall comply the CERCI technology of " comprehensive repair and protection of concrete/steel surface in wet and underwater condition". The rate shall be inclusive of all materials labour equivalent scaffolding etc.	SMT	**18240.00**		
15	Diversing of water course, providing working platform/ floating platform/ cofferdam and bund or island etc for foundation and maintaining the same for the period. Also Necessary provisions for Approach road and working platform 300mm sand filling, with minimum 200mm th. metal and required filling as per site condition by good quality of murrm/Erath and providing NP-3 pipe line for cross drainage where ever required for passing of water, preparing working platform, material conveyance, mobilization to all location as required including all operations for making approach road to particular working place. Payment shall be made after completion of particular Location. Also after completion of the whole tower line work, the Agency must have to remove all platforms. approach road etc after instruction of the GETCO officers.	Per Location	**152.00**		
Total (Excl GST)					

(Grand Total in Words _____)

(NOTE: The rates should be inclusive of All Taxes, Duties, Fees, Cess etc and all incidental charges but exclusive GST).

s/d

Signature & Seal of Contractor

Executive Engineer (E)
Deendayal Port Authority