

DEENDAYAL PORT AUTHORITY

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



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Gandhidham, Kutch 370210
Email: cme@deendayalport.gov.in

No.: EL/WK/2918

Date: 25.06.2026

BUDGETARY ENQUIRY

Subject: Budgetary Offer for "SUPPLY, INSTALLATION, TESTING & COMMISSIONING OF OFF-GRID 5 KW WIND TREE"

1. Introduction

Deendayal Port Authority (DPA) proposes to establish a 5kW Wind Tree at its Port Area as part of its renewable energy initiatives.

This includes:

- Wind power generation and grid integration
- Civil infrastructure development including foundations

2. Purpose of Budgetary Enquiry (IMPORTANT DISCLAIMER)

This enquiry is issued solely for indicative cost estimation and

- Not a Tender / RFP
- No guarantee of award
- No contractual obligation arises

3. Mandatory Technical Requirements

3.1 Site Constraints

- Project falls under the Decentralized Renewable Energy (DRE) and Small Wind Energy Systems (SWES) regulatory framework governed by the Ministry of New and Renewable Energy (MNRE).

3.2 Structure Height

- As per the OEM.

3.3 Statutory Compliance

- Contractor is responsible for obtaining all approvals/NOC, however, DPA will assist by issuing letter, showing information for getting approval & the Statutory payments will be in the Scope of DPA shall be remembered as per Actual.

3.4 Operational Data

Rated Power	~5000W
Cut-in Speed	As per the OEM
Leaf Diameter	As per the OEM
Leaf Height	As per the OEM
Type	Off-Grid
Battery Type	As per the OEM
Controller	As per the OEM
Inverter	5kW single phase (230V, 50Hz)
Energy Metering	1 No.

3.5 Structure Data

No. of Pole	1
No. of Leaves	As per the OEM
No. of Branches	As per the OEM
Leaf Material	Best suited for handling the turbine and shall be suitable for humid, dusty & corrosive environment.
Structure Height	As per the OEM
Branch Span	As per the OEM

3.6 Generator Data

Operation Type	Axial flux
Rated Power	As Per the OEM standards
Output	DC
Voltage Range	According to the OEM standards
MPPT Voltage	According to the OEM standards
Axis Type	Vertical Axis

4. Scope of Work (Brief)

The project shall be executed on a turnkey basis, including Civil, Electrical, Mechanical works, etc. whichever required for useful execution for the project.

4.1 Design & Engineering

- Detailed engineering of WTG system
- Geotechnical investigation and soil analysis
- Design of WTG foundations (including pile/raft as required)

4.2 Civil Works (INCLUDING FOUNDATION WORKS)

The Contractor shall carry out all civil works required for complete project execution, including but not limited to:

- WTG Foundations:
 - Reinforced cement concrete (RCC) foundations
- Base plate grouting:
 - Embedding precision heavy-duty J-bolts or template rings into the concrete foundation before it cures.
- High-Strength Grouting:
 - Injecting specialized fatigue-resistant non-shrink grout beneath the steel "trunk" base flange to ensure perfect leveling and vibration dampening.

4.3 Supply & Installation

- Supply of WTGs and associated systems
- Transportation, unloading and erection
- Mechanical and electrical installation

4.4 Testing & Commissioning

- Pre-commissioning checks
- Performance testing

4.5 Cabling Trenches & Ducts

- Civil Excavation:
 - Digging safety trenches (typically 0.6 to 1-meter-deep) from the base of the wind tree up to the commercial facility's electrical room with distance of approx. 100m.
- Conduit Laying:
 - Installing heavy-duty PVC/HDPE pipes inside the trenches to house the armored AC/DC power cables.
- Re-instatement:
 - Backfilling, compacting and repairing the disturbed commercial landscape (e.g.,

relaying asphalt, interlocking paver blocks or concrete walkways) to match the original look as per site requirement.

4.6 Equipment Housing (Control Room/Enclosure)

- Inverter Pad Construction:
 - Casting a minor concrete plinth nearby to house the battery bank, charge controllers and off-grid inverter setup.
- Weatherproof Enclosure:
 - Building a small brick-and-mortar kiosk or setting up a pre-fabricated, ventilated structural cage to protect electrical components from public tampering.

4.7 Earthing (Grounding) Pit Construction as per IE Rules

- Safety Boring:
 - Drilling deep holes to create dedicated Earth Pits.
- Earthing Chamber:
 - Installing copper/GI earth electrodes surrounded by charcoal-salt or chemical bentonite compounds, finished with a neat concrete inspection chamber cover at ground level to manage lightning strikes.

5. Technical Standards

All equipment, materials, design and execution shall comply with the latest applicable Indian Standards (IS), IEC Standards and regulatory guidelines, including but not limited to:

5.1 Wind Turbine Safety:

- IEC 61400-2:
 - This standard governs all wind turbines with a rotor swept area as per OEM.

5.2 Performance Guarantee

- The contractor shall guarantee the performance of the Wind Tree and its integrated Power Conditioning Unit (PCU) as per the Original Equipment Manufacturer (OEM) certified cumulative power curve and off-grid design specifications.
- The contractor shall ensure:
 - Minimum machine availability of 95% on annual basis
 - Power output in line with certified power curve for given wind conditions
 - Compliance with applicable grid standards and performance requirements
- In case of deviation attributable to WTG or associated systems, suitable penalties / liquidated damages shall be applicable.

6. Submission of Budgetary Offer

the Firms shall submit:

- Indicative budgetary price

- Assumptions and exclusions
7. Submission Deadline
On or before: 09.07.2026
8. Mode of Submission
- Email: cme@deendayalport.gov.in , deepak.hazra@deendayalport.gov.in
 - Hard copy: Office of Chief Mechanical Engineer, DPA
9. General Notes
- Prices inclusive of all taxes/duties excluding GST
 - GST to be shown separately
 - Clearly state assumptions
 - DPA may seek clarifications
10. Contact for Clarification
- Office of Chief Mechanical Engineer
Deendayal Port Authority
Email: cme@deendayalport.gov.in , deepak.hazra@deendayalport.gov.in

Enclosures

- Annexure-I: Price Format

Sd./-
Chief Mechanical Engineer
Deendayal Port Authority

Price Format

Sr. No.	Description	Unit	Qty.	Amount (₹)
1	Supply, Installation, Testing and Commissioning of complete Off-Grid 5 KW Wind Tree including Electrical Systems and all associated accessories.	No.	01	

Note:

1. Prices shall be inclusive of all taxes, duties, freight, insurance, etc., excluding GST.
2. The quoted price shall be on a complete turnkey basis and shall include all works and services (except Statutory services) required for successful execution and commissioning of the project.
3. All statutory approvals, clearances and liaisoning be included in the scope, but excluding the Statutory payments.