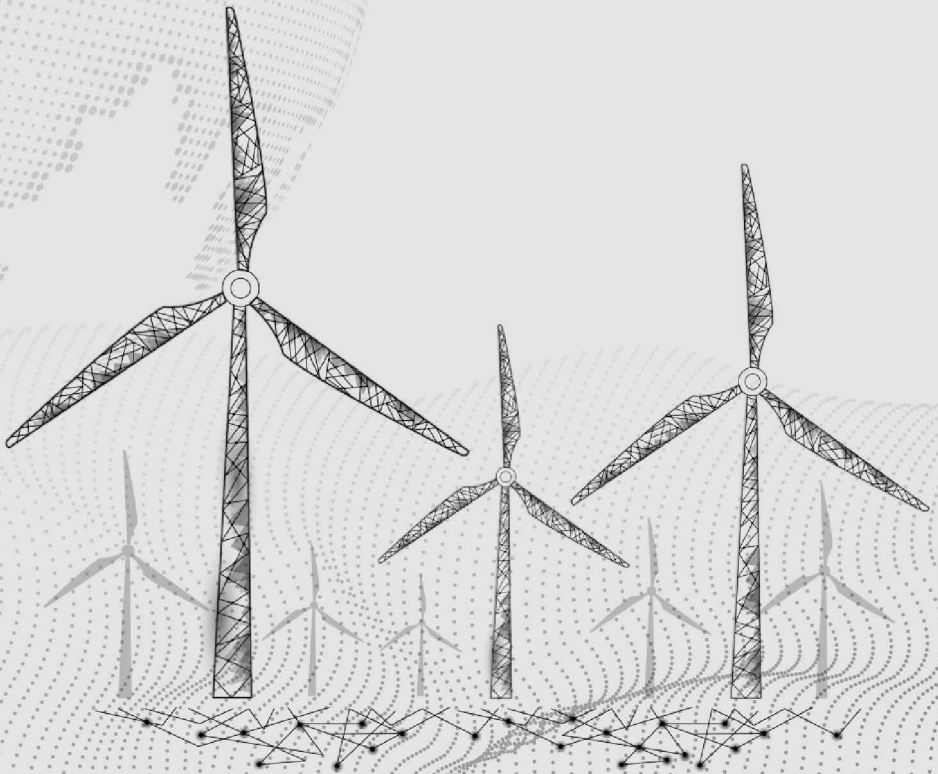
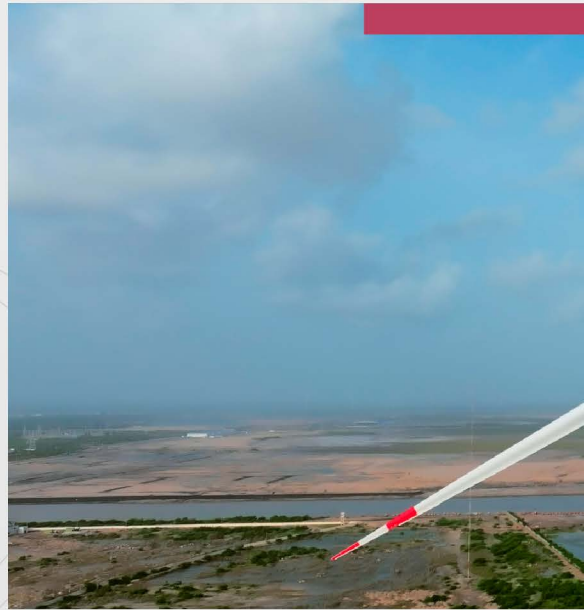


# Harness Nature's Breath



# World Class Wind Turbine Generators

Adani Wind is the Wind Turbine Generator manufacturing arm of Adani Group. Incorporated in 2021, Adani Wind aspires to be a leading global manufacturer and supplier of versatile Wind Turbine Generators. The company is headquartered in Ahmedabad and its current manufacturing facility of 1.5GW WTG is strategically located in Mundra.



## MANUFACTURING INFRASTRUCTURE

### Blade Manufacturing:



spread over 60 acres



current production capacity  
of 150 Blade sets/annum



expandable up to  
800 Blade sets/annum



### Nacelle & Hub Assembly:



spread over 27 acres

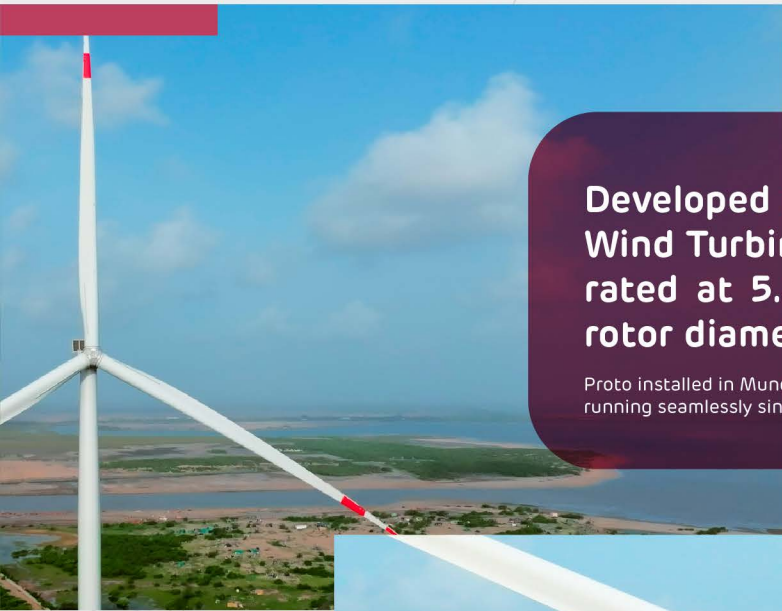


current production capacity  
of 300 N&H/annum



expandable up to  
800 N&H/annum





## Developed India's largest Wind Turbine Generator rated at 5.2 MW with a rotor diameter of 160m

Proto installed in Mundra has been  
running seamlessly since September 2022.



## TECH PARTNERS



Berlin based renowned design  
house for designing rotor blades  
for large onshore & offshore WTGs



Independent wind turbine  
technology developer based  
out of Rostock, Germany

# 5.2MW Wind Turbine Generator

## Nacelle

Main frame - Casted

Generator frame - Fabricated

Bearing type - Externally Geared  
Four-point contact ball bearing

Multistage planetary gearbox  
With 3-phase induction motors

Number of Yaw motors - 8

Yaw bearing material - 42CrMo4  
(Quenched and Tempered)

Nacelle cover - FRP

## Hub

Rotor hub - Casted

Bearing type - Internally Geared  
Four-point contact ball bearing

Bearing material - 42CrMo4  
(Quenched and Tempered)

Drive type - Electrical

Electrical Pitch System  
With triple redundancy

## Tower

**Variant 1 - Tubular tower  
with 120m HH**

- Number of Sections - 5
- Top section conical, remaining cylindrical
- Equipped with Lift

**Variant 2 - Tubular tower  
with 140m HH**

- Number of Sections - 7
- Top section conical, remaining cylindrical
- Equipped with Lift

## Rotor Blades

Blade length - 78.6m

Reinforced Fiber Glass

Rotor diameter - 160m

## Mechanical Drivetrain

3-point suspension

Rotor shaft - Forged

Gearbox Ratio - 1:132

Main Bearing - Double  
row spherical roller

## Cooling System

### Tower

- Converter - Liquid cooled
- Active cooler - Outside tower

### Nacelle

- Generator & gearbox - Liquid cooled
- All other components - Air cooled

## Power, Class & Configuration

Nominal Power Output - 5.2 MW

WTG Class - IEC III S

Configuration - Horizontal axis,  
Upwind, Variable speed,  
Electrical pitch system

Design lifetime - 20 years

Cut-in wind speed - 3 m/s

Cut-out wind speed - 20 m/s

## Electrical System

**Converter & Terminal Block (TB) Panel**

- Location - Bottom side of tower

**Low Voltage (LV) Panel**

- Location - Inside Nacelle

**Generator (DFIG)**

- 3 phase with slip ring rotor
- Low Voltage (3ph AC 950 V)
- Lightening protection - Class I





# adani

## Wind

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