



# Wind Energy

## Introduction

Sindh possesses considerable potential (50,000 MW) of electricity generation through wind energy in southern Sindh. The Ghara – Jhimpir wind corridor is 60 kms wide and 180 kms long with monthly average wind speeds exceeding 7-8 meters per second.

## Renewable Energy Policy

Some of the incentives provided for investors in the Renewable Energy Policy 2006 are listed below:

- Specific purpose land available for the list of the project to eligible investors an extremely attractive annual rentals US\$ 1 per sq yard/annum for direct impact area (foot prints)
- Upfront tariff of 14.67 cents / KWH for all those investors who are ready to complete projects in 18 month time (CoD)
- Long term (20 year) throughput agreements with the Power Purchaser i.e. WAPDA backed by GOP through, Implementation Agreement & Sovereign Guarantee
- Guaranteed purchase of all electricity produced by the project for the entire concession period (20 years).
- Comprehensive coverage to investors against political risk and risk of change of Law through Force Majeure provisions
- Guarantee of buy back of the facility in case of termination of the project
- Wind data available from various sources accounts for 5 years, enabling a great degree of accuracy for the purpose of calculation of wind speed, direction, density, frequency, etc
- Coverage of Wind Speed Risk (for those who does not opt for upfront tariff)
- Comprehensive tariff regime on a cost plus basis
- Fiscal incentives through a zero tax/duty regime. Only contribution to national exchequer would be through a 7.5% withholding tax on dividends declared across the life of the project
- Guaranteed Attractive Return on Equity (“ROE”) – 17% to 18% - offered under the NEPRA tariff guidelines
- Certified Emission Reductions (CERs) available on a shared basis with the Government of Pakistan
- Environmental issues facilitation by AEDB to investors including EIA and relevant Government permissions.

## On Going Projects

With attractive incentive package announced by Government of Pakistan an upsurge in the interest of investors have been witnessed at present 26 projects with installed capacity of 1800 MW are in progress:

Sr. No	Name of Project	Capacity	Cost	Location	Commencing Date
1	NBT/ Malakoff	500 MWs	\$ 1.2 Billion	Thatta	June, 2013
2	Hydro China	300 MWs	\$ 750 Million	Jamshoro	December, 2013
3	United Energy Group	150 MWs	\$ 375 Million	Jhampir-Thatta	December, 2013
4	Fauji Fertilizer	50 MWs	\$ 135 Million	Thatta	November, 2012
5	China Three	150 MWs	\$ 400 Million	Thatta	June, 2012
6	Fauji Foundation	100 MWs	\$ 280 Million	Thatta	December, 2013
7	Zorlu	56.4 MWs	\$ 150 Million	Thatta	March, 2013
8	Dawood Engineering	50 MWs	\$ 130 Million	Thatta	December, 2013
9	SZABIST Energy	100 MWs	\$ 260 Million	Ghara-Thatta	December, 2013
10	Other ( 15 projects)	500 MWS	\$ 1.3 Billion	Thatta	June, 2014

## Joint Venture on Wind Energy Projects

To take the technology handle on Energy Projects, Government of Sindh intends to partner with International firms for establishment of at least 500 MWs wind power project. Government of Sindh will inject land as an equity share and also some seed amount and will also stand guarantee for administration and logistic support at provincial as well as federal level.

Project Cost	\$ 1.2 Billion
Capacity	500 MWs
Location	Thatta or Jamshoro
Return of Equity	17% - 18%
Upfront tariff	14.667 cents/KWh
Power purchase guarantee of 20 years by WAPDA/NEPRA	

