

Experiences with Wind Development in the Philippines: Developer's Perspective

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ADB Avenue, Ortigas Center

Pasig City

EDC BURGOS WIND FARM
May 20, 2014 | Bong Bajo





THE 150MW BURGOS WIND PROJECT ACQUIRED OVER 140+ PERMITS DURING 4 YEARS OF DEVELOPMENT WORK

1 Host Community Endorsements
LGU Endorsements, Business Permits,
Locational & Zoning Clearances
62+ permits | 24 months

2 Department of Energy
Wind Energy Service Contract,
Commerciality Certificate, Incentives for
RE Developers
12 permits | 24 months

**3 Environmental Permits & Other
National Agencies**
ECC, Tree Cutting, NCIP, NWRB Water
Permits, Height Clearance, CNC, DAR
27 permits | 24 months

**4 Grid Connection & Market
Participation Agreements**
SIS, Connection Agreement, ERC TL
Clearance, WESM Registration
9 permits | 18 months

5 Pre-Construction Permits
Mechanical Structural Clearances, Import,
HazWaste, Excavation and Access
30+ permits | 6 months

6

**NOTICE TO PROCEED
TO CONSTRUCT**

WE MANAGED THE FEAT OF COMPLETING RIGHT-OF-WAY ACQUISITION FOR 2,146 INDIVIDUAL CASES



RESEARCH

parcellary mapping, cadastral maps, topographic survey, identify owners and heirs to land titles



NEGOTIATE

dedicated local land team, assist in estate settlements, open discussions on just compensation and joint use of productive land



LEASE

sought out long term leases, utilized the DOE's power of eminent domain to seek out expropriation to lease



DOCUMENT

perfect ROW documentation to allow mortgage rights for bankable projects

AND AS EARLY MOVERS, EXPERIENCED THE PROBLEMS OF A FLEDGING INDUSTRY THAT NEEDED FOREIGN EXPERTISE

Lack of Local Experience

Signed on separate EPC Contract which covers:

- ✓ Design and Engineering
- ✓ Procurement
- ✓ Civil Works
- ✓ Balance of Plant
- ✓ Transport including shipment and delivery to site

Ease of Cross Border Transactions

Legal implications due to **contract enforceability** with foreign entities required creative structuring

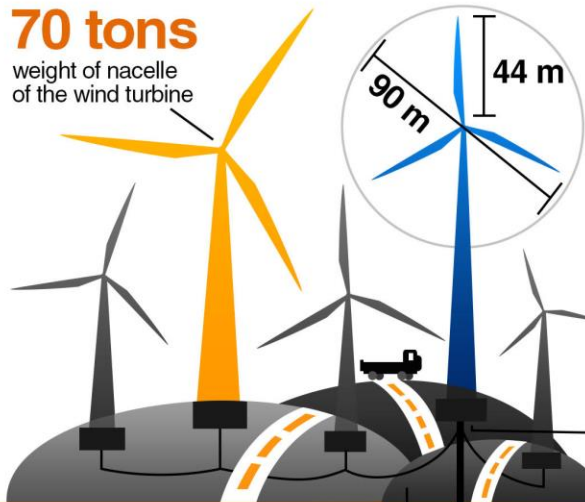
Withholding tax implications for foreign companies increases the cost of doing business

THE LARGEST

wind farm in the Philippines
single installation in Southeast Asia

70 tons

weight of nacelle
of the wind turbine



680 hectares

size of Burgos Wind
Farm's developmental block

55 km

medium-voltage cable buried underground
within the wind farm, to interconnect all 50 wind
turbines to the project's substation.

Financing

The Burgos Wind Project is supported by
DANISH EXPORT CREDIT FINANCING



Eksport Kredit Fonden (EKF) supported a financing
package with a 15-year tenure.

50 state of the art Vestas V-90 wind turbines
installed at the Burgos Wind Farm
3-MW rated capacity of each Vestas
V90 wind turbine



**Successfully
commissioned**
November 2014

**completed
construction**
after only

**17
months**

43 km

length of the transmission lines from
the Burgos Wind Farm to the Laoag
Substation

650 m³ amount of concrete poured into each
of the wind turbine's foundation

20 km

the combined length of access
roads built within the wind farm

The transmission lines consist of

**20 steel poles
& 128 towers**

It has received

7 AWARDS

from various international finance and infrastructure
publications, including "Asia-Pacific Renewables Deal of the
Year" from Project Finance International. PFI is considered to
be the "Oscars" of the project finance industry.

220,000 tons of carbon
emissions

are displaced annually, equivalent to removing

350,000 jeepneys
on the road



2.8 billion liters of water

are displaced by the Burgos Wind Farm, equivalent to

**5.6 billion
bottles of
water**



1 million trees

will be planted over the next several
years in compliance with the project's
various environmental permits.

The wind farm delivers clean,
green and renewable energy
to over

**200,000
HOUSEHOLDS**

all over Luzon with its 370 million
green kilowatt-hours annually.



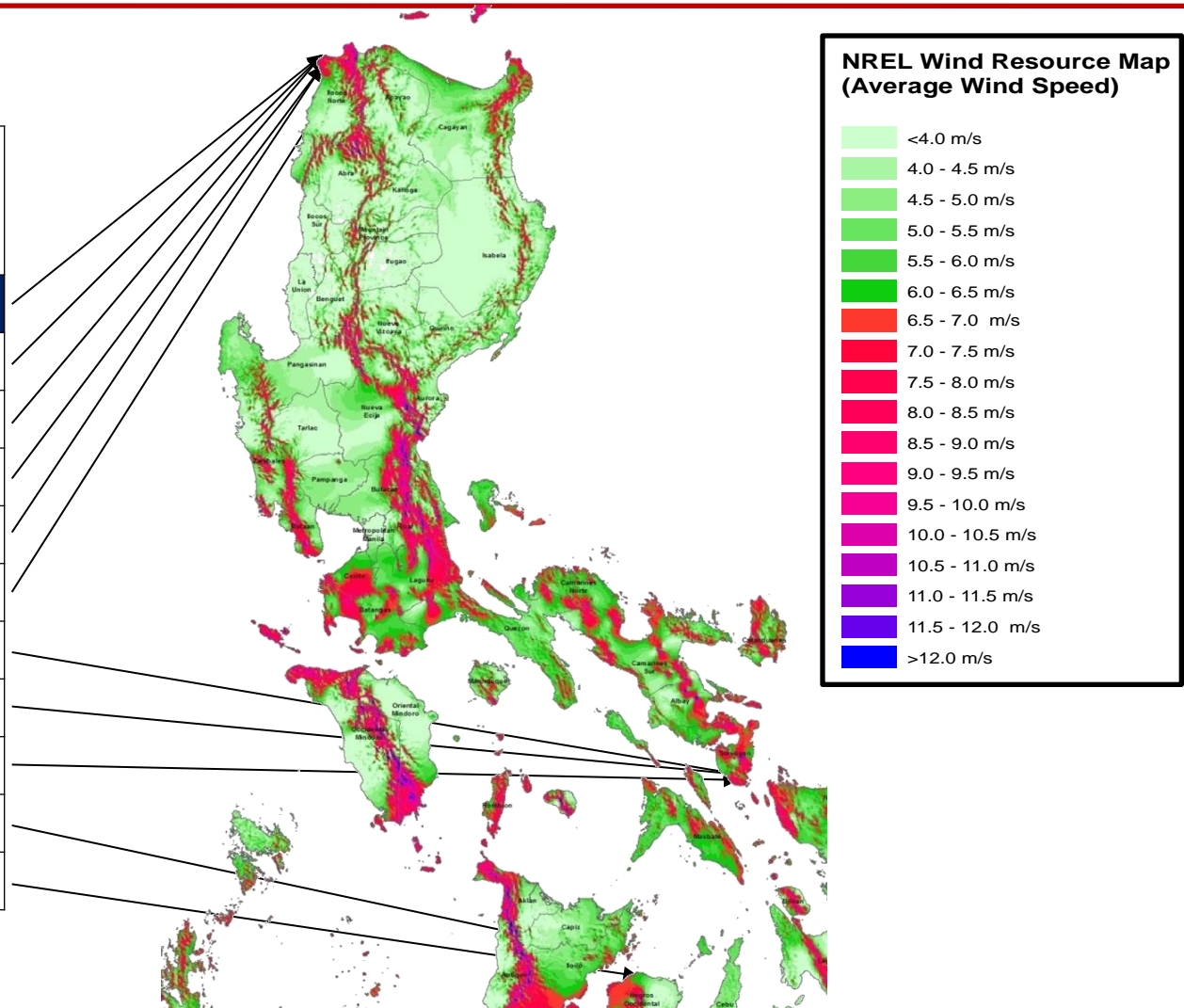






EDC HOLDS 10 OTHER SERVICE CONTRACT AREAS, EACH PRE-IDENTIFIED TO HAVE GOOD WIND RESOURCE

	Ave. Wind Speed (m/s)
Burgos	8
Bayog	7.6
Pagali	7.5
Buduan	8
Bojeador	8
Pagudpud	9.3
Matnog 1	6.2
Matnog 2	6.2
Matnog 3	6.2
Iloilo 1	10.2
Negros	8.8



END OF PRESENTATION

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