



# WIND PROSPECT

2009 – a very different market





# Wind Prospect – Worldwide

- ▣ Wind Energy Engineering and Development & Operations Firm
- ▣ Founded 1995
- ▣ Over 200 staff
- ▣ Operate in 9 countries
- ▣ Advised on over 100 projects (>16 GW of projects)
- ▣ Developed 39 projects (>1,100 MW)
- ▣ Constructed 57 projects (>900 MW)
- ▣ Operate 14 projects (>200 MW)





# Wind Prospect - Ireland

- ▣ Focus on Engineering Project Management & Operations
- ▣ Built first project in Ireland in 1998 – Crockahenny, Co. Donegal (5 MW)
- ▣ Opened office in Dublin in 2002
- ▣ Since 1998 have project managed 25% of total installed capacity
  - 30 Projects completed
  - >250 MW of installed capacity operating
- ▣ Offices in Malahide, Co. Dublin and Listowel Co. Kerry
- ▣ 25 professional staff in Ireland
  - Electrical, Civil, Mechanical Engineers





# Summary

- ▣ Wind turbine market
- ▣ TSA - Commercial conditions
- ▣ TSA - Technical requirements
- ▣ Warranty and Maintenance
- ▣ Negotiating turbine contracts
- ▣ Financial Close - an enigma





# Wind Turbine Market

- ▣ 2004 to 2007
  - ▣ Banks, developers and advisors growing more comfortable with risks
  - ▣ A ready supply of turbines
- ▣ 2007 to 2008
  - ▣ a seller's market
  - ▣ the year of “expensive turbines and cheap money”
- ▣ 2009
  - ▣ the credit crunch impacts felt
  - ▣ there are now more projects than money
  - ▣ a year of cheap(er) turbines and expensive money?





# Wind Turbine Market

Vestas Wind System the largest supplier of wind turbines.

*“The company shipped 618 turbines in the second quarter, down 12 percent from last year.”*

*“The capacity of the systems was 1,172 MW, down a larger 20 percent.”*





# Wind Turbine Market

GE is the second largest supplier of wind turbines.

*“US conglomerate General Electric shipped 935 wind turbines in the third quarter, down from over 1,000 during the same period last year, but it received modestly higher prices.”*





# Wind Turbine Market

## **Pricing is sharpening:**

Prices from  $>€1,000,000/\text{MW}$  to  $<€950,000/\text{MW}$

## **Programmes are shortening:**

Programmes from  $>18$  months delivery to  $<12$  months





# TSA Commercial Conditions

- ▣ Payment Profiles
- ▣ Employer Payment Security
- ▣ Advance Payment Guarantees
- ▣ Performance Guarantees
- ▣ Defects Liability Guarantees
- ▣ Liquidated Damages Caps
- ▣ Total Liability Caps
- ▣ Direct Agreements





## TSA Technical Issues

- ▣ 2008 saw a hardening of WTG technical risk
- ▣ 2009 is not seeing this softening
  - Grid Code Compliance – moved from Carte Blanche to A La Carte
  - Site Risk – the age of Class II (a) in Ireland and the difficulties this presents
  - Forestry Risk – definition of Employer requirements
  - Transport Risk – definition of improvements
  - Wind Risk & Wind Delays
  - Deemed Take-Over Risk





# Warranty and Maintenance

- ▣ Terms getting longer
- ▣ Information, Information, Information – reporting obligations.
- ▣ When is a warranty not a warranty and visa versa?
- ▣ Warranted availability levels on the rise
- ▣ Availability algorithms
- ▣ End of warranty inspections





# Negotiating wind turbine contracts

- ▣ Sign now and bank later? Forget it!
- ▣ FIDIC is still king
- ▣ Having templates for negotiations are key
- ▣ Understanding the technical risk allocation is also key
- ▣ Negotiations take up to 6 months and sometimes longer
- ▣ 1: Employ an experienced lawyer
- ▣ 2: Employ an experienced engineer!





## Financial Close – an enigma?

- ▣ 2008 - closed 5 projects total > 80 MW
- ▣ 2009 – closed 4 projects total < 20 MW
- ▣ Easier to finance smaller projects
- ▣ Projects being clubbed by more than 1 bank
- ▣ Many projects built before finance
- ▣ Achieving financial close is very hard!
- ▣ Everything has to be correct for lenders!!





# Thank You & Good Luck!

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