

Keeping the wind blowing: *A Bankers View*

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April, 2006

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Introduction

Doing it for the *First Time?*

Advisory


2002
Offshore Wind
Debt and Equity structuring advice for a 108MW UK offshore project



Financial Advisor

Structured Finance

2003
Colorado Green
Financing of construction and operation of a US 162MW wind asset



Lead Arranger

Advisory

2003
Hg Capital
Financing and risk / returns analysis – European wind



Financial Advisor

Structured Finance

2003
Westbury
Financing of 35MW portfolio of wind assets in the UK




**Financial Advisor
Lead Arranger**

*Core business:
Lending, capital raising debt and equity, advisory*

*Debt: 2000MW
Advisory: 1000MW*

Advisory


2003
Onshore Wind
Debt and Equity structuring advice for a 60MW project in UK



Financial Advisor

Structured Finance

2004
Stateline
Financing of a US 300MW operating wind asset




Lead Arranger

*United Utilities first wind project
Hg Capital's first renewable energy fund*

Structured Finance


2004
Three Winds
Financing of a 152MW portfolio of wind assets in the USA



Managing Agent

Structured Finance

2004
Brazos
Financing of a US 160MW operating wind asset



Lead Arranger

*Shell WindEnergy's first wind PF
Largest single asset PF (FPLE)
EdF EN's first PF deal
REH's first PF deal*

Structured Finance

2005
Fenland Windfarms Limited
Financing of a 94 MW portfolio in UK



**Financial Advisor
Lead Arranger**

Acquisition Finance

2005
EdF Energies Nouvelles
EUR40m Acquisition and construction facility



**Financial Advisor
Lead Arranger**

Acquisition Finance


2005
IEBV 4
Subordinated Acquisition Facility for a 303MW Italian portfolio



Lead Arranger

Advisory

2005
Renewable Energy Holdings
Acquisition sourcing, valuation and execution



Financial Advisor

Wind Energy in India is Already a Success

- **Outside Europe, India and the USA are the success stories**
- **India is 4th largest market for wind energy:**
 - >4000MW total installed (>1200MW during 2005)*
- **India has produced the world's most profitable wind turbine supplier**
- **India has a competitive tariff for wind power**

Indian Wind Energy Policy Considerations

- **India differs from Europe in that the market is more demand driven**
Off-take risk will be prominent
- **India is considering heady levels of wind energy growth**
Will domestic investors and lenders be able to fund this growth?
Will domestic investors want to continue building balance sheet exposure?
- **Lessons can be learned from Europe if the answers to the above are no**

Structuring the market for sustainability:
A couple of considerations

Achieving Sustainability – What does Europe do?

- **Policies provide acceptable returns to investors**
- **Policy changes are always applied for future projects only**
- **Policies ensure good long term credit (government or rated utilities)**
- **Policies try ensure no competitive advantage or disadvantage created for power purchasers**
- **Policies try to ensure minimum premium paid by tax payer**
- **Successful policies provide all the above, stakeholder buy-in, and simplicity**

Achieving Sustainability

- **UK market:**

 - Best wind resource in Europe but <1500MW installed*

- **Why so slow?**

 - Poor policy decisions initially due to lack of awareness of project economics, lack of understanding of where the industry was going, and public resistance*

- **German market:**

 - Relatively poor wind resource but >18000MW installed*

- **Why so successful?**

 - Excellent policy decisions initially considered promotion of the industry as a whole and local issues creating "buy-in"*

- **French market:**

 - Average wind resource >800MW installed*

- **Will it be successful?**

 - 15yr EdF off-take, fixed price five years, changes based on actual production*

Structuring the market for sustainability:
Who's attracted to who?

Market Structure Determines Investor Profile

➤ **UK market:**

RPS with green certificates, no particular tax incentives

➤ **UK investors**

Wide range of national and international including utilities, private equity, IPPs

➤ **German market:**

Feed-in law, fixed price, tax incentives including for individuals

➤ **German investors**

Small investor funds

➤ **US market:**

Federal PTCs, accelerated depreciation

➤ **US investors**

Large corporations and institutional investors

Opinion on points from yesterday's finance round table

Points Raised

- **Land is always an issue**
- **Individual states should have a common market structure**
- **Costs of turnkey wind projects are EUR1m**
- **Emissions reduction certificates can be financed to subsidize a lower tariff**
- **Cost of debt in India is causing tariffs to be high**
- **Tax incentives should be reduced and production based incentives developed**
- **Why do we need turbines to be certified?**
- **Impact of utilizing a new wind turbine model from either experienced or other suppliers**
- **Impact of the uncertainty of the wind**

Normalized Tariffs World-Wide

- **UK USD110/MWh**
- **India USD100/MWh**
- **Germany USD120/MWh**
- **California USD120/MWh**
- **Texas USD90/MWh**
- **South Korea USD105/MWh**
- **Italy USD110/MWh**
- **Hawaii USD150/MWh**

Production Analysis and Risk

Forecast mean production (P50)	300GWh
10yr standard deviation	7%
1yr standard deviation	12%
10yr P75 production (0.67 s.d.)	286GWh
1yr P75 production	276GWh
10yr P90 production (1.28 s.d.)	273GWh
1yr P90 production	254GWh

