Institutional Investors - essential for Offshore Wind ?

Some Pointers - Northwind (and others)

Manchester

June 2013

EU Offshore Financing issues

Some initial Overview thoughts

- **Offshore wind has great potential as a growth Investment sector**
- **Numerous large opportunities, perhaps 100GW of transactions in the pipeline.**
- **Investment requirement beyond scope of existing investors & Lenders**
- **Growing maturity of Offshore has started to attract diverse investor base:**
    - ***Industrials***
    - ***Private equity***
    - ***Pension funds***
    - ***Insurance Companies; and***
    - ***Private sector corporates***

Wind. It means the world to us.™

EU Offshore Financing issues

Global clean energy investment (US$bn)

Global Project Finance

- ~US$200 Bn
- ~ US$66 Bn in Power
- Includes asset acquisitions & refinancings
- Financings Cover:-
  - *Power*
  - *Oil & Gas*
  - *Transportation*
  - *Mining*
  - *Petrochemicals*
  - *PPP/PFI*
  - *Telecoms*
  - *Waste & Other*

Source: BNEF

Wind. It means the world to us.™

EU Offshore Financing issues

2013
~€14B invested in 5GW

- 55 offshore parks
- installed capacity of nearly 5GW
- Investments of around €14 Bn
- Mostly **balance sheet** financed (+/-75%) balance using project finance

2020
Additional 35GW planned

- 35GW addition to meet EU targets
- Over 80% ‘far’ offshore capacity (deeper water, longer connection)
- Estimated **investments of €100Bn+** to reach EU 2020 target of 40GW

Wind. It means the world to us.™

EU Offshore Financing issues - Utilities

Can/will Utilities fund on Balance Sheet ?

Ratings of EU's main Utilities

Ratings from Moodys
Source : BCG

Wind. It means the world to us.™

EU Offshore Financing Issues - Banks

Credit Crunch has changed the Banking landscape

- ***Fewer active PF Banks***
- ***Relationship Focus***
- ***Weak syndication market***
- ***Bank capital & Basel III issues***
- ***Ongoing Political support ?***
- ***Multilateral and bilateral funding***
- ***Requirement for new Investors & Debt Providers***
- ***Capital Markets options***

Competition for Scarce Funding Resources

Wind. It means the world to us.™

EU Offshore Financing Issues - Banks

Examples of impact of the Credit Crunch

Trinergy Ltd Refinancing November 2006

648MW Onshore Italian & German Assets

€1.13bn

10 year debt tenor

RBS Sole Underwriter

€100m max syndication tickets

BBVA, BayernLB, Dexia, HBOS, HSH Nordbank, Mizuho, Natixis, UniCredit, Banca Mobiliare, Aletti Merchant, Commerzbank, Fortis, IKB, ING, Interbanca, Bank of Ireland, Centrobanca, SMBC and KBC

Boreas Refinancing November 2009

220MW Onshore and Offshore UK

£325 million Senior Debt

Full cash sweep after year 9

Club of 14 Banks (no Underwriting)

Bank of Ireland, Bayern LB, BBVA, BTMU (financial adviser), Calyon, Dexia, Fortis, Lloyds, HSBC, KfW-Ipex, NAB, NIBC Bank, Raiffeisen and Santander

centrica

Wind. It means the world to us.™

EU Offshore Financing Issues

Jädraås Windfarm – Sweden

Sponsors:	Platina Partners
	Arise Windpower
Size:	200MW
Turbines:	Vestas V112
Finance:	€336 million (including equity Bridge)
	50% from Banks and 50% from EKF
Banks:	DNB Nor, SEB and EKF Guaranteed
Closing date:	October 2011

EKF tranche funded by PensionDanmark, guaranteed by EKF.

Wind. It means the world to us.™

EU Offshore Financing Issues

Lincs Offshore financing

February 2012

270MW UK Offshore Project

£1 bn of construction - 15 year tenor

Very largely constructed by time of financing

£420m Senior Bank debt funding, £580m from Shareholders

Club of 10 Banks

BNP Parisbas, BTMU, DnB NOR, HSBC, Lloyds, KfW-IPEX, Nordea, Santander, SEB & UniCredit

DONG energy

Wind. It means the world to us.™

EU Offshore Financing Issues

Northwind Offshore – Belgium

Sponsors:	Colruyt Group and Aspiravi Offshore	
Project Size:	216 MW	
Turbines:	72 X Vestas V112 -3 MW	
Project Cost:	€850 million (€596 m debt)	
Debt:	Banks & **EIB**	€266 million
	EIB (covered)	€200 million
	KfW-IPEX	€ 60 million
	PensionDanmark	€ 35 million
	Norway (Min T&I)	€ 35 million
Banks:	ASN, Belfius (was Dexia Belgium), BNP Paribas Fortis, ING and Rabobank	
Guarantee Providers:		
EKF	PensionDanmark, EIB (partial), KfW –IPEX	
ONDD	EIB (partial)	
GIEK Norway	Nowegian Ministry of Trade & Industry	
Cash Sweep		

Closing date: June 2012

Long Term Vestas Service Agreement

Wind. It means the world to us.™

EU Offshore Financing Issues

Butendiek Offshore Wind Farm, Germany

Sponsors: wpd Offshore Solutions
Marguerite Fund
Industries Pension
PKA A/S; and
Siemens

Size: 288 MW
Equity €360 million
Project Debt €940 million
Debt: 10,5 years post construction (Compression FIT)
Banks: EIB (€450 million with €300 million EKF guaranteed)
UniCredit, KfW-IPEX, Bremer L/B
Rabobank, ING,SEB, HSH Nordbank, Bayern L/B, & Helaba

Closing date: February 2013

Wind. It means the world to us.™

EU Offshore Financing Issues

Potential for other Funding sources

CONVENTIONAL INVESTMENT MANAGEMENT ASSETS

$bn, end-2011	Pension funds	Insurance assets	Mutual funds	Total conventional	% share
US	17,575	7,100	11,622	36,297	46
UK	3,050	2,755	817	6,622	8
Japan	1,470	3,878	745	6,093	8
France	219	656	1,382	2,257	3
Germany	195	1,384	293	1,872	2
Others	8,991	8,662	8,932	26,585	33
Total	31,500	24,435	23,791	79,726	100

Source: TheCityUK estimates based on UBS, OECD, SwissRe, Investment Company Institute data

Wind. It means the world to us.™

EU Offshore Financing Issues

Potential for other Funding sources

PRIVATE EQUITY INVESTMENTS/FUNDS RAISED IN EUROPE

	Investments		Funds raised
Euros bn, 2011	Country of management	Country of destination	Country of management
UK	19.5	10.2	16.5
France	9.3	9.6	6.1
Germany	4.4	6.1	3.1
Switzerland	0.7	1.1	0.8
Others	11.7	17.1	23.3
Total	45.6	44.1	39.8

Source: PEREP_Analytics, EVCA

SELECTED SOVEREIGN WEALTH FUNDS

Norwegian Governement Pension Fund	US$ 715 Bn
Saudi Arabian SAMA Foreign Holdings	US$ 538 Bn
UAE	US$ 716 Bn
Singapore	US$ 405 Bn
Kuwait	US$ 342 Bn

Source: MoneyWeek

Wind. It means the world to us.™

EU Offshore Financing Issues

A few Closing closing thoughts

- **Considerable Offshore Opportunity but also 'Challenges'**
- **Utilities dealing with Balance Sheet and Rating pressures**
- **Banks facing Capital contraints and loan tenor issues**
- **Major assistance from ECAs and Multilaterals**
- **Institutional Investors starting to play a key role for Offshore**
- **Long term Equity & 'Yield' Opportunities for Institutional Investors**
- **€/£ Capital markets somewhat slow to enter Renewables market**
- **Existing Debt & Equity providers need help with future 'heavy lifting'**
- **Need to target and fully involveme the 'Big Money' players**

Growing evidence that Institutional Investors can/will play an important role in Developing and Expediting Offshore opportunities

Wind. It means the world to us.™

Thank you for your attention

Copyright Notice
The documents are created by Vestas Wind Systems A/S and contain copyrighted material, trademarks, and other proprietary information. All rights reserved. No part of the documents may be reproduced or copied in any form or by any means—such as graphic, electronic, or mechanical, including photocopying, taping, or information storage and retrieval systems without the prior written permission of Vestas Wind Systems A/S. The use of these documents by you, or anyone else authorized by you, is prohibited unless specifically permitted by Vestas Wind Systems A/S. You may not alter or remove any trademark, copyright or other notice from the documents. The documents are provided "as is" and Vestas Wind Systems A/S shall not have any responsibility or liability whatsoever for the results of use of the documents by you. Vestas wishes to acknowledge and respect all copyrights in connection with the illustrations used in this presentation. In case we have unintentionally violated copyrighted material, we want to be informed immediately in order to straighten things out and thus to honour any obligatory fees.