ENERGY IRELAND®

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CORPORATE MARKETS

Offshore Renewable Energy – Exploring Supply Chain Opportunities

Financing: Outlook for financing offshore renewable energy projects

Monday, 03rd September, 2012

Executive Summary

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- Lloyds Banking Group - Renewable Energy
- UK RE Market Overview
- Key Issues & Themes
- Looking Ahead

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LBG RENEWABLE ENERGY

Lloyds Banking Group - Renewable Energy

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An integral part of the Lloyds Banking Group strategy is to deploy our balance sheet and intellectual capital to support our core clients' aspirations in the energy sector.

- Team of 20 including 13 based in UK, 3 in New York, 2 in Europe and 2 in Australia;
- Over £3bn of arranging / underwriting representing about 7 GW of Renewable Energy transactions to date;
- Arranging / Underwriting positions in over 45 projects in the Renewable Energy sector – predominantly wind and solar;
- We have a well structured portfolio with a balanced spread of tenors (52% of the portfolio having a term of over 10 years) underscoring our ability to provide the long term financing required for these assets;
- We have financed Onshore Wind, Offshore Wind, Solar PV, Landfill Gas, Biomass and Bio-Fuels Projects.
- Financing Renewables since 2003 with the Beaufort Portfolio being our first transaction

Debt Focus:

- Arranging & Structuring
- Project Finance & Project Bonds (including Long-dated and Mini-Perm, Construction, Project, Bridge and Portfolio)
- Interest Rate, Inflation and FX Hedging
- Letters of Credit – PPAs, Grid connection, Energy Hedges

The Renewable Energy Team in London has an excellent track record over the last decade with its directors having 50 years plus experience in financing energy infrastructure through the cycle.

Lloyds' Market Position.

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Lloyds is committed to maintaining its no: 1 ranking in renewable energy, with an integral part of the Bank's strategy being to deploy balance sheet and intellectual capital in support of our core clients' aspirations including the provision of stand-alone advisory services.

- The Bank's Renewable Energy Team in London has an excellent track record over the last decade with its directors having 75+ years experience in financing energy infrastructure through the economic cycle.
- Arranged / Underwritten over £3bn representing c. 7 GW of Renewable Energy transactions to date.
- Arranged / Underwritten over 45 projects in the Renewable Energy sector – predominantly wind and solar, but also landfill gas, biomass and bio-fuels.
- A well structured portfolio with a balanced spread of tenors underscoring an ability to provide the financing required for these assets.
- Lloyds most recent transaction (Lincs Wind Farm) was the financing of the UK's largest offshore wind farm for which the Bank undertook six MLA roles.

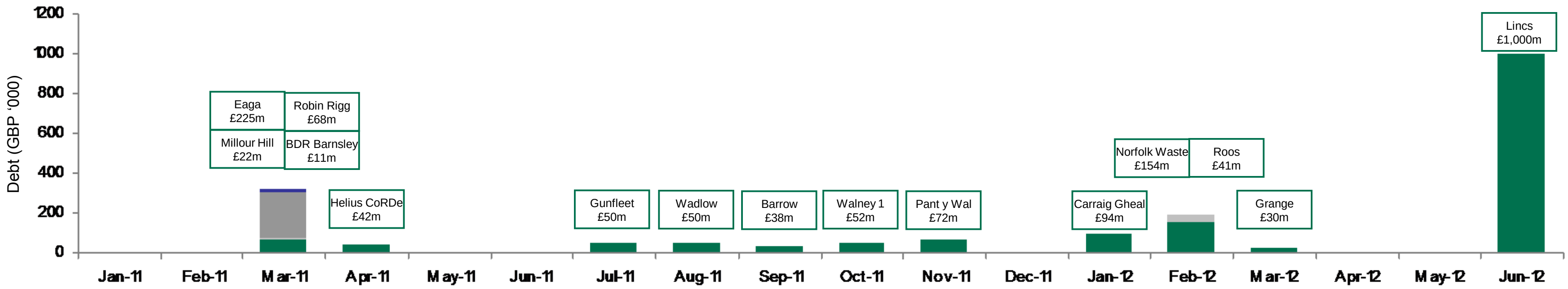
UK Renewable Energy League Table.

2011

Lead Arranger	Count	Credit (USD m)	Market Share (%)
Lloyds	**10**	**442.88**	**25.15**
RBS	11	374.52	21.26
NAB	5	182.68	10.37
Santander	3	146.23	8.30
Barclays	5	125.02	7.10
BNP Paribas	3	83.12	4.72

Source: Bloomberg New Energy Finance.

Lloyds UK Lead Arranger Transactions (since January, 2011)



MARKET OVERVIEW

EU Renewables 2012 – Overview

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2012 should see controlled sector growth as core drivers remain positive	***2012 Renewable Market***	• Overall direction of travel remains positive with increasing concerns over security of supply • Nuclear and CCS plans becoming increasingly complex with high profile withdrawals • Affordability is the key focus for the industry as consumer pressures rise • Main technological focus in 2012 will be wind and biomass. Solar PV increasingly viable.
Affordability remains key with European Governments given austerity agenda and low growth	***EU Government Positions***	• UK Coalition remains committed although "not at any cost". Seeing jobs benefit • Scottish Government driven to take a lead. GIB HQ a major win and aim to maximise value • German Government is mulling over the costs of switching to RE from nuclear together with cost impact of rapid deployment which may impact plans for offshore wind as a result.
EMR is key to the long term stability of the sector	***UK Market Reform***	• EMR vital to long term stability and investor confidence e.g. in Irish export projects • Detailed consultations ongoing re. CFD FIT and Capacity Payment mechanism • Process is taking longer than DECC planned which will have a knock on effect on investors • ROC Banding Review set strong technology signals. Final confirmations expected in Summer
Onshore to continue to provide opportunities with Biomass a DECC objective	***2012 Market Expectations***	• Onshore Wind activity seeing the emergence of more multi site smaller projects • Biomass plants set for 2012 expansion – Co-firing and a small number of large scale • Offshore wind preparing for R3 with limited debt financing required by Utilities in 2012 • Solar PV FIT looks unlikely. Will see an uplift in interest for ROC based schemes H2 2012
UK market set to be supported by lead RE banks such as LBG	***Banking Activity***	• Effects of long term lending constrictions being seen. Only Japanese consistently long tenure • Major banks continuing to support key relationships and key sectors such as RE • New or remerging players - ABN, Rabobank, NordLB, ING – as key, stable market • EIB and export credit agencies (KfW, EFK, Hermes) still providing lower cost of funding
Developing market conditions require the business to monitor increasing counterparty issues	***Risk developments***	• Manufacturer credit is being watched with interest as difficult market conditions • PPA availability still challenging for intermittent supply with regulators consulting on possible need for intervention • Distribution channels continue to be limited and need to considered in business approach

KEY ISSUES & THEMES

Unclear External Environment

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Government

- Conflict of Austerity and Investment Requirements
- Recent Press – 25% Cut in RO Banding for Onshore ?
- Market Reforms to address cost and liquidity

Events

- Euro-crisis and Bank Regulation
- Other than UK, general shift from Nuclear

Markets

- Attractive debt capital markets for Utilities
- Credit Rating Agencies driving investment programmes

Investors

- PF More Challenging – *Tenor, Multi-laterals and Sponsors*
- Large Infra Funds arriving – *InfraRed and Barclays*
- Arrival of large PE players – *Blackstone, Blackrock, KKR*
- Arrival of Institutional Investors – *Met Life, Munich RE, L&G*

Challenge is to unravel the mix to establish a sustainable and profitable financing product

Debt trends positive but future not certain

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PF banks are directing resource towards key clients in key sectors

Markets with stable regulatory regimes and attractive pricing will attract the most capital

Complexity of structures is a concern at a time when capital is scarce

Accessing new pools of liquidity will be key

Financial Landscape	
	▪ Support of core number of around 10- 15 banks. ▪ Trend towards the good projects ▪ Demise of underwriting and syndication market ▪ Take and holds by Banks were creeping up ▪ Increasing role played by the Multi-Laterals, with strong presence of the EIB, KfW and EKF ▪ Competition for capital within Banks increasing ▪ High expectations of new state banks, eg GIB ▪ Stable regulatory support is key and binary

LBG Status	
	▪ 5 RE projects financed year to-date ▪ Weighting of H1 activity towards onshore wind ▪ Offshore wind and biomass activity evident ▪ Basel III and Liquidity high on the Agenda ▪ Recognise need to tailor structures to institutionals

Project Finance – A Strong Discipline

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Project Financing is the means by which a project is financed on a stand alone basis where the cash flow from that asset is the primary source of repayment

- Limited Recourse to the Equity Providers or Sponsors
- Capital intensive projects which require long term financing
- Use of separate legal structure for each project
- Credit and lending decisions are based on the inherent project economics
- Counterparty credit analysis important where there are ongoing obligations eg O&M
- Project should have little or no direct impact on Sponsor's balance sheet
- Cash flow allocation prioritised, with Lenders priority access
- Lenders assume security over assets, contracts, reserve accounts and invested equity
- *Due Diligence and Risk Assessment is comprehensive – A distinguishing strength*

Risk Assessment Approach (1)

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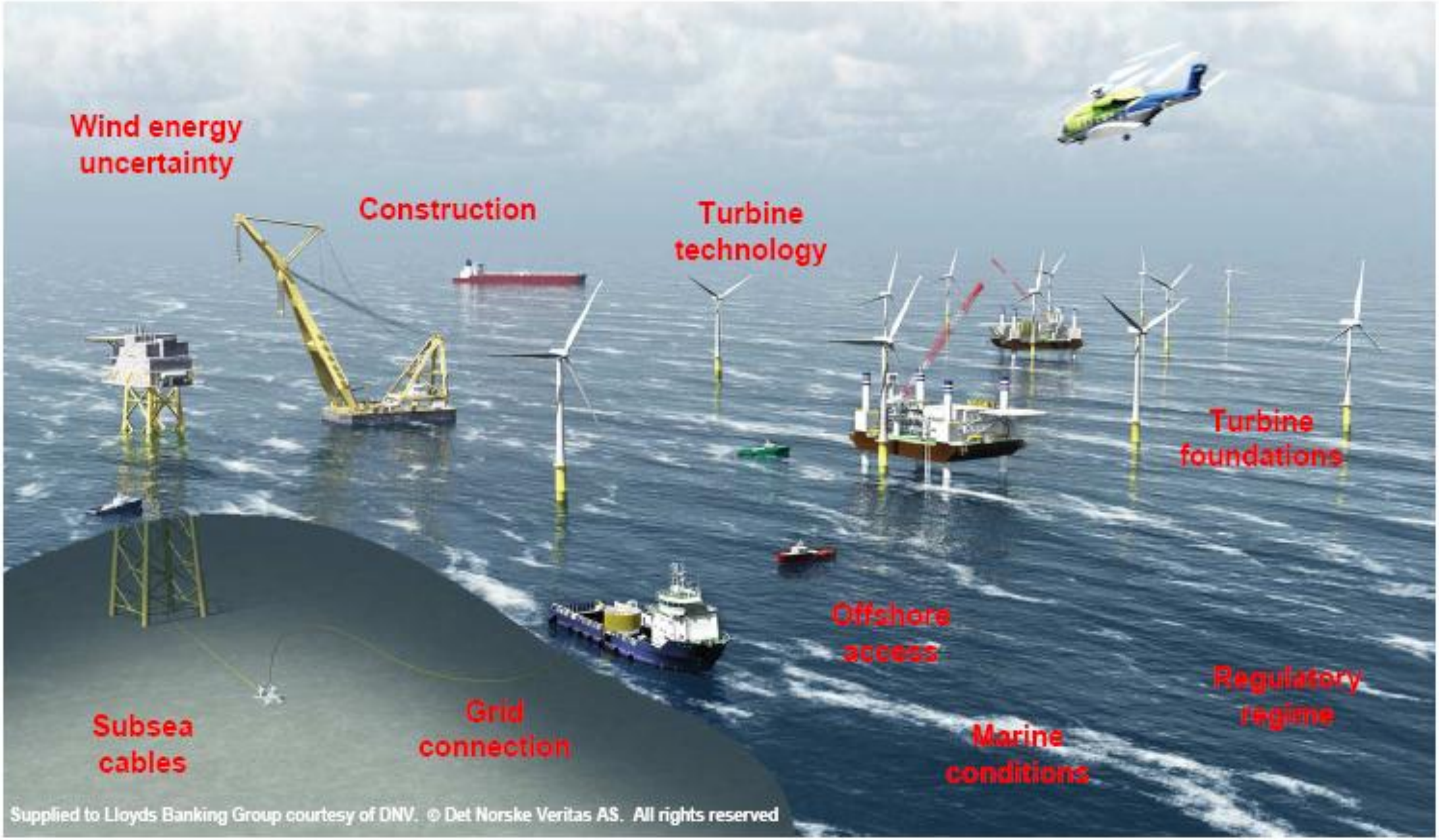

Risk Assessment Approach (2)

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Feasibility Study | **Market Barriers** | **Detailed Due Diligence**

Government

Energy Policy
Incentives
Tax

Transmission
Licensing / Permits
Market

Resource

Yield Assessment
Reliability
Wake Effects

Power Purchaser

Route to Market
Credit Standing
Pricing

Loan Life Provisions
Support / Warranties
Credit Standing

Operation & Maintenance

Reliability
Suitability
Cost

Technology

Costs and Contractual Suite
Project Management
Credit

Procurement & Construction

To be bankable it has to work on a standalone basis under “stressed” conditions

Offshore Wind Risk – Any Concerns ?

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Lincs – Case Study.

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DONG energy SIEMENS
centrica

270MW LINCS OFFSHORE WIND FARM LIMITED

MANDATED LEAD ARRANGER
AGENT BANK
ACCOUNT BANK
HEDGE EXECUTION BANK

£999.9 MILLION

June 2012

Borrower	Lincs Wind Farm Limited
Sponsor	Centrica Renewable Energy Limited Dong Wind I (UK) Limited Siemens Project Ventures GmbH
Facility	Term Loan - £508m OFTO Facility – £237m LC Facility £125m VAT Facility - £30m
Tenor	Construction + 15 years
Pricing	Up to 300 bps
Covenants	Lockup to occurs if the P50 HDSCR <1.05x, LLCR <1.10x Event of default if: ▪ the historic DSCR < 1.05x ▪ LLCR is < 1.10x
Hedging	Circa 75% of term loan
Funding	Commercial Lenders - 10 bank Club

Project Summary

- A 270W offshore project located 8km east of Skegness, East England
- 75 Siemens 3.6MW turbines
- Total costs of £1,189m
- 15 year PPA provided by British Gas Trading Limited
- The project's transaction assets are expected to be part of a second transactional phase, to which Lloyds is MLA

Offshore Wind Risk - Way Forward

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- **Construction Phase**
  - **Standardisation of one or more installation methodologies**
  - **Amend contracting structures to move away from multi-multi parties**
  - **Increased competition in the supply of turbines, cables and vessels**
- **Operational Phase**
  - **Development of longer term service and warranty periods**
  - **Revision of O&M contracts to provide greater certainty on operating costs**
  - **Review Maintenance provisioning to reflect a full life costing approach**
- **Approach to Wind Risk**
  - **Greater measurement of hub height, turbine location data**
  - **Better understanding of Wake effects**
  - **Development of an insurance / liquidity product to smooth variability**

Industry to be more transparent and help educate investors

LOOKING AHEAD

Necessity is the mother of invention

Low Carbon Energy Investment for 2020 Targets

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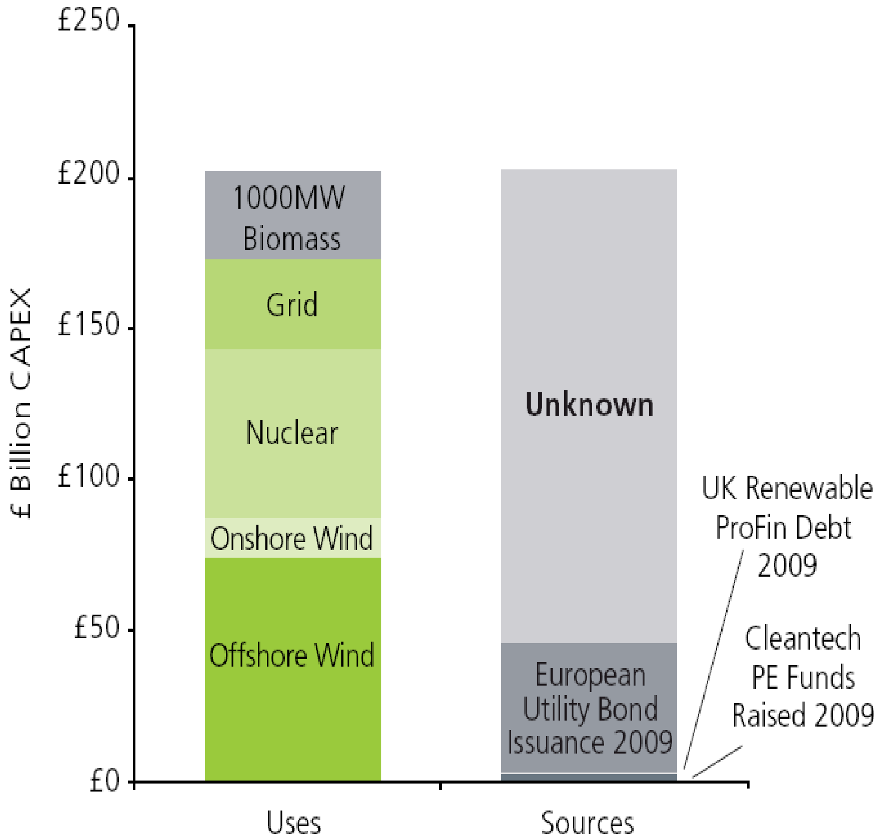
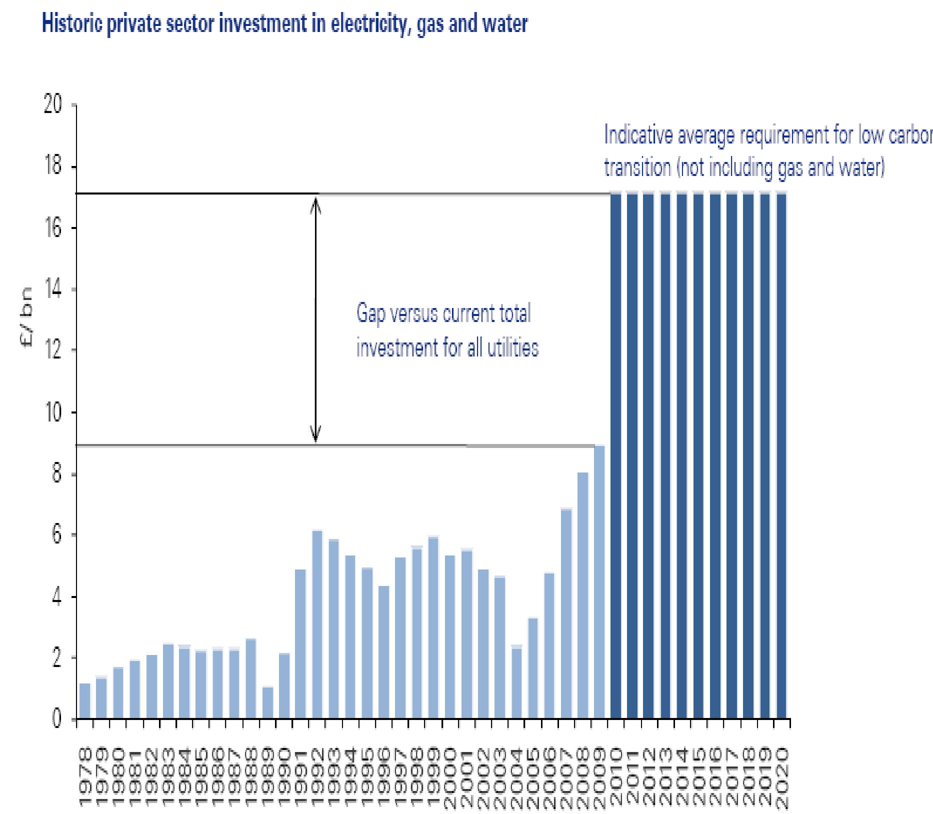




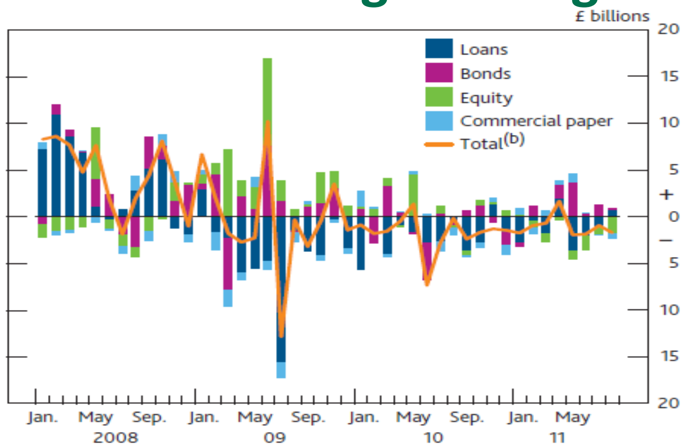
Source: Green Investment Bank, July 2010

Source: ONS, last updated 17 February 2010, 2005 real numbers

- Significant future investment required in various RE technologies over the next decade
- European governments alive to the challenges in attracting sufficient liquidity to fund this level of investment

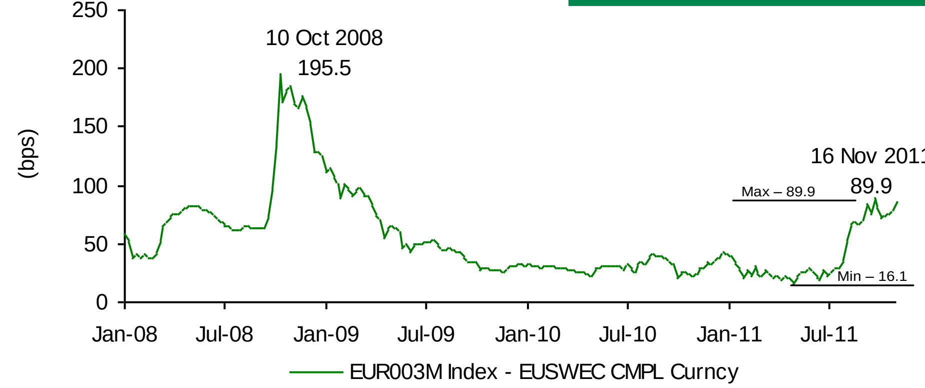
Structural changes facing long term funding ?

NET FUNDS RAISED BY UK BUSINESS*



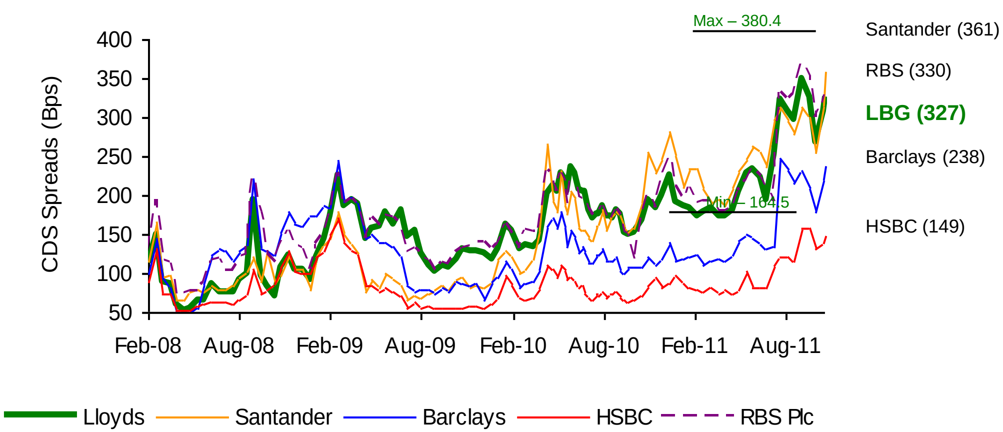
COST OF INTERBANK LENDING – 3 MTH EURIBOR – OIS SPREAD**

2011: RISE OF 458% FROM TROUGH TO PEAK



COMPETITOR CDS SPREADS (16TH NOV) – 5 YEAR SENIOR EURO**

2011: RISE BY 131% FROM TROUGH TO PEAK



CROSS-OVER CREDIT PROFILE (16TH NOV)**

2011: RISE OF 114% FROM TROUGH TO PEAK

Source:
** Bank of England*
*** Bloomberg*

Are UK PF Lending Rates hinting at a tipping point ?

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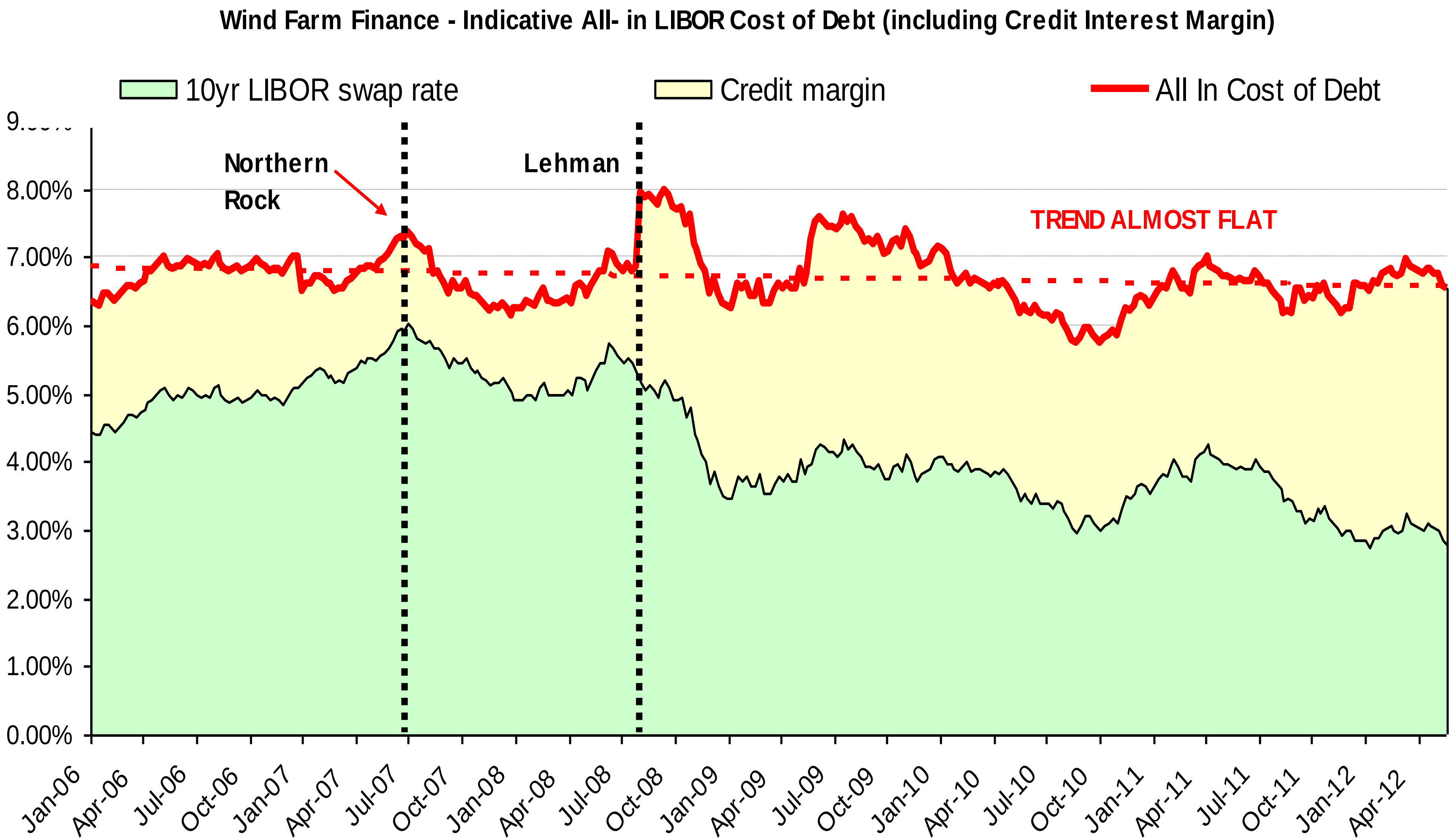

An increasingly clear direction of travel

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Fund managers back infrastructure plan

A group of four infrastructure fund managers and UK pension funds representing more than £50bn of funds under management have signed an initial agreement with the Treasury to invest in schemes such as railways, roads and energy projects.

The four institutions which have signed the "memorandum of understanding" with the government are Hermes GPE, the Greater Manchester Pension Fund, the London Pensions Fund Authority and Meridiam Infrastructure.

FT 25/11

Government to inject £25bn into infrastructure

Britain plans to pump £25bn into infrastructure projects, part funded by private investment from pension funds, to help bolster its economy, Treasury Minister Danny Alexander said.

CITY AM 28/11

Infrastructure investment by UK pension funds is less than 1 per cent compared with 8-15 per cent in Australia and Canada.

FT 25/11

China boost for Osborne growth plans

George Osborne's hopes of persuading the private sector and foreign investors to help rebuild Britain's ageing infrastructure have received a boost as China Investment Corporation, the country's $410bn sovereign wealth fund, announced plans for new investment in the UK.

FT 28/11

Osborne to use pensions to fund National Infrastructure Plan

"This could be a real win-win. The UK desperately needs to update its infrastructure and pension funds are looking for inflation-linked, long-term investments". NAPF chief executive Joanne Segars

MY FINANCES.CO.UK 28/11

Recent Events Indicate possible alternatives

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Recent news on Bank-led Infrastructure Debt Funds	Key facts - Highlights
"Sequoia Investment is to launch a **<u>€ 1B senior debt fund</u>** in conjunction with Portuguese Investment bank Espirito Santo Investment (BESI)" *(IJ News, July 2011)*	• **The fund (to be managed by Sequoia) will have €100 million seed capital from BESI in the form of individual assets** • **The fund will focus on Western Europe across the following four sectors: 1) Transport; 2) Social; 3) Renewables; 4) Other** • **Focused on senior secured debt, there is some scope for mezzanine** • **The investor base for the fund is likely to comprise pension funds, insurance companies and some sovereign wealth funds** • **The fund will mainly focus on new originations by BESI, but will have the flexibility to source products from other banks**
"Barclays launches UK's first ever bank-led UK infrastructure **<u>Senior Debt Fund - £ 500M target size</u>**" *(II News, July 2011)*	• **Seeded with £200m of assets - £500 m target size, but no hard cap** • **The fund's 'sweet spot' will be loans of up to £80m, enticing sponsors to bypass the traditional bank club structure** • **The fund will be only open to institutional investors** • **The fund is exclusively UK-focused and is aiming to provide senior debt to Social and Econ Infra, Renewables, Electricity transmission and Waste-to-energy projects** • **The fund will have exclusive access to projects funded by Barclays and Barclays will retain 20% stake in all the assets owned by the fund**

Banks to adapt to embrace changing world

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Matching Investors Risk Appetite to achieve an effective Cost of Capital

Construction Phase

Developer

Investor

Bank

Operation Phase

Bank needs to align interests of all parties

Lender

Investor

Bank

Construct. Lender

- Partnership w/ Instit. Investor
- "Pivot" between Developer and Investor
- Expertise in construction

Bank seeking to Support investors

Bank (Advisor)

Invest. Advisor

- Delivering advice to institutional and retail investors

Bank (Fund Manager)

Fund Manager

- Leverage on knowledge to develop credible Fund Management capabilities in this space

Bank (Product Issuer)

Wholesale or Retail Prod. Issuer

- Increase sale of institutional or retail products (bonds and shares) on those projects

THANK YOU

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