Financing UK offshore wind development

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London – 13 June 2012

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Energy Bankers

Green Giraffe Energy Bankers is a specialist advisory boutique focused on renewable energy

We have an unparalleled track record in successfully closing deals for our clients

- 18 professionals in London (UK), Utrecht (NL) and Paris (FR)
- Project & structured finance, M&A, legal & contracting expertise
- Priority given to a limited number of clients

Advisor to C-Power to raise project finance debt

325 MW

C-Power

Belgium
2010

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EUROMONEY ProjectFinance 2010 Deals of the Year

pfi AWARDS 2010

iJ INFRASTRUCTURE AWARDS 2010

Advisor to WindMW to raise project finance debt

288 MW

WindMW
The Blackstone Group

Germany
2011

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ProjectFinance Deals of the Year 2011

Blackstone is PFI AWARDS 2011 *"Financial Sponsor of the Year"*

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Completed advisory missions for over 2,000 MW of proposed capacity

Bankability evaluation of a 10% stake in the Gwynt y Môr offshore wind farm	576 MW	SIEMENS	UK	2010
Acquisition of a stake in an offshore wind farm	Undisclosed		North America	2011
Tendering strategy of turbine manufacturer on offshore wind project	Undisclosed		Europe	2011
Non-recourse refinancing of a solar PV portfolio	24 MW	CADMOS	Spain	2011
Evaluation of a potential stake in an offshore wind farm	210 MW	Highland Group Holdings	Germany	2011
Evaluation of a stake in a solar PV project	8 MW	BARCLAYS Infrastructure Funds	France	2011
Bid for a 49% stake in the Gunfleet Sands offshore wind farm	172 MW	Rabobank Ampère Equity Fund	UK	2011
Acquisition of a stake in an offshore wind farm	Undisclosed		Europe	2011
Financial advisory services - offshore wind	Undisclosed	BECHTEL	US	2012
Financial advisory services – state waters offshore wind project	25 MW		US	2012
Acquisition of a stake in solar PV portfolio	41 MW		Italy	2012
Evaluation of a stake in the Belwind offshore wind farm	165 MW	meewind	Belgium	2012

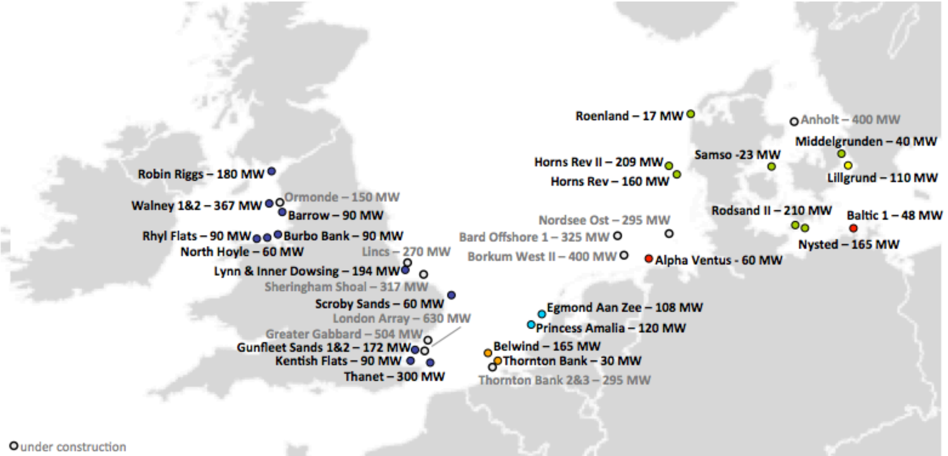
Our clients trust us on a wide variety of long term missions across Europe and North America

Non-recourse financing of the Gemini offshore wind farms	600 MW	TYPHOON CAPITAL	The Netherlands
Non-recourse financing of 25% stake in Walney offshore wind farm	92 MW	PGGM Ampère Equity Fund	UK
Non-recourse financing of the Northwind offshore wind farm	216 MW	Northwind Offshore Energy	Belgium
Non-recourse financing of the Gode Wind 2 offshore wind farm	252 MW	PNE WIND	Germany
Non-recourse financing of the Cape Wind offshore wind farm	468 MW	Cape Wind	US
Non-recourse financing of an onshore wind farm	Undisclosed		Europe
Non-recourse financing and sale of a portfolio of solar PV assets	16 MW	ParcEco+	France
Non-recourse financing of the Block Island offshore wind farm	30 MW	DEEPWATERWIND	US

1. History of the offshore wind project finance market

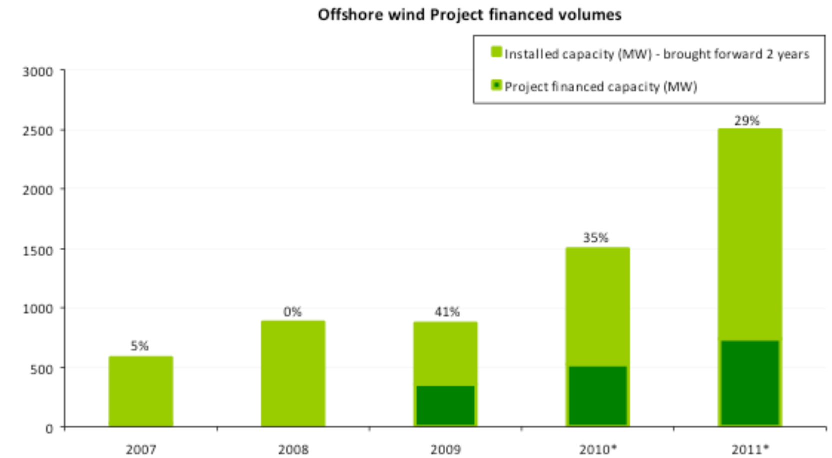
History of the offshore wind project finance market

Currently operational projects



Source: GGEB

Offshore wind project finance trends



A European story

- Total of 3,813 MW installed capacity as of end-2011
- UK (2,094 MW) and Denmark (857 MW) are still the market leaders
- 866 MW connected in 2011, after 883 MW in 2010 and 577 MW in 2009 – the first 3 years of industrial-scale activity
- Significant pipeline of offshore wind projects beyond 2012 with 18 wind farms (over 5,000 MW) currently under construction and over 18,000 MW fully consented

A massive need for capital, and thus for PF

- Projects under construction see committed investments of EUR 15 billion over the next 2-3 years
- Around 30% of the near term pipeline has been project financed (compared to 10% in the early years)
- Total investment of EUR 80 billion is expected over the decade
- Developers, and to an increasing extent utilities, will need to rely on PF to fund that investment pipeline

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History of the offshore wind project finance market

Early deals – 4 transactions just before and after the financial crisis

- **Princes Amalia (formerly known as Q7)** (2006, the Netherlands, 120 MW, Vestas V80, EUR 219 M financing)
  - The very first deal – set a number of precedents (debt sizing principles, multi-contract construction risk taken via heavy due diligence and contingent funding, 10-year O&M package)
  - 3 MLAs, 3 additional banks, plus key support from EKF

- **C-Power phase 1** (2007, Belgium, 30 MW, Repower 5M, EUR 126 M financing)
  - Consolidation deal – a more aggressive version of the Q7 structure (longer tenor, some merchant risk)
  - Confirms that new turbines, even very large ones, are bankable
  - 1 MLA, 3 additional banks, no multilateral

- **Belwind phase 1** (2009, Belgium, 165 MW, Vestas V90, EUR 544 M financing)
  - First deal post-financial crisis – allowed to confirm that the early structures were sound (construction risk, some merchant risk) while increasing the size thanks to heavy multilateral involvement
  - 3 MLAs, EIB and EKF, no syndication – heralded the "club deal" period

- **Boreas** (2009, UK, 194 MW offshore, Siemens 3.6-107, GBP 340 M financing)
  - First UK deal, with a large number of banks (14 altogether)
  - No construction risk, but funding under the UK ROC regime, with some merchant risk

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History of the offshore wind project finance market

Early deals – Pioneers-precedent-setting, but with a small number of players

- **Successful structures – and really non recourse!**
  - DD + Contingent mechanism structure to bear construction risk validated in subsequent deals
  - Construction risk with multi-contract structure validated and repeated
  - Repeated with several different turbines, sponsors and regulatory regimes
  - All early projects built within agreed budget and timetable, and now operating to full satisfaction

- **A fairly small number of players involved**
  - Only a small number of institutions actually took construction risk
  - Heavy reliance on a small number of multilaterals (EKF, EIB)
  - The same advisors and people in almost every deal

- **A difficult market context**
  - No syndication market for what are fairly large deals – thus a need for *everybody* on each deal
  - Lack of precedents at a time banks were retreating to favored clients and familiar risks

History of the offshore wind project finance market

Market development phase

- **C-Power phase 2** (2010, Belgium, 325 MW, Repower 6M, EUR 913 M financing)
  - Aggressive structure building on existing precedents (18 year financing, 70:30 leverage, multi-contracting construction strategy with contingency structure, use of a 6MW turbine)
  - 7 MLAs, EKF, Euler-Hermes, EIB
- **Borkum West 2** (2010, Germany, 200 MW, Areva M5000, EUR 510 M financing)
  - First deal in Germany, and first deal with (relatively recent) Areva 5MW turbines; building on precedents (construction risk with contingency structure) but slightly less aggressive terms (leverage)
  - 4 MLAs, 7 additional banks, EIB and NRW
- **Meerwind** (2011, Germany, 288 MW, Siemens 3.6-120, EUR 884 M financing)
  - First transaction with construction risk for Siemens turbines, first with a private equity investor, and first under the new KfW offshore wind programme
  - 7 MLAs (including London-based banks), EKF, KfW
- **Globaltech 1** (2011, Germany, 400 MW, Areva M5000, EUR 1047 M financing)
  - First deal for a 400 MW wind farm and beyond EUR 1 bn, supported by the KfW programme
  - 4 MLAs, 12 additional banks (including several newcomers to offshore), EIB, KfW
- **Baltic 1** (2011, Germany, 48 MW, Siemens 2.3MW, EUR 138 M financing)
  - 3 commercial banks & EIB in post-completion refinancing of the first German commercial wind farm

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History of the offshore wind project finance market

The banking market is there if the transactions are well structured

- **It is possible to close billion-euro transactions**
  - 4 billion-euro-scale deals in one year, including 2 in Germany in the exact same time frame
  - More than 30 banks are now active, and more than 20 have construction risk exposure
  - A number of different public financing institutions can be tapped – none is indispensable

- **A consensus is slowly emerging on how to structure deals**
  - Multi-contracting structures with a small number of counterparties (2-7) and strong due diligence
  - Early involvement of banks or bank advisors in contractual negotiations, with input and control on specific issues (warranty exclusions, LD caps, interface definition & matrix, availability of vessels and other critical path equipment, project management, shareholding retention clauses)
  - Debt sizing rules and underlying operational assumptions are becoming more consistent across deals
  - Specific focus on appropriate long term O&M arrangements

There is enough money for good projects

- Non recourse finance requires a specific discipline and approach to project risks
- Sponsors which cannot or *do not want* to follow that discipline will not raise non recourse debt

History of the offshore wind project finance market

Recent deal activity has actually been centered on the UK

Gunfleet Sands (2012, UK, 86 MW (Marubeni's 50%), Siemens 3.6MW, GBP 158 M financing)

- First non-recourse financing of a minority stake in an offshore project
- Confirmed appetite of Japanese institutions for the sector (NEXI risk, funded by SMBC and Mizuho)

Lincs (2012, UK, 270 MW, Siemens 3.6MW, GBP 425 M commercial financing) – *closed last week!*

- First non-recourse financing including construction risk in the UK
- Largest amount of commercial bank risk to date

OFTO transactions

- Robbin Rigg (2011, 180 MW, Transmission Capital Partners, GBP 65 M)
- Gunfleet Sands (2011, 172 MW Transmission Capital Partners, GBP 49 M)
- Barrow (2011, 90 MW, Transmission Capital Partners, GBP 34 M)
- Walney 1 (2011, 184 MW, Macquarie-Barclays Infra Fund, GBP 105 M)

Markets are still open – including for 15 year deals

The proportion of offshore wind investment being financed is actually increasing, despite the gloom

2. Current market players

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Current market players

Commercial banks

- **Banks with experience and active in the market**
  - Rabobank, KfW-IPEX, Unicredit, BoTM,
  - Santander, Commerzbank, SocGen, BNPPFortis, Lloyds, NIBC, ASN
  - HSH, NordLB (German focus)

- **Banks with limited experience but involved in recent deals or having expressed appetite**
  - BBVA, Calyon, Bayern LB
  - NAB, Barclays, RBS, BoI, RBC, HSBC (UK focus)
  - Deutsche Bank, Helaba, LBBW, West LB, Deutsche Girozentrale, Deka Bank
  - Natixis, SEB, DnB Nor, KBC, Investec, ING, Nordea
  - SMBC, Mizuho

Current market players

Public Financial Institutions

- **EKF – offshore's best kept secret**
  - Participation linked to Danish exports – Vestas, Siemens, LM Windpower, Per Aarsleff, Bladt
  - Very pragmatic and proactive
  - Up to EUR 250M (or even more) per transaction, and seeking to increase capacity
  - Experience includes Q7, Belwind, C-Power 2, Meerwind
  - Active on a number of other transactions today (Butendiek, Northwind, Gode Wind)

- **EIB – a lot of cheaper funds, but very conservative**
  - Support to European offshore projects
  - Very conservative, not commercially minded, not always flexible
  - Risk adverse on new turbines and project maturity (has to be <15 years)
  - Up to 50% of project investment costs in funding (and EUR 100 M in risk participation)
  - Experience includes Belwind, C-Power 2, Borkum West and Globaltech 1
  - Has done a number of corporate financings linked to the sector (Dong, E.On, Vattenfall, etc)
  - Continues to look at deals in the market

Current market players

Public Financial Institutions

- **Euler-Hermes – a promising new entrant (outside Germany)**
  - Direct support to German exports (Repower, Siemens (electricals), Areva, sub-contractors)
  - Amount as per traditional export finance formula (85% of exports + IDC + premium)
  - Quite pragmatic within its existing rules, and predictable
  - Involved in C-Power 2

- **GIB – just getting started (in the UK)**
  - Mandate to support green initiatives, with a specific focus on offshore wind
  - GBP 3 bn available over the next 3 years
  - Same pricing as commercial banks (at least until EU approval is granted for development status)
  - Has already awarded GBP 80 M to two fund managers
  - But has not lent to an offshore project yet

Current market players

Available volumes

- **Commercial banks**
  - EUR 50-150 M exposure per bank per year, in 1-3 deals
  - More than 30 banks have taken offshore wind risk today, at least 20 have construction exposure

➢ At least EUR 2 billion in risk commitments available per year from the commercial market

- **Public Financial Institutions**
  - Will typically bear approximately half of the risk and/or funding of a transaction
  - Some geographical / national restrictions (ECAs linked to exports, EIB to European projects)
  - Will only do deals alongside commercial banks, so cannot be tapped on their own
  - Small deal teams, so availability is a constraint

➢ Can contribute as much as the commercial banks in a given deal

Altogether, there is debt funding available for 4-6 industrial size projects (400 MW) per year today

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Current market players

A geographical split

- **The continental market**
  - Large scale transactions with construction risk are becoming a regular occurrence
  - Increasing number of banks and sponsors with the right experience and track record
  - Range of commercial terms is widening, as actors seek different objectives:
    - Raising funds
    - Increasing leverage and returns

- **The UK market**
  - Until this year, only one deal closed and no construction risk taken, frustrating process on several projects
  - Large gap between expectations of (utility) investors and what the market is willing to do
  - Bad image generated by persistent, if relatively minor, technical glitches (ie grouting issues)
  - Mutual perception by utilities and banks that the other group is not reasonable
  - Hopefully, recent closings will change overall (false) impression that there is no PF for offshore wind

Current market players

2 corporate splits

- **Utilities vs IPPs**
    - Utilities do not really need project finance (whereas IPPs did and had to accept market terms)
    - Project finance is seen as more complex, more expensive, and more time-consuming – and not really non–recourse (at least in the eyes of the rating agencies, which matters)
    - Project finance requirements for early deals were seen as especially annoying by utilities (intrusive due diligence, desire by banks to influence contractual structure) and generally incompatible with their own way of mitigating project risks
- **Investors looking for money vs investors looking for higher IRRs**
    - Amongst investors going the project finance route, not everybody has the same objectives or the same ability to negotiate terms with banks
    - Some investors have successfully obtained more favorable terms from the banking market – notably leverage and pricing
    - As the market broadens, investors will increasingly be able to extract more competitive terms – if they have the right project and market approach

3. What's coming next in the UK

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The UK market

Current uncertainty is a brake for the industry's deployment

Regulatory uncertainty

- utilities won't commit 100% to Round 3 until the framework is clear
- investment (whilst available) won't be committed without a stable framework. Cost of capital is the biggest cost of energy driver but is unlikely to go down unless an understandable and stable market is created
- the supply chain cannot commit to investing in the capacity to deliver the hardware which will ultimately realise the projects.

Other threats

- supply chain constraints, cables in particular
- the timely award of environmental consents. Some Round 2 projects have been stuck in the consent process for a number of years creating uncertainty for developers, suppliers and investors
- the uncertainty caused by the OFTO process, in particular the possibility for projects to be built separately to their connection (ie different employers)
- the ongoing influential anti-wind propaganda; it's hugely noxious and creates confusion, conflating NIMBY issues for wind, cost issues for other technologies, and grid issues
- availability of competent personnel for Round 3; many teams may move to Germany following the end of the main Round 2 wave of projects

The UK market

The EMR could tremendously help

Replace the stunted RO market

- FiT CfD mechanism should help independent generators as the RO created an unforeseen problem in that the big six utilities in the UK invested more in their own renewable energy portfolio rather than buying from the market, seriously shrinking the ROC market and its liquidity.

Reduce market risk exposure

- FiT CfD provides provides stable revenues for the generator, which should help reduce financing costs
- But the devil is in the detail (the SDE CfD in the Netherland proves complex in practice)
- It does not provide offtake guarantee but the reduced price risk may result is a reduced price for balancing cost and volume risk. These have been (unduly) highly priced by utilities so far in long term PPAs

The coming clashes: what equity provider and debt providers will fight about

Lender requirements in offshore wind are stronger than in other sectors

- **Lenders want stronger than usual equity commitments**
  - Someone clearly in charge – a strong majority investor (or consortium) is usually a must have
  - An acceptable management team, via a dedicated team or direct involvement of the sponsors
  - For large projects, equity commitments paid upfront or backed by strong entities
  - A long term commitment to the sector by the majority investor (track record, explicit strategy, etc…)
  - Specific long term retention commitments by the majority investor restricting divesting rights

- **Investors hate a number of current bank requirements**
  - Requirements for micro-management of the project by lenders through intrusive covenants
  - Restrictions on freedom to sell stakes
  - Limitations on dividend payments under downside scenarios (lockups, reserve accounts) and, worse, upside scenarios (sweeps)

So – why should investors go for Project Finance?

Project finance for offshore wind is not just about leverage

- It helps improve **risk discipline** for the project
  - More external eyes on contracts, interfaces and detailed project structure
  - Specific focus by banks and their advisors on potential downside scenarios
  - Project can “work” on a stand-alone basis (which makes it easier to sell)

- It can help you obtain **more favorable contractual terms**
  - Using banks as a “bad cop” can be useful in contractual negotiations
  - 3-way negotiations can allow you to get away from zero-sum negotiations

- It’s ***really* non-recourse**
  - Banks take construction risk on the basis of the contracts and committed contingency mechanisms
  - While sponsor involvement is valued, banks evaluate deals with no expectation of additional cash in

- It’s **no longer so expensive**
  - Recent deals have seen overall cost of >15-year debt in the 5-6% (fixed rate) range

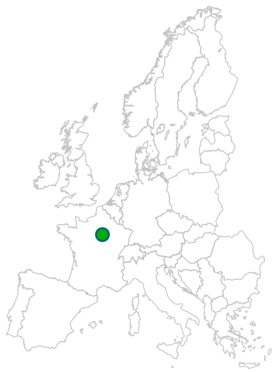
And – *how* should investors go for Project Finance?

You cannot improvise a project finance deal

- It needs to be an **early decision**
  - A lot of the value from project finance discipline comes at an early stage, when choosing the contractual structure and negotiating the relevant contracts
  - The good news is that a lot of that work can be done without involving large banking groups, by using a small number of specialised advisors
- It requires **experienced advisors**
  - Bring in at your side entities which have credibility as lenders' advisors and ask them to look at the project from the perspective of lenders
  - Technical advisors (Mott, Sgurr) are indispensable
  - We believe we can also bring value in pre-packaging a deal that banks will accept
- You need to be **committed to it**
  - Contractors will accept to incorporate banks' requirements in their commercial offers only if they really believe that the project will not happen without external financing
  - Do take into account the feedback from the advisors you have hired, otherwise it won't work

Where to reach us

Contact our Paris office



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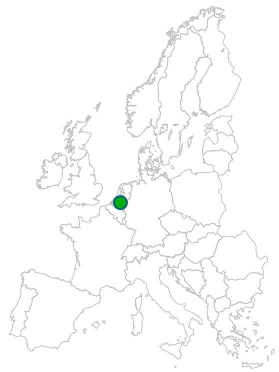

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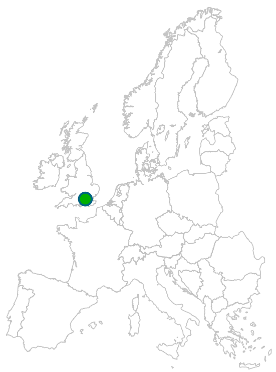

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