



Financing offshore wind – the debt market

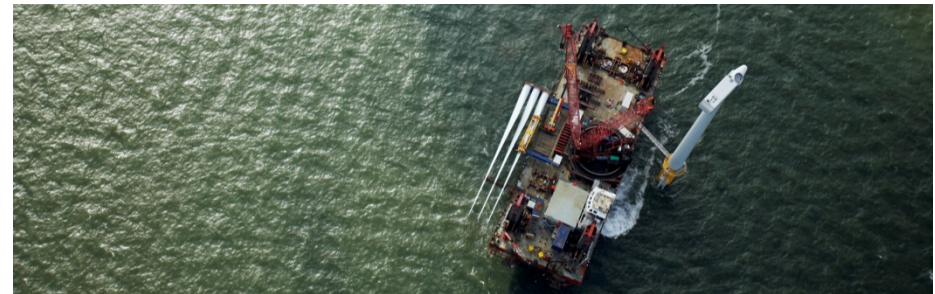
EWEA – 12 March 2015

Jérôme Guillet

Offshore wind

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1. Who we are
2. How projects are financed
3. The debt market
4. A good project finds its funding



The renewable energy finance specialist

An unparalleled track record in successfully closing deals for our clients



More than **EUR 6 billion** funding raised for renewable energy projects in **5 years**



30 professionals with more than **160 years** of experience in offshore wind



Mandates in **13 countries**



Debt & equity advisor to the **EUR 3 billion** Gemini financing



Over **55 projects** with a capacity of more than **14 GW**



4 offices at your service

One of the most active financial advisors in project finance

Full year 2014 Renewables Global – Infranews

	Company	USD bn	Deal count
1	Green Giraffe	5.2	8
2	Santander	3.5	45
3	BNP Paribas	3.1	6
4	Goldman Sachs	2.1	5
5	Citigroup	2.0	2
6	Bank of America Merrill Lynch	1.7	3
7	Lazard	1.3	3
8	Morgan Stanley	1.3	3
9	Rebel Group Advisory	1.3	3
10	Linus Capital	1.2	2

Financial Advisor league table derived from InfraNews 2014 website

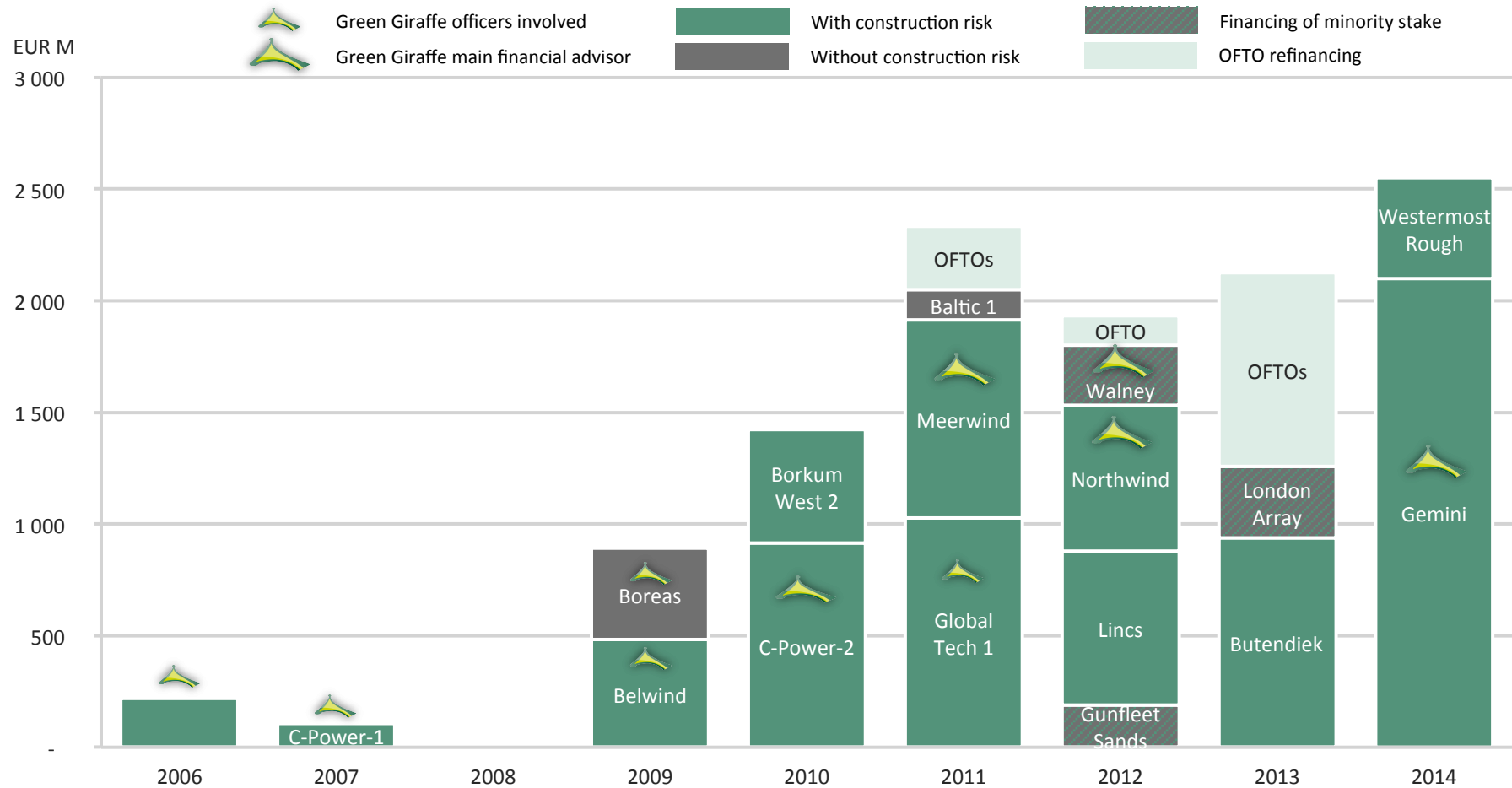
Full year 2014 Renewables Europe – Inspiratia

	Company	USD bn	Deal count
1	Green Giraffe	5.2	5
2	KPMG	1.7	5
3	Ernst & Young	1.4	4
4	Deloitte	1.3	4
5	Rebel Group	1.2	3
6	Linus Capital	1.1	2
7	Project Finance Advisors	1.0	1
8	Macquarie	0.8	2
9	Banca IMI	0.7	1
10	Grant Thornton	0.5	1

Financial Advisor league table derived from project finance deal values in social infrastructure, transport and renewables transactions, full year 2014

The offshore wind debt market specialist

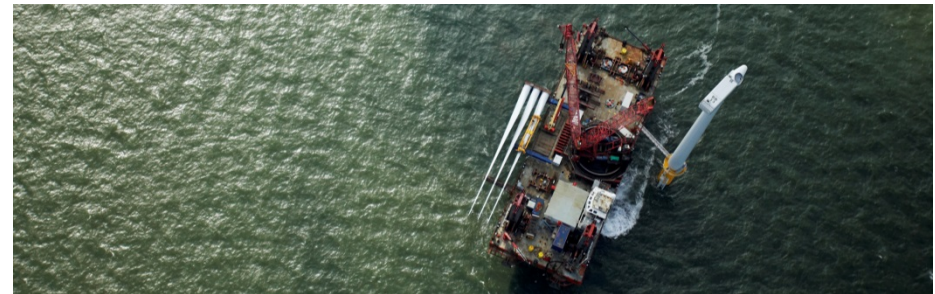
We have been involved in the majority of the projects financed to date



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How projects are financed

“Balance sheet” (equity) vs “non recourse” (debt)

Large projects are typically developed through a stand alone project company:

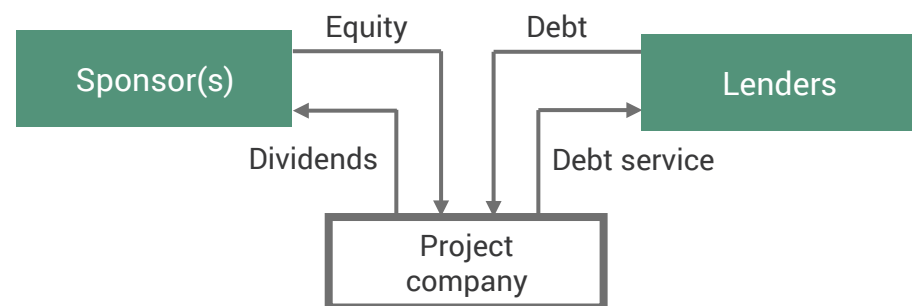
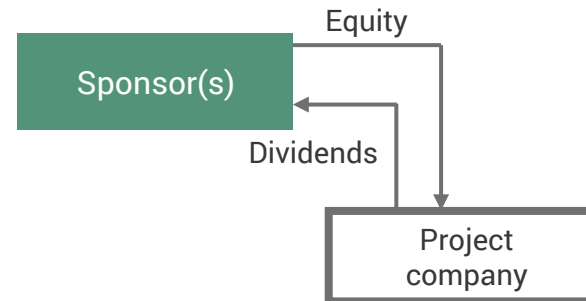
- Owned by the project investors
- With its own revenues & balance sheet and thus the ability to raise debt on its own merits

There are only two discrete sources of funding:

- By the owners (directly via equity or shareholder loans, or indirectly via guarantees)
- By banks without recourse to the equity investors – this is “project finance”

The way a project is funded will have a material impact on how it deals with contractors:

- In a project finance deal, you need to deal with the banks' requirements!
- Tax, accounting, consolidation and rating issues



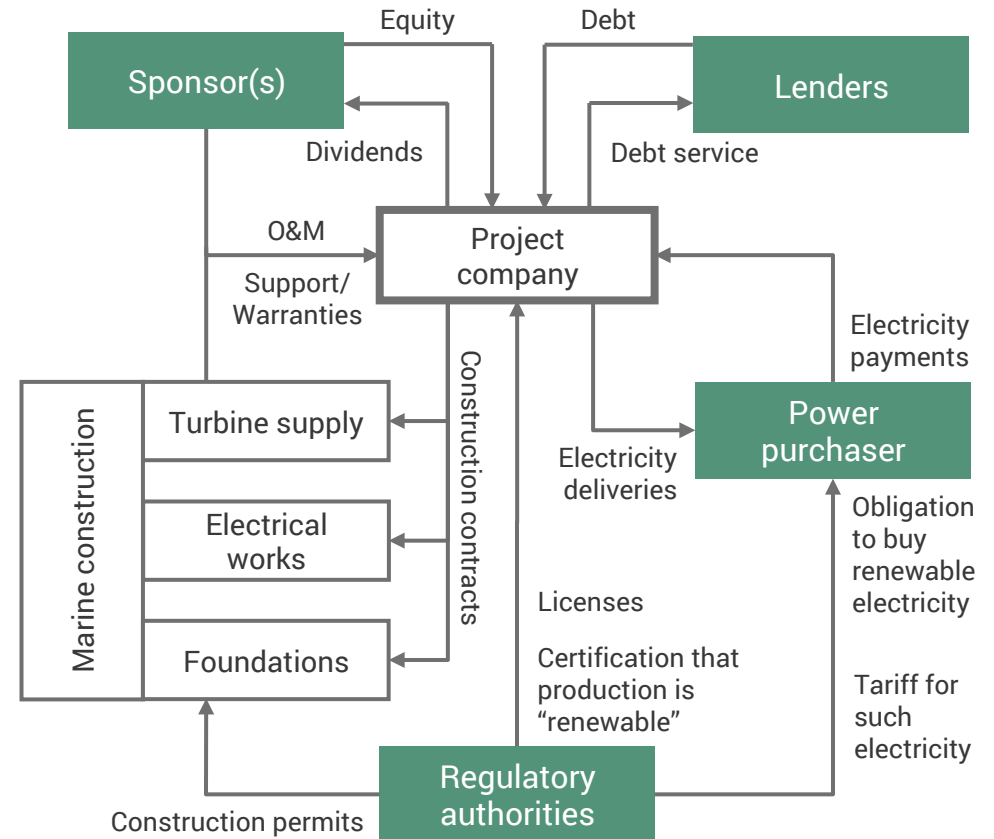
All parties have a direct incentive to understand who will be funding the project

How projects are financed

Offshore wind transactions are always heavily contracted

Major contracts include:

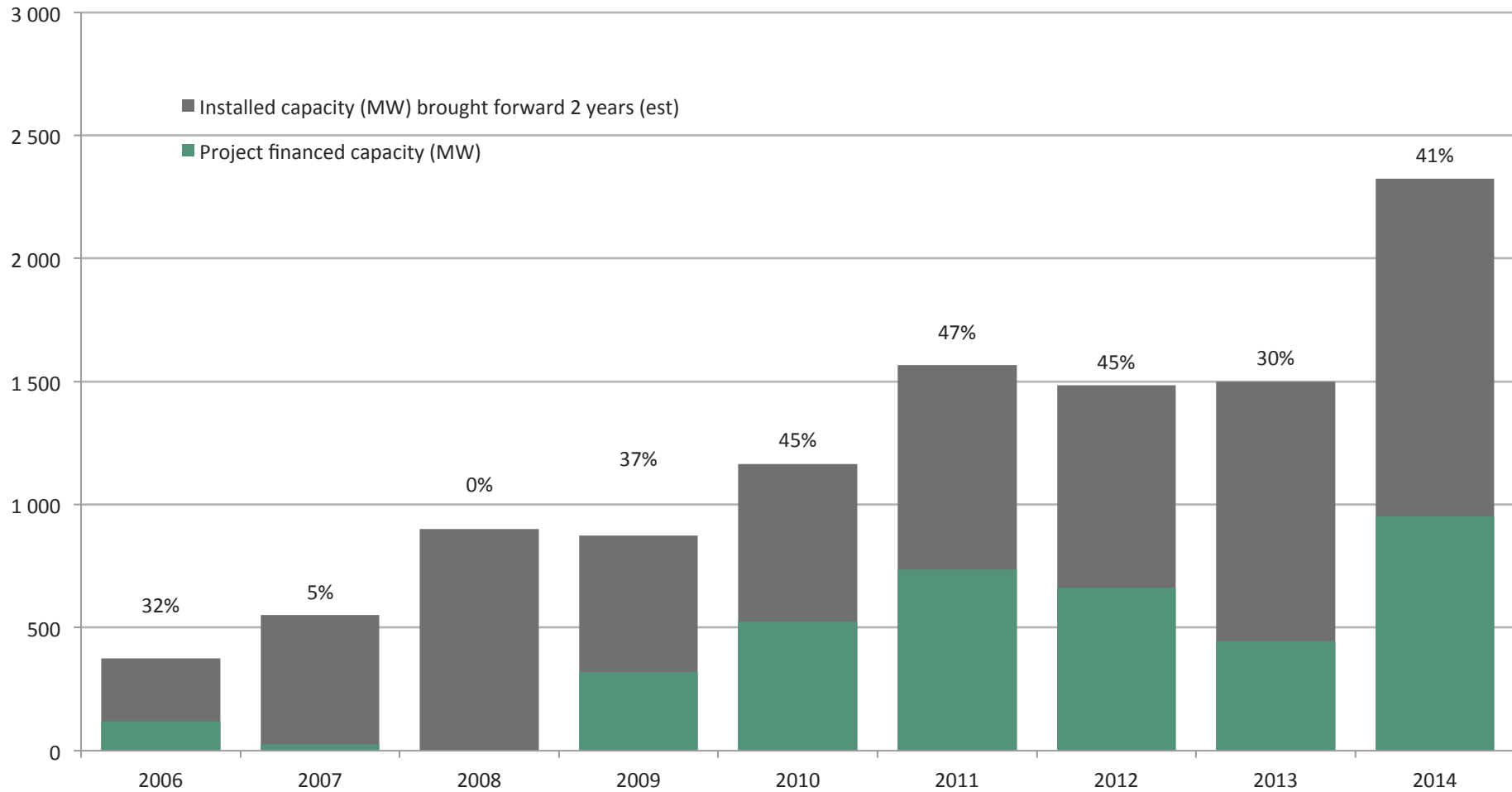
- Permits, licenses, authorisations, etc...
- Construction/supply contracts
- Electricity sales contracts (and, if applicable, green certificates / RO contracts)
- O&M contracts
- Financing documents



Offshore wind is a quintessential example of a comprehensive contractual structure

The debt market

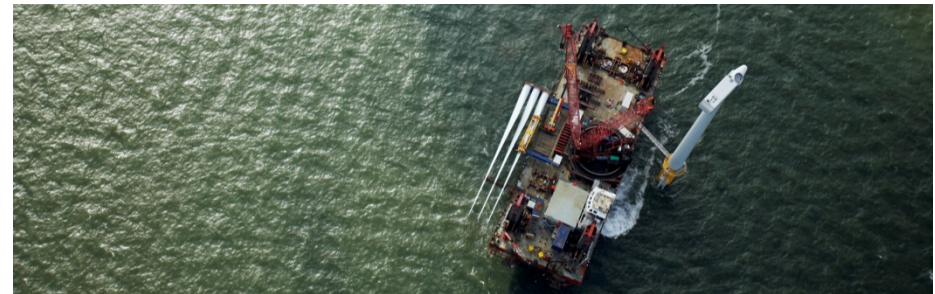
Project finance already finances a significant fraction of overall capacity



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Project finance for offshore wind – deals and players

Market size and trends – available volumes

Commercial banks

- EUR 50-250 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, KfW and GIB only act in Germany, resp. the UK)
- Will only do deals alongside commercial banks, so cannot be tapped on their own (other than for corporate loans)
- Small deal teams, so availability is a constraint

Can contribute as much as the commercial banks in a given deal and overall

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

Project finance for offshore wind – deals and players

Active players – public financial institutions

EKF – still offshore's best kept secret

- Participation linked to Danish exports – Vestas, Siemens, LM Windpower, Per Aarsleff, Bladt
- Very pragmatic and proactive
- Up to EUR 250 M (or even more) per transaction, and seeking to increase capacity
- Involved in a large number of transactions

EIB – a lot of cheap funds, but more conservative

- Support to multiple European offshore projects
- Risk adverse on new turbines and debt maturity (<15 y)
- Up to 50% of project investment costs in funding (and EUR 100-150 M in risk participation)
- Has done a number of corporate financings linked to the sector (Dong, E.On, Vattenfall, etc.)
- Continues to look at deals in the market

Euler-Hermes – a promising new entrant

- Direct support to German exports (Repower, Siemens (electricals), Areva, sub-contractors)
- Amount as per traditional export finance formula (85% of exports + IDC + premium)
- Strict country of origin rules
- Involved in C-Power phase 2 and Gemini

KfW – potentially large amounts available

- Explicit mandate to support offshore wind in Germany
- Specific programme as part of the "EnergieKonzept" – EUR 5 bn, launched in 2011 and now tapped 3 times (Meerwind, Globaltech 1, Butendiek)
- Involvement alongside commercial banks, pari passu, on a funding and/or risk basis
- Able to provide cheaper funding in significant volumes
- Rigid rules to be followed including 30% hard equity

Project finance for offshore wind – deals and players

Project finance for offshore wind – deals and players

Banks with experience and active in the market

- BTMU, BNPP, Rabobank, KfW-IPEX, Unicredit, SocGen
- Santander, Commerzbank, Natixis, Deutsche Bank, SMBC

Banks with limited experience but involved in recent deals or having expressed appetite

- Caixa, SEB, NIBC, ASN, Mizuho, ING, BNG, ABN-Amro
- Lloyds, Barclays, RBS, Bank of Ireland, RBC, HSBC (UK focus)
- Bayern LB, Helaba, DZ Bank, Deka Bank, HSH, NordLB (German focus)
- DnB Nor, KBC, Investec, Sabadell, BBVA, Credit Agricole

How banks look at offshore wind – terms and conditions

Market trends

Typical project finance conditions - offshore	Leverage	Maturity post-completion	Pricing	Maximum underwriting
2006-2007	60:40	10-15 years	150-200 bp	EUR 50-100 M
2009	70:30	15 years	300 bp	EUR 30-50 M
2010-2011	65:35	12-15 years	250-300 bp	EUR 50-75 M
2012	70:30	10-15 years	300-375 bp	EUR 30-50 M
2014	70:30	10-15 years	250-300 bp	EUR 100-150 M

Debt is not expensive

- Margins have risen after the crisis (reflecting higher bank cost of funding), but the overall cost of debt has been stable
- Margins and base rates have both decreased recently and overall cost of >15-year debt is now at 4-5%

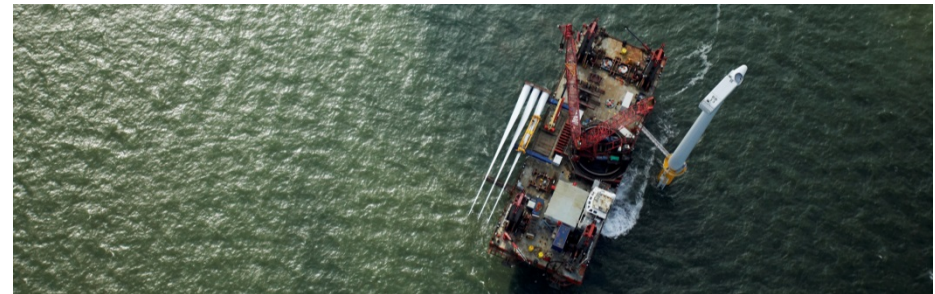
Structures (ratios, maturity, covenants) have actually been quite stable since 2007

- Debt terms fundamentally driven by regulatory framework (duration, merchant risk, public financing opportunities)
- Commercial fights are rarely about debt sizing or pricing

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A good project finds its funding

Gemini

Closed 14 May 2014

Project highlights	<ul style="list-style-type: none"> • 600 MW offshore wind farm • 85 km off the Dutch coast in the North Sea, near German border • Will produce over 2.5 TWh of electricity per annum
Sponsors	Initially, Typhoon capital (developer) and HVC (Dutch utility) Equity raised from Northland Power (Canadian IPP), Siemens, Van Oord
Investment	EUR 2.8 billion
Financial close	<ul style="list-style-type: none"> • EUR 2,099 million debt facilities • Largest offshore wind transaction ever • Underwriting of multiple commitments above EUR 100 M • First non recourse construction financing for new Siemens 4 MW turbine
Role Green Giraffe	Financial advisor to the project company to negotiate contractual arrangements, to raise equity funding and to arrange non-recourse construction debt funding



"As financial advisors to Gemini, Green Giraffe's knowledge and experience was invaluable in structuring the Gemini project financing. Green Giraffe were embedded in the financing team and played a key role in detailed negotiations with the creditors. I have the highest respect for the professionalism and commitment of the Green Giraffe team and we at Northland look forward to working with them again."

Tony Anderson, Northland Power

A good project finds its funding

.. if it is structured well!

The obvious – a stable and appropriate regulatory framework

- Stable, consistent, reliable legal framework
- No volume risk (certainty about grid connection)
- Incentive & support mechanism that makes the economics acceptable

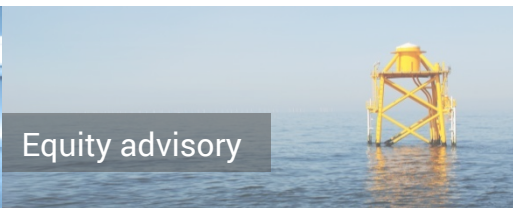
The developer's job

- Be clear about your financing structure early on - it will impact your contractual structure
- The debt market is consistent in its requirements –structures are predictable and you can prepare for that
- When using project finance, do extensive risk analysis and expect (intrusive) due diligence
- Use the lessons learnt (sometimes the hard way!) by hiring experienced advisors

Increased liquidity does not translate into lower standards, weak projects will not be financed!



Debt advisory



Equity advisory



Modelling



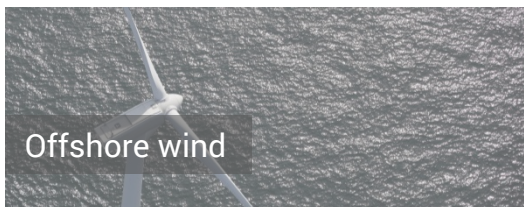
Strategic advisory



The renewable energy financial advisors

PARIS • UTRECHT • LONDON • HAMBURG

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Offshore wind



Onshore wind



Solar power



Biomass