



Evaluer le coût des ENR – colloque 12/04/2018

Eolien en mer, les raisons (techniques et réglementaires) de la baisse des prix

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Green Giraffe – The renewable energy finance specialist

We get deals done

Deep roots in renewable energy finance

- Launched in 2010 by experienced finance specialists with a **strong and proven track record** in renewable energy
- 70+ professionals with offices in Paris (France), Utrecht (the Netherlands), London (UK), Hamburg (Germany), and Cape Town (South Africa)
- Multi-disciplinary skillset including **project & structured finance, contract management, M&A, and legal expertise**



Close to EUR 20 billion
funding raised for renewable
energy projects in **8 years**

High-quality, specialised advisory services

- Focus on projects where we can actually add value
- We can provide a holistic approach and are able to include sector-specific tasks in addition to traditional debt or equity advisory (such as contracting, strategic advisory and development services)
- Widening geographical reach with a burgeoning presence in the Americas and Africa in addition to Europe
- Priority given to **getting the deal done!**



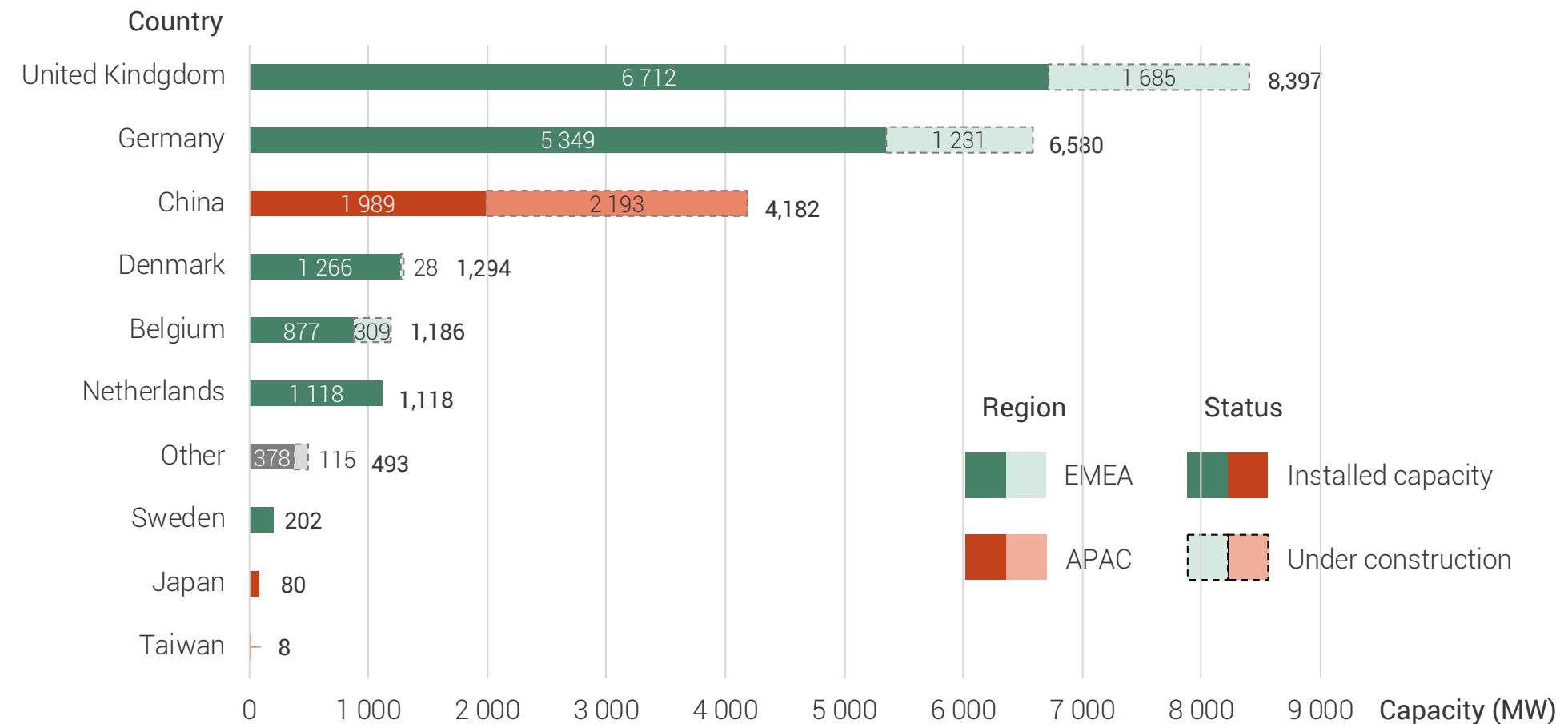
70+ professionals in
5 countries



Involved in over 100 renewable
energy projects with a total
capacity of ca. **25 GW**

Le coût de l'éolien en mer

Une industrie encore essentiellement européenne

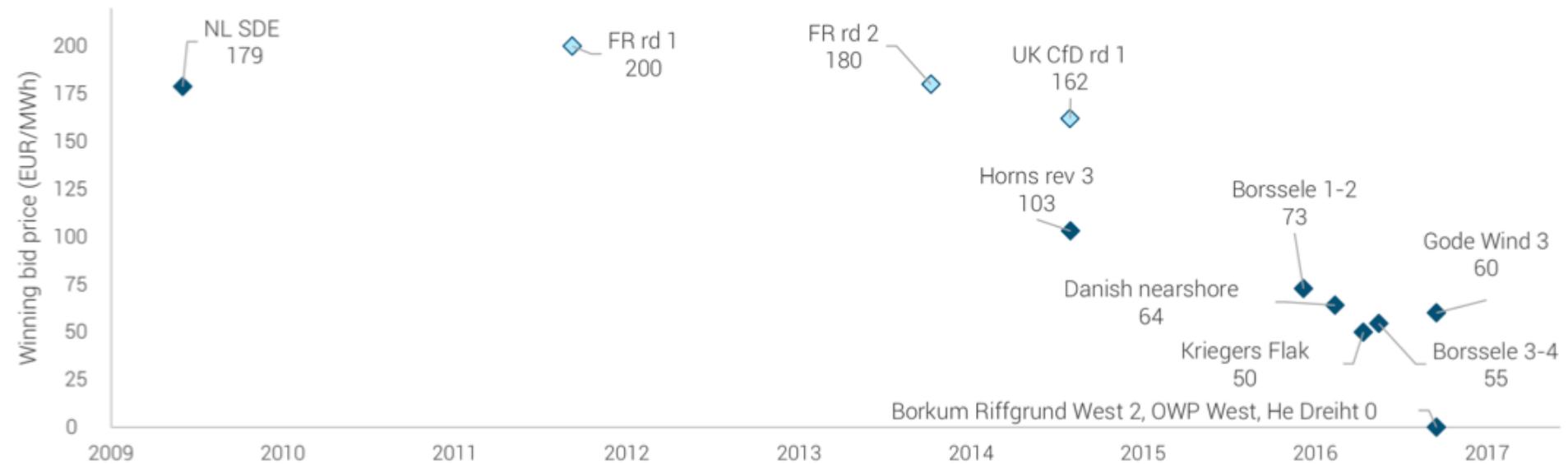


Source: 4COffshore, Market Review Report, October 2017

18 GW installés, dont 16 GW en Europe

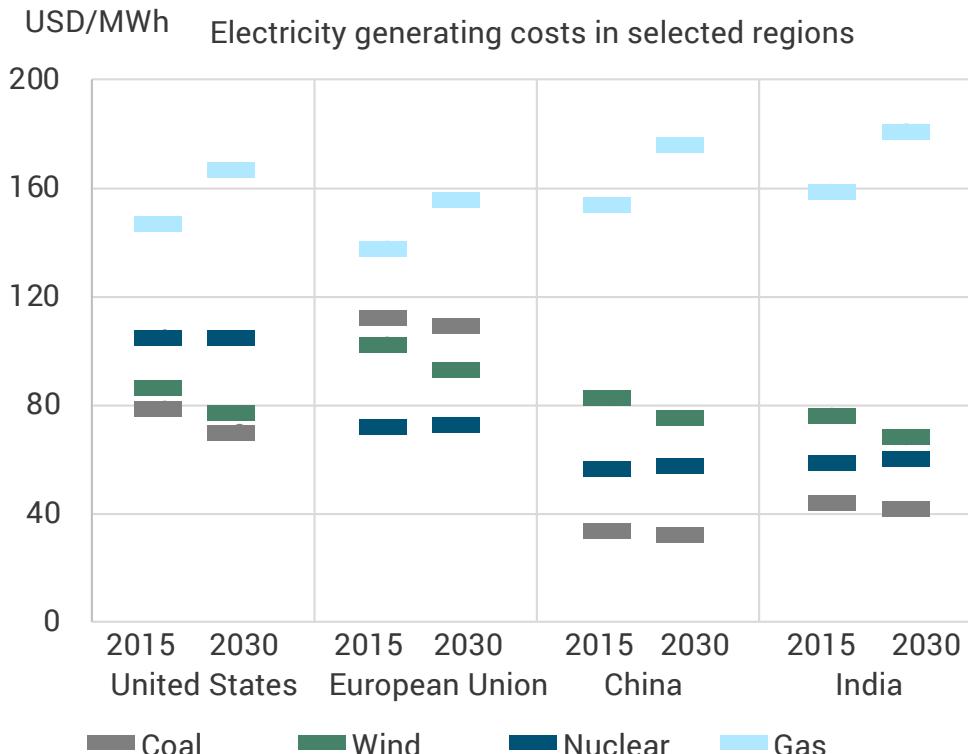
Le coût de l'éolien en mer

La baisse des prix dans les appels d'offres récents a été spectaculaire



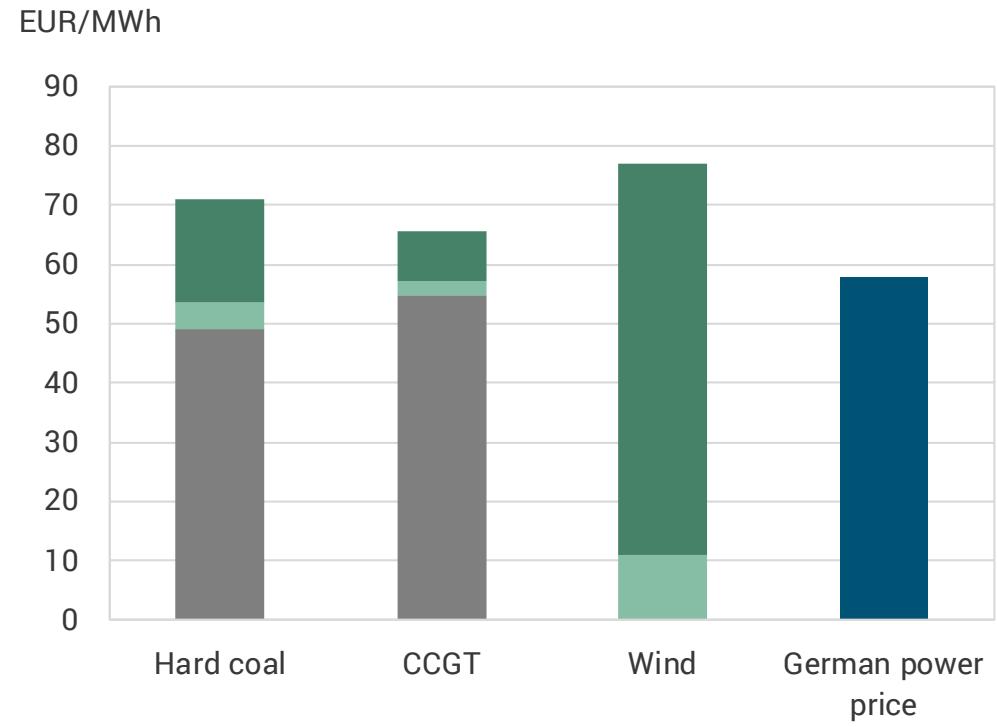
Le coût de l'éolien en mer

De quoi parle-t-on quand on parle de "coût" ?



Note: Costs include a carbon value of \$30 per tonne of CO₂ in the European Union. In 2015, coal refers to supercritical steam. In 2030, coal refers to IGCC for the United States, ultrasupercritical steam for Europe and China, and supercritical steam for India. Gas refers to CCGT.

Source: International Energy Agency analysis

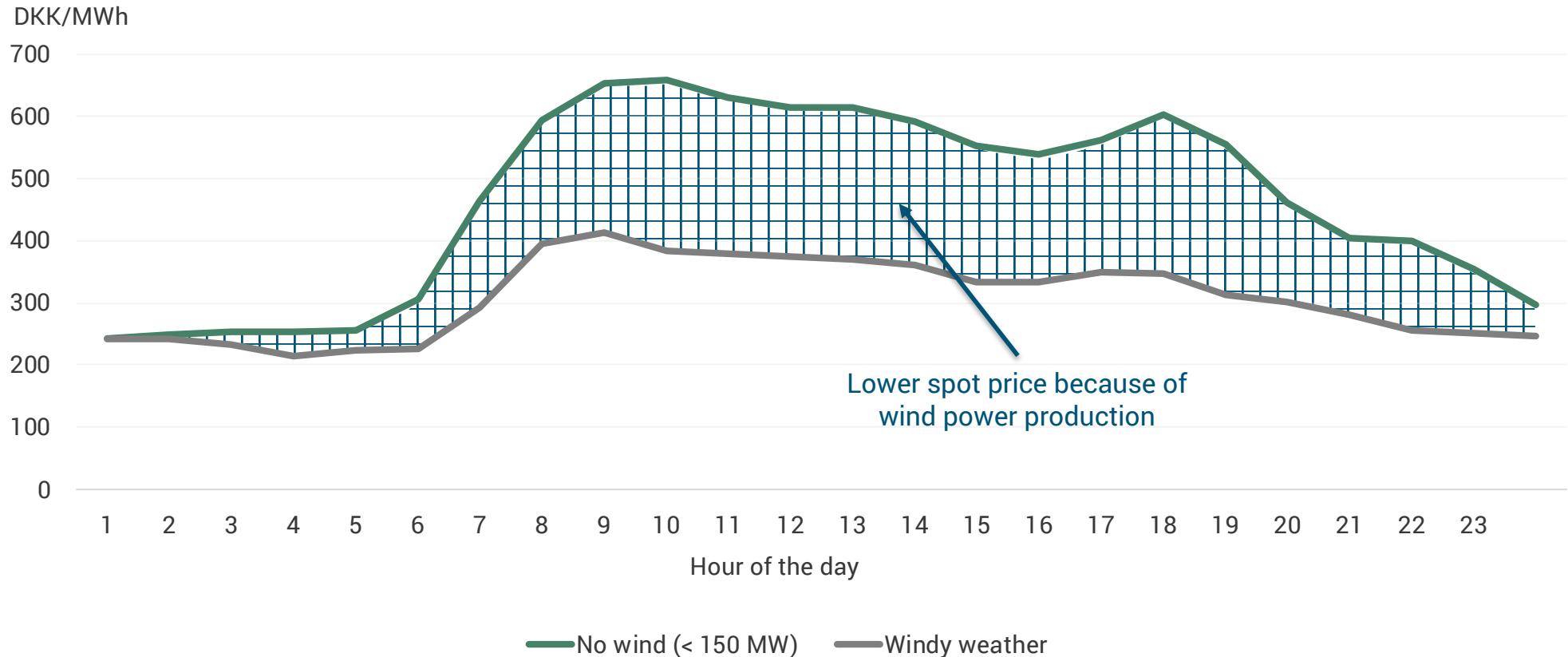


Source: UBS

2 hypothèses sous-jacentes essentielles – le co^{ut}put du carburant et le coût de l'argent

Le coût de l'éolien en mer

L'effet de cannibalisation

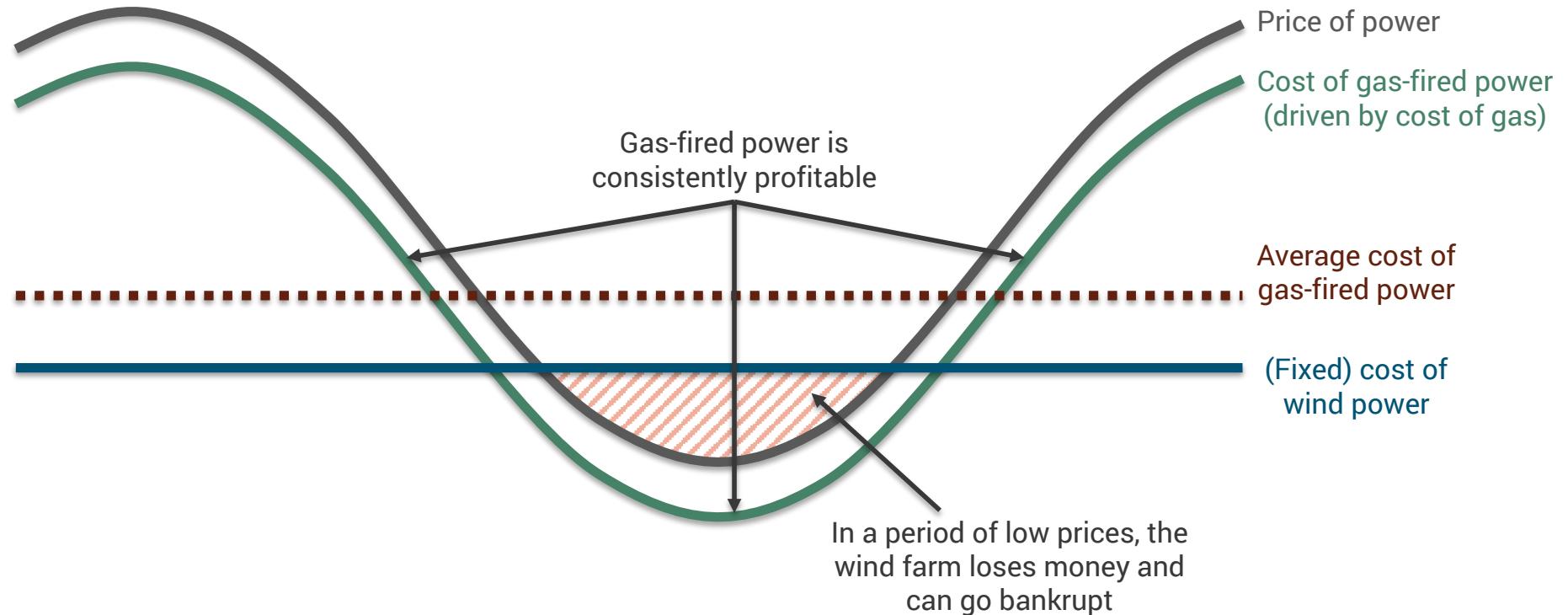


Source: The effect of wind power on spot market prices,
Rune Moesgaard , Poul Erik Morthorst, EWEC 2008

Le coût et le prix ne sont pas la même chose

Le coût de l'éolien en mer

La réglementation n'est jamais neutre, il n'y a pas de marché "objectif"



Sur le marché spot, les générateurs capitalistiques doivent se comparer au prix LT le plus bas

Le coût de l'éolien en mer

L'impact du mode de financement

Large projects are typically developed through a stand alone project company

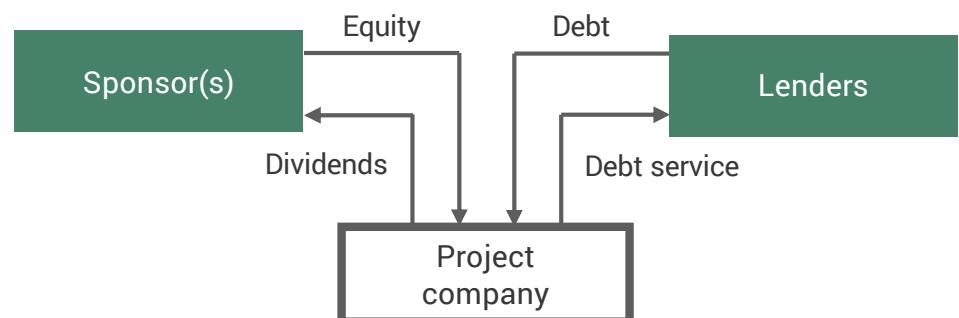
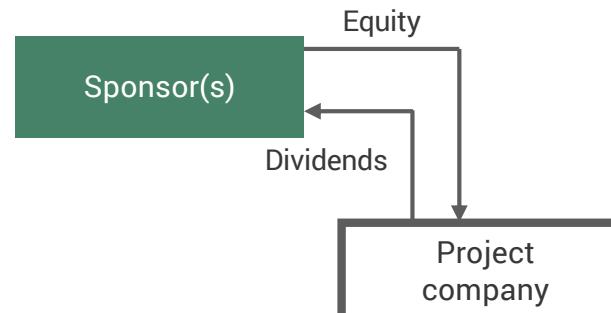
- Owned by the project investors
- With its own revenues & balance sheet and thus the ability to raise debt on its own merits

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 senior lenders' requirements!
- Tax, accounting, consolidation and rating issues

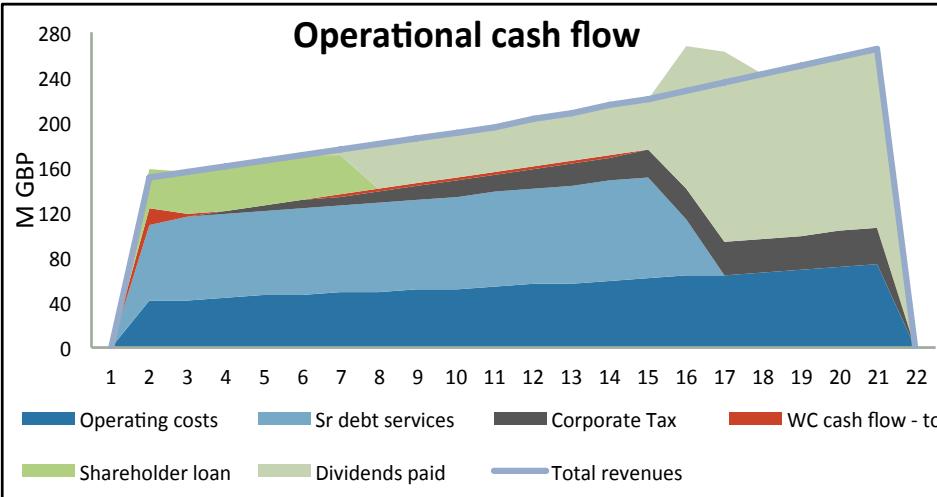


Les projets utilisant de la dette sont structurés différemment

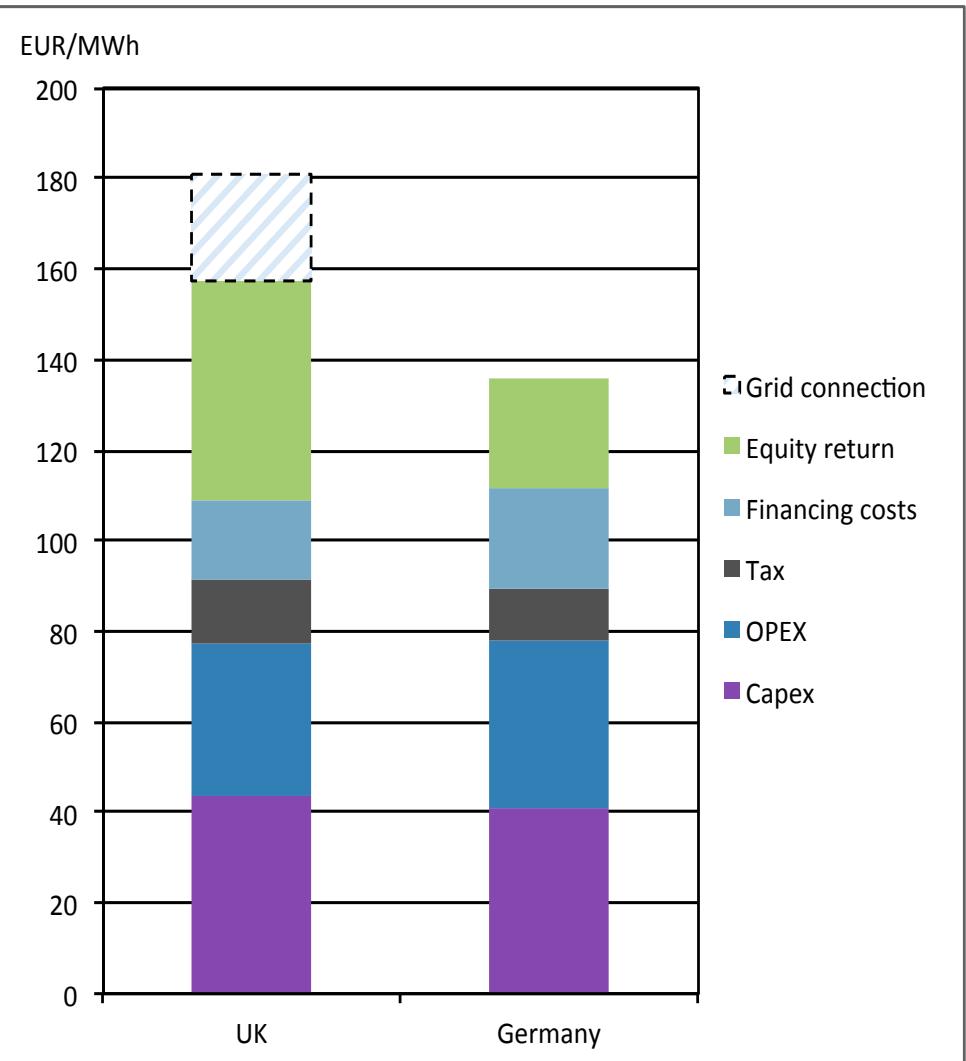
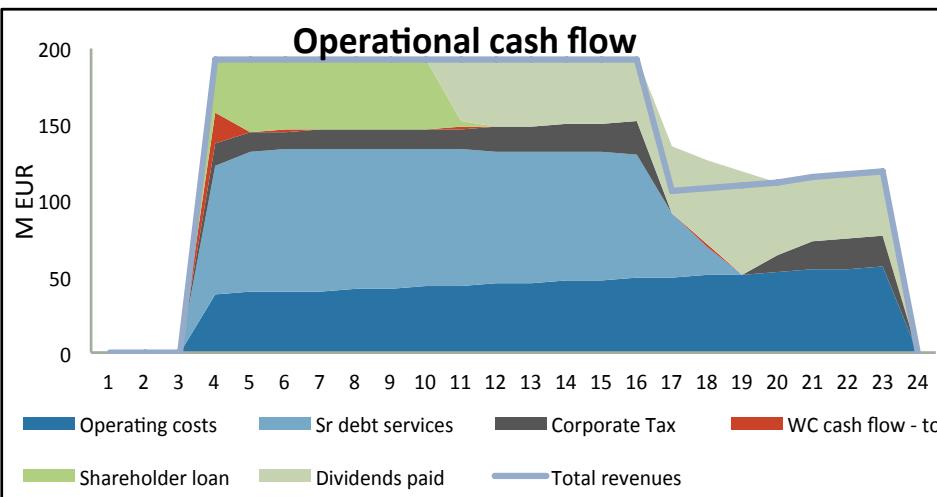
Le coût de l'éolien en mer

La réglementation a un impact direct sur le coût

UK – target IRR of 14% - LCOE = 151 GBP/MWh



DE – target IRR of 10% - LCOE = 136 EUR/MWh





Debt advisory



Equity advisory



Modelling



Strategic advisory

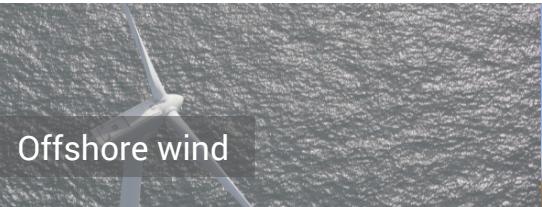


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The renewable energy financial advisors

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Offshore wind



Onshore wind



Solar



Other renewables