



Offshore Wind Farms: the Contractual Risk, Project Risk and Cost Risk Perspective

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Offshore Wind Farms

*The Contractual Risk, Project Risk
and Cost Risk Perspectives*

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Setting the Scene

- Huge potential and opportunities for offshore wind farm development
- Do utilities have the desire to acquire, develop and invest?
- Supplier-led market causing a shift to multi-party contracting
- Multi-party contracting results in developers carrying more risk
- Risk allocation, contract strategy and effective project management is therefore crucial
- Parties (including financiers) expect measurable risk not absence of risk



Multi-party Contracting

- Risk is spread among different contractors and suppliers
- Risk should be taken by the person best able to absorb and manage it
- Specialists can take on key tasks
- Managing the spread of risk can be difficult and time consuming
- Ultimately the developer takes the interface risk
- Financiers are concerned about gaps in responsibility with resulting costs, delays and disputes
- A large number of contracts need to be negotiated



Managing Multi-contracting Packages

- Internal or external sophisticated legal, technical and management team to run the project
- Place early commitments for long lead items
- Early engagements of banks and their advisers
- Risk allocation matrix
- Incentivise contractors through fair penalties and bonuses
- Provide for risk mitigants



Risk Mitigants

Contractual Risk

- Contracting strategy
- Contracting mitigants
- Interface agreements
- Contract risk analysis

Project Risk

- Determining causes of damage and delay during construction
- Logistical risk
- Technology risk
- Design risk
- Project management

Cost Risk

- Managing costs



Insurance Implications

- Contractual risk
- Project risk
- Cost risk

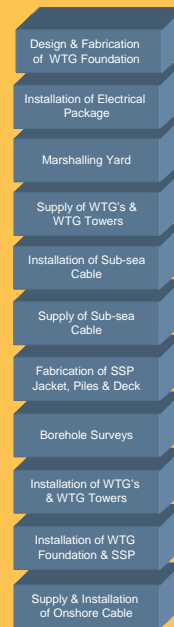


Multi-party Contracting

Construction contracts

Other contracts

- ✓ Lease
- ✓ Charter party agreements
- ✓ Crossing agreements
- ✓ Turbine reservation agreement
- ✓ Warranty, operations & maintenance
- ✓ Finance Agreement
- ✓ Transmission Agreement





Contractual Risk and Insurance

- Appropriate risk allocation
- Understand implications
- Set realistic insurance expectations
- Comply with insurance obligations



Project Risk and Insurance

Turbine and foundation performance

- Lack of operating track record
- Foundations cannot be divorced from turbines
- Serial defects

Delays and cost overruns

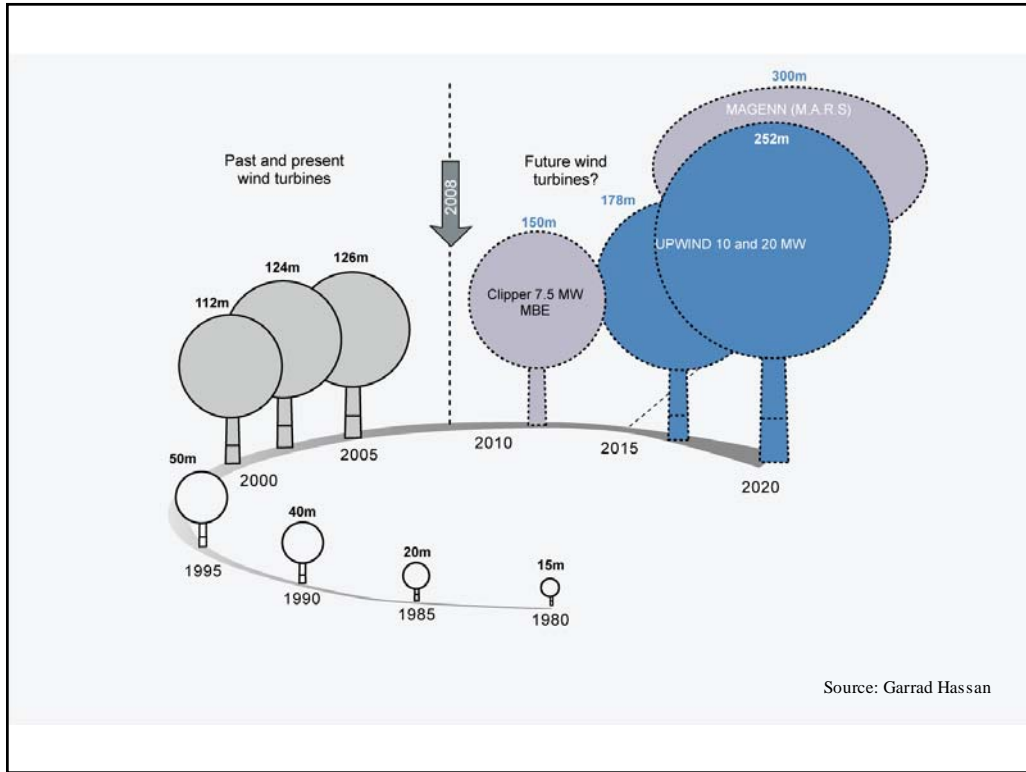
- Interface risk
- Location
- Bottlenecks

Impact of weather

- On access
- On vessel capability
- On availability
- Corrosion

Cables

- Installation losses
- Design issues
- Anchors / legs







Project Risk and Insurance

Insurer's view	Other concerns
<ul style="list-style-type: none"> • Export cables • Delay in Start-up • Turbine design • Vessel availability and cost • Replacement costs 	<ul style="list-style-type: none"> • Foundation serial losses • Corrosion • Bottlenecks • Logistics • Ownership matters

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Project Risk and Insurance

Risk mitigation strategies

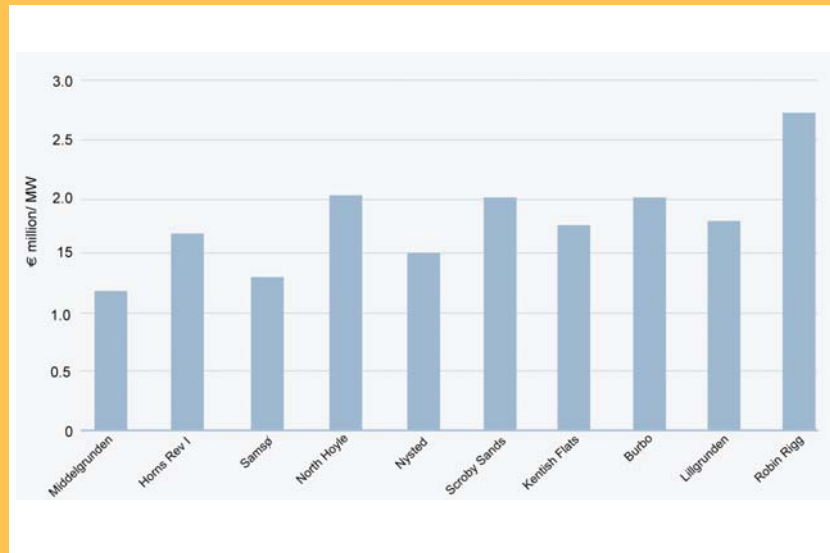
- Design contingencies / redundancies
- Vessel pooling arrangements
- Spares
- QA /QC
- Expertise



Cost Risk - Insurance

- Project economics questionable
- Installation costs increasing
- Scale increasing
- Finance will be required
- Cost of insurance is significant

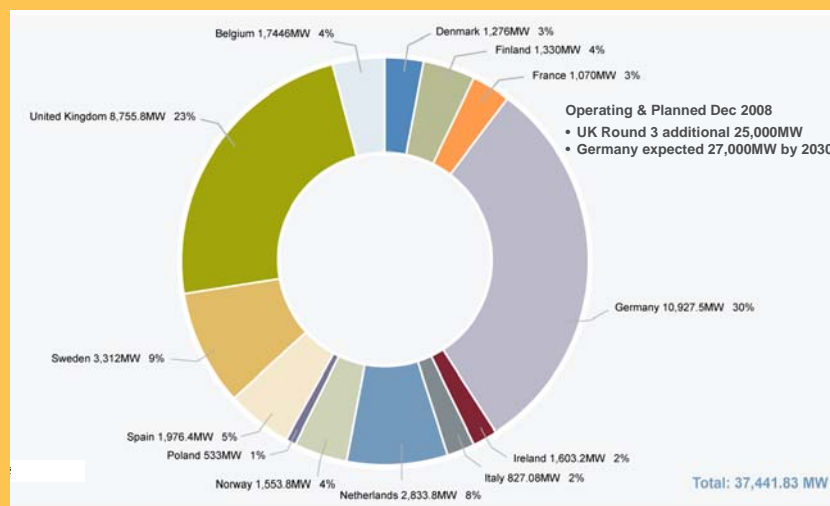
Costs Increasing



Source: Riso DTU

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Scale Increasing



Source: EWEA

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Cost Risk - Insurance

- Need to reduce the cost of insurance but:
 - Project risks not reducing
 - Loss ratios (not helped by lack of spread)
 - More vertical exposure
 - Further offshore
 - Deeper water
 - New design concepts



Cost Risk - Insurance

- Need to use everything at our disposal
 - Appropriate contractual risk sharing
 - Improved project risk mitigation strategies
 - Effective insurance placement strategies
 - Retention levels
 - Limits / layers
 - Cover



Final Thoughts

- Future investment huge
- Funding is scarce but vital
- Insurance fundamental and has been effective
- Future expectations need to be adjusted
- Insurance has to be a priority
- Insurance cost justifies time, resource and expertise



Wind Experience

Offshore and Onshore

- Acting on numerous wind deals currently
- Both debt and equity / sponsors / funds / lenders
- Lenders' counsel to Dexia in relation to Thorntonbank offshore wind farm in Belgium
- Lenders' counsel to NIBC in relation to the Energiekontor Nordergruende offshore wind farm in Germany

Wind Experience

Offshore and Onshore

- Project counsel for Eclipse Energy Company Limited on the Ormonde offshore hybrid gas and wind generation project, involving two gas fields to generate 90 MW and a wind farm to generate 108 MW in the UK
- Acted for Plambeck on the disposal of a majority interest to Evelop in the (400 MW) Gode Wind offshore project in Germany
- Acquisition and Project Counsel for DONG Energy on Gunfleet I and II in the United Kingdom, its participation in the London Array, Round II (1,000 MW) offshore wind farm project in the Scarweather Round I offshore wind farm project in the UK
- Advising Allianz Specialised Investments on its acquisition of a German wind farm
- *Advising Plambeck on its bond issues supported by 7 wind farms*

