Insurance risk profile - from prototype to commodity

The path to insurer enlightenment
Insurance risk profile – across the renewable energy spectrum

Wave, Tidal, Floating: capacity?, low premium base, high rates, limited cover, poor losses;

Fixed Offshore wind: good capacity, variable premium/loss experience, refining T’s & C’s;

Onshore wind: near “commoditised”, rates flattening, broad coverage;

Solar PV: Mature market with some insurers offering long term performance / warranty
How much?!!
Drivers of Risk Transfer Cost (1)

- Technology track record
- Methodology track record
- Mooring / foundation track record
- Contractor / equipment / vessel track record & suitability
- Vessel costs, operating limits & weather windows
- Supplier / Spares Risks
- OEM warranty / guarantee availability
Drivers of Risk Transfer Cost (2)

- Location / Environment / Timing
- Third party exposures
- Cabling exposure
- Regulatory obligations
- Marine Warranty Surveyor oversight
- Insurer appetite & experience
- Extent of risk transfer coverage
Understanding the risks

**Analysis Results**

<table>
<thead>
<tr>
<th>Probability of non-exceedance</th>
<th>Days overrun (Start date 1: 17th June)</th>
<th>Days overrun (Start date 2: 15th Sept.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>50%</td>
<td>2.2</td>
<td>17.0</td>
</tr>
<tr>
<td>70%</td>
<td>3.2</td>
<td>20.3</td>
</tr>
<tr>
<td>90%</td>
<td>6.6</td>
<td>52.9</td>
</tr>
</tbody>
</table>

- **Analysis Start Date: 17th June**
  - P90
  - P70
  - P50

- **Analysis Start Date: 15th September**
  - P90
  - P70
  - P50

Project duration /days vs. Overrun /days graph for each start date.
Managing costs today

- Design engineering to minimise risk
- Maximise proven ingredients
- Contracting strategy and risk allocation
- Understand weather risk
- Early insurer and MWS engagement
- Use of local expertise
- External risk review
- Understand regulatory requirements
- Optimise risk mitigation package
Moving down the cost curve

- Design enhancements in technology
- Cost-efficient/proven methodologies, moorings, designs, cable protections, contractors & equipment
- Standardisation & O & M efficiencies
- Moving to lower risk environments?

Increasing insurers’ confidence levels
The final leap
A mature risk profile

Scale roll-out of successful technologies should lower insurance costs/MW, e.g.:

- Reduction in insured replacement cost;
- Workable data / hours in the sea;
- Cabling – relatively less of an issue?
- MWS support and liability costs diluted?

Broader cover at more predictable rating level.
Questions?

www.renewablerisk.com

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