

**Policy makers ask for help on cost reduction  
before taking on Market Development.**

**What does the Offshore Market say?**

Michael Payne

General Manager, European Development

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[michael.payne@shell.com](mailto:michael.payne@shell.com)

**Shell WindEnergy**

A Shell Renewables company



# Shell WindEnergy

## Focused on Large Projects both on and offshore

□2004 we were 8<sup>th</sup> largest owner of wind assets worldwide, 2<sup>nd</sup> in US

## Progress to Date

- Established in 1999, HQ in The Hague
- Regional offices in Houston, Paris, & London
- First 2 projects online in late 2000 – total 8 MW, incl. Blyth
- 740 MW operational by end-2004
- First utility scale (108MW) offshore project under construction in NL
- Portfolio of offshore projects spread across multiple markets
- Actively engaging with the offshore policy community

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“Help me understand the cost reduction story.”

➤ **Dilemma:**

❑ Process of developing offshore industry and markets creates a tension between timing of price declines against comparable alternatives and the will of the public/politicians to fund the steps to achieve the desired results. Fundamentals are strong, but vision and leadership are required.

➤ **Drivers:**

❑ Fundamentals – EU members must come to their own conclusions

❑ Technology - Technology and innovation are key

❑ Consistency - Coordination of government activities

❑ Capacity – Getting down the learning curve

➤ **Conclusion: A coordinated, concerted effort is required.**

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## Options on EU 2010 Targets

- EU Directive sets aggressive targets for renewable generation
- Targets assume material penetration of offshore technology
- Both offshore and total targets are falling behind
- Possible alternatives are limited, take time to develop
  - Carbon Capture and Storage, Marine, Nuclear?
- Major markets are all struggling with current position
- Leaders must come to their own conclusions ASAP to generate appropriate buy-in within respective systems
- Reluctance to commit to staged investments must be overcome ASAP



## Investing in Technology and Innovation

- Early stage industries and high growth industries require a relatively high investment in R&D [%?...not onshore]
  - ❑ Software, Bio-Med, etc.
- Shell and industry leaders are making these investments
  - ❑ Blyth, Total Dunkerque test facility, Energie E2, etc.
  - ❑ Dedicated staff and budgets represent a serious commitment to progress
- We must not skimp on early stage design and engineering where impact is greatest
- Grants to stimulate such investment are welcome, but will only be successful with large scale implementation



## Progress comes with experience and realistic growth

- Onshore took 25 years to reach 50,000MW
- Offshore some 20+ years behind in development
- Potential to hit 50,000MW much faster due to:
  - ❑ Size of projects
  - ❑ Number of active markets
  - ❑ Shrinking green/fossil spreads
  - ❑ Increasing attention on targets to address climate change
- No aspect of the business becomes more expensive with experience
- But...unrealistic targets have been, are and will be counter productive for the industry



## Consistency in objectives

- Target setting
- Site awards
- Permitting
- Support mechanisms
- Tough targets will only be met with the help of greater coordination by the related government bodies



## What is the future of offshore wind?

1. No better options for delivering the levels of renewable generation desired
2. Governments must set realistic near term targets to get the process moving. Politics must not block the process.
3. Senior level support and improved coordination is required to meet the desired schedules.
4. Investors will respond with technology, innovation and projects required to meet the objectives

