Does the permitting process in France need a further overhaul?

MRE Manche 2015

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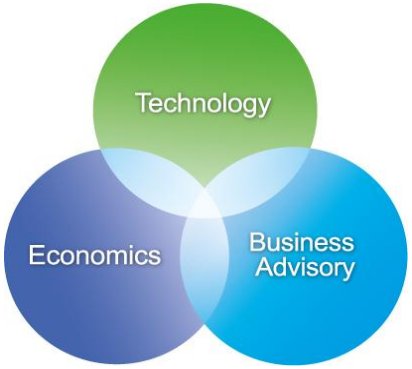
BVGassociates

BVG Associates

BVG Associates

- Independent consultancy with expertise in technology, implementation and economics of wind and marine energy technologies.
- Formed in 2005. We reached our 200th customer in 2014.
- 80% of work is in offshore wind
- Currently we have a team of 14 permanent, full-time delivery staff plus support staff and network of expert external associates around the globe.



We offer

- Expertise in floating offshore wind turbines
- Owner's engineer service
- Local content analysis - UK struggled to define – we derived a simple but robust UK Content methodology - common across EU?
- Good UK market links
- SME support – run scheme in Scotland for Scottish Enterprise
- Supply chain development for technology - who can make where?
- Experience of the UK lessons learnt
- Enabling reports. DECC supply chain plans, BIS and for The Crown Estate supply chain gap analysis.
- LCOE modelling especially spatial 'heat maps'

Breadth and integration

Business advisory

- Analysis and forecasting
- Strategic advice
- Business and supply chain development

Economics

- Socioeconomics and local benefits
- Technology and project economic modelling
- Policy and local content assessment

Technology

- Engineering services
- Due diligence
- Strategy and R&D support

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HM Government

Industrial Strategy: government and ind

Offshore Wind
Business and G

August 2013

BVGassociates

Methodology for measuring the
offshore wind farms

May 2015

Department of Energy & Climate Change

renewableUK

Department of Energy & Climate Change

Supply Chain Plan Final Guidance

For projects of 300MW or more applying for a Contract for Difference as part of the Electricity Market Reform programme

August 2014

Introduction

- Four main steps on the project timeline (although different countries do it in different orders)
  - Site award – agreement to lease
  - Developing – assessing site and preparing to apply for permits
  - Permitting – applying to install and connect to grid
  - Price support – applying for price support
- Different countries have different approaches and associated risks
- We will consider country permitting to date
  - UK
  - Germany
  - Denmark
  - The Netherlands

1. United Kingdom

Getting the balance: Policy drives local content, while subsidy awarded on lowest cost of energy

Site award

- Round 3 (R3) sites first scoped though a strategic environmental assessment 'SEA' prepared by The Department of Energy and Climate Change
- R3 sites then identified and leased by The Crown Estate
- Developers 'bid' for R3 sites and awarded development rights (agreement to lease)

Permitting

- Anything over 100MW capacity in England and Wales goes through national permitting process 'PINS'
- Scotland projects permitted by Marine Scotland (MS)
- PINS: ~18 months from application to decision
- MS: No statutory timescales from application to decision
- Grid connection permitting included in process

Development

- Developer assumes responsibility for undertaking environmental impact assessment (EIA) and Pre-FEED studies.
- ~5 years and the cost to application stage ~£40 to 80 million
- JV's formed to share the risk
- R3 projects only consenting small fractions of total potential capacity

Subsidy

- Changing from RO (ending March 2017) to Contract for Difference process. (FiDER subsidy early form of CfD)
- CfD is competitive bidding process with several hurdles, e.g. increasing local content in the supply chain.
- First CfD subsidies awarded in 2015:
  - East Anglia One, 714MW, £119.89 online '17-'18
  - Neart na Gaoithe, 448MW, £114.39 online '18-'19
- Much more capacity being bid in

1. United Kingdom

Recent feedback from industry…

De-risking offshore wind projects through export credit agencies and government infrastructure funds has already had a positive effect on the cost of capital for Continental projects. This has not yet happened in the UK, although plans are well advanced.

Government interventions such as the Electricity Market Reform process, the Green Investment Bank, the Offshore Transmission Owner (OFTO) regime and requirements on the Planning Inspectorate have all de-risked UK projects for project developers and investors.

The UK's system of competitively awarding CfDs after developers have invested heavily in consenting projects has higher risks for developers than Danish and Dutch systems of central development and permitting prior to auction.

1. United Kingdom

A rare case of permitting risk not paying off

Navitus Bay

- Developers awarded site in 2009
- A 50-50 Joint Venture between Eneco Wind UK Ltd (Eneco) and EDF Energy formed 2012
- Refused planning permit consent from DECC in 2015 despite offering a 970MW and a 630 MW sub-set of the part furthest from shore
- Primarily on visual impact to Jurassic Coastline
- Large cost to developer in site development > €80 million
- Developers may appeal…but…
  - Significant timelines involved – challenge to retain project team
  - Still need to get approved supply chain plain
  - And to be successful at bidding competitively for CfD subsidy

= several hurdles each with big risk and additional costs

- Navitus Bay is only second project in UK to not be awarded permitting. 48 wind farms have consent with 25 already operational. Success rate of application is 96%.

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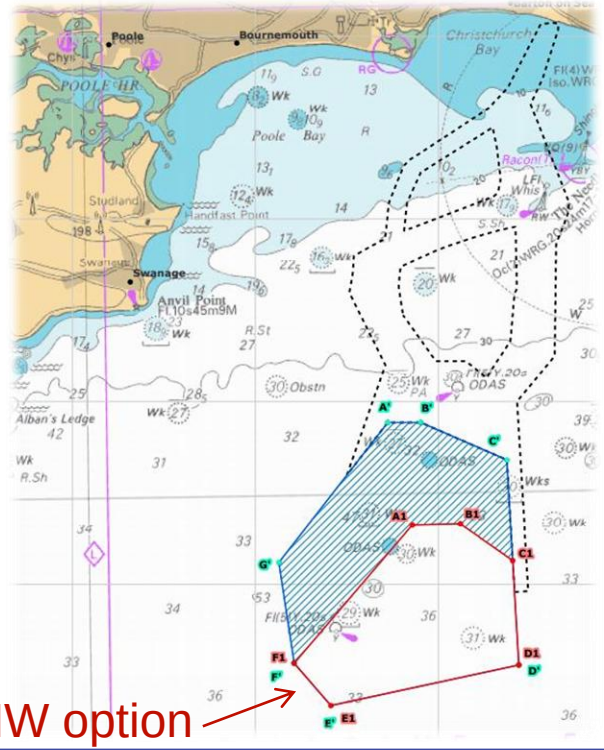


630MW option

2. Germany

Strict development guidelines to assess environmental impacts

Site award

- BSH (Federal Maritime and Hydrographic Agency) identify and lease areas of seabed.

Permitting

- BSH approves projects in EEZ. Cables on the seabed in the territorial sea approved coastal state.
- Within the 12 nautical mile limit, approval by coastal states.
- BSH and regional Waterways and Shipping Directorate permit sites for aspects of navigational safety.
- Permits awarded for 25 years.

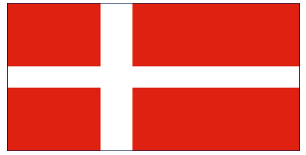
Development

- Similar to UK
- Developer assumes responsibility for undertaking environmental impact assessment (EIA) and Pre-FEED studies.
- Projects with more than 20 turbines need EIA based on the UVPG (Environmental Impact Assessment Act).

Subsidy

- Option for an initial tariff of 19.4 cent/kWh for eight years or EUR 15.4 cent/kWh for 12 years
- Depends on water depth and distance to shore.
- The basic tariff for offshore wind energy is EUR 3.9 cent/kWh.
- Subsidy offered by EEG.

3. Denmark



Danish Energy Agency drives process

Site award

- Danish Energy Agency (DEA) announce tenders for projects
- Developers bid a price for the site .
- Priority access to grid given to project to sell and transmit power in line with connections rules at that time.
- Price is the primary bidding criteria in DEA decision on who to award sites to.

Permitting

- Danish Energy Agency facilitates the necessary permits in cooperation with all relevant authorities.
- Permits in draft form are provided as part of the tender material – the developer knows what to expect after being awarded the site.

Development

- Detailed surveys undertaken before tender is offered to developers by national TSO, Energinet.dk and completed in ~2 years.
- Immediately after award of site. Winning developers given permits to do further environmental assessments.
- Energinet.dk establishes offshore grid connection infrastructures.
- Likely to see some tier 1 suppliers also bid.

Subsidy

- No requirements for local content in the supply chain
- A fixed settlement price (contract for difference) for ~50,000 peak load hours embedded in Danish legislation.

3. Denmark

Horns Rev 3 project example

‘13

- Sept: Contract notice published
- Nov: Deadline for applications for pre-qualification

‘14

- Sept: Deadline for submitting preliminary tender
- Dec: Final tender deadline

‘15

- Q1: Concession and construction permit awarded

‘16

- Jan: Guaranteed grid connection

‘20

- Dec: Wind farm operational

4. The Netherlands

Recent changes have increased certainty in project construction and time frame

Site award

- Award is by competitive tender on pre-permitted sites.
- Price is the criterion for award. Bank guarantees are required.
-
- Failure to complete results in monetary penalties.
- There is no requirement for local content or community engagement.

Permitting

- Sites developed for auction by government come with relevant permits following the auction process.

Development

- Detailed surveys undertaken before tender offered to developers – allows bids at appropriate price.
- Immediately after award of site. Winning developers given permits to do further environmental assessments if needed.
- National establishment for offshore grid connection infrastructures by TenneT.
- Likely to see some tier 1 suppliers also bid.

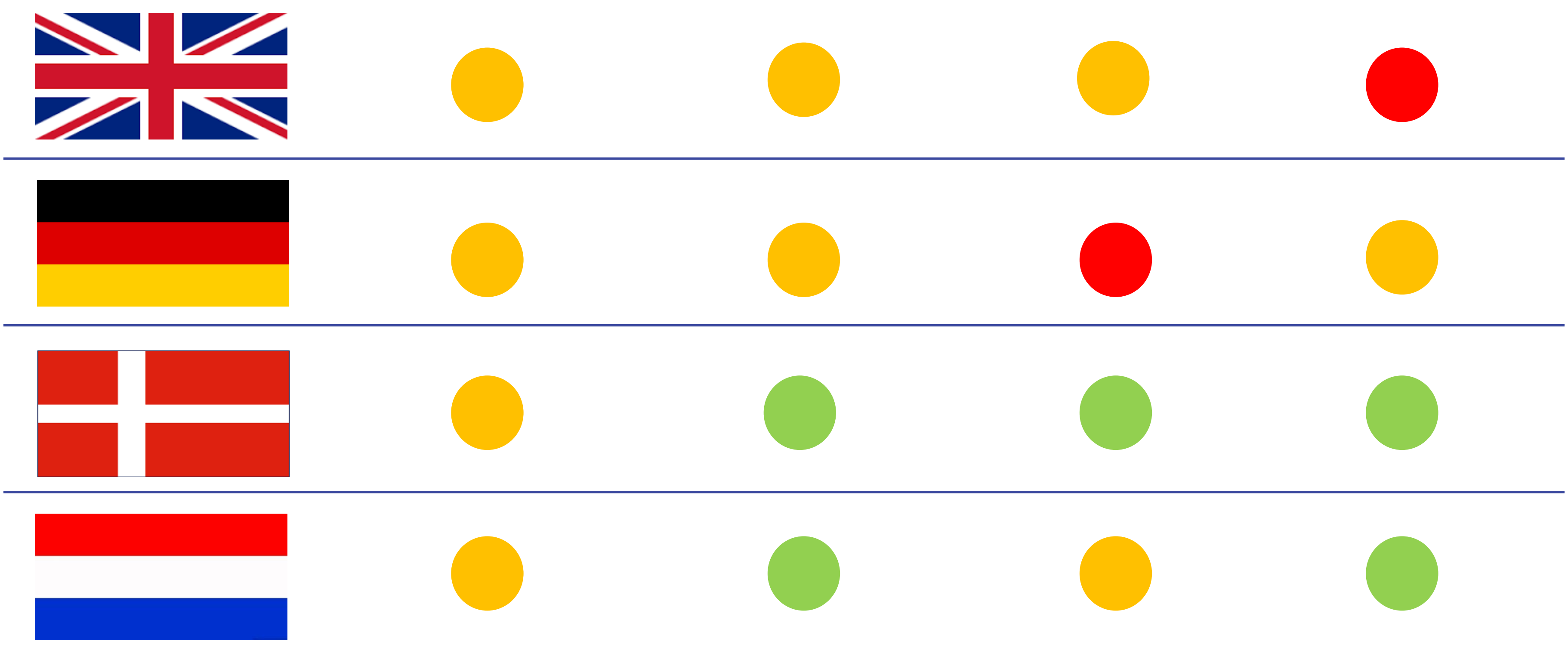
Subsidy

- Maximum prices per kWh are given for the upcoming sites before the auction process.
- Prices are competitive and include assumptions of savings from technology and supply chain improvements.

5. Summary

Headline news

Country	Site award	Permitting	Development	Subsidy



8. Concluding remarks

- UK has good record with 28 projects operating, 2 under construction, 1 reached Final investment decision, 4 consented expect to be built under ROCs, 7 consented FIDER CfD, 2 consented with CfD; total of 44 projects already have price support . 10.7 GW expected to be operational at end 2020.
- BUT removal of guaranteed subsidy (RO) means 8 projects with 8.1GW chasing next CfD round of ~1GW (?) and 3 projects with 2.4 GW applied for consent.
- Guaranteed subsidy not offered in all European countries
- Early development before site award reduces risk to developer considerably and more efficient as not tied to any geographical area
- Introduction of processes in Denmark and The Netherlands likely to 'shake-up' UK idea of typical developer, with some Tier 1 contractors expected to bid for sites
- Denmark and The Netherlands effectively take out risk of permitting

Thank you

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