ORE Supergen Challenge Workshops: TRANSFORMATION OF THE OFFSHORE RENEWABLE ENERGY SYSTEM

OSW and MRE UK portfolios current and future direction

2 November 2017

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Agenda

- The Crown Estate
- Offshore wind
- Wave & Tidal Stream
- Industrial Strategy
The Crown Estate

The Crown Estate is an independent commercial business created by Act of Parliament.

Net profit in 2016/17: £328.8 million

Our capital value is: £13.1 billion

Brilliant places through conscious commercialism
UK offshore wind assets

Offshore Turbines: 1602 (991, 2593)
Offshore Substations: 20 (17, 37)
Export Cables: 57 (24, 81)
Offshore Masts: 20 (1, 21)
Wind Farms: 30 (15, 45)

Includes assets managed by The Crown Estate and Crown Estate Scotland

30 September 2017
UK Offshore Wind Development Pipeline - October 2017

Total capacity is up to 30.8GW

- Operational: 5.4 GW
- Under Construction: 5.1 GW
- Government support on offer: 3.4 GW
- Consented: 7.9 GW
- In Planning: 0.1 GW
- Pre-Planning: 8.8 GW
OSW Spatial distribution 2017 – 2030s

Figures indicate the ranges of potential deployment of existing rights awarded by TCE (rounded to GWs). This assumes 20 GW of deployment by 2030. Actual deployment will be subject to securing statutory consents, award of Contracts for Difference and associated investment decisions.

“Provided costs continue to fall, … 10 gigawatts of new capacity [could be] built in the 2020s”

“We will also consider whether there could be opportunities for additional offshore wind deployment in the 2020s, if this is cost-effective and deliverable.”
Offshore wind – opportunities and challenges

- Lowest cost transmission scale power generation technology
- Forecastable and flexible
- Continued cost reduction and innovation
- Proportionate and responsible management of ecological and societal impacts
- Transition to a smart grid system to manage supply, demand and maintain grid stability
Wave & Tidal Stream – E, W, NI
Industrial strategy and adaptation through the Clean Growth Strategy

We must harness the ingenuity and determination of all our people and businesses across the country if we are to build a better, greener Britain.

The Government will help British businesses and entrepreneurs to seize the opportunities which the global low carbon economy presents, from electric vehicles to offshore wind.

“Seizing the clean growth opportunity”

“Our modern Industrial Strategy is about increasing the earning power of people in every part of the country.”

“Improving the environment on which our economic success depends building on the UK’s strengths; improving productivity across the country”

… the UK’s approach to reducing emissions has two guiding objectives:

1. To meet our domestic commitments at the lowest possible net cost to UK taxpayers, consumers and businesses; and,

2. To maximise the social and economic benefits for the UK from this transition.

In order to meet these objectives, the UK will need to nurture low carbon technologies, processes and systems that are as cheap as possible.
Power, Heat, Transport - electrification?

PINK represents electricity flow = 17% of Total Final Consumption