

Energy
Environment
Efficiency



Connecting Offshore Wind to the Grid – a New Regulatory Model

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What is Ofgem?

Office of the Gas and Electricity Markets (UK)

Aims:

- To protect consumers and secure Britain's energy supplies by promoting competitive gas and electricity markets
- To regulate gas and electricity markets to ensure adequate investment in the networks
- To contribute to the drive to curb climate change and other work aimed at sustainable development



Ofgem E-Serve

- Responsible for Ofgem's support and delivery functions
- Focuses on administering environmental programmes and the delivery of sustainability projects.
- Offshore Transmission is part of E-Serve



UK transmission regime

- **Onshore Transmission:**
 - RIIO
 - 3 Transmission Owners
 - 8-year price controls
 - Greater innovation
 - Option for more third party delivery

- **Offshore Transmission**
 - Competitive ownership of transmission assets offshore
 - Coordination regime

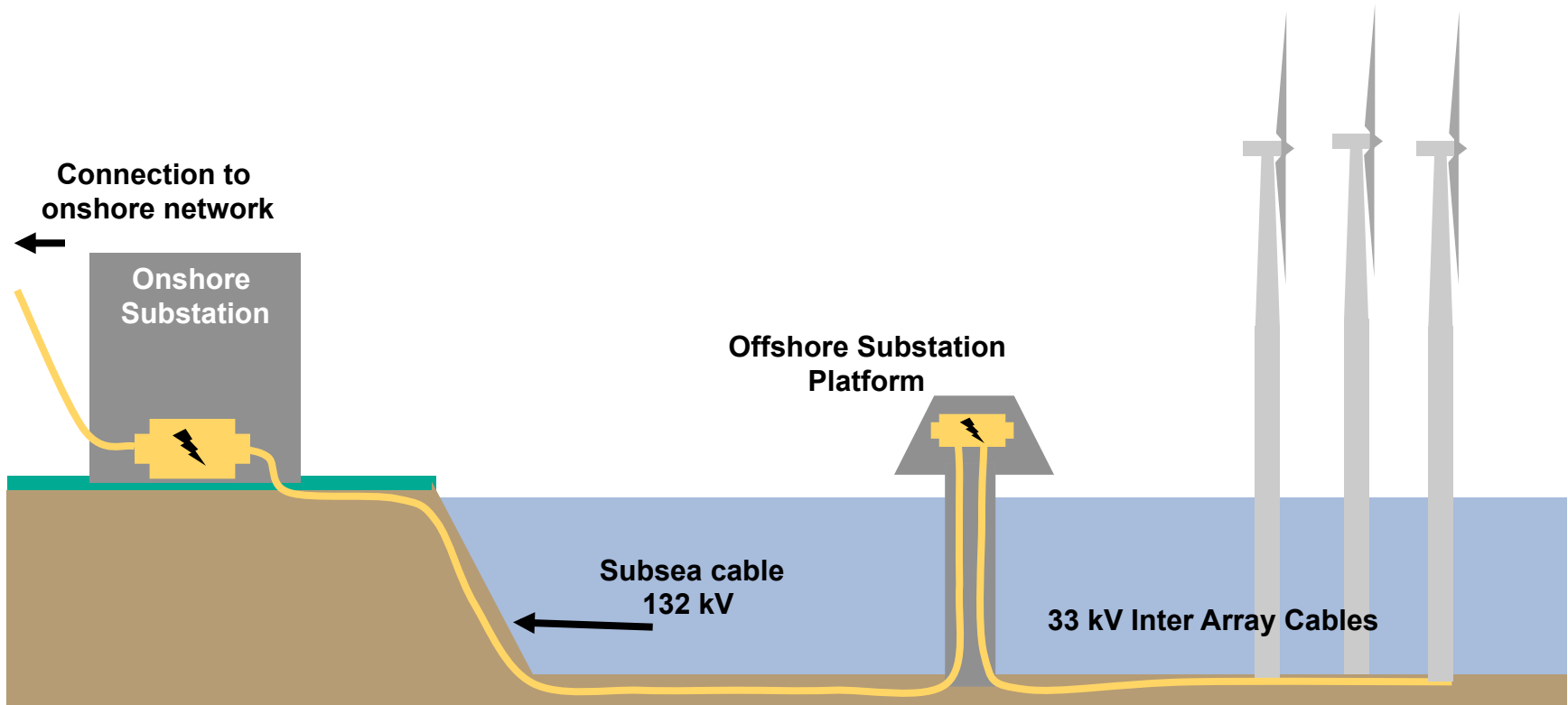


Offshore Transmission: Objectives

- Facilitate new investment in offshore wind energy
- Ensure electricity links delivering power to shore built on time and provide value for money
- Provide a new regime for competitive tendering to:
 - Lower the cost of building and operating assets
 - Enable new players to bring innovative technical, operational and financial solutions to the connection of offshore wind farms
 - Provide a lighter touch regulatory approach (since there will be no need for regular price control reviews for OFTOs)



Offshore Transmission Owner (OFTO)

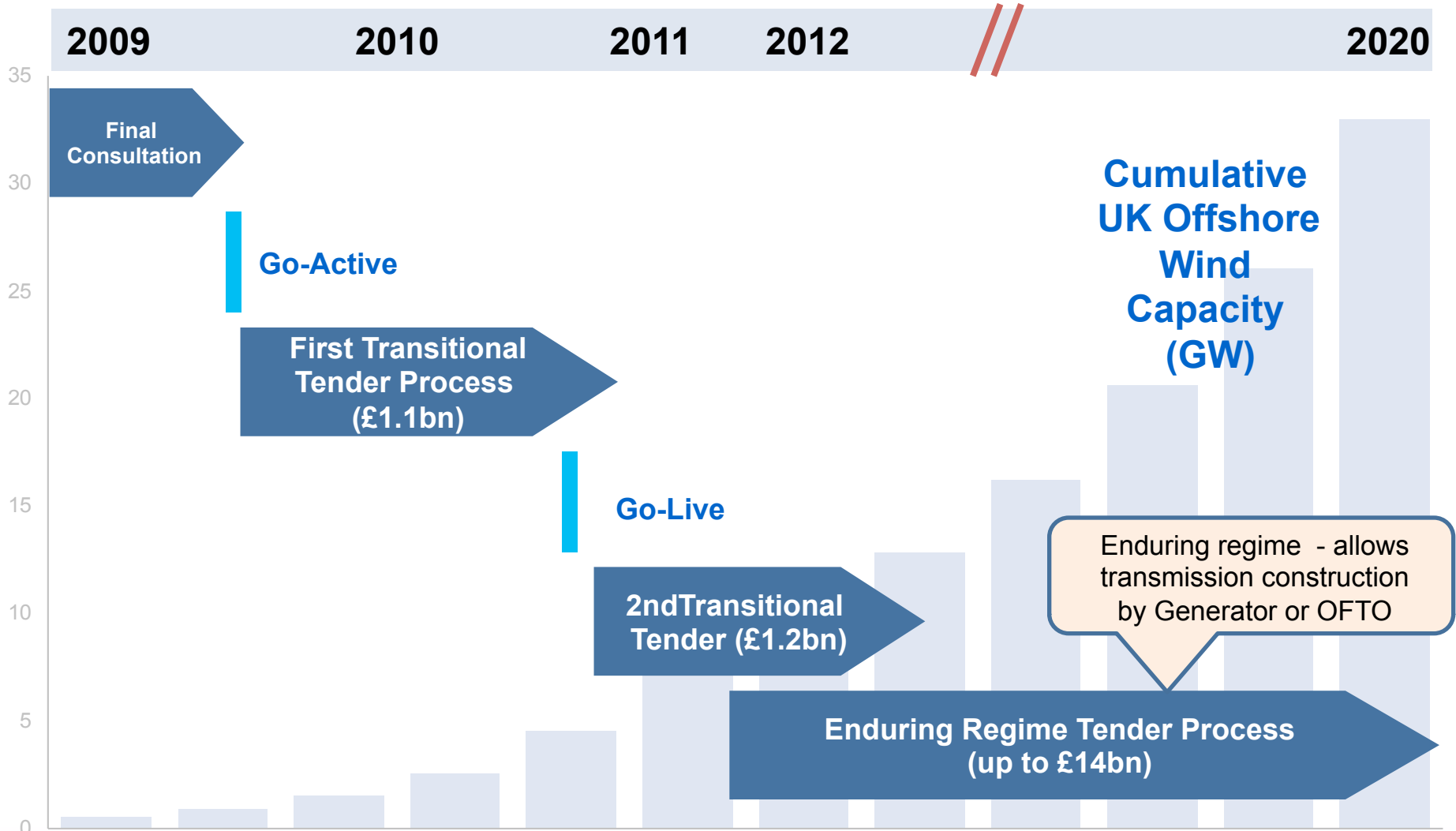


Key aspects of OFTO model

- Strong regulatory and political support
- OFTOs selected through competitive tender process run by Ofgem
- 20 year revenue stream
- Availability-based regime – OFTOs do not have exposure to generation output
- Performance incentives and penalties up to 10% of revenue for below target availability
- Transitional regime deals only with transmission assets already built by generator
- Enduring regime presents option for OFTO Build as well as Generator Build



OFTO regime milestones

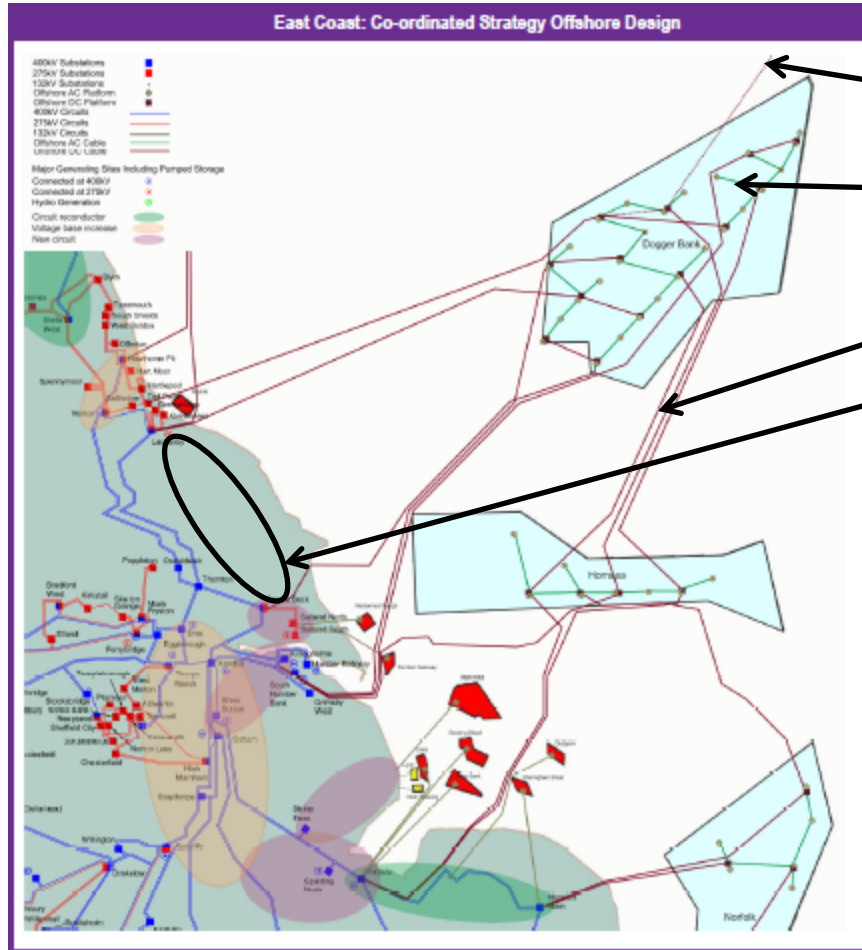


Tender round experiences

- International interest
- Participants thus far include infrastructure funds, niche specialists, transmission operators and strategic players (e.g. Transmission Capital Partners, INPP, Macquarie, Mitsubishi, Balfour Beatty, National Grid, Equitix, Barclays Infrastructure Fund)
- £250m invested thus far in OFTOs – allowing developers to recycle money into future windfarm projects
- Commercial lenders, European Investment Bank, pension funds and capital markets have all participated or shown interest
- An effective means of attracting new sources of financing and new participants into UK transmission infrastructure
- Plenty of interest in future design and build opportunities



Coordination of offshore transmission assets



The 4 forms of coordination

- International
- Intra-zonal
- Inter-zonal
- Onshore/offshore

Straightforward radial (point-to-point) connection will still be the best solution in some cases.

The Crown Estate Leasing Rounds

Round 1:	1GW
Round 2:	7GW
Round 3:	32GW
Round 1 & 2 extensions:	1.5GW
Scottish territorial waters:	4.3GW
Northern Irish waters	0.9 GW

Low Carbon Network Fund

- **Part of the current electricity distribution price control arrangements**
 - Established by Ofgem
 - Up to £500m support to projects sponsored by distribution network operators (DNOs)
 - Projects focus on new technology, operating and commercial arrangements
- **Objective - security of supply at value for money as Great Britain (GB) moves to a low carbon economy**





ofgem E-Serve

Promoting choice and value
for all gas and electricity customers

www.ofgem.gov.uk/offshore