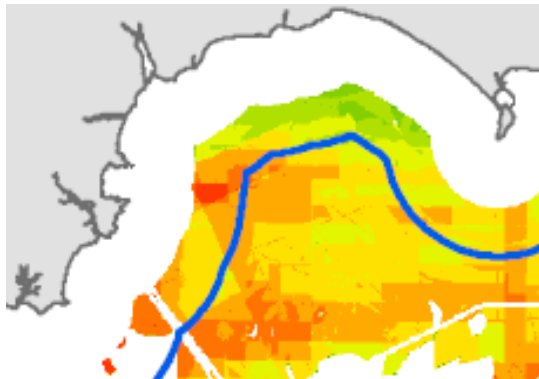


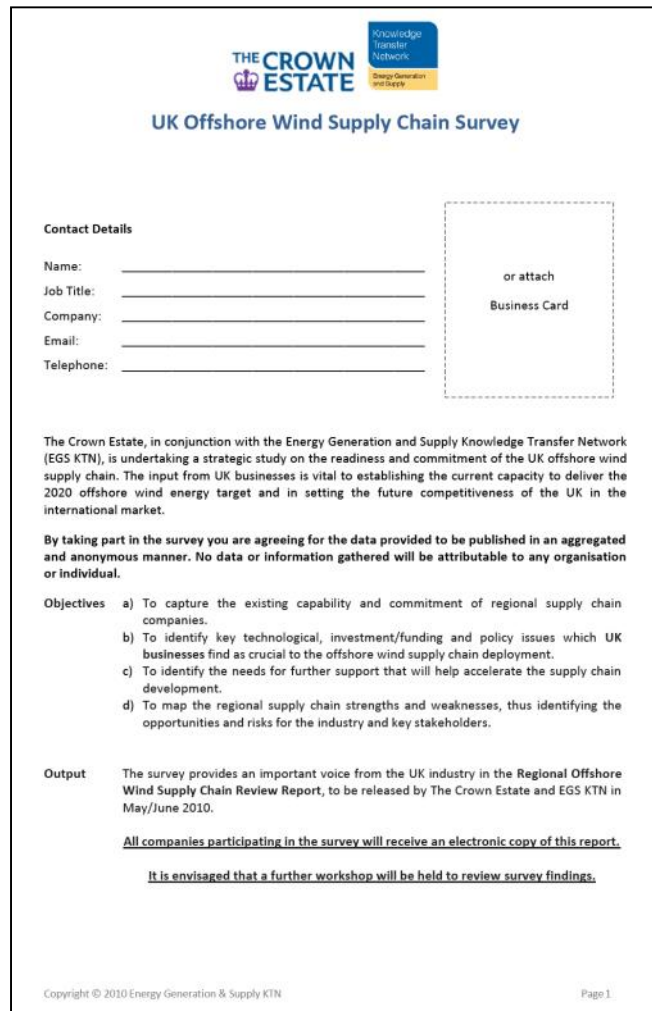


Offshore Wind Energy UK Supply Chain Events

Adrian Fox
Supply Chain Manager
16 March 2010



Supply Chain Questionnaire



THE CROWN ESTATE Knowledge Transfer Network Energy Generation and Supply

UK Offshore Wind Supply Chain Survey

Contact Details

Name: _____
Job Title: _____
Company: _____
Email: _____
Telephone: _____

or attach
Business Card

The Crown Estate, in conjunction with the Energy Generation and Supply Knowledge Transfer Network (EGS KTN), is undertaking a strategic study on the readiness and commitment of the UK offshore wind supply chain. The input from UK businesses is vital to establishing the current capacity to deliver the 2020 offshore wind energy target and in setting the future competitiveness of the UK in the international market.

By taking part in the survey you are agreeing for the data provided to be published in an aggregated and anonymous manner. No data or information gathered will be attributable to any organisation or individual.

Objectives

- To capture the existing capability and commitment of regional supply chain companies.
- To identify key technological, investment/funding and policy issues which UK businesses find as crucial to the offshore wind supply chain deployment.
- To identify the needs for further support that will help accelerate the supply chain development.
- To map the regional supply chain strengths and weaknesses, thus identifying the opportunities and risks for the industry and key stakeholders.

Output

The survey provides an important voice from the UK industry in the Regional Offshore Wind Supply Chain Review Report, to be released by The Crown Estate and EGS KTN in May/June 2010.

All companies participating in the survey will receive an electronic copy of this report.

It is envisaged that a further workshop will be held to review survey findings.

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“You’ve got the form

“You’ve got some information about your company

“You have some opinions

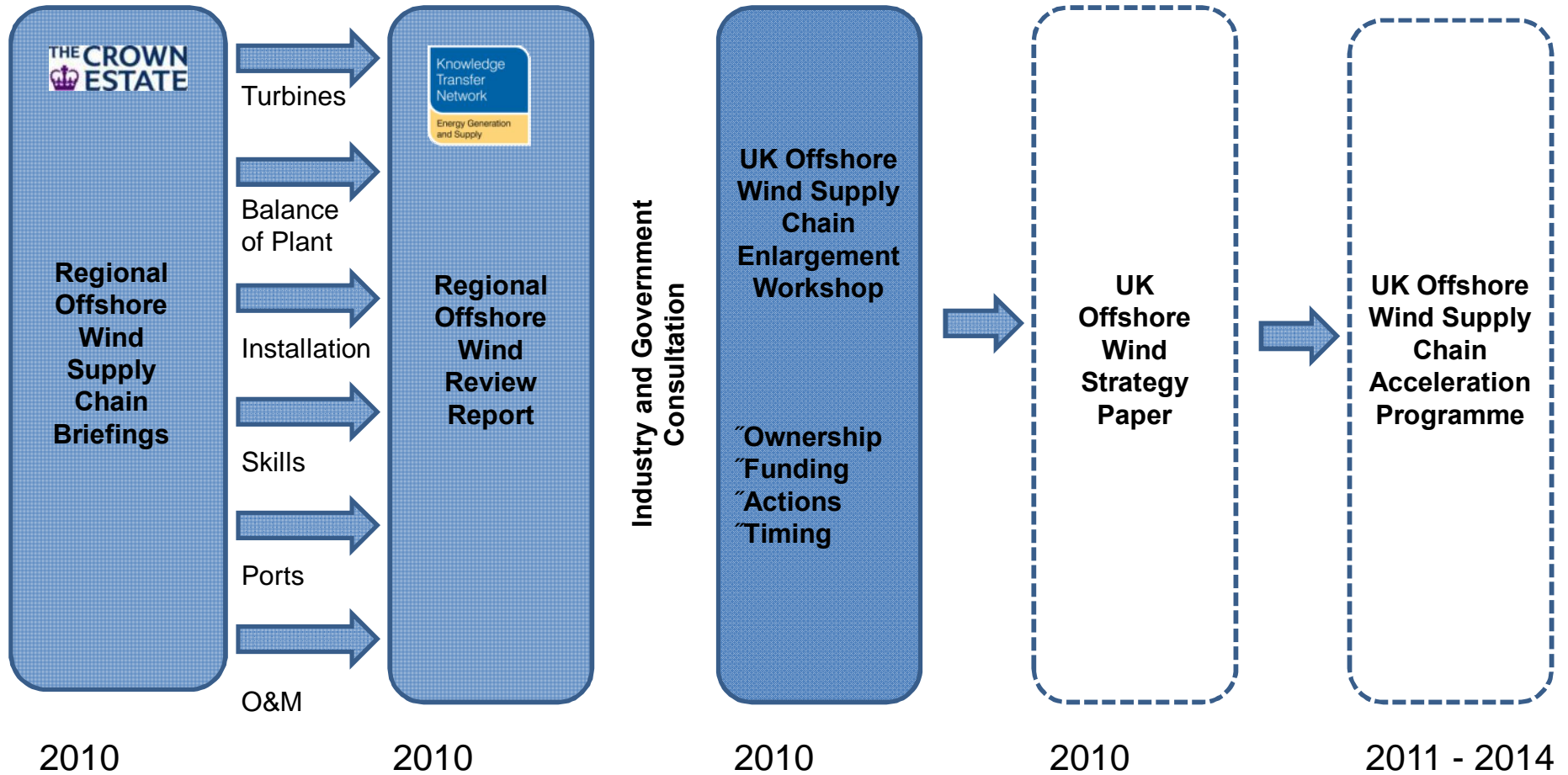
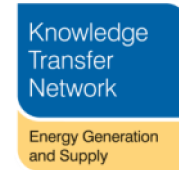
“You have some time today,

SO

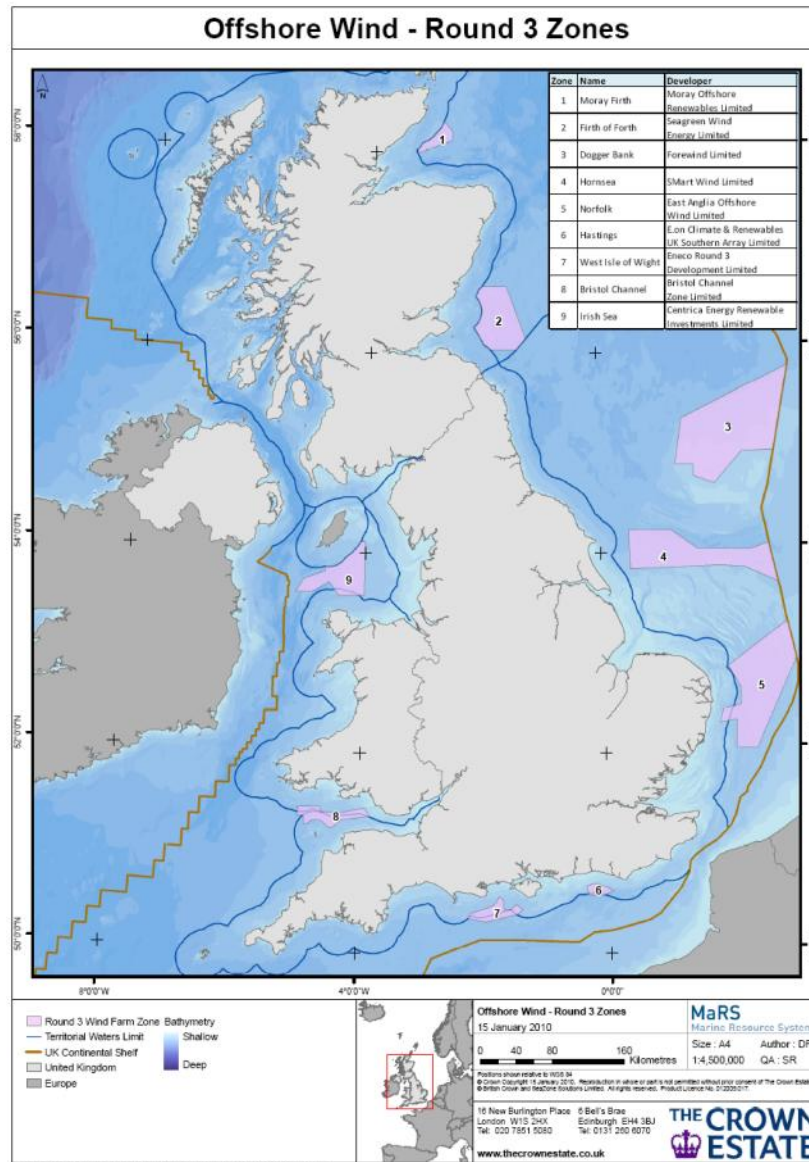
“Please tell us what you think and in return....

“We will tell you what everyone else thinks too.

Supply Chain Development



Round 3: A new approach



Scale

- Flexibility in project location within zones
- Investment in supply chain and infrastructure
- Est. 70,000 jobs

The Crown Estate as a development partner



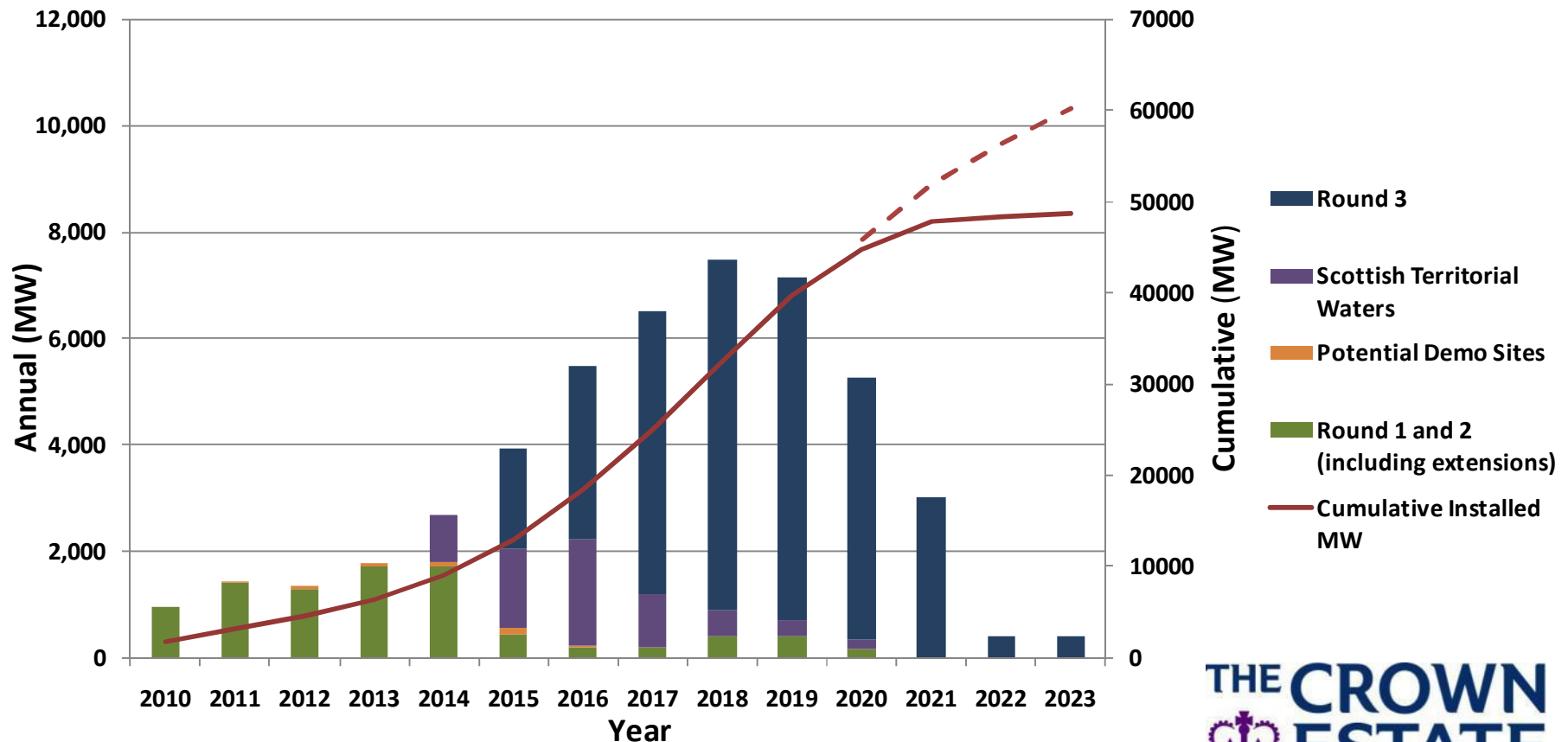
Round 3: Programme

DATE	PROGRAMME
Mar 09	Bids received
July 09	Shortlisted bidders interviewed
End 2009	Award of zones
2010 onwards	Site selection within Zones and submission of planning applications for sites
2014-16	Construction begins
2020	25GW installed



The Green Energy Decade

Opportunity for generating capacity from all current leasing rounds

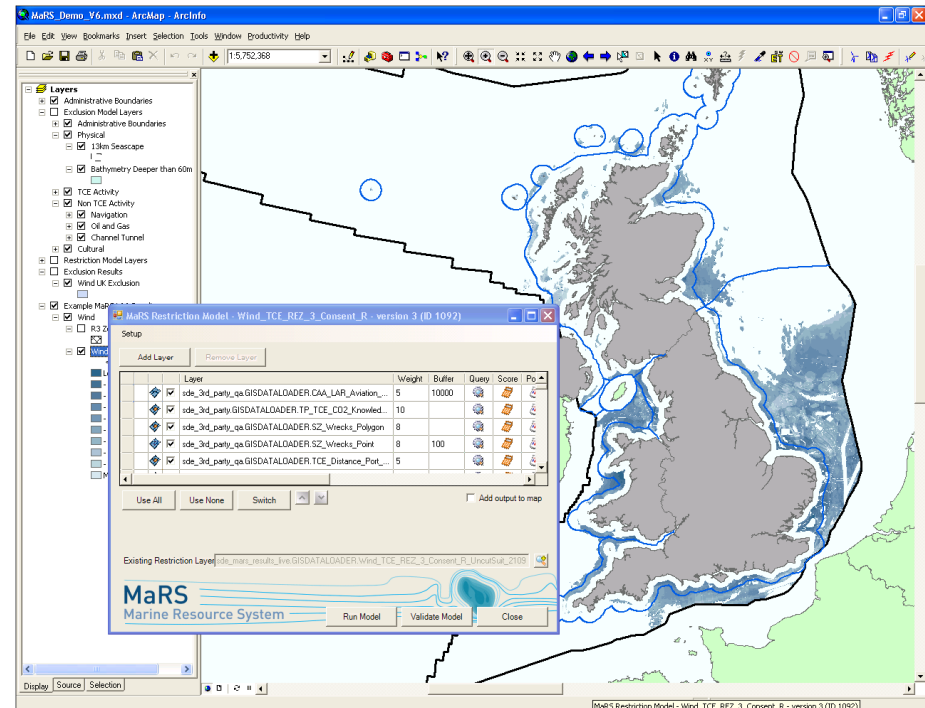


Information from Developers forward plans and projected capacity



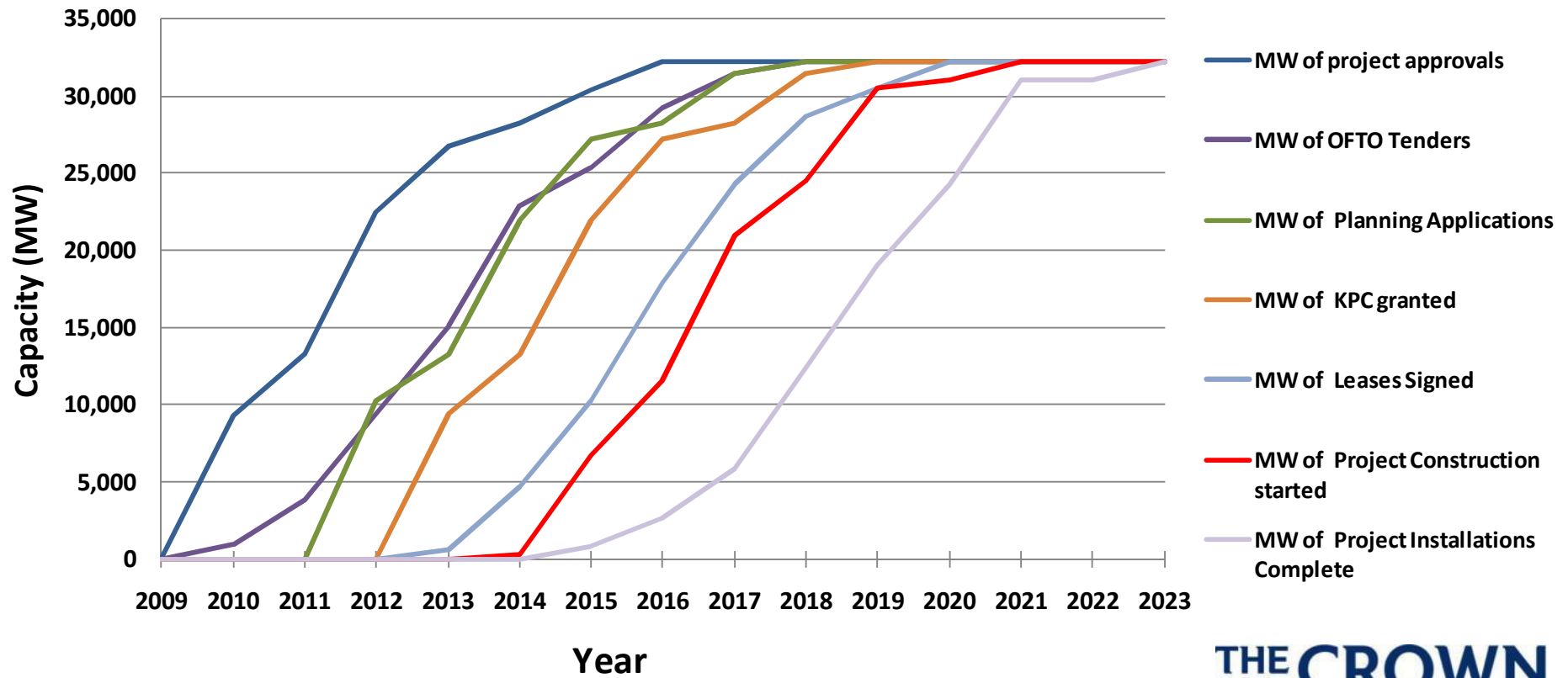
Enabling Actions

- “ Aerial Bird Surveys
- “ Marine Mammals
- “ Bursarys
- “ Archaeology
- “ Radar
- “ Supply Chain Events



Phasing

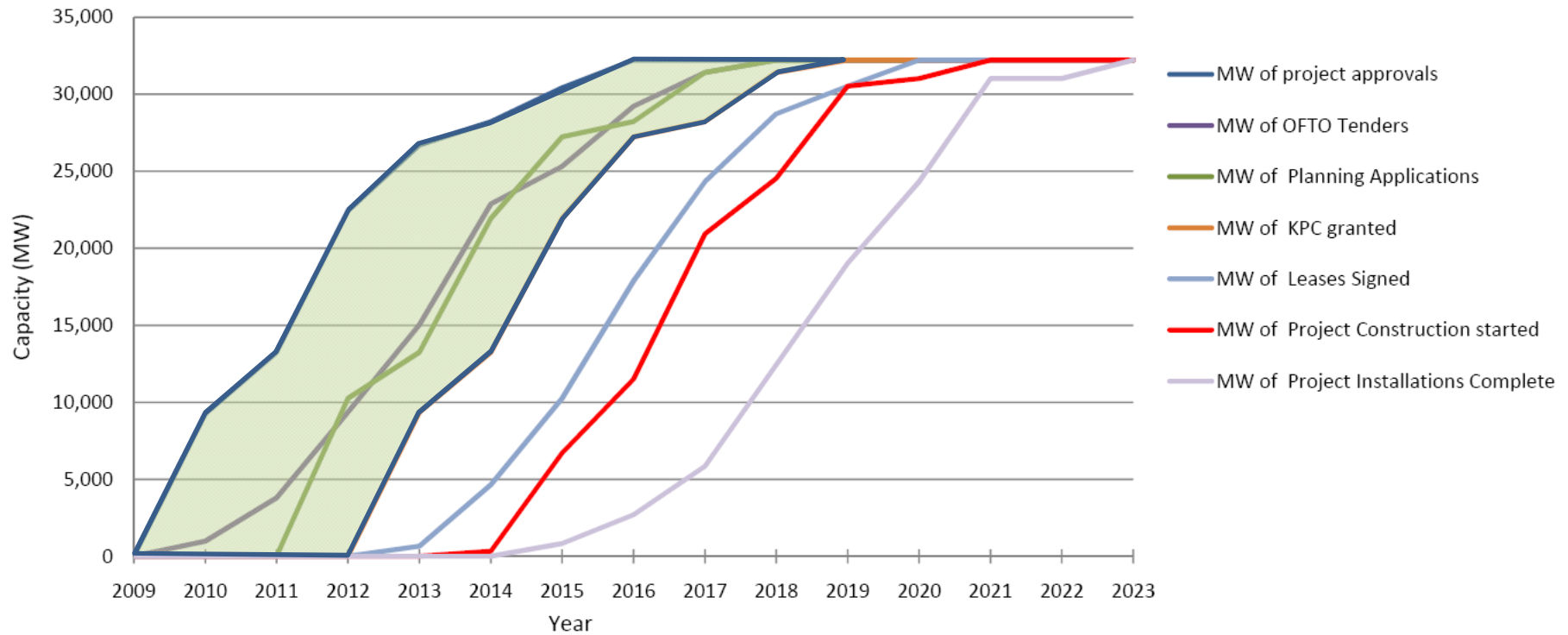
Round 3 programme delivery curves



Phasing

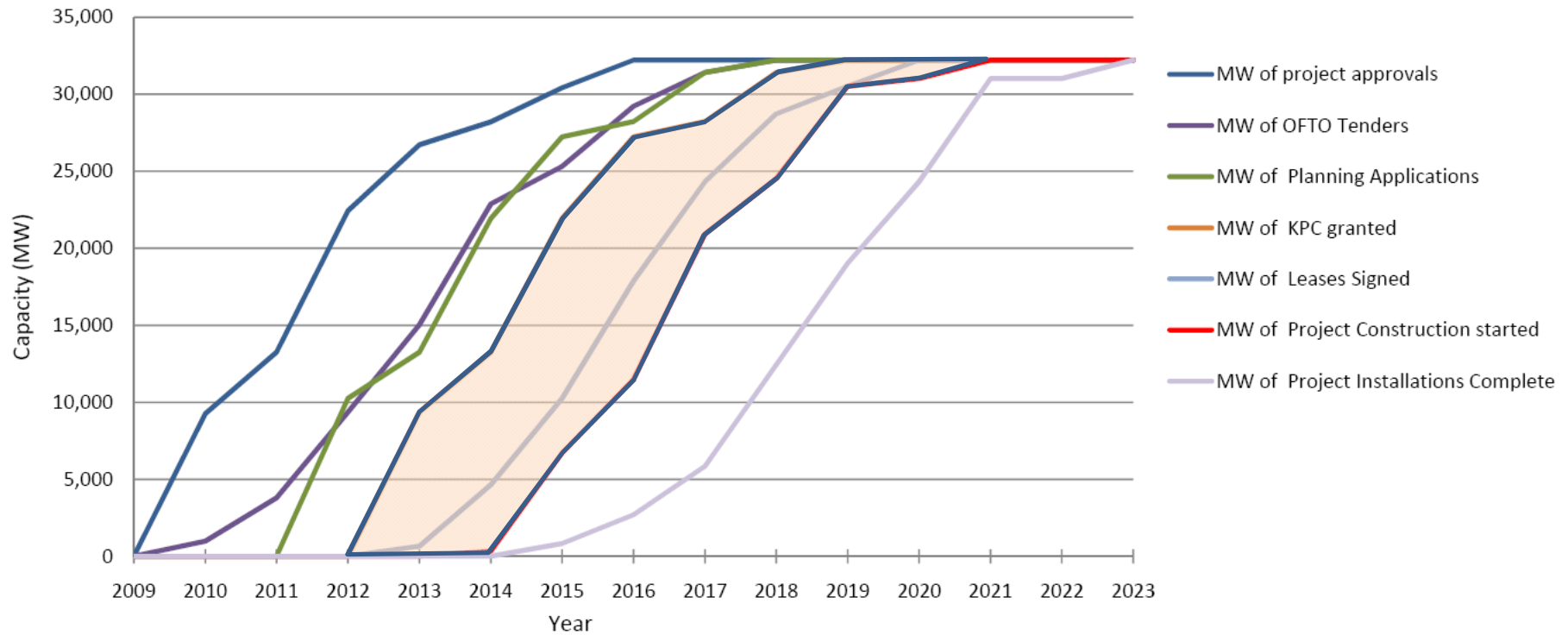
Round 3 programme delivery curves

CONSENTING



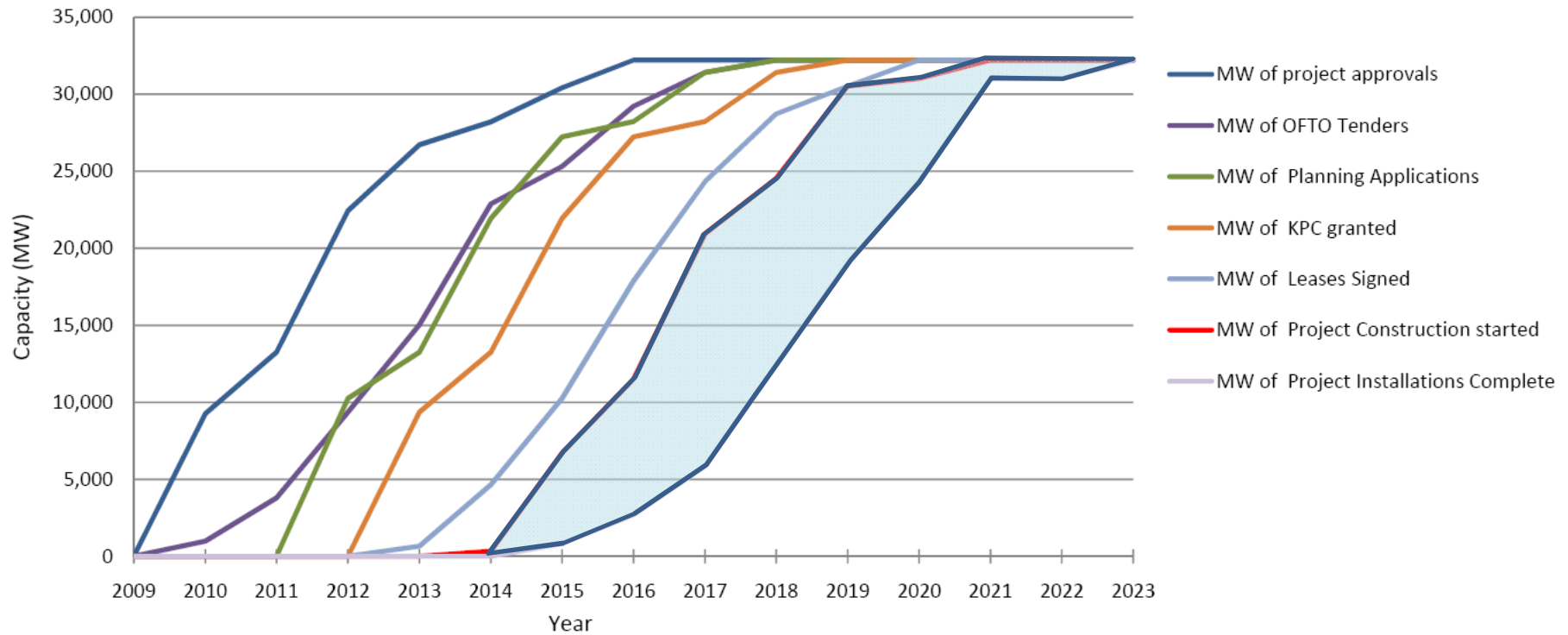
Phasing

Round 3 programme delivery curves PROCUREMENT



Phasing

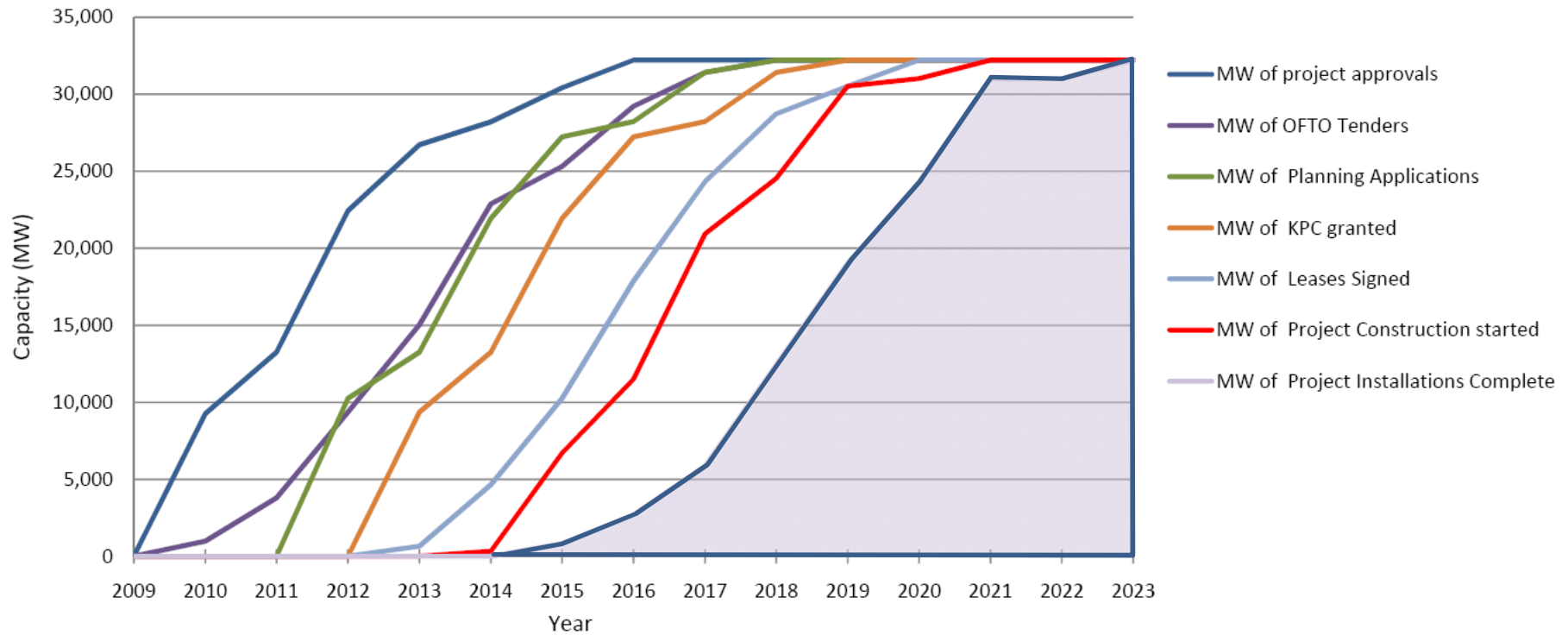
Round 3 programme delivery curves
CONSTRUCTION



Phasing

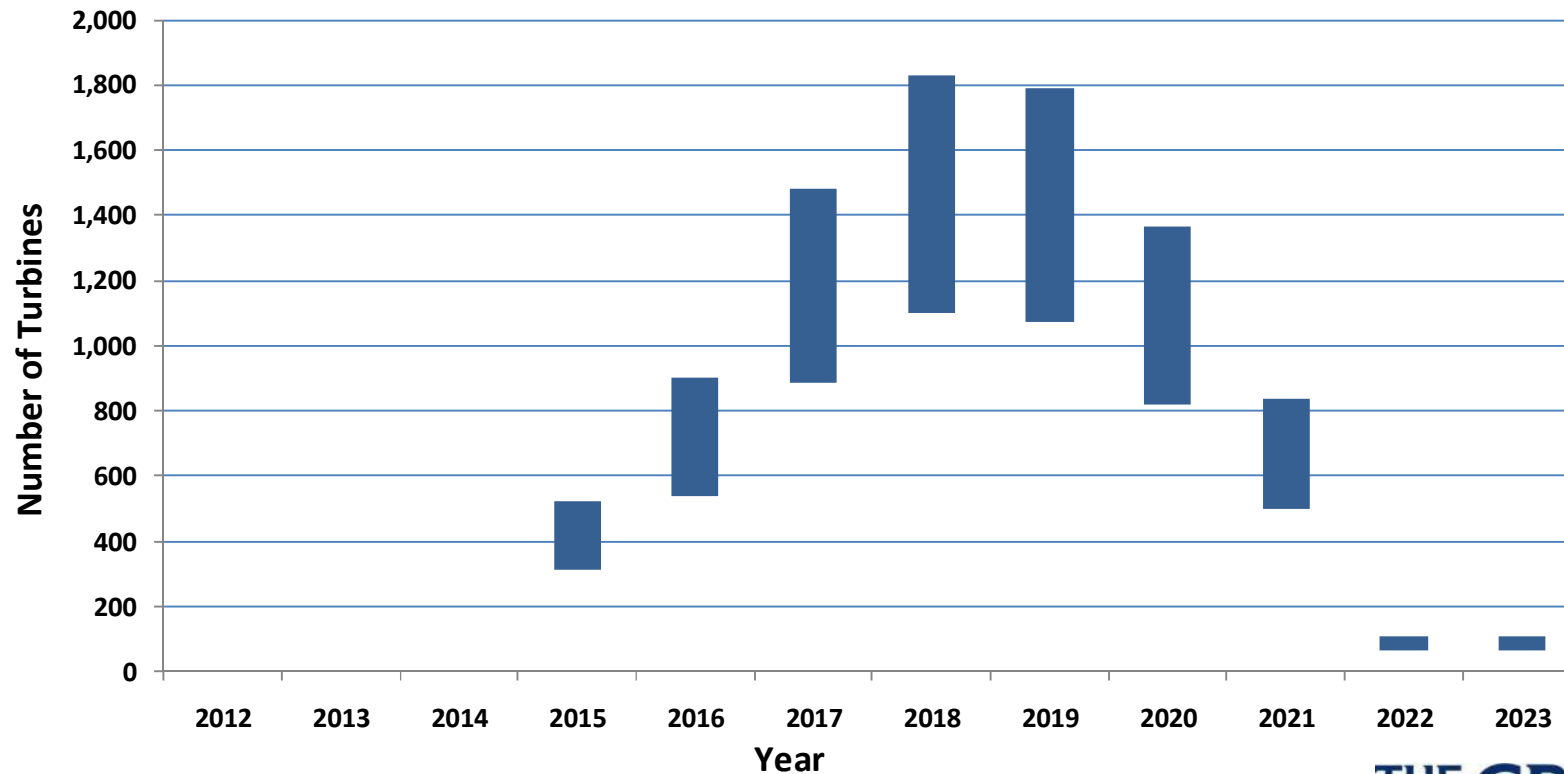
Round 3 programme delivery curves

OPERATIONS



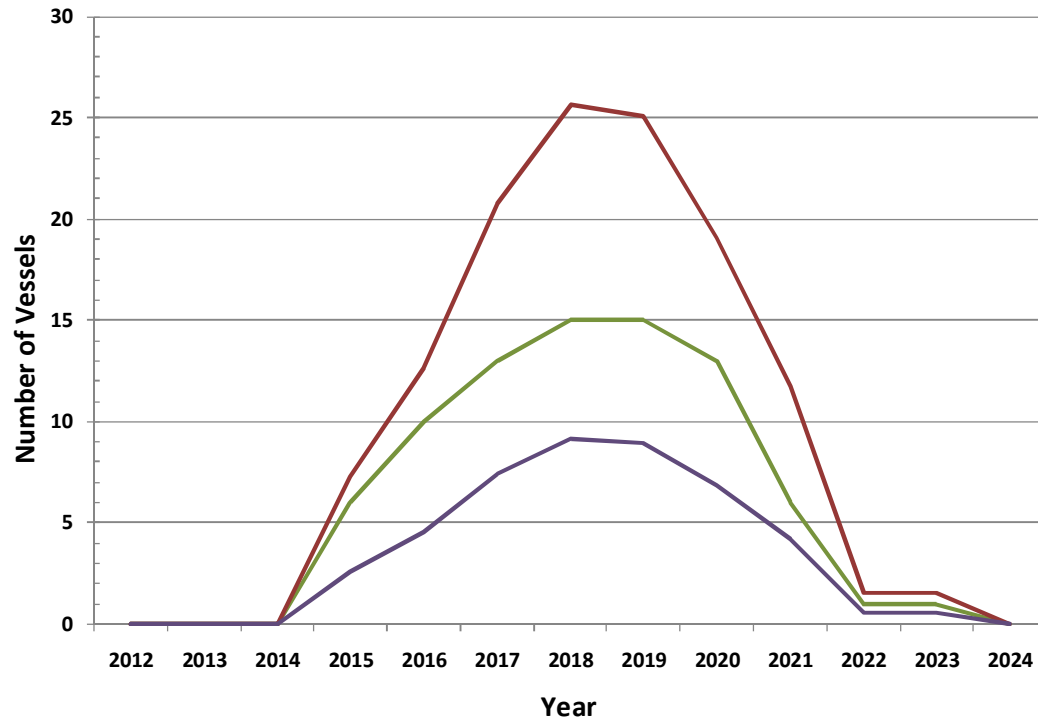
Turbines

Potential Number of turbines required annually (3.6MW vs 6MW)



Installation Vessels

Number of turbine installation vessels required annually



Scenarios

- Projected number of projects installing (adjusted to account for vessel use across projects within a zone)
- Projected number of vessels required assuming 150 days pa for 6mw @3.5 days per turbine
- Projected number of vessels required assuming 200 days pa for 6mw @2.5 days per turbine



Year



Ports and Harbours

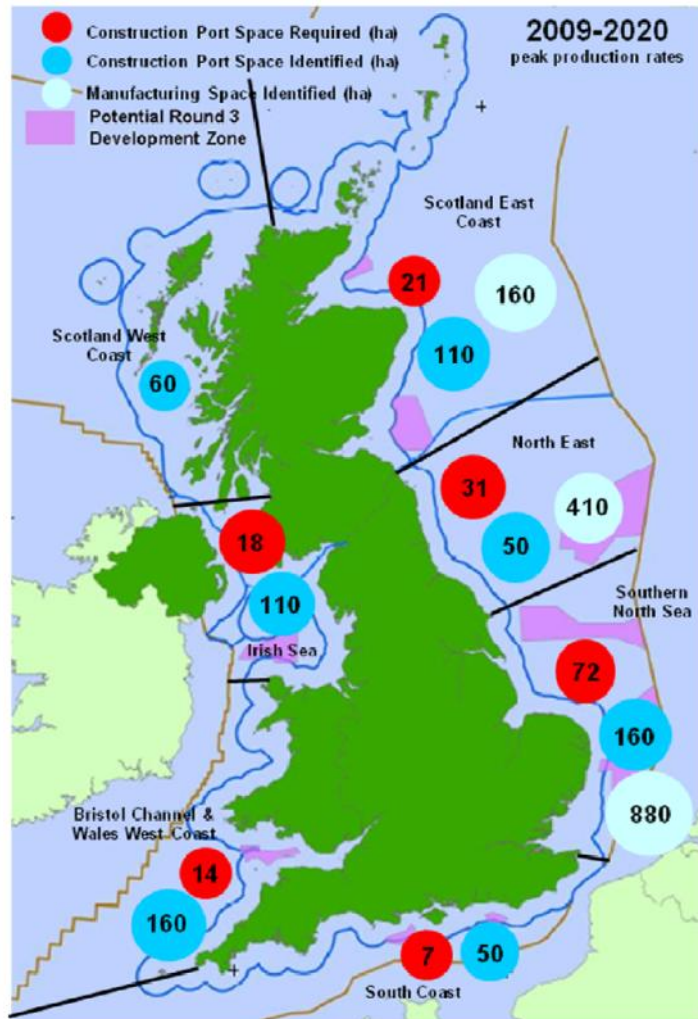
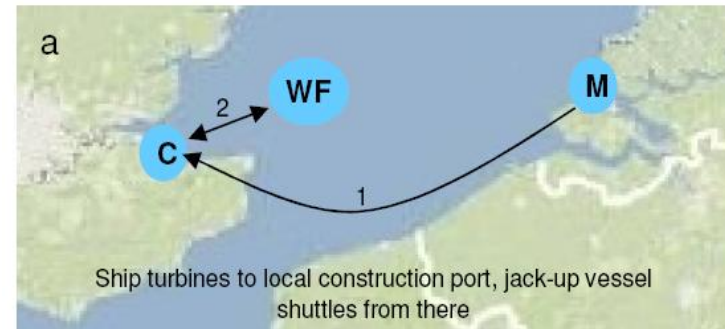


Figure 5.1 – The space identified at UK ports for offshore wind construction and manufacturing.



Illustrations courtesy of BVG Associates

Working with Others

Carbon Trust's Offshore Wind Accelerator



Program objective: Catalyse a 10% reduction in the cost of offshore wind power through a targeted set of RD&D activities.

Consortium structure

- Collaboration between Carbon Trust and major offshore wind farm developers



Four technology RD&D areas

- Offshore foundations
- Wake effects
- Electrical systems
- O&M Access

Budget and timescale

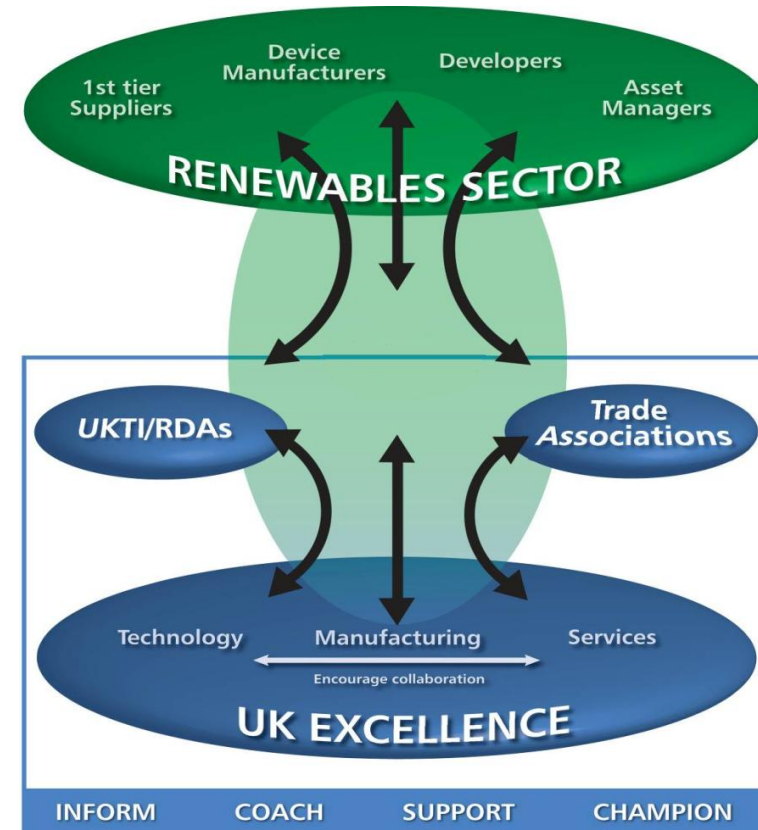
- Budget of £30m to which Carbon Trust will contribute up to £10m
- Launched October 2008, 4-6 years
- Already working with over 160 companies in the supply chain



Working with Others

- “ Inform, coach, support and champion UK businesses
- “ Focus on excellence
- “ Respond to requests :
 - . Wind industry
 - . Market entrants
 - . UK enabling bodies
- “ Host UK stands at global events
- “ Proactively create opportunities for UK:
 - . Supply & innovation
 - . Inward investment & joint ventures

DECC's UK Renewables Service



Supporting Information



Thank you

Adrian Fox– Supply Chain Manager
Round3@thecrownestate.co.uk



**THE CROWN
ESTATE**