

All – Energy 2010

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# Challenges for OFTOs

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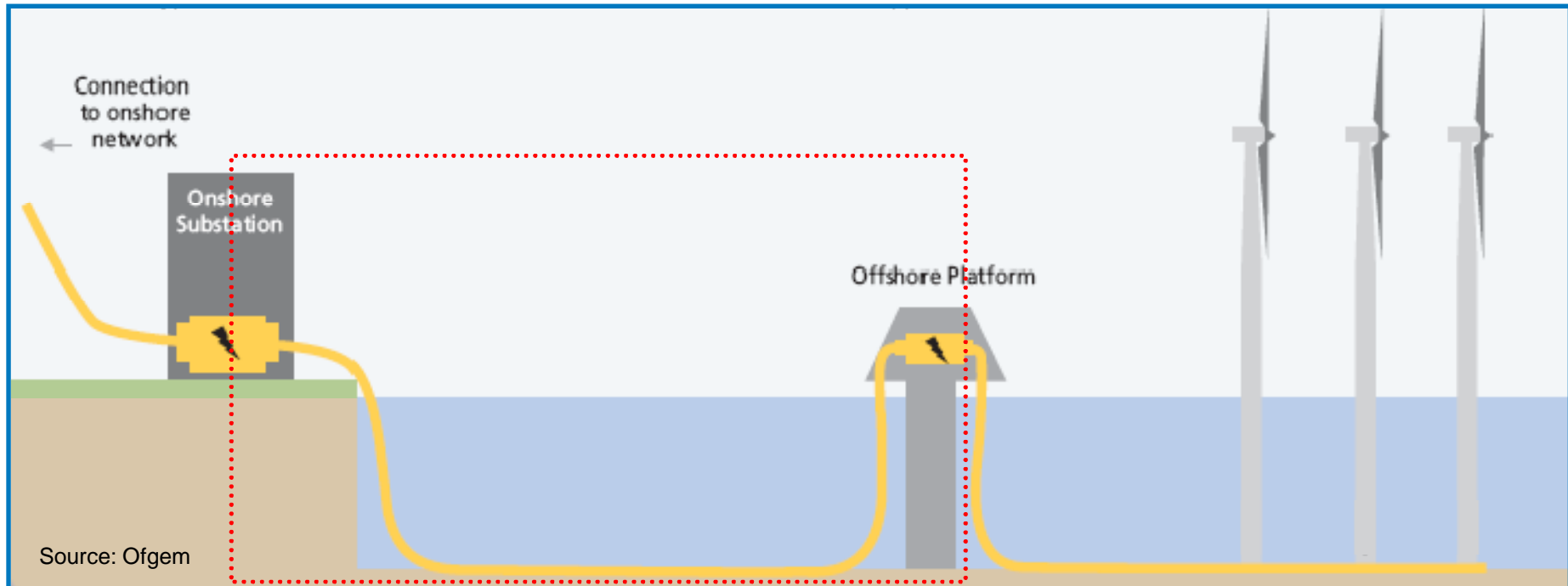
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# Shared challenge

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Ensuring that offshore transmission contributes to the success of offshore wind generation

# Offshore transmission ownership



*Ofgem E-serve use a private finance initiative (PFI) procurement process to award 20 year licences for the design, build & operation of offshore transmission assets >132kV*

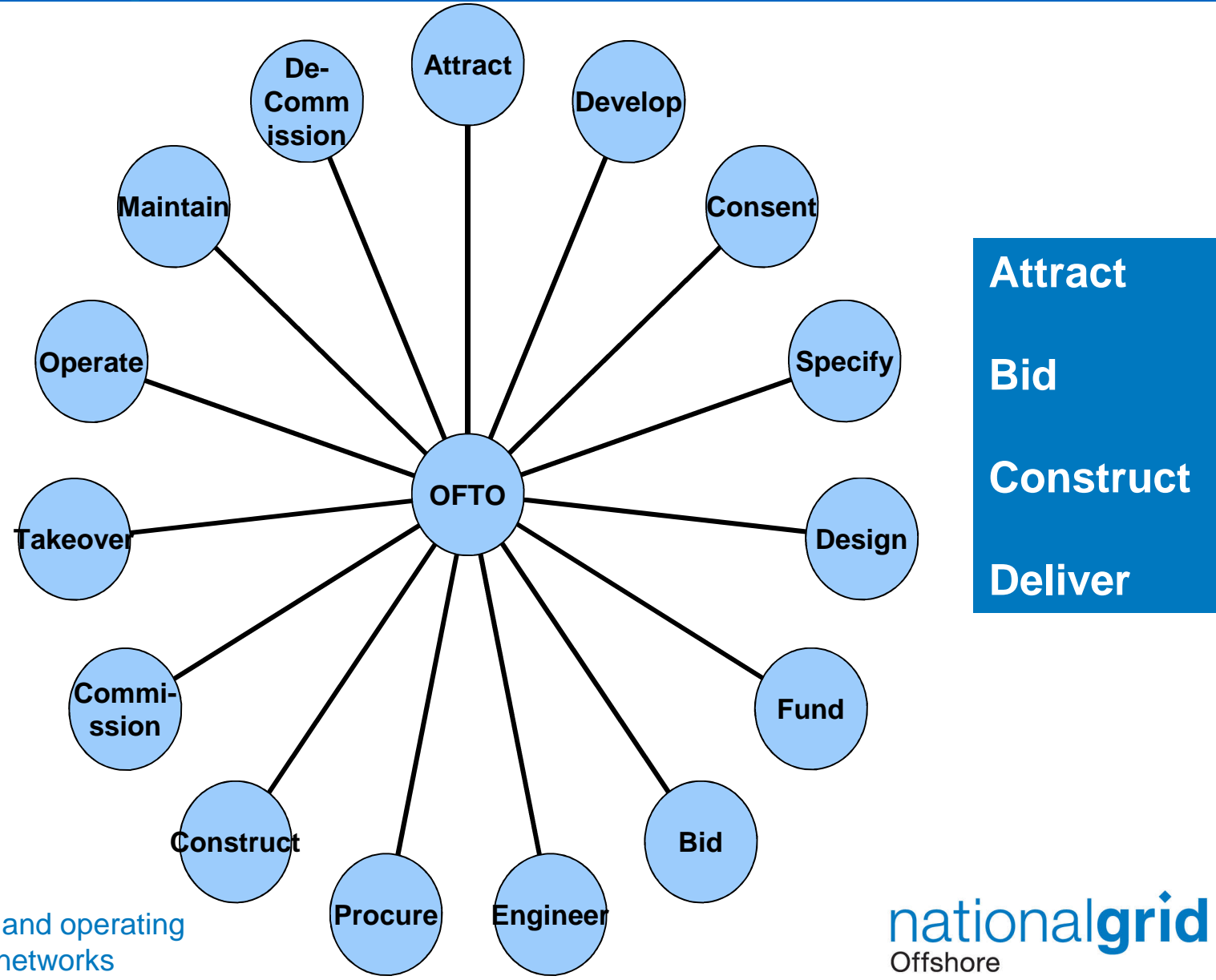
## Two main issues that are important for an OFTO

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In the short term, what the offshore transmission regime finally looks like

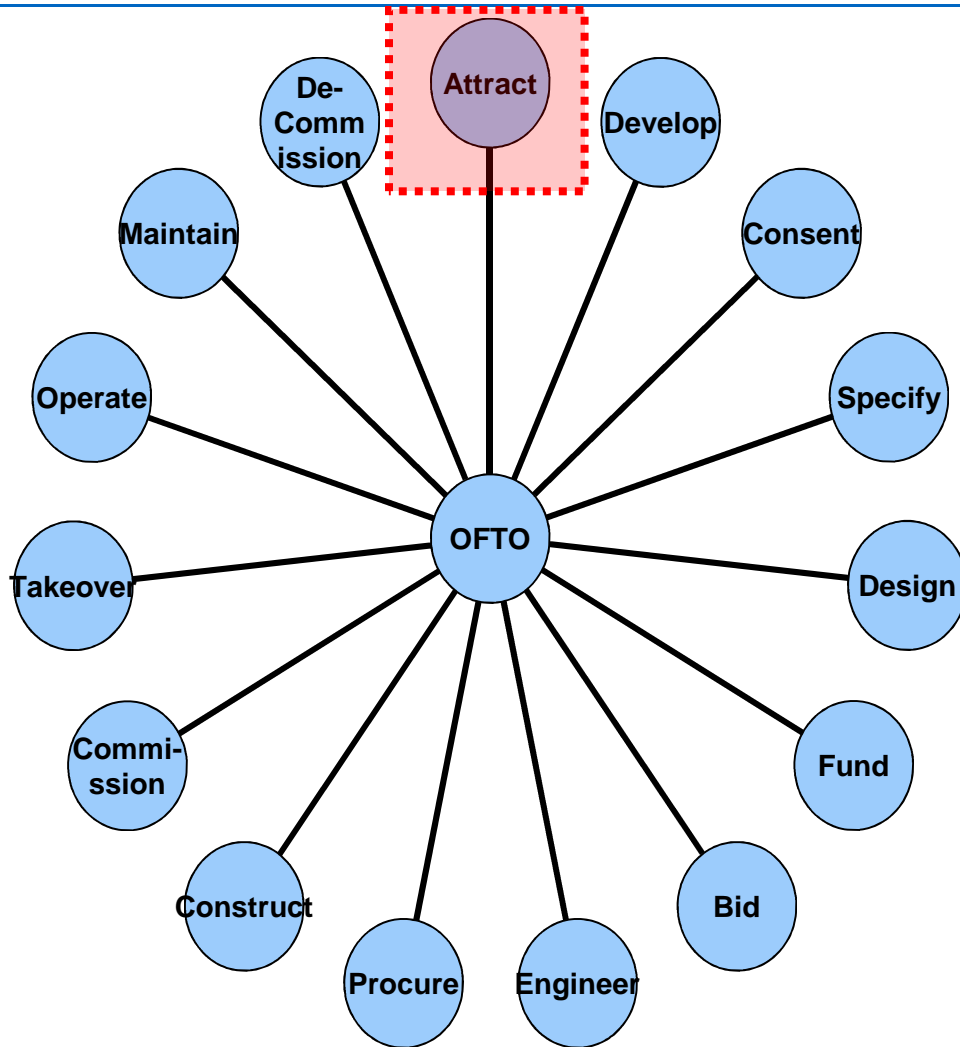
Thereafter, offshore wind generation ownership, capacity, location and timescale

# Certainty of OFTO regime will drive OFTOs to get in the right shape



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# Understand your stakeholders



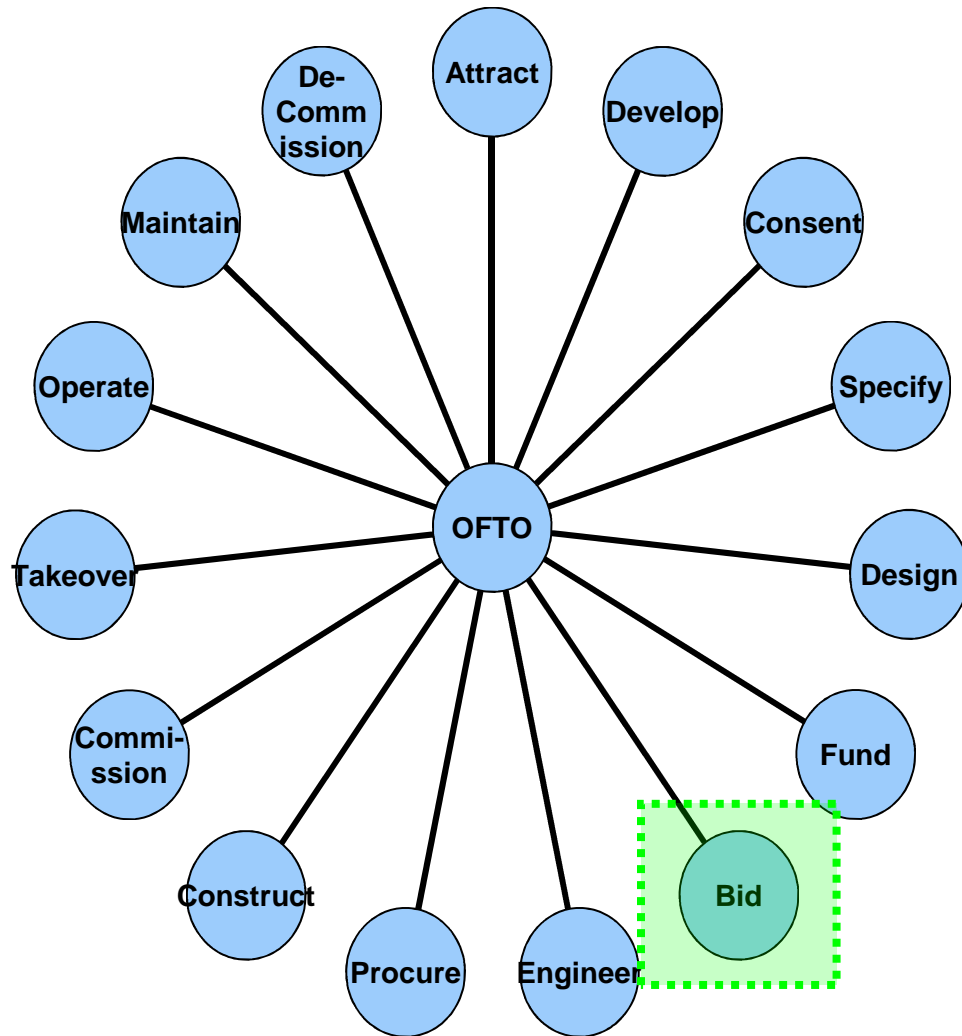
In a competitive PFI process it will be essential to an OFTO's success to be attractive to stakeholders.

This means de-risking offshore transmission for the Generator.

This could involve significant commitment (money & resources) to develop a winning proposition - in extreme, show-casing the entire OFTO proposition pre-bid.

- Providing confidence in project timescales
- Demonstrating supply chain strength
- Providing confidence that tender scope and specification will be biddable
- Providing indicative costs pre-bid
- Removing uncertainty of variant bids

# Bid to win



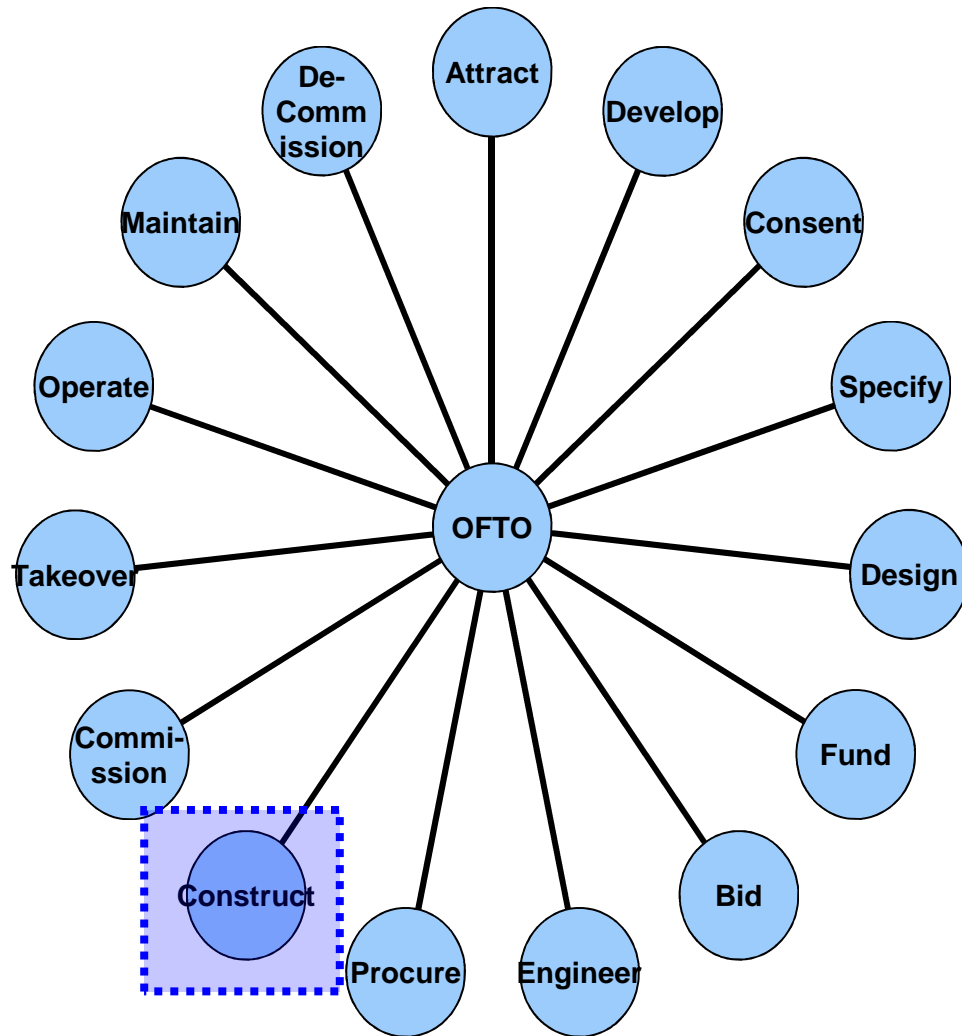
Not least due to the cost of bidding to design, finance, procure, build, own and operate projects that will be valued at many hundreds of millions of pounds, the decision to bid requires rigorous up front analysis and on-going commitment thereafter.

Bidding to win could take £millions of up front investment at the bidders risk.

Focus on the projects that best fit your business model and do your homework.

Not prepared? Don't bid! The odds might not be favourable enough for your OFTO business.

# Supply chain is critical



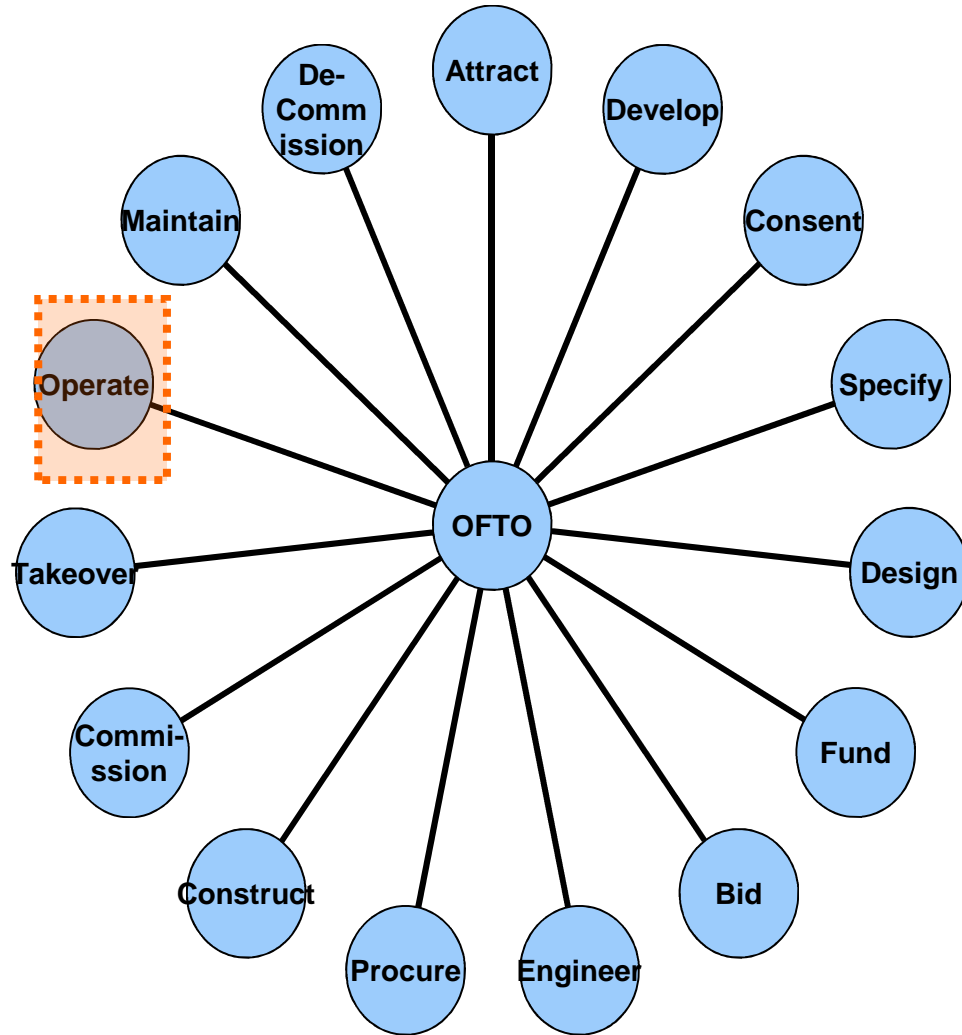
Successfully bidding to design, finance, procure, build, own and operate offshore transmission requires a highly integrated and appropriately motivated supply chain that can reach from the early project development phase, through planning and consent, detailed design, applied engineering, installation, commissioning, operations, to lifetime maintenance and decommissioning.

Successful OFTOs will have supply chain associations based on:

- Vision and attitude
- Reputation and track record
- Existing working relationships
- People and culture

Consortium approaches, joint ventures, EPC contracting, multi-disciplinary contracting may each have their place

# A lifetime of success

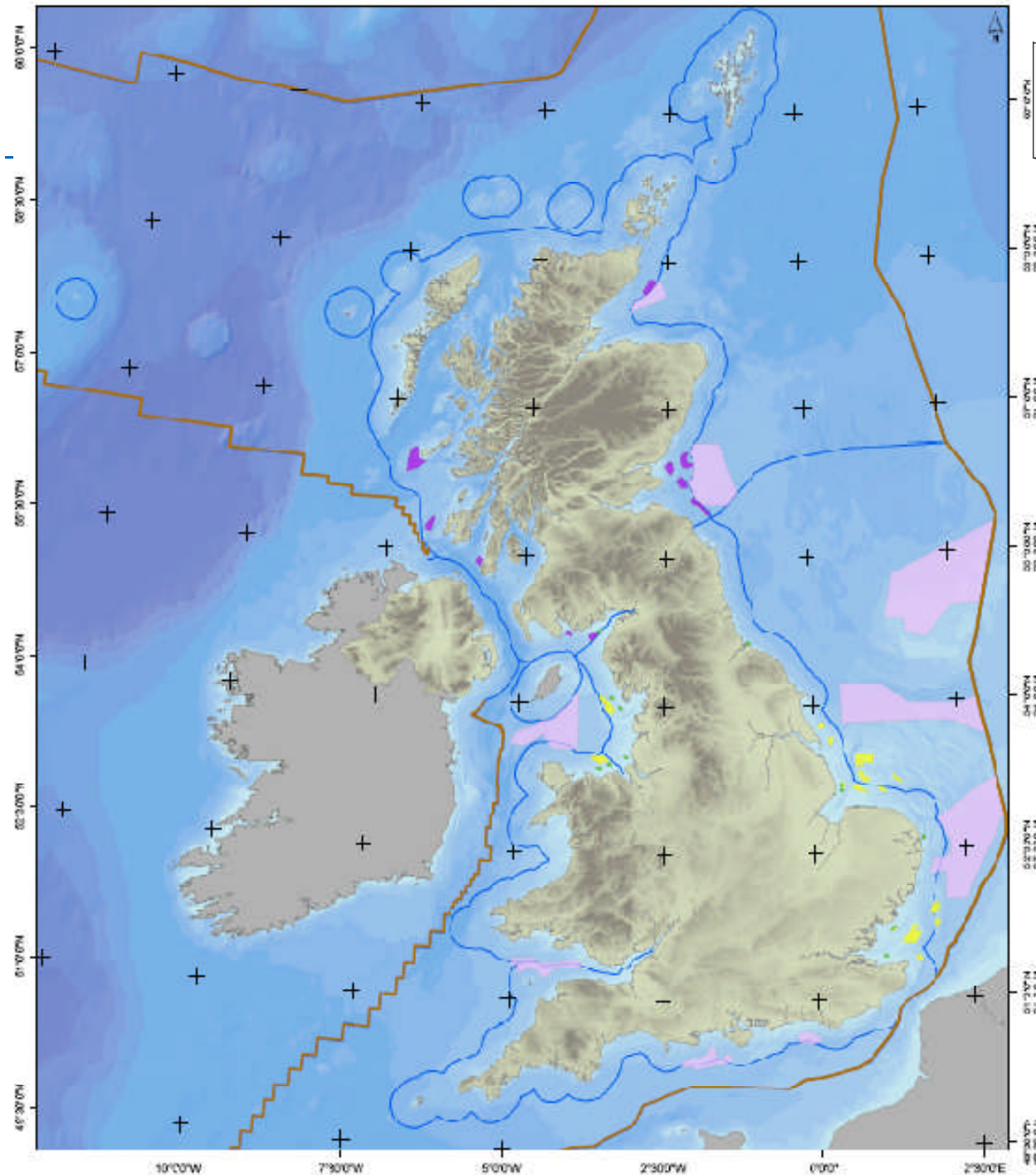


Delivering on the bid, over a 20 year licence period, is fundamental to the success both of an OFTO business and the Generator.

This is where decisions taken in development, design and construction make their mark in OFTO operations.

So, the OFTO performance envelope and impact on revenue stream (considering incentives / penalties regimes) must be clearly understood in advance and woven through your bid to know that the assets you have built provide the best value and are fit for purpose.

OFTOs that have put in the time, effort and investment up front will be better placed to deliver on the 20 year concession.



<ul style="list-style-type: none"> <li>Scottish Exclusivity Award</li> <li>Round 1 Wind Farm Lease</li> <li>Round 2 Wind Farm Lease</li> <li>Round 3 Wind Farm Lease</li> <li>Territorial Waters Limit</li> <li>UK Continental Shelf Limit</li> <li>Europe</li> </ul>	<p>Bathymetry</p> <ul style="list-style-type: none"> <li>Shallow</li> <li>Deep</li> </ul>		<p>Current Offshore Wind Activity - Rounds 1-3 25 March 2010</p> <p>MaRS Marine Resource System</p> <p>Size: A4 Author: CP 1:5,750,000 QA: JK</p> <p><small>© Crown Estate 2010. All rights reserved. No part of this publication may be reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without permission in writing from the Crown Estate.</small></p> <p>101 New Burlington Place © Balfour Beatty London, W1S 2AX Edinburgh EH4 8BU Tel: 020 7961 5000 Tel: 0131 260 6070 www.thecrownestate.co.uk</p>
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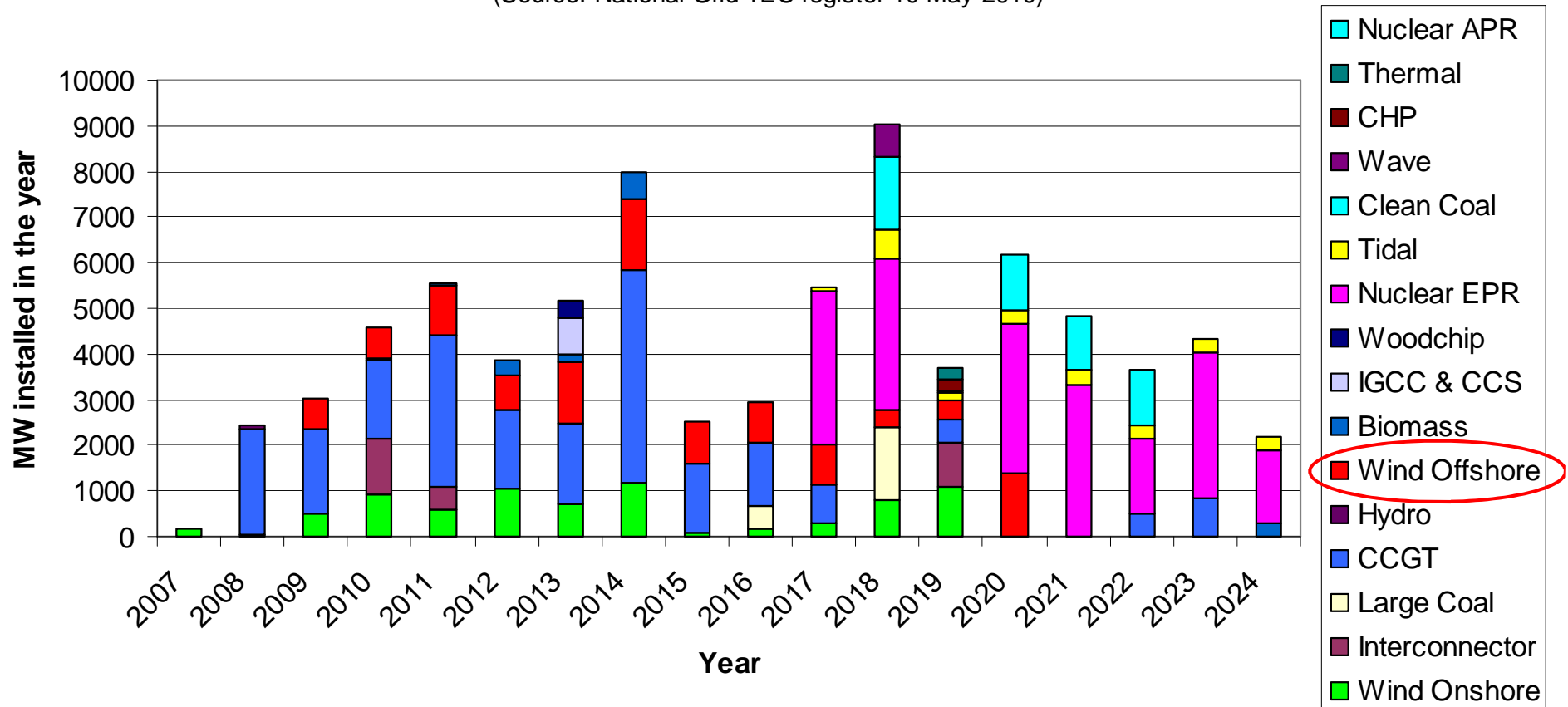
A further 44GW+ of offshore leases to be developed at distances of up to 200km from shore and in water depths down to 80m

Potential to design and build an integrated offshore and onshore transmission network

# Offshore generation is expensive and it's not clear which projects will come through

### Annual new generation installations

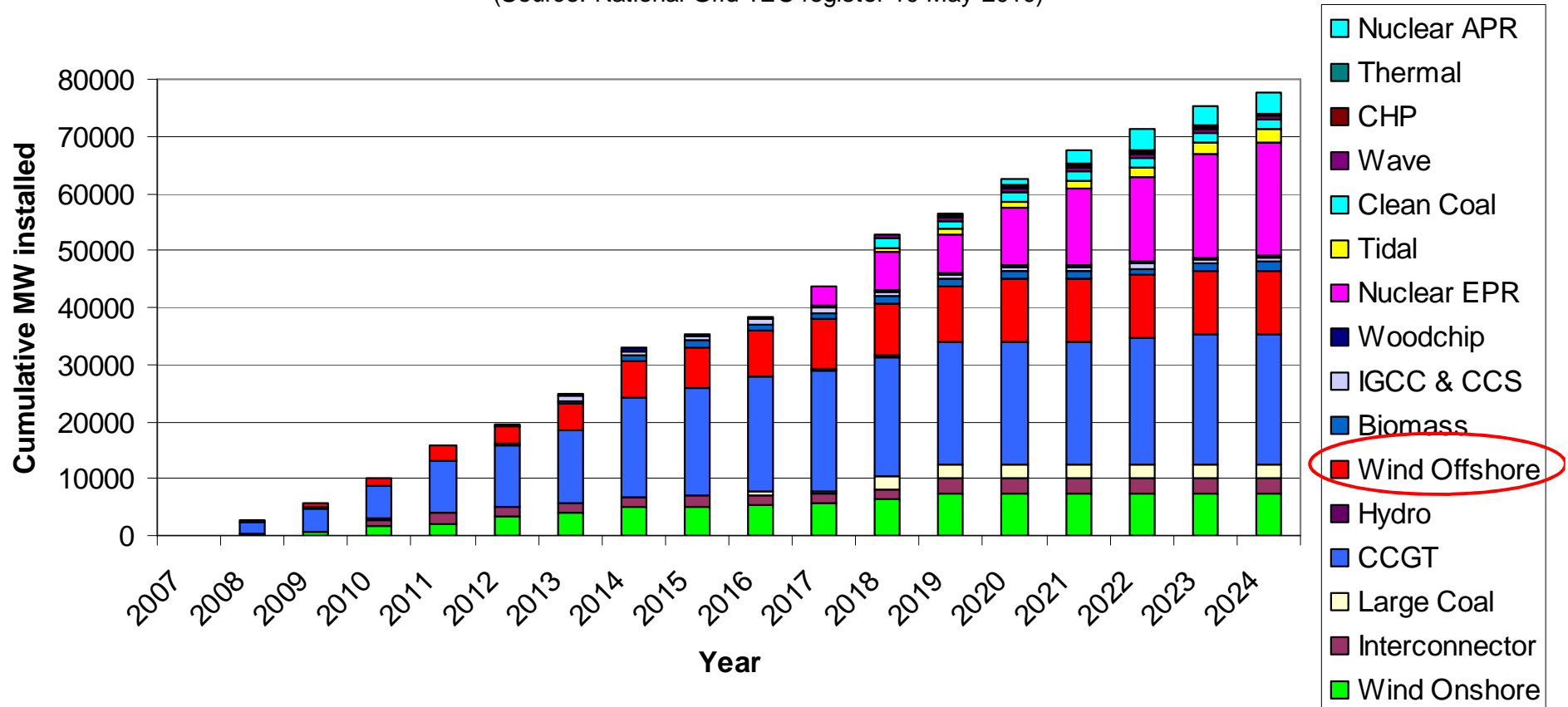
(Source: National Grid TEC register 10 May 2010)



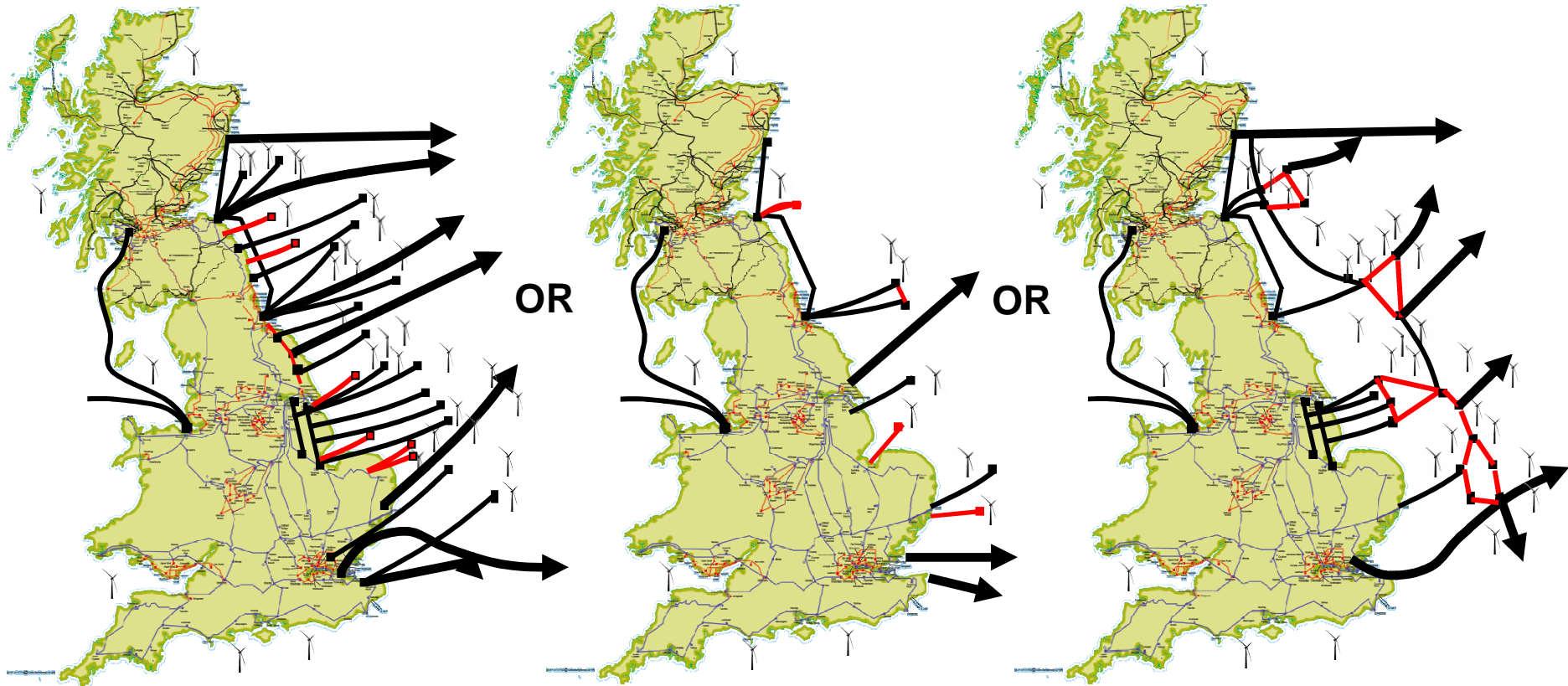
# Offshore wind is competing in multi-energy source generation portfolios

## Cumulative new generation installations

(Source: National Grid TEC register 10 May 2010)



# What will the regime and the market deliver?



Source: National Grid Electricity Transmission

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# From portfolio investment plans it's unclear who will build offshore generation in the UK?

Sample company	Planned 5yr global total investment (£bn)	Planned 5yr global renewable investment (£bn)	Potential 5yr UK total investment (£bn)	Potential 5yr UK renewable investment (£bn)
A	29	4.5	53	22
B	53	7	20	5
C	10	3	21	17
D	18	3.5	9	9
E	40	15	17	12

Source: SKM

# Conclusions from an OFTO point of view

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- ◆ Offshore wind has great potential but is expensive and competes with other energy sources for valuable resources and finance. Unclear how much will be built
- ◆ Offshore transmission makes up >15% of the cost of delivering offshore wind generation so OFTOs can contribute to project viability
- ◆ Engaging with the right OFTO early enough will allow clarity of expected costs and risks to provide investor confidence and provide a better chance of timely delivery of an offshore wind project

Early OFTO engagement will create opportunities