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Offshore Transmission: Enduring Regime Stakeholder Event - 9 February 2012

No.	Item	Speaker
1.	Welcome & Introduction	Bob Hull
2.	Offshore Transmission Enduring Regime: an update	Giedrė Kaminskaitė -Salters
3.	Stakeholder Perspectives:	
	- Transmission Capital Partners	Chris Veal
	- Lloyds	Alan White
	- Eneco	Chris Sherrington
	- Interactive Panel and Q&A, then coffee break	
4.	Stakeholder Perspectives:	
	- Technip	David Hodkinson
	- ABB	Grant McKay
	- Interactive Panel and Q&A	
5.	Closing Remarks and Next Steps	

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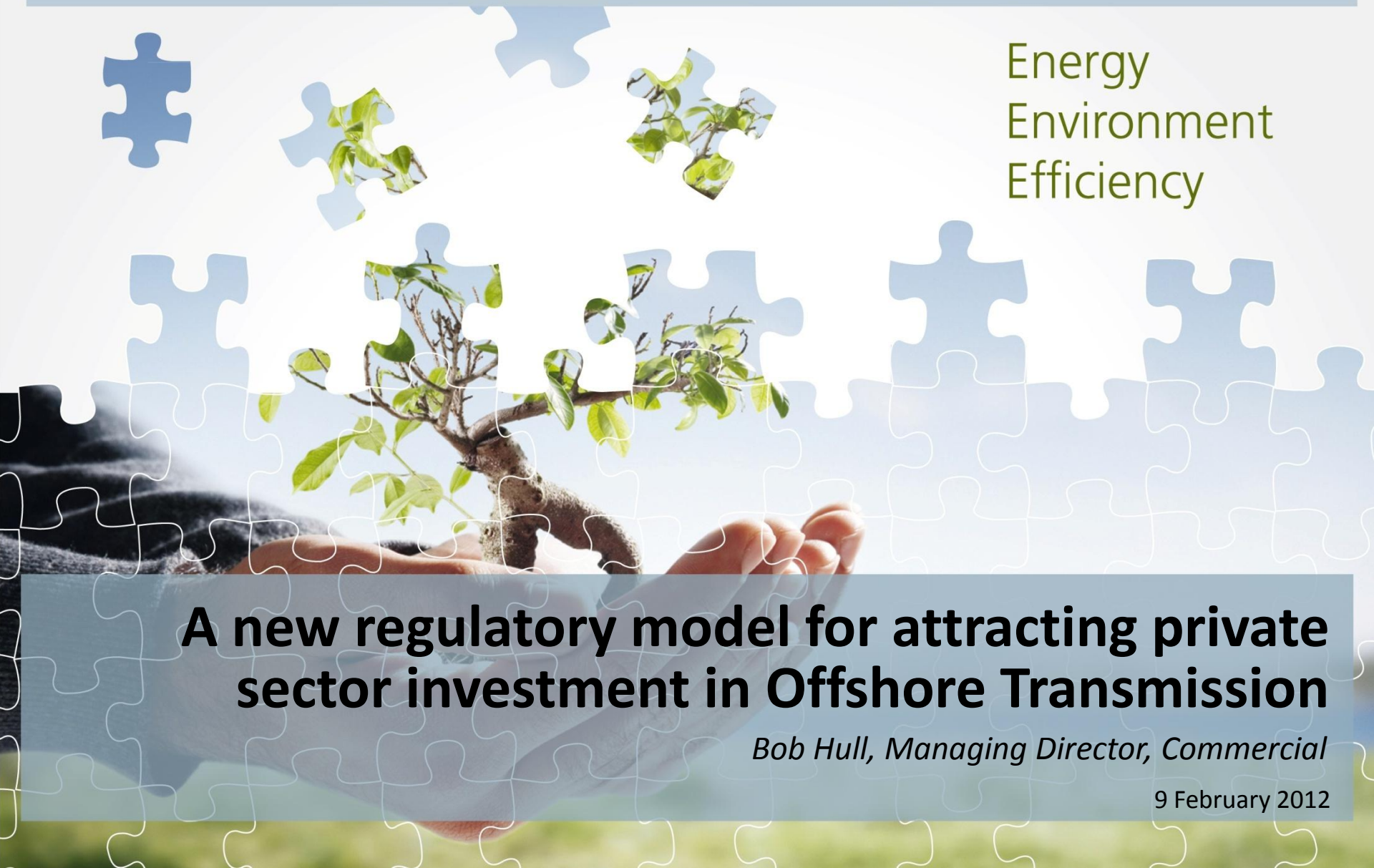


A new regulatory model for attracting private sector investment in Offshore Transmission

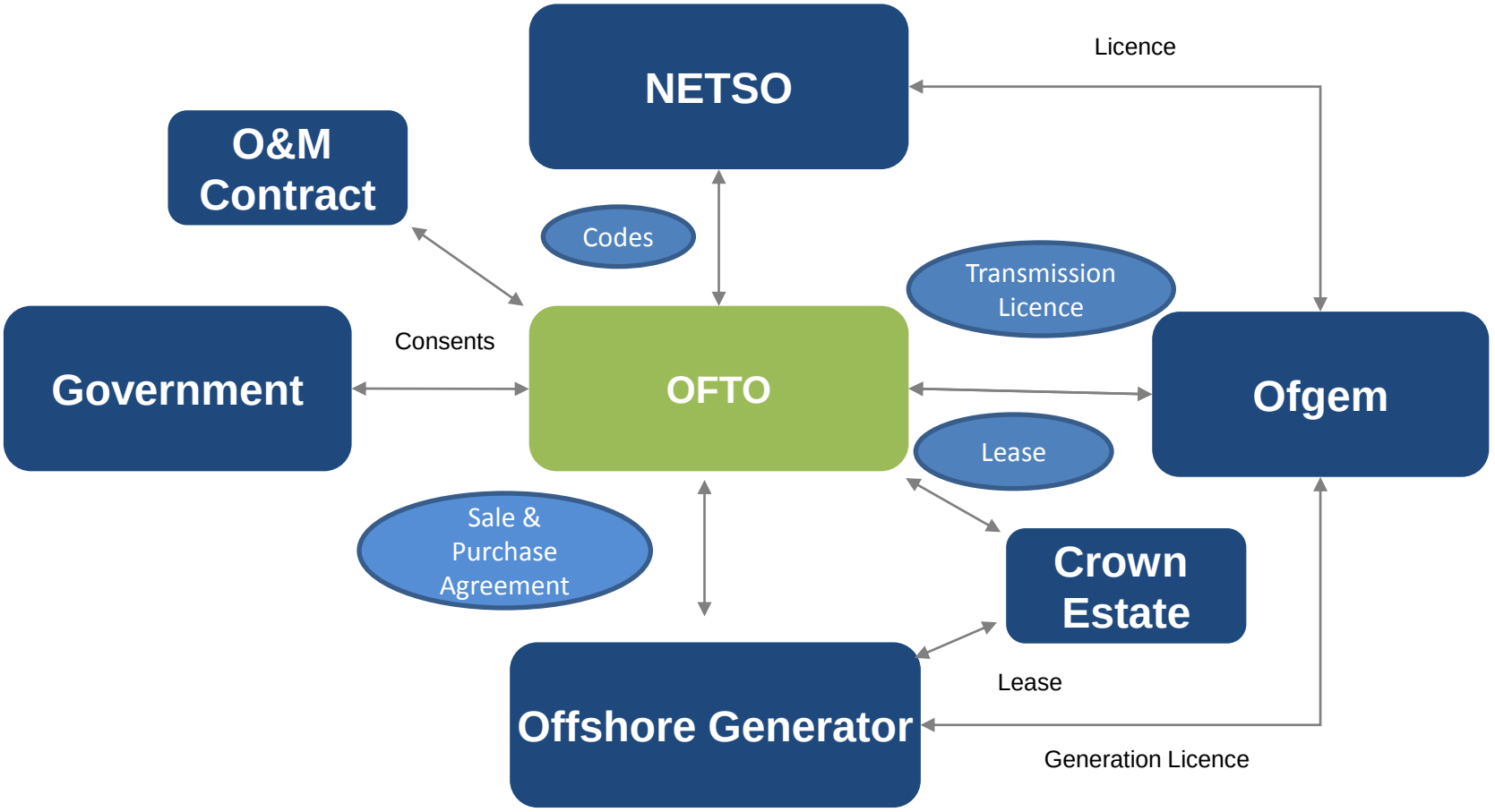
Bob Hull, Managing Director, Commercial

9 February 2012

Offshore Transmission regime

- Offshore transmission is regulated by Ofgem, and cannot be owned by generators
- A new regulatory regime for competitive tendering aims to:
  - Deliver fit for purpose transmission infrastructure
  - Provide best value for consumers
  - Attract new players to bring innovative technical, operational and financial solutions to the sector
  - Provide a light touch, long term, regulatory structure

Commercial & regulatory structure



Tender Round 1 (£1.1 billion)

Project	OFTO/ Preferred Bidder	Final Transfer Value	Estimated Transfer value	OFTO Revenue	Status
1.Robin Rigg	All with consortium of: Transmission Capital Partners, Amber and International Public Partnerships Ltd	£65.5m	N/A	£6.5m	Licence granted: Mar 2011
2.Gunfleet Sands		£49.5m	N/A	£6.0m	Licence granted: Jul 2011
3.Barrow		£33.6m	N/A	£4.8m	Licence granted: Sept 2011
4.Walney I	Mitsubishi and Barclays Infrastructure Fund	£105.4m	N/A	£10.9m	Licence granted: Oct 2011
5.Walney II	Macquarie and Barclays Infrastructure Fund	TBD	£104.4m	TBD	Pre licence consultation
6.Sheringham Shoal		TBD	£182.2m	TBD	Pre licence consultation
7.Ormonde	Transmission Capital Partners	TBD	£101.1m	TBD	Pre licence consultation
8.Thanet	Balfour Beatty	TBD	£163.1m	TBD	Pre licence consultation
9.Greater Gabbard	Balfour Beatty/ Green Energy Transmission	TBD	£316.6m	TBD	Pre licence consultation

Tender Round 2

Humber Gateway
(300MW, £128m)

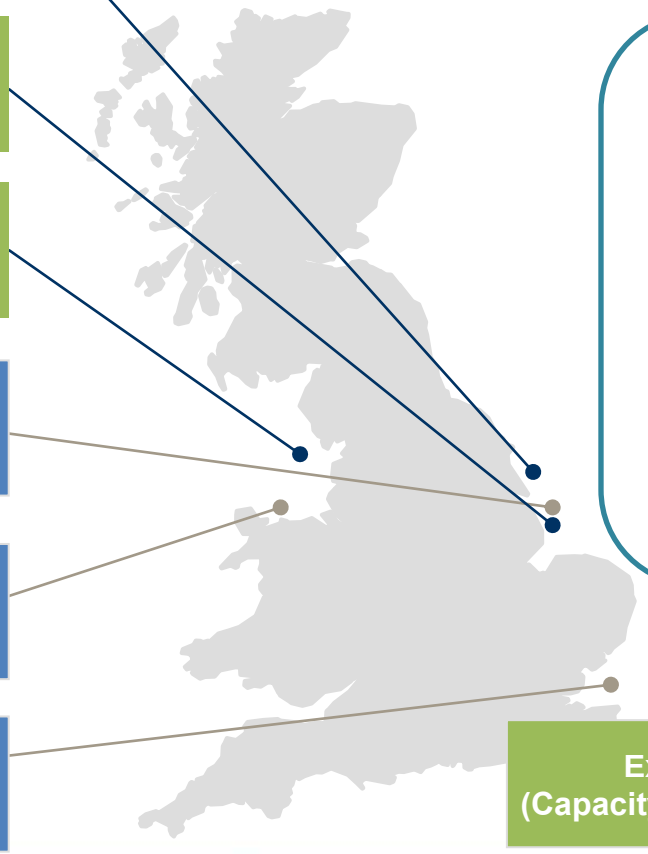
Race Bank
(up to 600MW, c.£500m)

West of Duddon Sands
(389MW, £255m)

Lincs
(250MW, £282m)

Gwynt-y-Mor
(576MW, £306m)

London Array
(630MW, £428.4m)



Tranche A Projects
(Capacity, Initial Transfer Value)

TR2a shortlisted bidders:

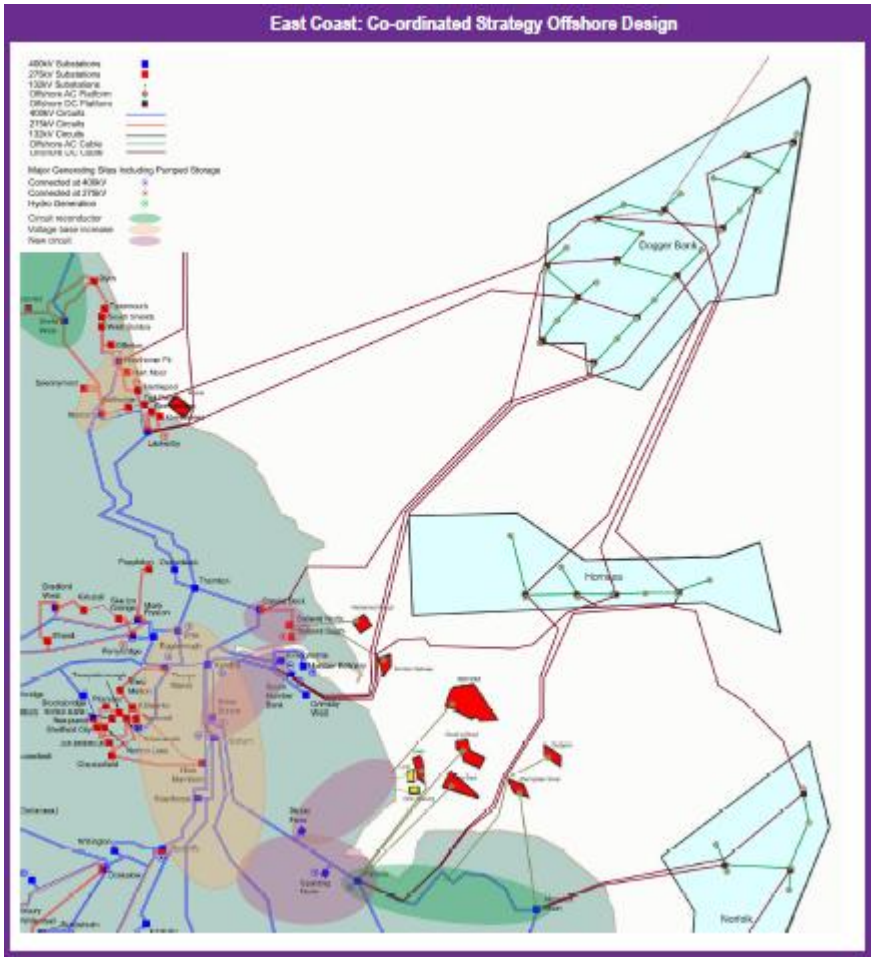
- *Transmission Capital Partners(IPP/Amber/Trans-mission Capital)*
- *Blue Transmission (Macquarie/ Barclays/Mitsubishi)*
- *National Grid Offshore Consortium (NG, Britel Fund)*
- *Balfour Beatty*

Expected Tranche B Projects
(Capacity, Developer's Est. Transfer Value)

Investment highlights

Attractive investment sector	▪ Strong political and regulatory support for UK offshore wind ▪ Rare opportunity for new entrants to enter the UK transmission sector ▪ Relatively low risk asset class
Robust new regulatory regime	▪ 20 year revenue stream with limited regulatory intervention ▪ Pass through of certain key costs ▪ OFTO protected from wind farm operating risk and risk of stranding ▪ Upside potential: opex, non-regulated services, increased capacity
Transparent competitive process	▪ Well defined tender process, structured to ensure level playing field and transparency ▪ Two qualification stages followed by ITT stage with data room access
Long term opportunity	▪ Potentially £14bn of assets for enduring projects ▪ Early participation will provide valuable experience for the enduring regime ▪ Design, innovation and construction opportunities

Opportunities and challenges: Coordination project



- Opportunities to coordinate will differ across projects:
  - Interconnection within zones
  - Interconnection between zones
  - Interconnection between countries
  - Interconnection to mitigate need for onshore reinforcements
- Straightforward radial (point-to-point) connection will still be the best solution in some cases
- Requirements and opportunities for coordination will change over time

Network development needs to be flexible to future demands

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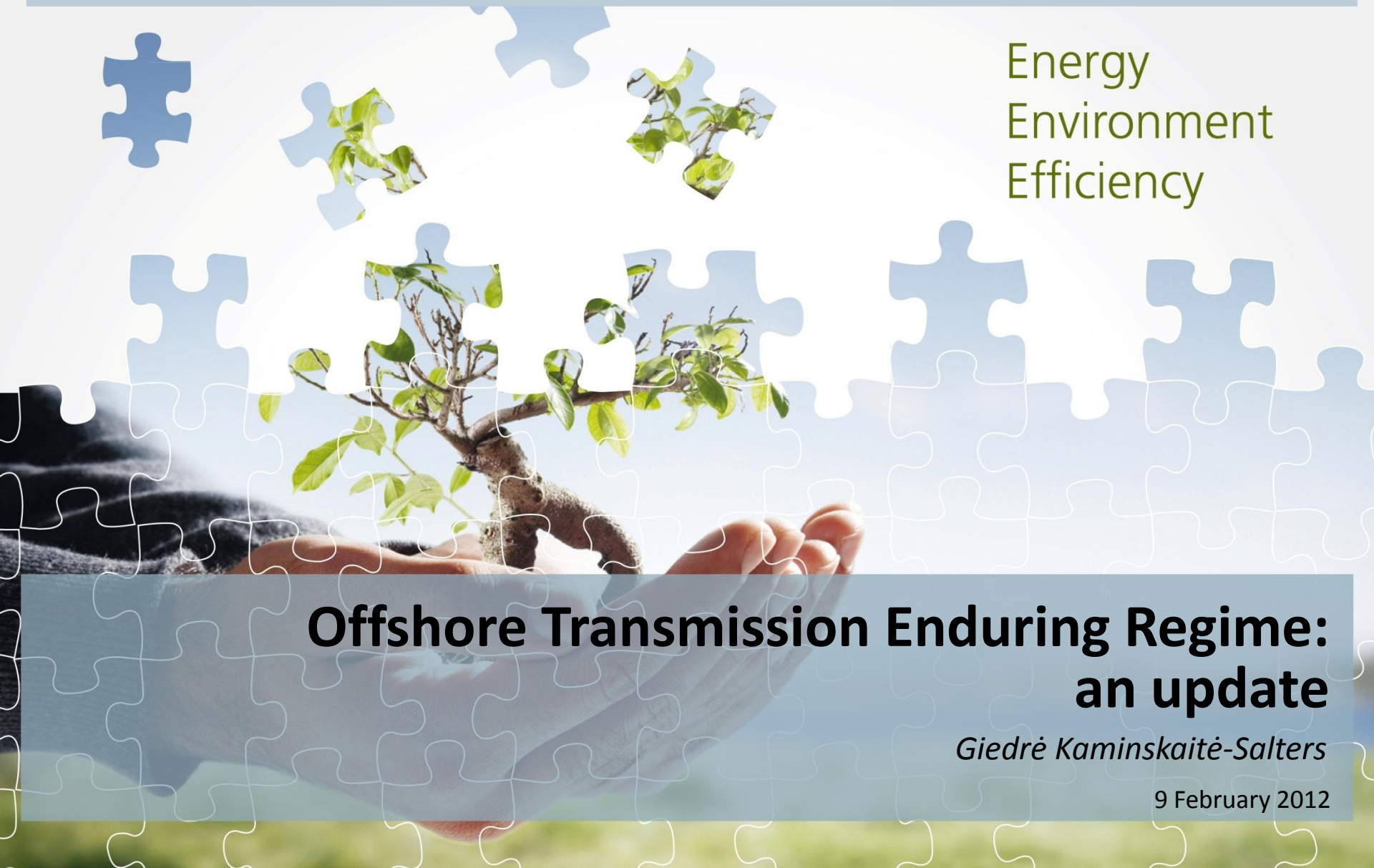


Offshore Transmission Enduring Regime: an update

Giedrė Kaminskaitė-Salters

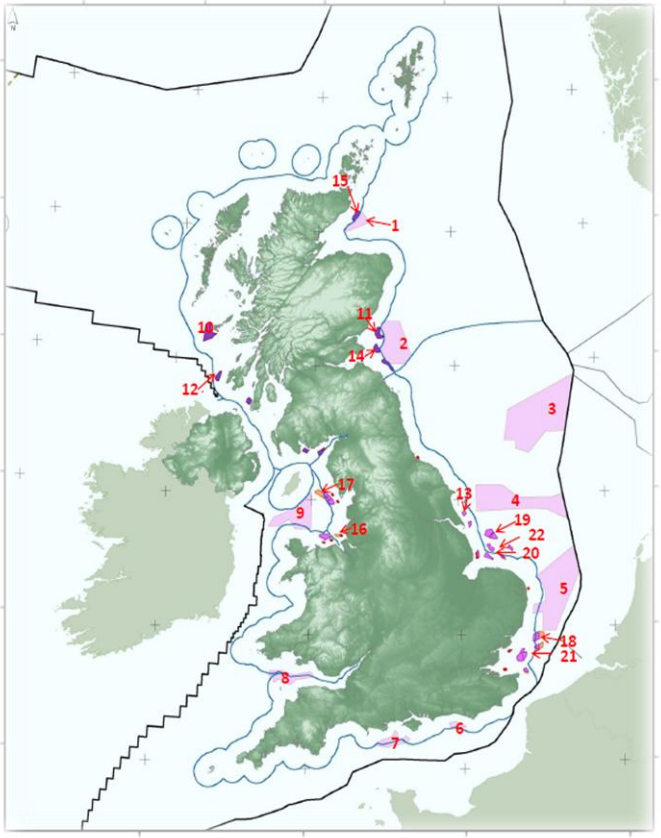
9 February 2012

Offshore transmission regime

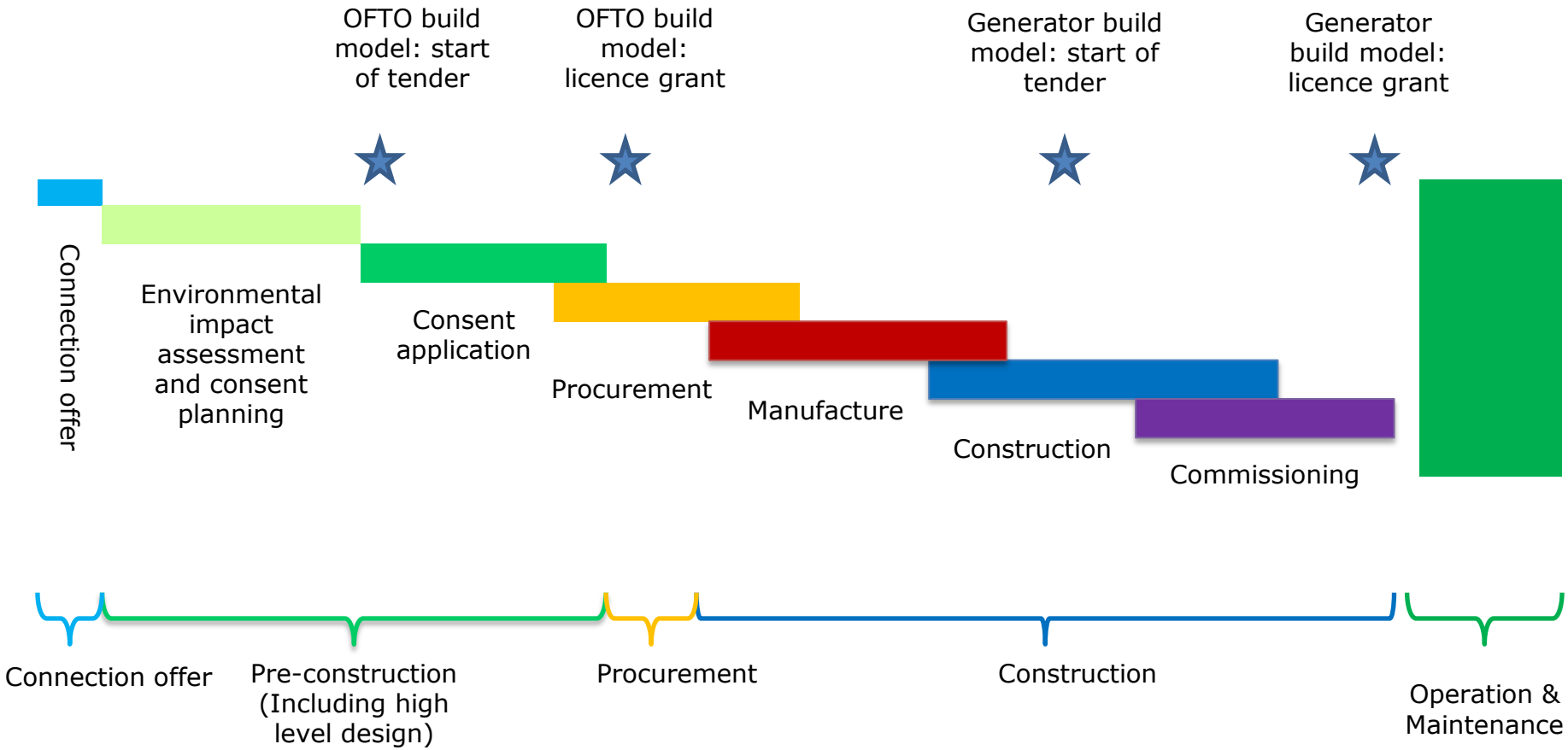
- The Electricity (Competitive Tenders for Offshore Transmission Licences) Regulations 2010
- Offshore transmission asset owners to be appointed via a competitive tender run by Ofgem
- Projects must meet requirements set out within Tender Regulations by 31 March 2012 to qualify as transitional
- After 31 March 2012 need to qualify as enduring

Enduring projects

- Expect around 30GW+ additional capacity to be connected between 2014 and 2021
- First connection dates expected in 2014
- Potential for wider network offshore re-enforcement projects
- Regime currently in operation. 2 options: generator build and OFTO build



Enduring consultation: proposed build models



Refinements to generator build

- Similarities to transitional:
  - Generator responsible for all aspects of pre-construction, procurement and construction
  - OFTO responsible for operation, maintenance and decommissioning
- Lessons learnt from transitional
- Changes needed to meet the needs of larger, more complex projects

Key proposals: OFTO build

- Generators notify Ofgem that they have chosen OFTO build and wish a tender to be run prior to consent submission
- Prospective OFTOs bid their approach to the procurement, financing, construction, operation, maintenance and de-commissioning of transmission assets, and the costs associated with carrying out these activities
- Revenue stream starts when transmission construction works are completed

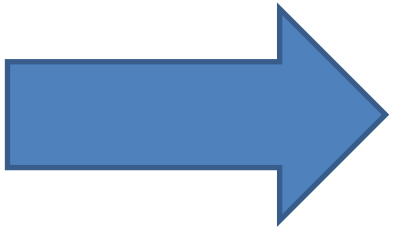
Pre-construction works under OFTO build

- Proposals on division of responsibilities between the OFTO and the generator
- Generator responsible for pre-construction works including:
  - Obtaining necessary planning permissions
  - Necessary landowner consents
  - Engineering surveys (on/offshore)
- Proposals regarding recovery of economic and efficiently incurred pre-construction costs

Supply chain and procurement under OFTO build

- Aim is to understand and manage supply chain constraints
- Preference that all procurement be undertaken by OFTO
- Potential for generator involvement in:
  - Pre-marketing with suppliers
  - Seeking high level indicative terms and reserving manufacturing capacity on non-binding, non-exclusive terms

Proposed treatment of capital costs under OFTO build model



Weather – risk share mechanism

Licence grant delay – risk share mechanism

Construction costs
OFTO to manage

Pre-construction costs – assessed by Ofgem, no risk to OFTO

Delivery incentives under OFTO build

- **Aim** – as for onshore networks, transmission assets to be ready when generator needs them
- **Incentives on OFTO**
  - OFTO only receives revenue upon completion
  - Liquidated damages payable by OFTO under industry codes in the event of delay
  - Construction security can be drawn in event of construction failure
- **Incentives on generator**
  - Generation (and transmission) assets have to be operational before revenue can be earned

Tender process for OFTO build

- ✓ Proposals on the tender process aim to achieve a streamlined approach which:
  - ✓ Ensures an OFTO is in place in a timely fashion
  - ✓ Avoids project delay
  - ✓ Provides certainty to bidders
- ✓ Several options explored in the consultation document, including on:
  - ✓ Greater flexibility regarding PQ stage
  - ✓ An optional QTT stage
  - ✓ The timing of the ITT stage

Next steps

December 2011 consultation	Spring 2012 publication	Longer term
Consultation closes 17 Feb	Confirm minded to positions in light of stakeholder responses	Revised Tender Regulations (from summer 2012)
Information request on future enduring projects by 29 Feb	Consult on:	Revised licence provisions (from summer 2012)
	Enhancements to the licence and incentives framework	Revisions to codes and licences (from summer 2012)
	Policy principles for phased projects	First enduring tender (approx. late 2012)
	Issues emerging from previous consultation responses	

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Stakeholder Perspective: Transmission Capital Partners

Chris Veal

OFTO Enduring Regime

Chris Veal

February 2012

Transmission Capital Partners

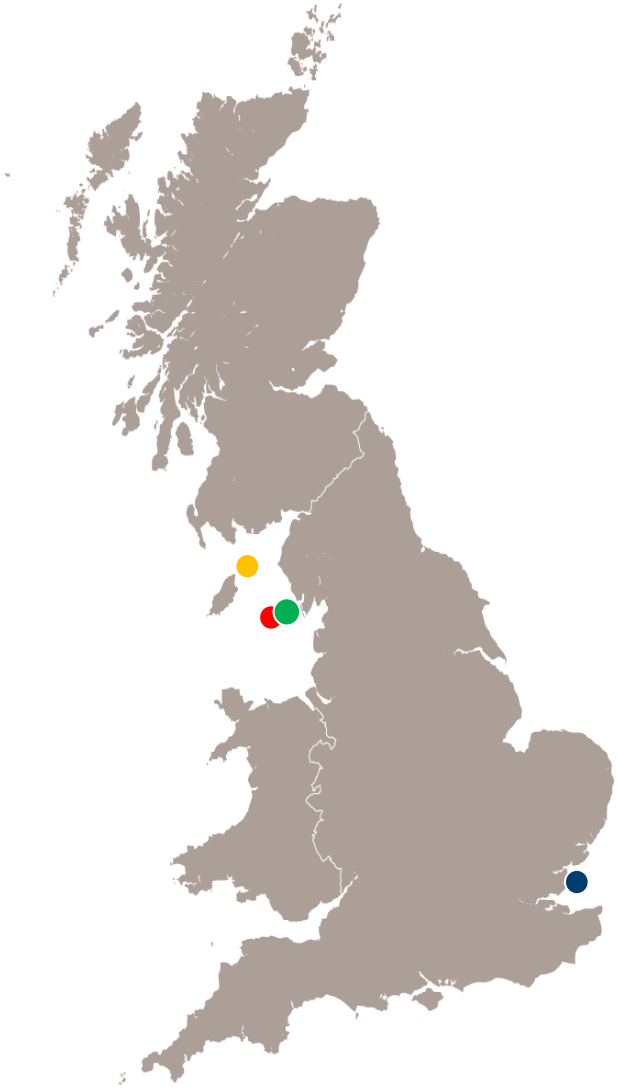
Agenda

1. Transmission Capital Partners
2. OFTO Build Model
3. Incentives for OFTO Build Model

1. Transmission Capital Partners

- Closed 3 of 9 first round acquisitions
- Preferred Bidder for further first round OFTO project
- Shortlisted for all 3 projects under first tranche of second round tenders - due to be awarded this year

Project	FC Date	Size (£m)	MW
Robin Rigg	Mar - 2011	57.3	180
Gunfleet Sands	July- 2011	48.2	173
Barrow	Sep - 2011	33.6	90
Ormonde	2nd Qtr 2012	112.0	150



Agenda

1. Transmission Capital Partners

2. OFTO Build Model

    2. Overview

        2.1 Pre-ITT stage issues

        2.2 Sea-bed surveys

        2.3 Supply Chain issues

        2.4 ITT Stage Issues

        2.5 Bid to Licence Award Issues

        2.6 Post-licence Award issues

3. Incentives for OFTO Build Model

2. OFTO Build Model - Overview

- Key issues are, if Offshore Wind Farm Developers elect for the OFTO Build model, can a fair and transparent process be run that:
    1. Gets best value for Developers/consumers?
    2. Meets the Developer FID timetable?
    3. Meets the Developer start of operations timetable?
- Agree that focus should be on single “late” OFTO Build model
- Retain as much of transitional regime as possible, e.g.
    - 20 year revenue stream
    - RPI Indexation
    - Pass through on business rates, licence fees etc.
    - Availability incentive
    - Operational and decommissioning phases
- Most issues in the design of OFTO Build model need to focus around achieving items (2) and (3) above, as otherwise unlikely that OFTO Build model selected by Developer.

2.1 OFTO Build Model – Pre-ITT Stage Issues

- Information in tender specification:
  - Project design (gen requirements)
  - Technical (incl. BCA, IA, system data)
  - Route identification (incl. land rights)
  - Site studies (onshore and offshore) – *see Sea-Bed and Other Site Surveys*
  - EIA and consents application (Rochdale envelope)
- Approach to pre-construction works
  - Providing all of the above but nothing else – *see Supply Chain*
- Transfer of pre-construction work
  - Cleaner to transfer where possible, at a defined price (set by Ofgem and/or Developer and treated as for transfer price in transitional regime)
  - Agreements or SPV? – mechanisms to transfer agreements developed and may be less problematic

2.2 OFTO Build Model – Sea-bed and Other Site Surveys

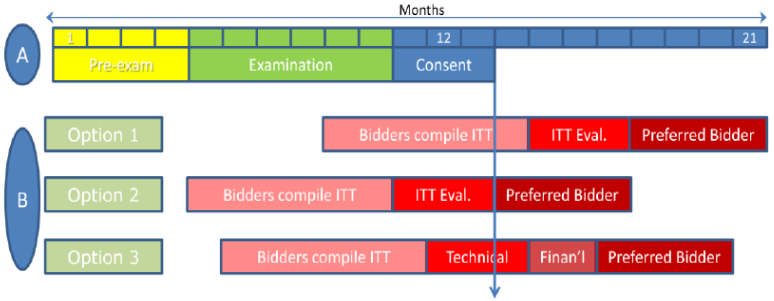
- Developer should carry out sea-bed and other site surveys as inputs into ITT process as:
  - Not desirable for 3 or 4 bidders to incur costs individually
  - Survey data should lead to reduced contingency and therefore lower bids
  - Understanding of site conditions at ITT stage should also mitigate delays at PB stage
- Questionable as to whether generic survey specifications can be developed:
  - Would need to be high level and risk based
  - Determined by a panel of industry experts
- Further surveys likely to be required by successful bidder pre-commencement of construction
- Most competitive bids will result from:
  - A full sea-bed survey carried out in time for bids (i.e. pre-consent) ...
  - ... to a project-specific specification developed in accordance with good industry practice ...
  - ... with reliance at a meaningful PI limit, and with ...
  - ... successful bidder able to pass-through on elements where successful bidder's survey shows errors or gaps in a Developer's survey.

2.3 OFTO Build Model – Supply Chain

- Agree the OFTO should ideally procure everything
- Allowing Developer to procure has several problems:
  - Restriction on designs, supply side consortia and contract structur
  - Higher costs
  - Increased interface issues
  - Potentially unbankable contracts
  - Skewing of competition
- Even non-binding reservation contracts can have some of the abo
- Supply chain constraints – are they real?
  - Supply capacity increasing
  - Lead times currently vary
  - Will there be constraints when OFTO seeking to procure?
- Whilst ideally the OFTO should procure everything, there may be a case for flexibility if it can be shown an open, fair and transparent competition can still be run
- Visibility of project timescales and of electing for OFTO Build Model will assist OFTO supply chain development and therefore project delivery timescales being met

2.4 OFTO Build Model – ITT Stage Issues

- Timing
  - Options 1 or 2 preferred, we believe Option 2 can work and would reduce the risk of OFTO tender process being on critical path
  - Option 3 not desirable as likely to increase costs, difficulty in getting suppliers to stick to prices etc., and extended timelines



- Variant bids
  - Clarification needed here on what is a variant bid – *look forward to spring consultation*
- Design incentives
  - Agree losses should be included – clear metric needed for bidders as to how they will be assessed
  - Do not agree on a quality of installation – the correct OFTO incentives are already there
  - Agree on transmission availability - should be as it is in transitional round

2.5 OFTO Build Model – Bid to Licence Award Issues

- ITT Evaluation: Strong view that neither NETSO nor generator should have a role at this stage:
  - Tender specification should set out what OFTO bidders need to comply with
  - Ofgem's consultants should be able to tell whether this is met by bids
  - Risk of compliance should remain with the OFTO bidder
  - Bids cannot be satisfactorily anonymized
  - NETSO and Developer will not be impartial
  - No clear reason why they should have an input
- PB stage: Adjustments to allowed revenue stream, as for transitional:
  - Market Rate Adjustment, RPI and Interest swap rates but also metals prices and forex rates
  - Final Transfer Value (pre-construction costs)
  - Changes due to new information not previously disclosed
- Licence grant: Delay
  - Indexation seems sensible (subject to manufacturers view on whether indexation of price will be acceptable to them)
  - See above for other delay adjustments

2.6 OFTO Build Model – Post Licence Award Issues

- Weather delay
  - Agree a sharing mechanism seems sensible
  - Should be less necessary for longer timescale projects (where weather should even itself out)
- Delivery incentives
  - Agree that no additional incentives are required
  - Delay LDs could in no way compensate Developer for delay in start up of wind farm
  - Delay LDs available from contractors will be required to service financing and will provide incentives to contractors
- Refinancing
  - Prefer not to have refi gain share
  - If there is a mechanism needs to have substantial proportion of refi gain retained by OFTO to incentivise it to happen
- Decommissioning and life extension
  - OFTO obvious choice to take decommissioning cost risk in OFTO build
  - Greater clarity on how Ofgem will set allowed revenue at the end of the initial 20-year revenue stream if continuing use for the assets and decommissioning is postponed, would be useful
  - Longer than 20-year revenue period unlikely to provide significant benefits given uncertainty post 20 years etc.

Agenda

1. Transmission Capital Partners
2. OFTO Build Model
3. Incentives for OFTO build Model

3. Incentives for OFTO Build Model

- Will any Developers opt for the OFTO Build model?
  - Pros with OFTO Build model:
    - Reduced financing requirement
    - Allows transmission specialists to procure and manage transmission build (particularly HVDC)
    - Through life cost savings from innovation and integrated delivery into operation
  - Cons with OFTO Build model:
    - Understandable Developer concern that delays in transmission delivery would be not controlled by Developer, and could result in significant revenue loss to Developer
- What can be done to incentivise Developers to opt for OFTO Build?
  - Compensation for late delivery – where will compensation come from?
  - Reduce chance of late delivery
    - Allow OFTO appointment process to start as early as possible
    - Design process to allow sufficient time, i.e. early as possible PB award (Option 2)
    - Give OFTO bidders early heads up of opportunity, time to form consortia etc.
  - Increase confidence of on-time delivery
    - Allow OFTOs to demonstrate their abilities -> ONTOs
    - Build in opportunity for OFTO bidders to demonstrate proposals before final Developer decision on which model to select

Transmission Capital Partners

Email:
chris.veal@transmissioncapital.com

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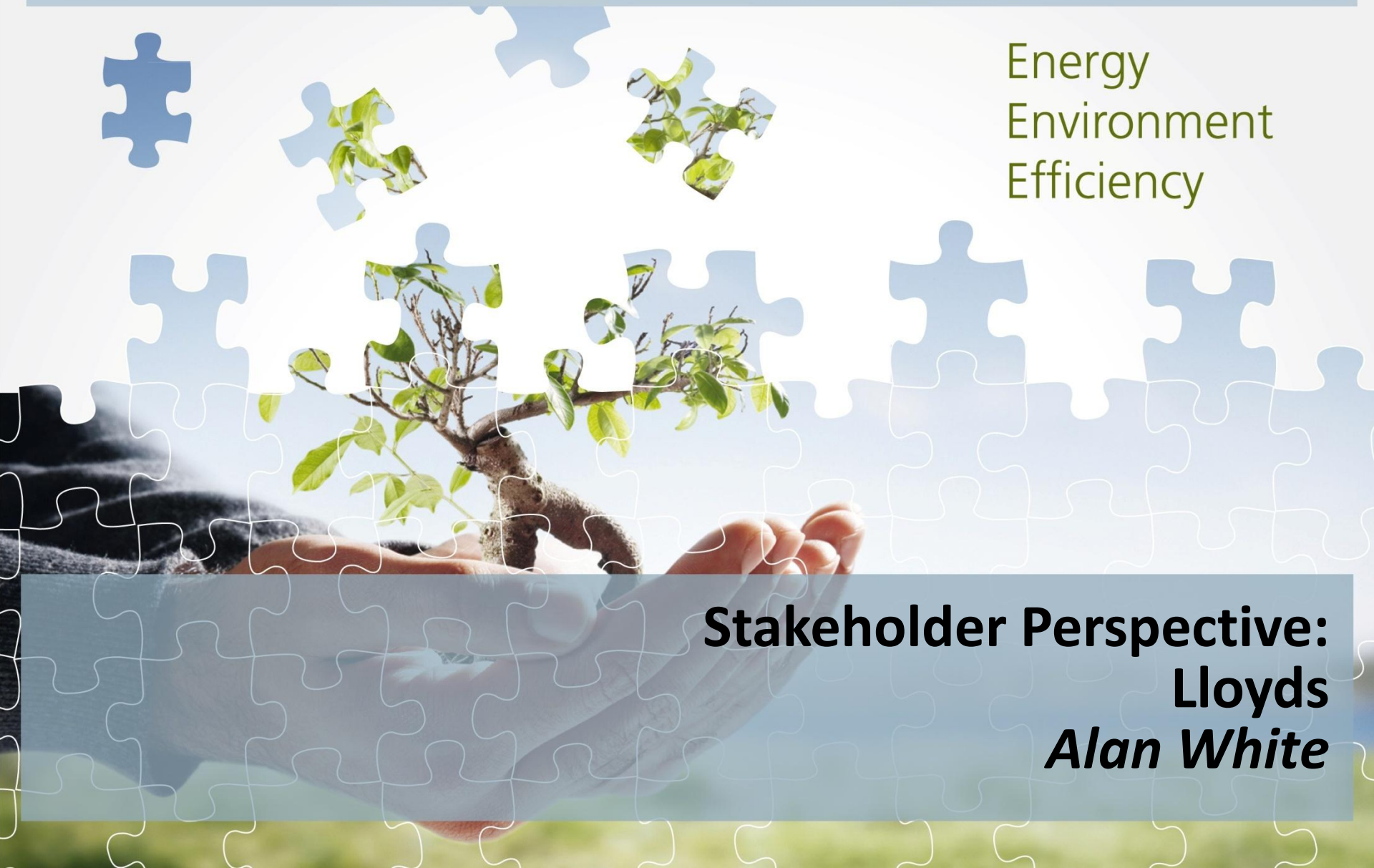

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Stakeholder Perspective: Lloyds

Alan White

Offshore Transmission – The Enduring Regime – Lenders' Considerations

Alan White, Head of Conventional Energy

9th February 2012

LLOYDS BANK

AGENDA

- What has made OFTOs an attractive lending proposition?
- Key issues for Lenders right now
- Characteristics of the Enduring Regime
- Lenders' Considerations
- Sources of finance
- Conclusion

What has made OFTOs an attractive lending proposition?

- Seen as Relatively Low Risk assets
  - Strong Licence Regime
  - Robust Economics – Limited downside risk
  - Investment Grade Rating
  - Alignment of Interest with Offshore Wind Developers
  - Low O&M risk
  - No Construction Risk
  - Insurable Regime

Key issues for Lenders right now

- Market Liquidity
- Tenor
- Price
- Timing
  - When is the funding required?
- Hedging
  - How much and for how long?
- Opportunity for refinancing in the capital markets (or others)
- Who will be bidding?

Characteristics of the Enduring Regime

- Larger Projects
- Higher debt requirement
- Possibly different bidders
- OFTO delinked (metaphorically) from the Wind Farm from the start
- Construction Risk through “OFTO Build” option

Lenders' Considerations

- Higher Risk
  - For the OFTO?
  - For the Wind Farm?
- Construction Risks
  - Time
  - Cost
  - Impact of delay?
- When will cash flow start (and what can prevent it)?
- Is there a risk of an OFTO with no wind farm?

Sources of finance

- Bank Debt
  - Can take construction risk
  - Need to see TR1 and TR2 projects refinanced to release funds
- Capital Markets
  - More likely for refinancing
  - Need a strong investment grade
- Infrastructure Funds
  - Equity rather than debt
  - Returns likely to be higher for construction risk

LLOYDS BANK

Conclusion

- The OFTO Licence Regime has shown the sector to be attractive
- Considerable interest from bidders in TR1 and TR2
  - Potentially more and / or different bidders for the Enduring Regime
- Increased interest from Banks
  - Recognises the risk profile
  - But long term debt is getting more expensive
- Enduring Regime introduces new risks
  - Should be bankable – but at what price for construction risk?
- Refinancing of the TR1 and TR2 projects must happen if Banks are going to make funds available for the Enduring Regime

LLOYDS BANK

Offshore Transmission – The Enduring Regime – Lenders' Considerations

Alan White, Head of Conventional Energy

9th February 2012

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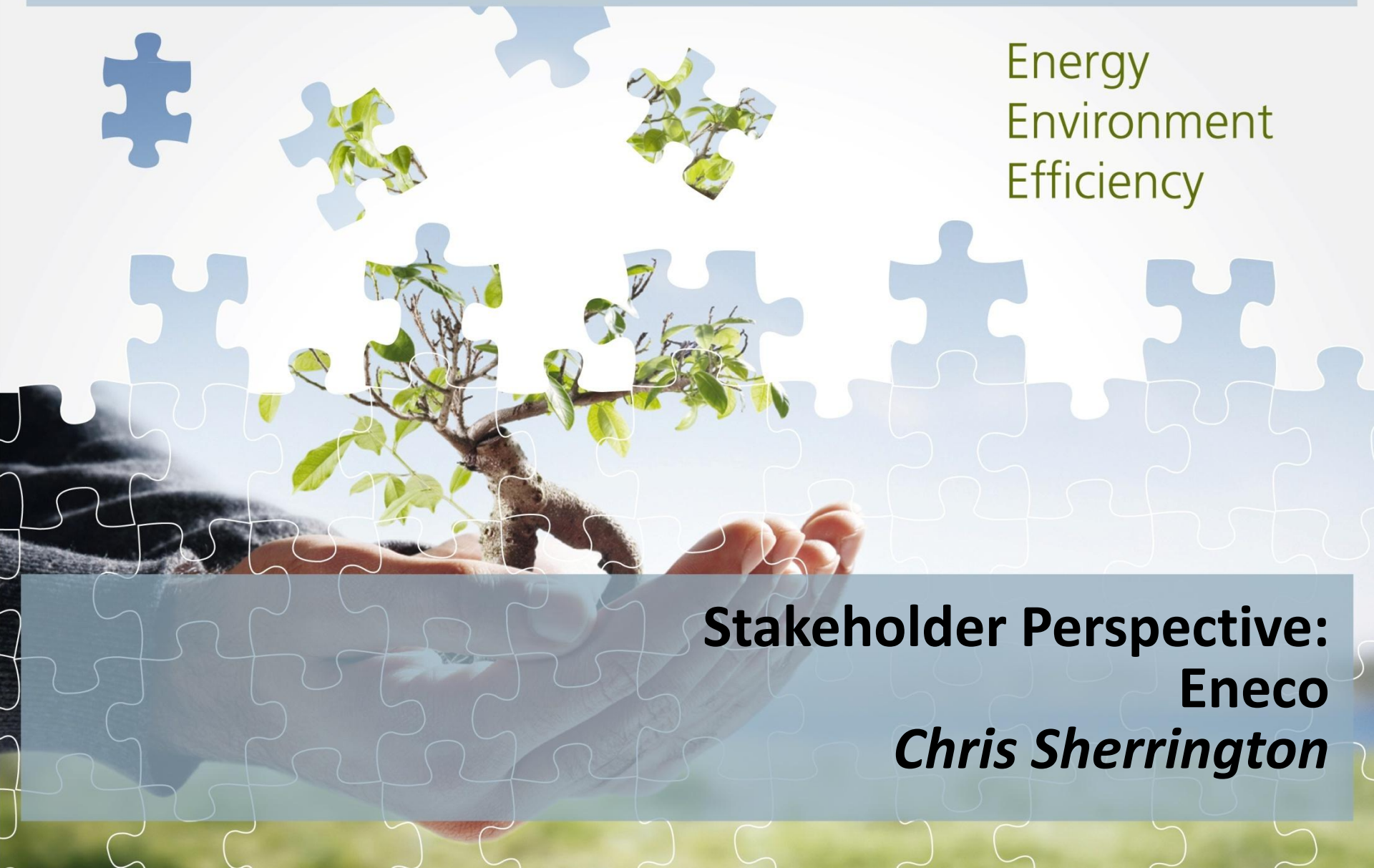


Stakeholder Perspective: Eneco

Chris Sherrington

Thursday 9th February 2011

Navitus Bay Offshore Wind Park

OFTO Enduring Regime Consultation Event

BIS Conference Centre, London

Chris Sherrington

Project Director, Eneco

Eneco

Contents

Eneco
Group Profile

- Owned by 60 Dutch Municipalities. Largest shareholders: Rotterdam (31%), The Hague (16%), Dordrecht (9%)
- Approximately 2 million business and retail customers
- 24,500 GWh electricity / 6,700 million m^3 Gas sold in 2010
- €4,922m annual turnover (2010)
- 6545 employees
- Aim is a completely sustainable energy supply by 2030

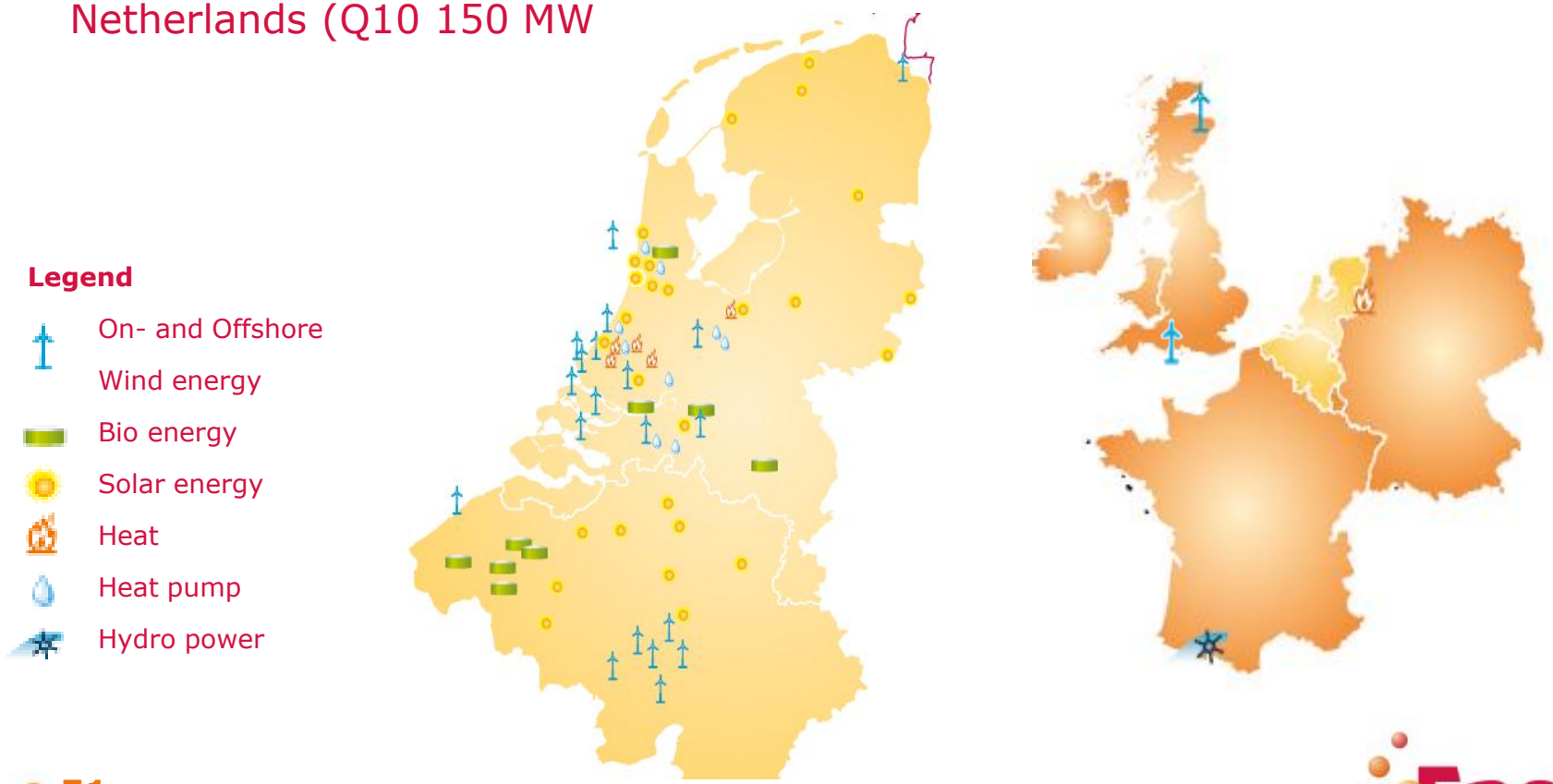
Present Activity

The Netherlands, UK, France, Belgium, Germany

Own and operate 29 wind farms in Europe,

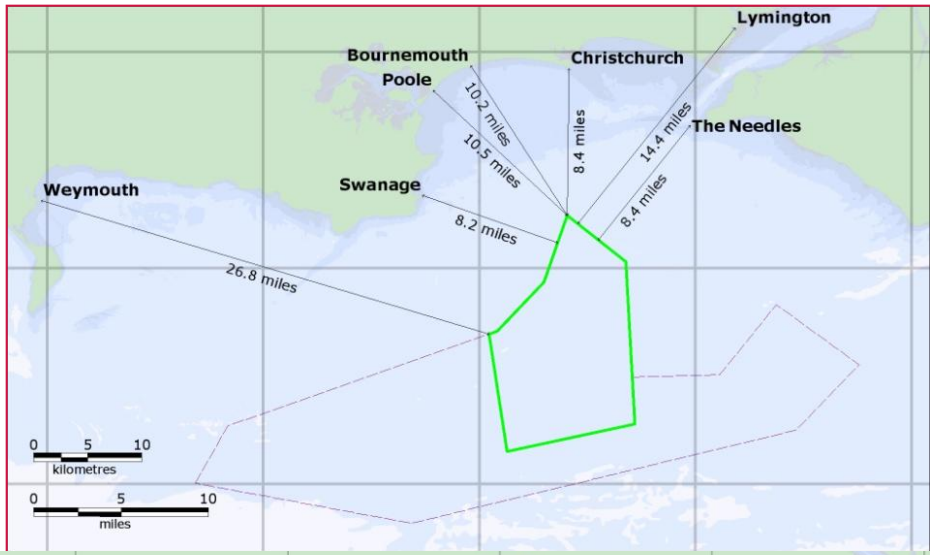
120MW Prinses Amalia Offshore project (2008)

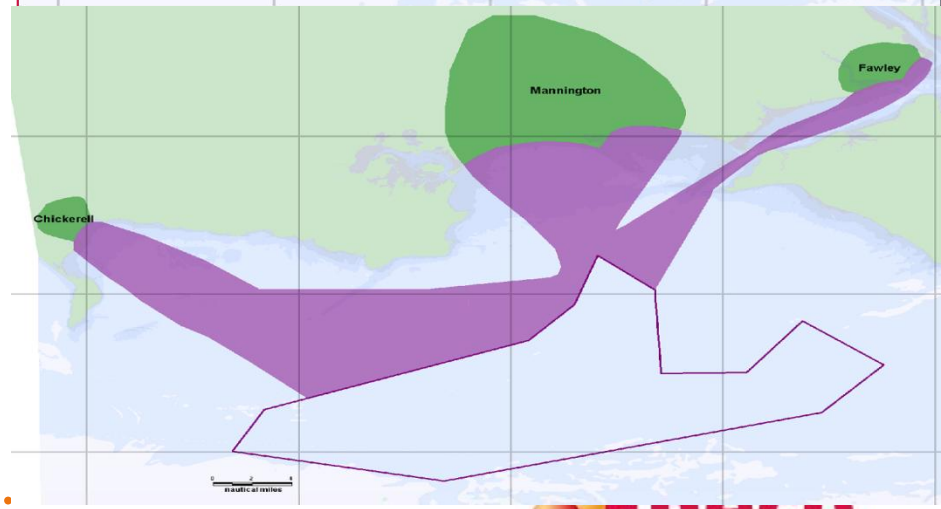
Offshore development projects: Belgium (Norther 350 – 450 MW) and Netherlands (Q10 150 MW



Navitus Bay Offshore Wind Park
An overview

- Zone Appraisal in 2010 to identify development area
- Development Area (Green) 76 square miles (66nm$^{2)}$
- 3 x Agreements for Lease signed March 2011
- Grid connection agreement October 2011
- 900 MW – 1200 MW
- Average water depths 30-50m
- Distances to shore – Swanage 13km, Needles 14km, Bournemouth 16.4km





High Level Project Schedule

- **The Environmental Impact Assessment (EIA)**

  Scoping Report completed September 2011

  ↓

- **The Development Consent Order (DCO)** Application to IPC Q2 /3 2013. Consent decision expected end of 2014

  ↓

- **Construction Contracts** to be awarded in the first quarter of 2015

  ↓

- **Offshore Construction** proposed to commence the second quarter of 2016

  ↓

- **Operational Wind Park** scheduled for the end of 2019

Eneco

Scope of Project

- Offshore Wind Park of 900 – 1200 MW
  (ca 130 -330 WTGs)

- 3 x 300- 400 MW
  over 4 year construction period
- Total size of investment ca £3bn – OFTO assets ca 20%

- 3 offshore substations

- Assessing benefits of interlinking offshore
- substations to increase security/redundancy

- 25 – 35 km onshore cable route
  – ca 60 landowners connecting to new
  substation near Mannington
- Current model is Generator Build

Eneco

Some Key Issues for Navitus Bay

How addressed by current consultation?

Phasing / Staging of the Development

- Proposals aimed at large Zones
- Flexibility needed whether assets offered together or seperately
- Scale of investment means 'phased' or multiple Financial Close possible
- Definition & multiple OFTO problematic for our Zone – 'phased' development in smaller zone with single DCO for development area
- Landowners unlikely to accept multiple OFTO for single cable route easement – disruption / unknown parties for lease split 3 ways
- Pre or anticipatory investment required in first 'phase' (cabling, onshore substation..)
- Contractual & risk allocation complex between OFTOs

Cost Recovery / Asset Valuation

- Very clear guidance needed before costs incurred
- Preconstruction costs (OFTO Build) – recovery at license award not completion of works
- Concern over removal of cost guarantee – outcome increase risk and cost of capital
- Major issues such as uncertainty over onshore interface point and position on underground Vs overhead

Eneco

Consultation Comments

OFTO Build

Delivery Incentives / OFTO Delay (3.29)

- Risks / financial loss imbalance – further incentives needed otherwise disincentive to OFTO Build route
- LDs payable to generator or via NETSO

Procurement Activity

- Essential for early engagement by Generators with supply chain for design and specification
- Non exclusive, non binding arrangements unlikely to work in a constrained market
- Consider other options
  - E.g. competitive tender by Generator with transfer of commitment to OFTO.

Timing of Tender

- Would like to see flexibility to reflect supply chain lead times
- Minimum time before connection date / commercial operation (3 – 3.5 years)

Conclusions

- Focus is on OFTO Build
- Positive willingness to engage on individual projects
  - Flexibility needed
  - Recognition of practical issues
- Important issues identified but not yet dealt with
  - Compulsory purchase, Anticipatory Investment, Cost Guidance, Generator Build etc
- Still see significant risks in OFTO Build – delivery & programme
- Look forward to engage with Ofgem on Navitus Bay

Eneco

Navitus Bay Contacts

- **Chris Sherrington, Project Director**
  chris.sherrington@eneco.com

- **Mark Kempers, Engineering Manager**
  mark.kempers@eneco.com

- **Dirk Schoenmakers, Grid Manager**
  d.schoenmakers@ecofys.com

www.navitusbaywindpark.co.uk

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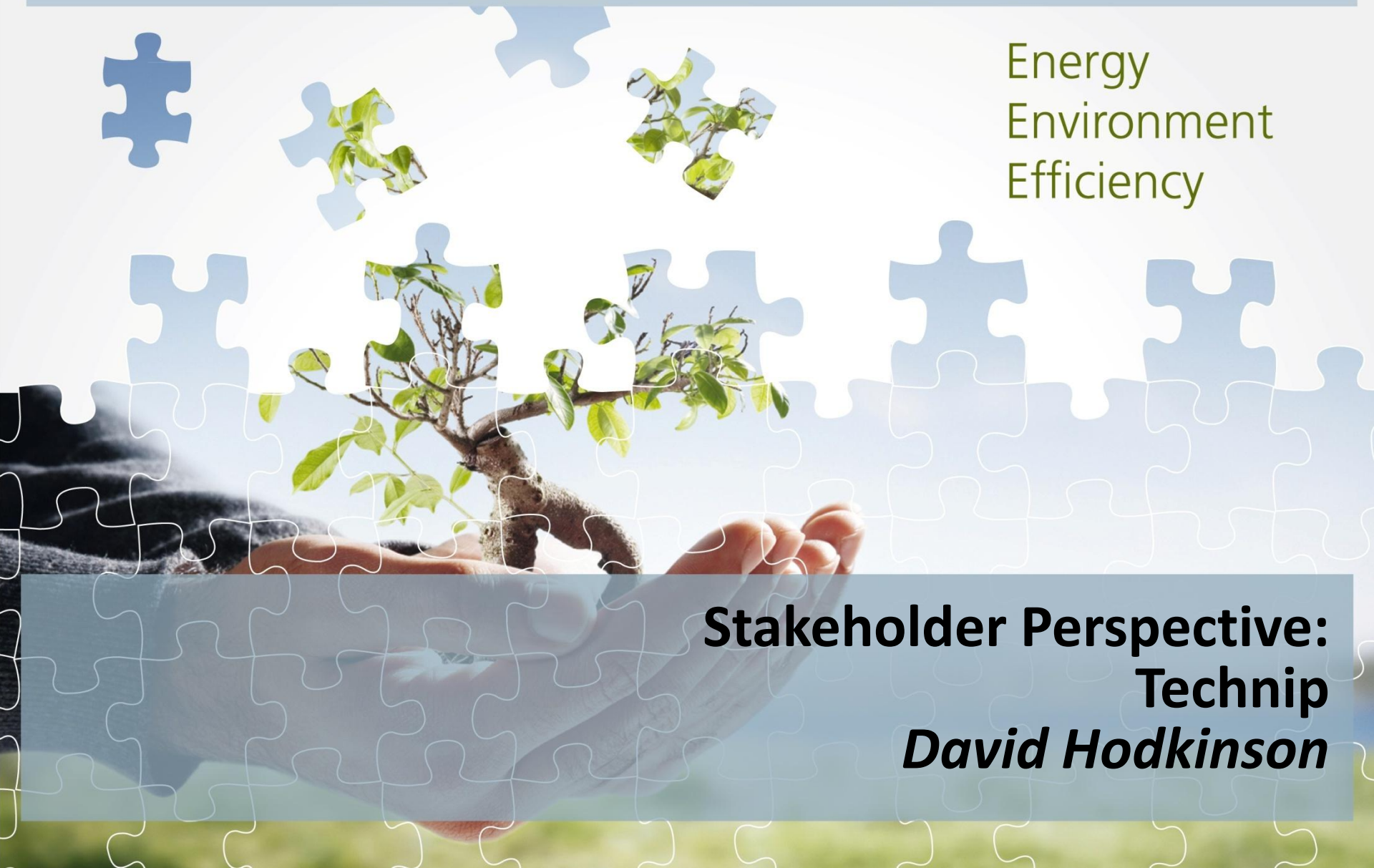


Stakeholder Perspective: Technip

David Hodkinson

OFTO Opportunities
New Market Entrant Perspective
Ofgem Conference 9 February 2012

David Hodkinson
Vice President UK Business Delivery
Technip Offshore Wind

Technip
take it further®

Content

- **Technip at a glance**
- **Parallels with Technip's work on Floating LNG**
- **Observations on OFTO Opportunities**

Technip at a glance

Technip Today

- **With engineering, technologies and project management, on land and at sea, we safely and successfully deliver the best solutions for our clients in the energy business**
- **Worldwide presence with nearly 30,000 people in 48 countries**
- **Industrial assets on all continents, a fleet of 33 vessels (of which 2 under construction)**
- **2010 revenue: €6.1 billion**

Energy is at the core of Technip

Business Segments

Subsea

- Design, manufacture and supply of deepwater flexible and rigid pipelines, umbilicals, and riser systems
- Subsea construction, pipeline installation services and Heavy lift
- Six state-of-the-art flexible pipe and / or umbilical manufacturing plants
- Five spoolbases for reeled pipeline assembly as well as four logistics bases
- A constantly evolving fleet strategically deployed in the world's major offshore markets

Offshore

- Engineering and fabrication of fixed platforms for shallow waters (TPG 500, Unideck®)
- Engineering and fabrication of floating platforms for deep waters (Spar, semi-submersible platforms, FPSO)
- Leadership in floatover technology
- Floating Liquefied Natural Gas (FLNG)
- Construction yard

Onshore

- Gas treatment and liquefaction (LNG), Gas-to-Liquids (GTL)
- Oil refining (refining, hydrogen and sulphur units)
- Onshore pipelines
- Petrochemicals (ethylene, aromatics, olefins, polymers, fertilizers)
- Biofuel and renewable energies (including offshore wind)
- Non-oil activities (principally in life sciences, metals & mining, construction)

The best solutions across the value chain

New Business Activity– Offshore Wind

In 2011 Technip Executive Management endorsed a decision to create a new company, Technip Offshore Wind Limited to manage all further Offshore Wind and Marine renewable activities

Offshore Wind

- To become a major player in the market
- To have 20% market share within Europe
- To Utilise UK Round 3 as primary access to market position
- To establish a development and delivery organisation based in Europe
- To develop the relationships with Utilities / Developers, to establish all the above i.e. Partnerships
- To Utilise and Develop our In-house assets and manufacturing capabilities to meet the demand
- To invest in new assets as required and determined by the relationships developed

To manage all Offshore Wind & Marine Renewable Activities

Technip: Offshore Project Achievements

P-56, Brazil, World's Heaviest Float-over

Perdido, GoM, World's Deepest Spar Production Facility

Akpo, Nigeria, World 's Largest FPSO

In-house installation capability

Rigid Reel-Lay & J-Lay — 4 units


Deep Blue


Apache II


Chickasaw


Deep Energy*

* Under construction

Rigid S-Lay and Heavy Lift — 5 units


G1200


G1201


Iroquois


Hercules


Comanche

Flexible-Lay & Construction — 7 units


Deep Pioneer


Normand Pioneer


Sunrise 2000


Deep Constructor


Skandi Niteroi


Skandi Vitoria


Deep Orient*

Diving & multi support — 17 units


Sea Leopard


Global Orion


Skandi Arctic


Alliance


Asiaflex Installer


Orelia

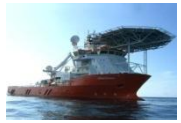

Pioneer


Seamec Princess


Subtec One


El Patron


O. Challenger


N. Commander


Skandi Achiever


Seamec 1


Seamec 2


Seamec 3


Wellservicer

An Absolute Commitment to HSE

Health, Safety and Environment (HSE) Policy

- Our goal: create and sustain an incident-free environment delivering excellent HSE performance at every level
- 3 main focus areas:
  - The maintenance of effective HSE management systems
  - Establishing meaningful leading and lagging indicators to measure and manage performance
  - Creating a climate that is intolerant of inappropriate HSE behaviours and unsafe situations

Safety as a value and a culture

- Clear commitment to safety by management
- Workforce participation and ownership of safety problems and solutions
- Trust between shop floor and management
- Good communications
- A competent workforce
- Pulse : a program now adopted by major clients (Wheatstone project in Australia for Chevron, FLNG for Shell)

"The health and safety of our people is a core value and an absolute commitment" Thierry Pilenko, Chairman and CEO of Technip

Commitment to Sustainable Development

- **Strong commitment to sustainable development and ethics set forth in 6 charters defining the Group's core principles**
- **Technip supports and promotes the 10 universal principles of the UN Global Compact**
- **Recognized performance in the Dow Jones Sustainability Indexes**

THE GLOBAL COMPACT
WE SUPPORT

Dow Jones Sustainability Indexes
Member 2011/12

Excellence in safety, health and security

Environmental efficiency and renewable energies

Responsible human resources

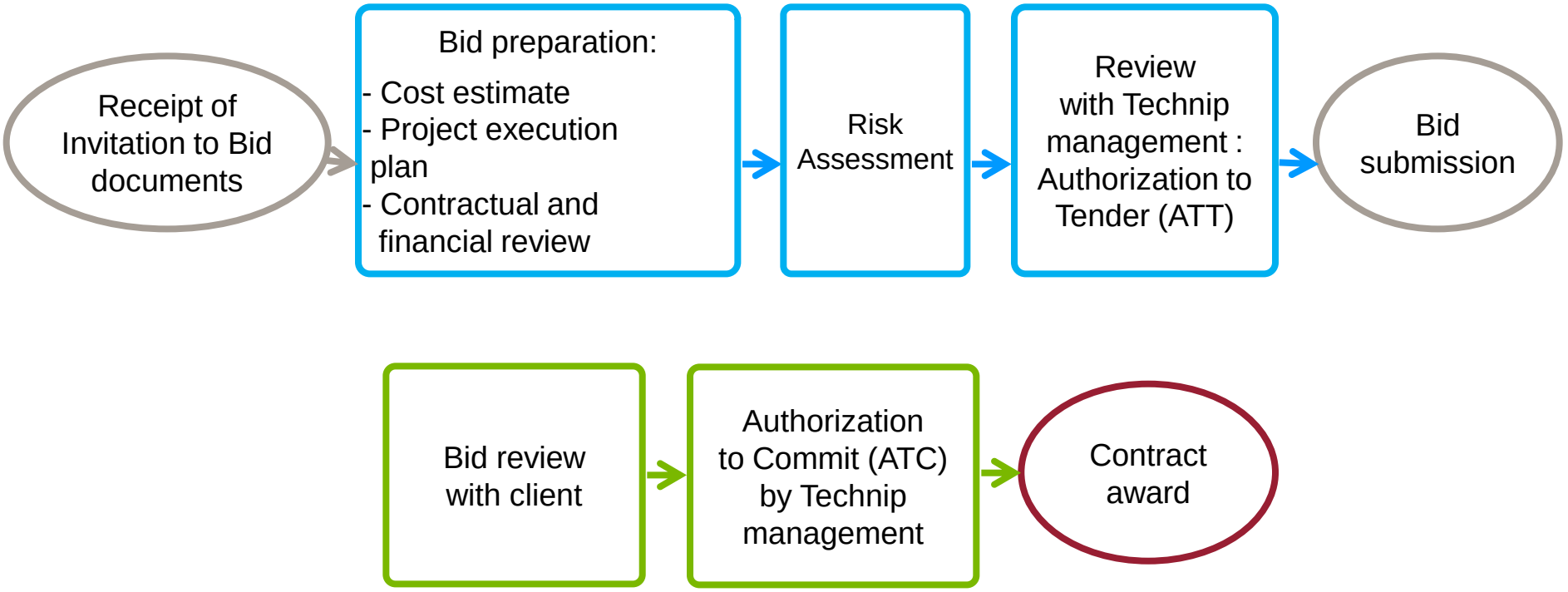
Local content and support to communities

Fair return for our business partners

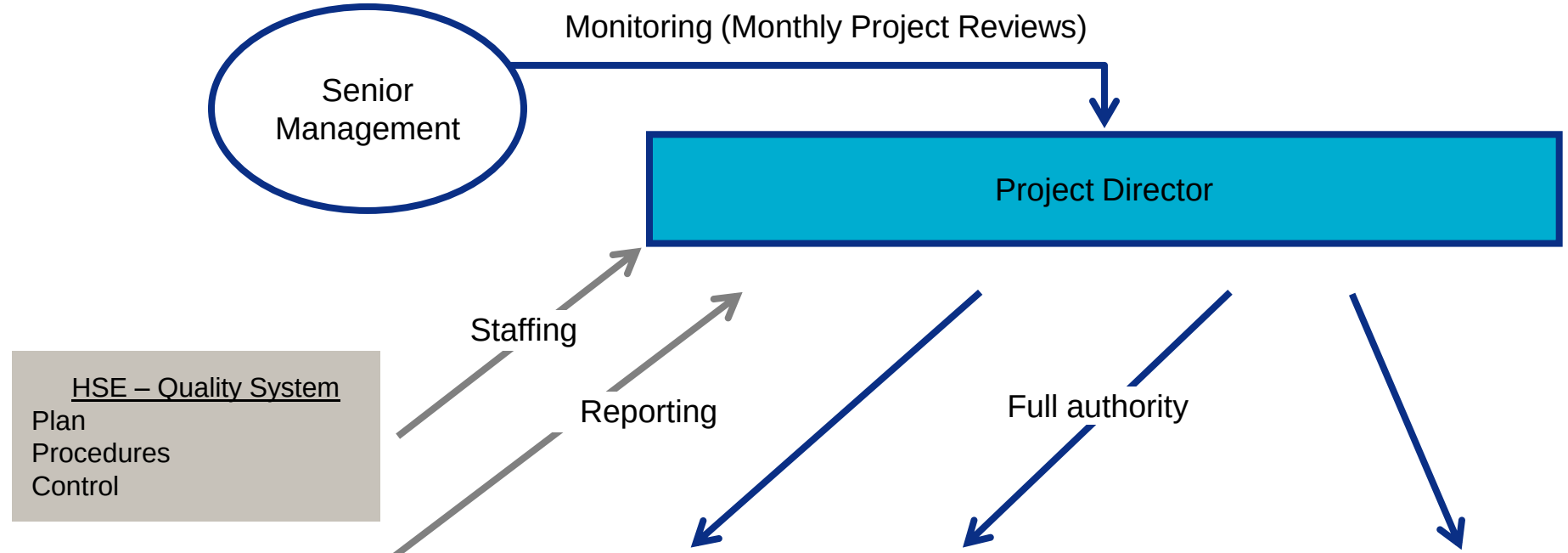
Technip

Project Management – Pre-contract award

Ensure appropriate risk/reward achieved on each contract



Project Management – Post contract award



Two principles are implemented concurrently:
Project Director: single point of accountability for each project
Senior Management: hands-on policy, supported by central expertise

Procurement – Global reach

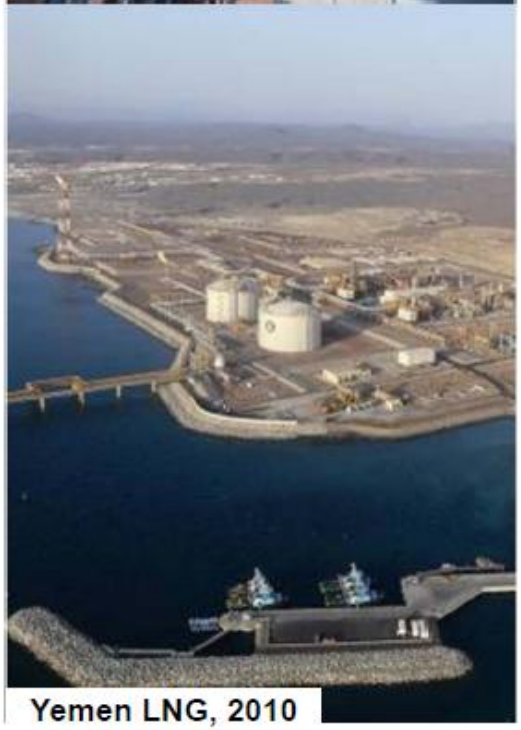
Regional and Local Procurement Office Managers

Parallels with Technip's work on Floating LNG

Technology Development Example – LNG to FLNG

- EPC Contractor with the deep technical know-how of a licensor
- Developed and used our own liquefaction process
- Built the first ever LNG plant 45 years ago in Algeria
- Introduced many concepts that are widely used
- Involved in 30% of world LNG production capacity

CAMEL, Algeria 1964



Yemen LNG, 2010

Onshore to Floating LNG: Volume Optimization

Onshore LNG: Yemen

FLNG

From onshore to offshore plant: a space management challenge to control weight & center of gravity

Technip

Combination of Expertise: Floating LNG

Technip in Paris

Onshore LNG Plant

Offshore floating facilities

Subsea field development

Floating LNG

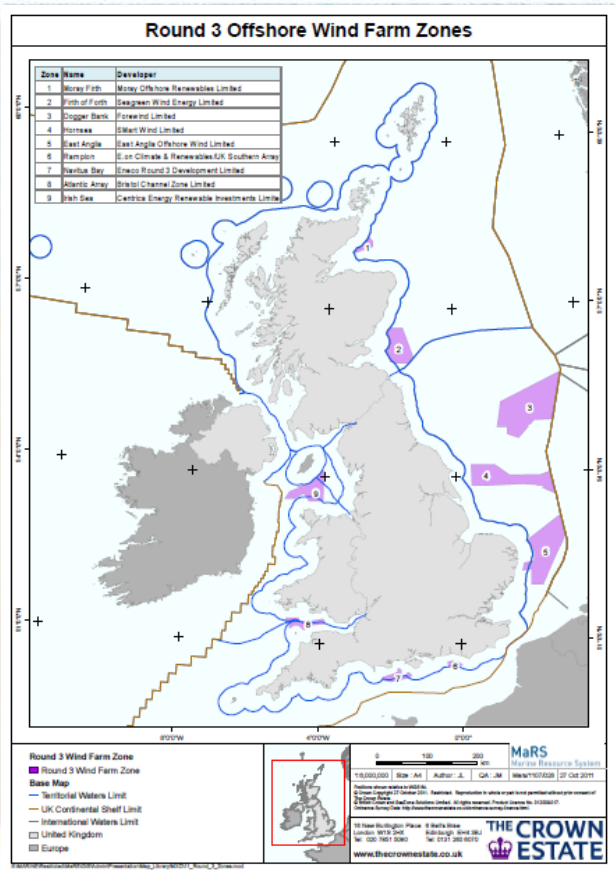
Combination of Expertise: ~~LNG~~ Offshore Transmission

Technip in ~~Paris~~ UK/Rome

Onshore ~~LN~~ **Power Plants & Infrastructure**

Offshore ~~flex~~ **Platform & Foundation**

Subsea field development



~~Floating LNG~~ **Offshore Transmission Systems (UK +)**

Third Party Electrical System Technology

Finance

Technip

Observations on OFTO Opportunities

OFTO Market attractiveness

- New market sector with scale from the start (15-20% of overall offshore wind programme costs)
- Secure government-backed demand, alongside offshore wind
- Ability for Technip to influence market development – safety, reliability, lifetime cost
- Large (massive), complex infrastructure projects combining onshore and offshore delivery
- Opportunity for Technip to participate in different ways

We support Ofgem's objectives

From the OFTO-Build consultation document:

"We have consistently set out that the objectives of competitive tenders for offshore transmission licences are to:

- deliver fit for purpose electricity transmission infrastructure to facilitate the connection of offshore generation and realisation of significant carbon savings
- provide best value to consumers
- attract new entrants and sources of finance to the sector."

Technip

... but see some risks

- Planning regime failing to deliver steady project flow leading to ‘boom and bust’
- Inadequate data available to support the desired lump sum bidding leading to inflated prices (eg surveys, planning conditions) and process delays
- Selection of OFTO delayed leading to delayed deployment of corresponding wind farm
- Late supplier involvement leading to missed optimisation opportunities
- High cost of supplier participation deterring new entrants
- Weak OFTO fails leading to severe delay of corresponding wind farm

Summary

- **Major new market opportunity**
- **Good fit with our capabilities and strategy**
- **We support Ofgem's objectives**
- **Some risks identified**

Thank you

David Hodkinson
Vice President UK Business Delivery
Technip Offshore Wind

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Stakeholder Perspective: ABB

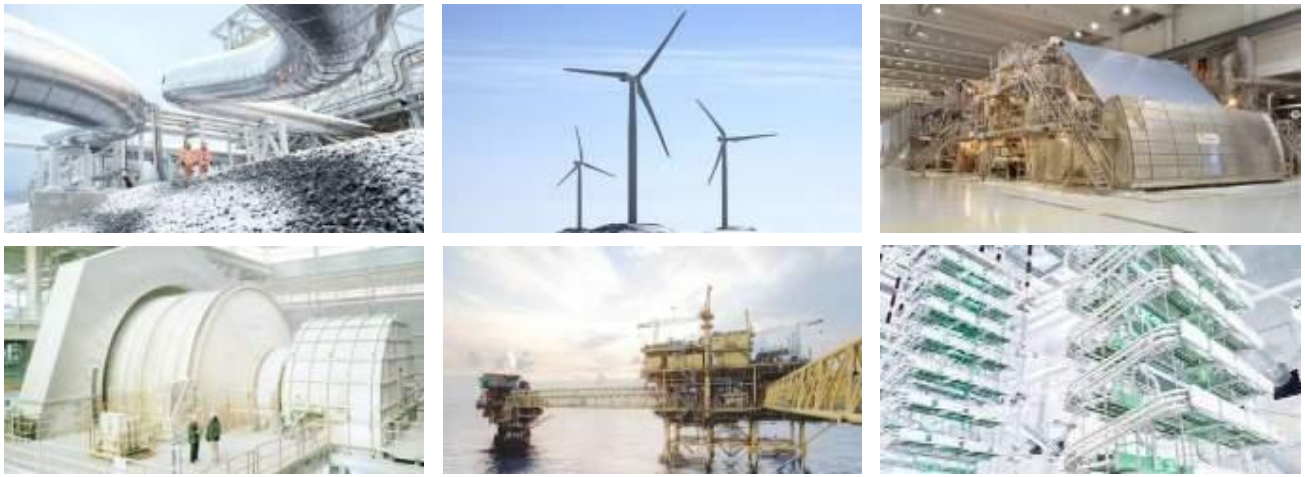
Grant McKay

ABB UK Grid Systems.

Enduring Regime Stakeholder Briefing 9th Feb 2012

Perspective from a Technology Provider

Power and productivity for a better world
ABB's vision



As one of the world's leading engineering companies, we help our customers to use electrical power efficiently, to increase industrial productivity and to lower environmental impact in a sustainable way.

ABB Offshore Wind Connections
EPC Delivery of the Full OFTO System

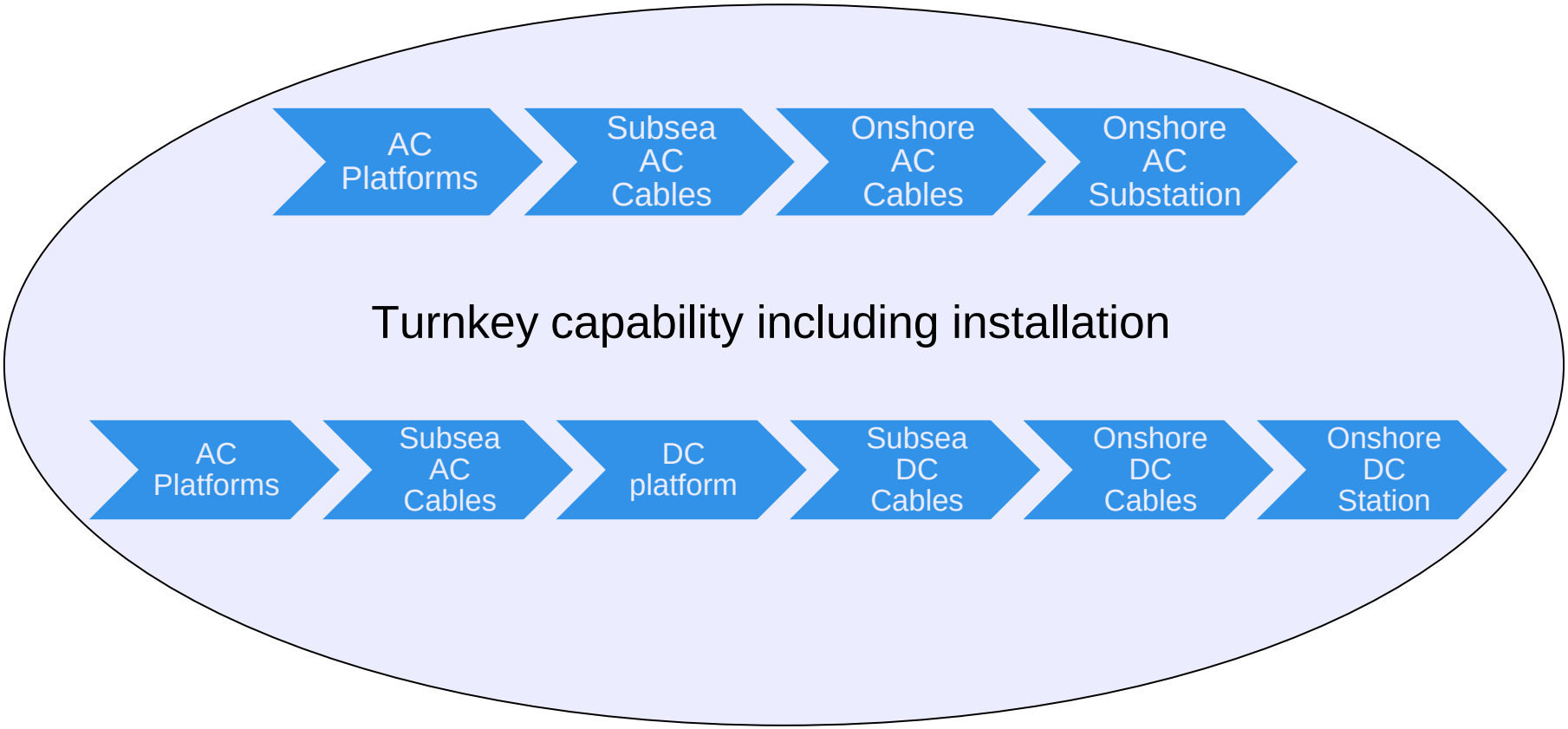


ABB Offshore Wind Connections
Global Market Perspective

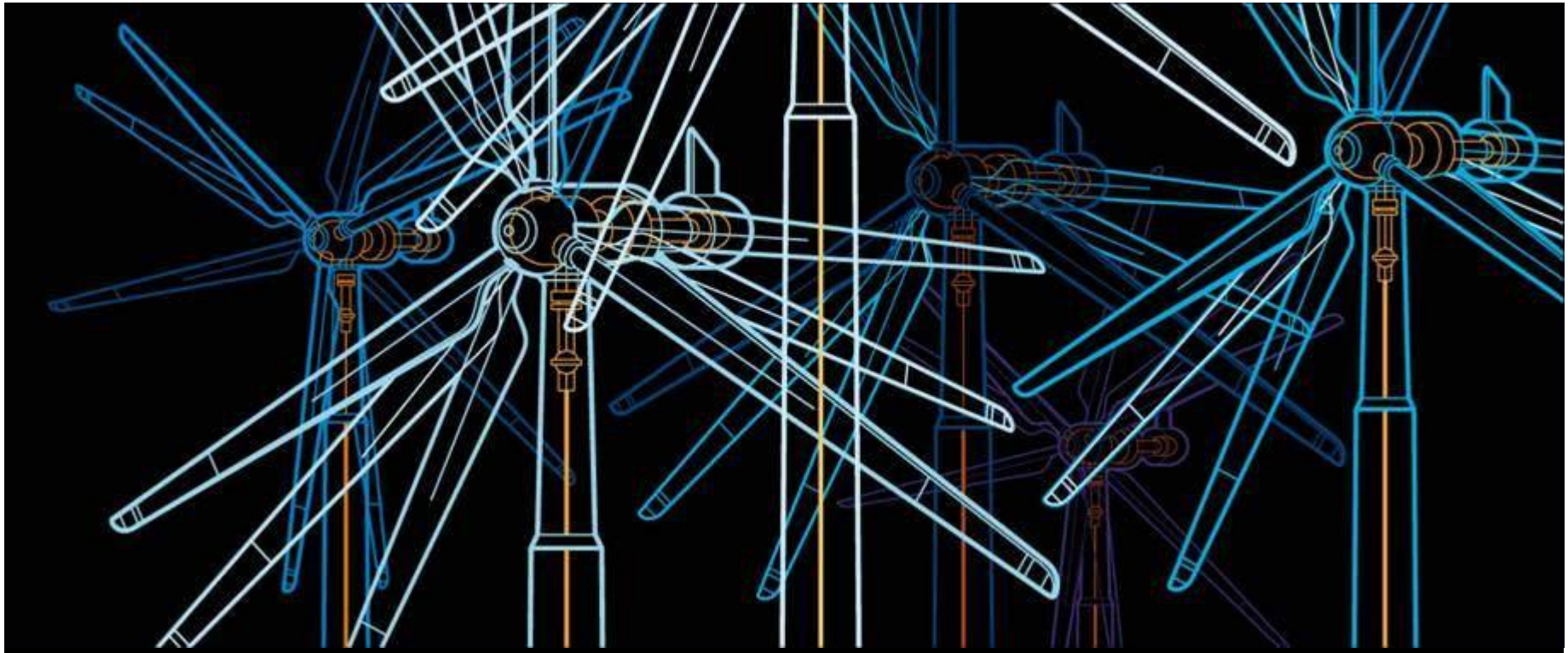
- Growing and maturing offshore wind markets in the UK, Germany, Holland and Belgium.
- New offshore wind developments in France and the US plus the Far East
- Large interconnector projects in many major markets eg. NEMO
- Onshore transmission system reinforcement eg. Caithness/Moray/Shetland
- Subsea cable projects for oil and gas in the North Sea and the Middle East

Projects now being delivered have completion dates 2014-15

ABB Offshore Wind Connections
Investments in Capacity and Resource

$400 million investment in existing facilities to give substantial increase in manufacturing for Subsea and Land cables

Multi million pound investment in UK facilities with significant increase in headcount - skilled & experienced staff, graduates and apprentices



Enduring Regime Consultation
Practical Issues from a Supply Chain Perspective

Enduring Regime Consultation
Initial Thoughts on OFTO Build - Overall

- Additional clarity provided on the OFTO-build option is welcomed.
- It is important that the market has clarity on how the enduring regime will operate with coordinated infrastructure that is built up over time.
- Agree that the OFTO market is not sufficiently mature for an early OFTO model to be viable in the short to medium term.
- We support the desire for effective competition in the supply chain, but, the proposed arrangements will impose additional costs and risks across the value chain.

ABB Offshore Wind Connections
Turnkey Bid Process

- Detailed offshore transmission project proposals require significant effort from tier 1 contractors and their supply chain.
- Typical turnkey proposal to a single Client would have a bid cost anywhere between £500k-£1m+, with a timescale of at least three months.
- Risks for the offshore part in particular are significant and must be carefully assessed and mitigated through detailed early design effort.
- Bidding to multiple potential Clients increases both cost and timescale.
- Bidding variations to the technical or commercial solution increases both cost and timescale.

Enduring Regime Consultation
Initial Thoughts on OFTO Build – Supply Chain

- The drive to ensure clarity of functional requirements and detailed survey information availability is welcomed.
- The extended validity periods which will be requested to suit the model timescale, will add both cost and risk.
- The negotiation and evaluation process is detailed and complex – parallel streams will be difficult to support.
- Reservation of manufacturing capacity without significant financial commitment is generally unsustainable.
- Proactive suppliers will engage early on a non-exclusive basis, with the appropriate parties, regardless of the regime.

Enduring Regime Consultation
Initial Thoughts on OFTO Build – Supply Chain

- The possibility to deliver cost reduction benefits through long term strategic relationships, based on lessons learned and volume certainty is not supported.
- Confidentiality and IPR requirements will need careful scrutiny and management.
- Care needs to be taken to ensure Competition is fair when stakeholders play more than one role.

Enduring Regime Consultation
Supply Chain - Conclusions

- The global transmission market should see continuing growth. The build models within the OFTO regime must ensure that it is suitably attractive for the supply chain to participate in order to benefit from future investment.
- Bidding each scheme will be expensive in both monetary and resource terms. Investment in, and deployment of, capacity will be prioritised by:
  - The level of certainty (Client & Project)
  - The cost to bid
  - The complexity and number of interfaces in the process.

ABB Offshore Wind Connections
Contact Details

Grant McKay – Marketing and Sales Manager

Email: grant.mckay@gb.abb.com

Colin Green - Head of Regulatory Affairs & Technology

Email: colin.green@gb.abb.com

Tel: 01785 825 050

www.abb.com

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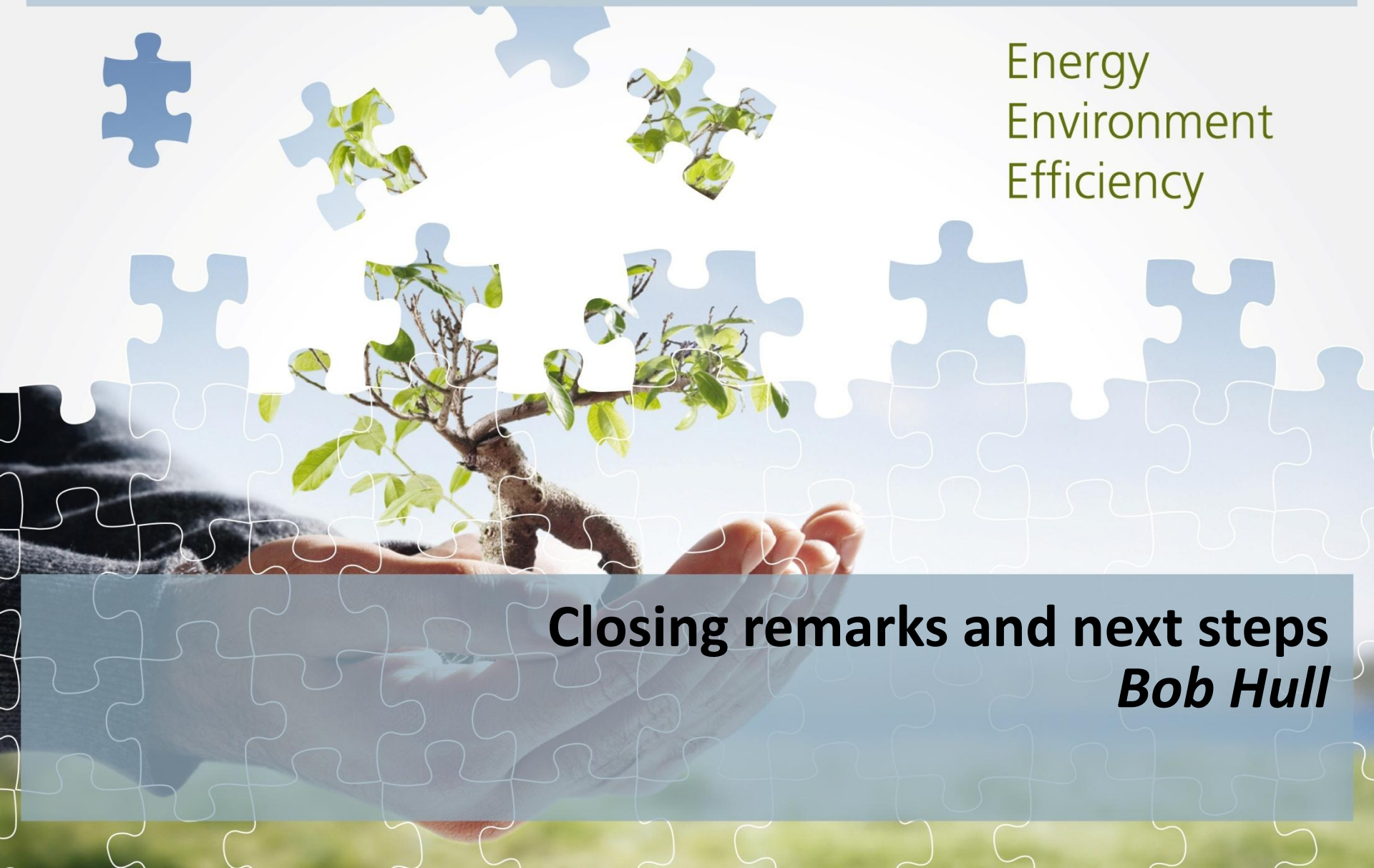

Closing remarks and next steps

Bob Hull

Next steps

December 2011 consultation	Spring 2012 publication	Longer term
Consultation closes 17 Feb	Confirm minded to positions in light of stakeholder responses	Revised Tender Regulations (from summer 2012)
Information request on future enduring projects by 29 Feb	Consult on:	Revised licence provisions (from summer 2012)
	Enhancements to the licence and incentives framework	Revisions to codes and licences (from summer 2012)
	Policy principles for phased projects	First enduring tender (approx. late 2012)
	Issues emerging from previous consultation responses	

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