Offshore Transmission Network Review Webinar

17th December 2020

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Welcome and introduction

Rt Hon Kwasi Kwarteng MP, Minister for Business, Energy & Clean Growth

Teresa Camey, Deputy Director Electricity Systems, BEIS

Housekeeping

- Due to the number of attendees, the microphones and the chat function have been disabled for this session.
- You can submit questions via the Q&A function. However, please note that we won't be able to respond to all of your questions during the webinar.
- Please refrain from posting anonymously, as we won't be able to respond to you.
- While we welcome all views and strive to be transparent, we reserve the right to not publish any comments or questions which are deemed inappropriate.

Agenda

1.	**Welcome and introduction**	**BEIS**	10:00 – 10:10 (10 mins)
2.	**OTNR context and objective**	**BEIS**	10:10 – 10:15 (5 mins)
3.	**What have we done so far?**	**BEIS, NG ESO, TCE, Ofgem**	10:15 – 11:00 (45 mins)
4.	**Framework for delivering change**	**BEIS**	11:00 – 11:10 (10 mins)
5.	**OTNR approach and next steps**	**BEIS**	11:10 – 11:40 (40 mins)
6.	**OTNR project timeline**	**BEIS**	11:50 – 11:55 (5 mins)
7.	**Closing remarks**	**BEIS**	11:55 – 12:00 (5 mins)

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OTNR context & objective

Chris Fox

Head of Europe & Offshore, BEIS

OTNR context

2050 Net Zero

10 Point Plan

68% Reduction in GHG by 2030

COP26 Glasgow 2021

40GW by 2030

>3GW per year

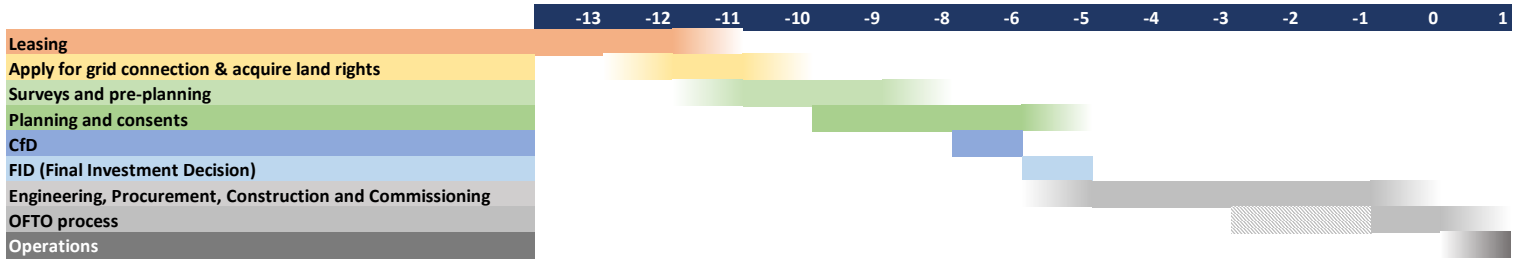
- Under the current regime, offshore wind developers connect their projects to the onshore grid by individual point-to-point connections, an approach designed when the 2030 offshore wind ambition was just 10GW
- In light of the new, ambitious offshore wind target of 40GW by 2030 as set out in the Prime Minister's Ten Point Plan, and the expectation of more offshore wind beyond that to deliver net-zero by 2050, radial offshore transmission links are not likely to be economically and environmentally optimal for many areas
- However, delivering 40GW of offshore wind by 2030 is challenging and requires a rate of deployment of >3GW per year. This equates to 1 turbine being installed each weekday throughout the whole of the 2020's.
- The regulatory framework for developing and connecting offshore wind is complex and involves multiple government departments, regulators, statutory bodies, devolved administrations and industry parties.

OTNR Objective

- Launched in July 2020 with the objective of:

Ensure that the transmission connections for offshore wind generation are delivered in the most appropriate way, considering the contribution offshore wind is expected to make towards net-zero by 2050. This will be done with a view to finding the appropriate balance between environmental, social and economic costs.

Challenges:



- From seabed leasing, through connections, planning and consenting processes to CfD auction and OFTO tender, the offshore wind journey requires significant commitment of time with the design of the connection often determined relatively early in the process. Changes to ongoing projects, especially those far along in the development process, can carry substantial risk to project success.
- Therefore, the introduction of any form of coordination will be a **balancing act between maintaining the pace of delivery required to meet 40GW by 2030 and introducing changes as soon as practically possible** to maximise social, economic and environmental benefits
- The large number of organisations involved represents an organisational challenge. For the review to deliver in the timescales required all organisations involved will need to align behind a single delivery plan. Changes are likely to require primary legislation therefore securing the necessary parliamentary time will also be key.
- These are just some of the challenges that the Review will have to overcome in meeting its objective

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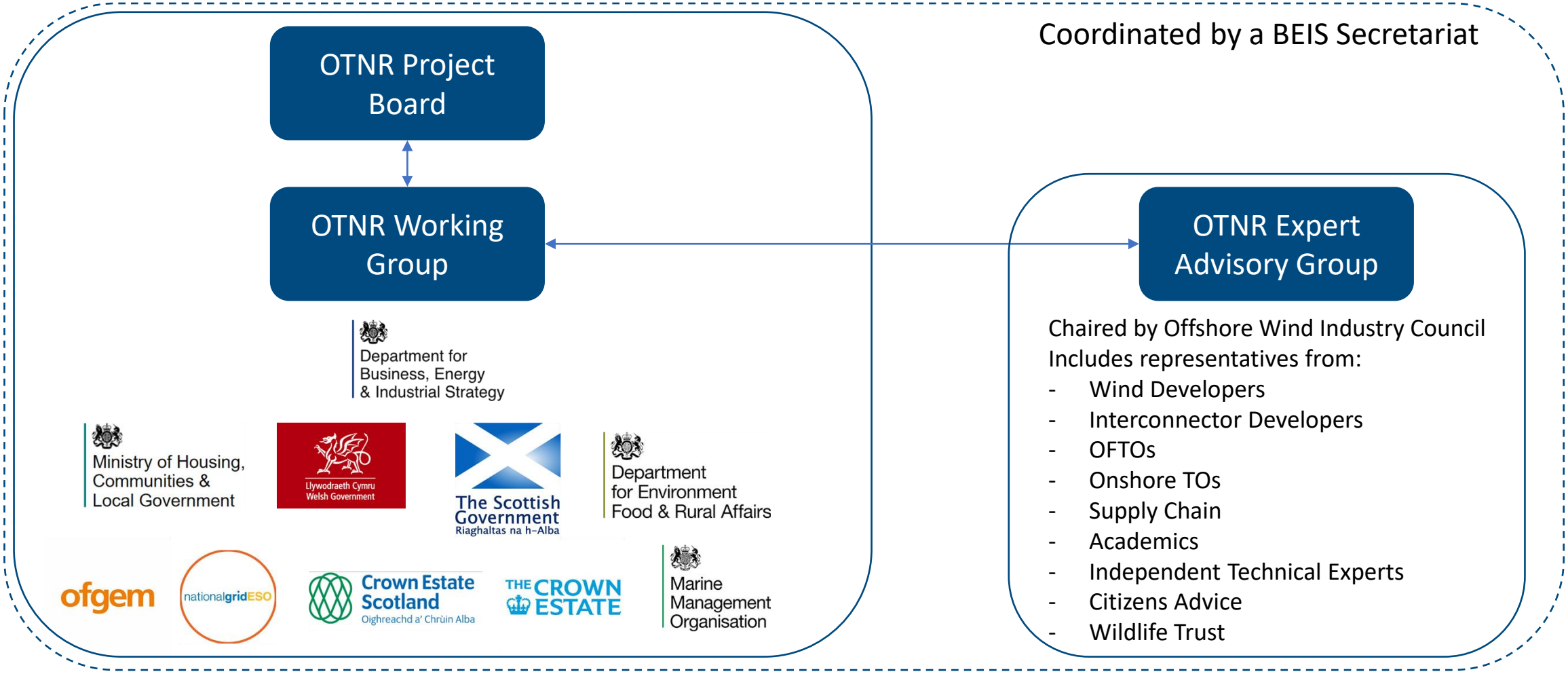
What have we done so far?

National Grid ESO, The Crown Estate, Ofgem and BEIS

OTNR Mobilisation



Offshore coordination

National Grid ESO

Department for Business, Energy & Industrial Strategy

Offshore Coordination project – Phase 1

As the Electricity System Operator (ESO) for Great Britain, responsible for balancing electricity supply and demand now and in the future, the first phase of our project has focused on the engineering requirements for a future integrated approach to offshore connections and the costs and benefits of such an approach.

Phase 1 presents findings across three areas:

Cost-Benefit Analysis Report

Holistic Approach to Offshore Transmission Planning Report

Offshore Connections Review Report

Stakeholder engagement

Project findings have been thoroughly tested with industry and are the result of extensive engagement May-December 2020, across the various sectors impacted by increased offshore connections. Stakeholder groups include:

- Offshore wind farm and interconnector developers
- Transmission Owners (TOs) and Offshore Transmission Owners (OFTOs)
- The Crown Estate
- Technology providers
- Members of Parliament
- Civil Servants of the Scottish and Welsh Governments
- Council officers
- Environmental groups
- Academics

7 Commercial and technical webinars

11 Interactive workshops

76 Organisations engaged

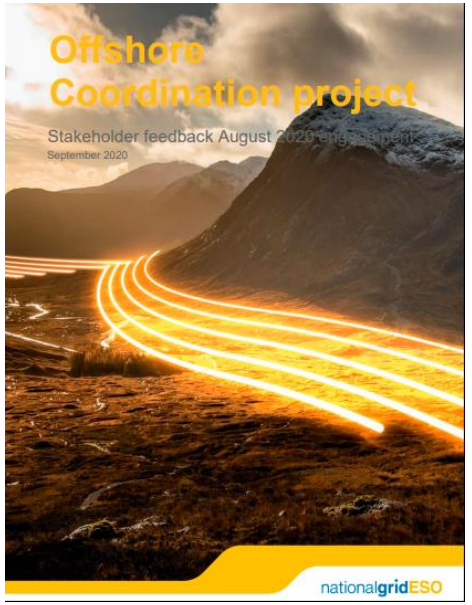
190 Workshop attendees

Feedback from stakeholders

Our stakeholders have played a vital role throughout the project and we have sought their views to shape the final outcomes.

Themes from stakeholder feedback

- Stakeholders overwhelmingly support integration and there was support for our project's work and findings.
- Stakeholders across many sectors are eager to move to the next phase to ensure integration is delivered quickly. This was balanced with a need to ensure existing projects are able to continue without unreasonable disruption and risk to meeting the 2030 offshore wind target.
- Feedback has helped shape the scope for Phase Two of the ESO's work.



Changes to final report based on stakeholder feedback

- Assessment of the benefit in starting integration in 2030 in addition to the 2025 previously considered to reflect the difficulty in starting integration from 2025.
- Provision of greater transparency on the split of capex costs across offshore and onshore assets.
- The CBA now provides information on the estimated size of assets & landing points under each scenario.

Key messages

Feedback received from our stakeholders was broadly in line with our initial consultation findings, which helped to confirm our key messages:

£6 billion (18%) potential savings by 2050 if integration starts from 2025

The number of assets could be reduced by 50% creating significant environmental & social benefits

Benefits are reduced the later integration begins – by half if integration starts in 2030.

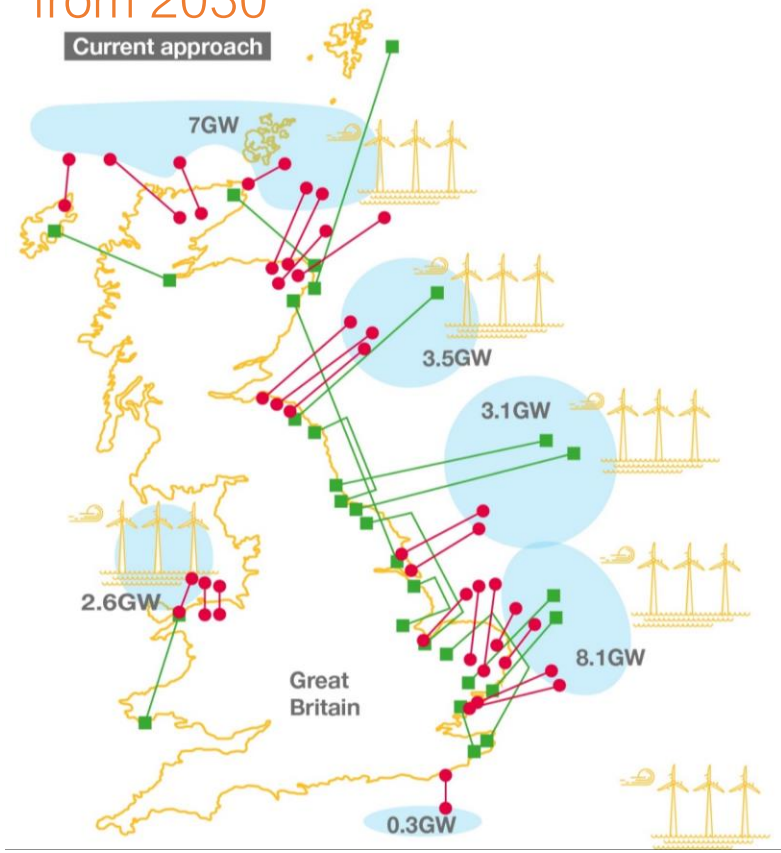
Flexibility is needed to deliver inflight projects without putting their delivery and the 2030 offshore wind target at risk

Additional onshore infrastructure is required to connect wind, however integration can minimise the overall increase in infrastructure

Support for commercial deployment is needed to deliver the required technology

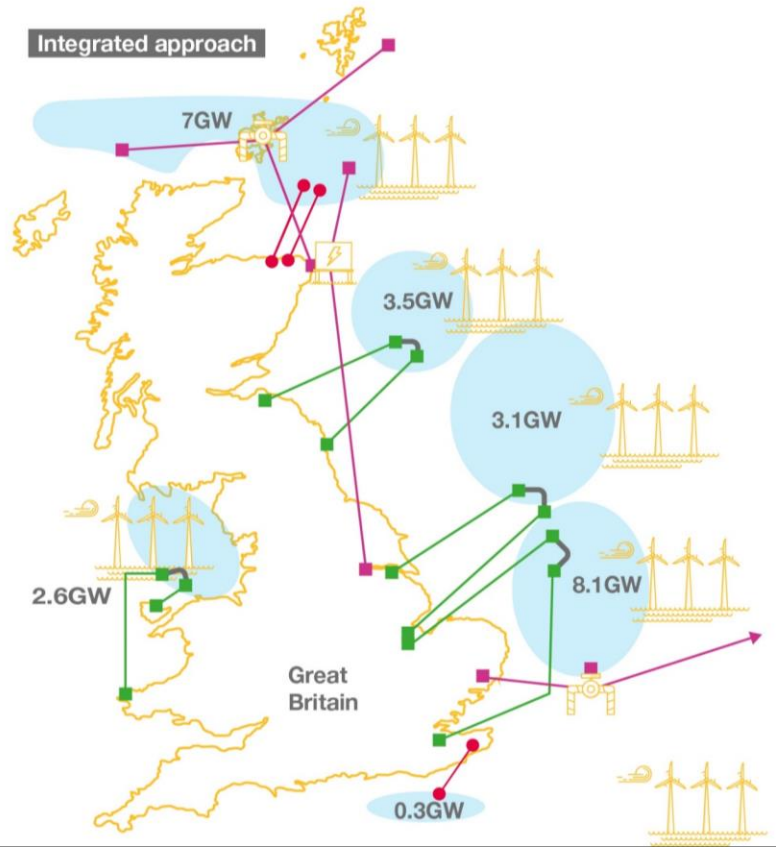
How the network could look in 2030

Status quo & Integration from 2030

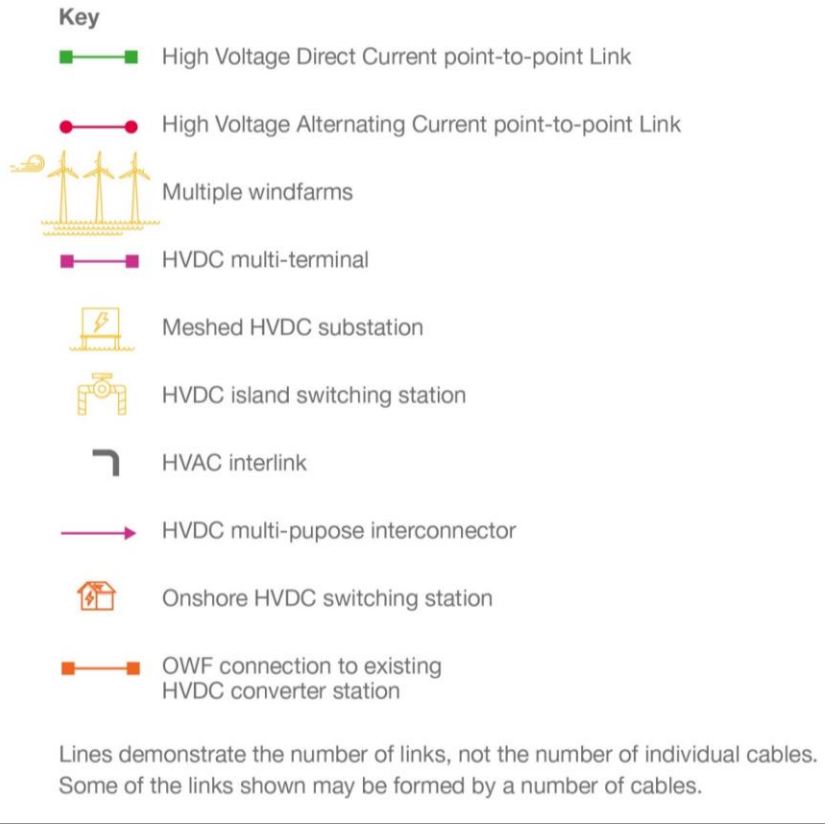


Cost: £15 billion
Total Assets: 149

Integration from 2025

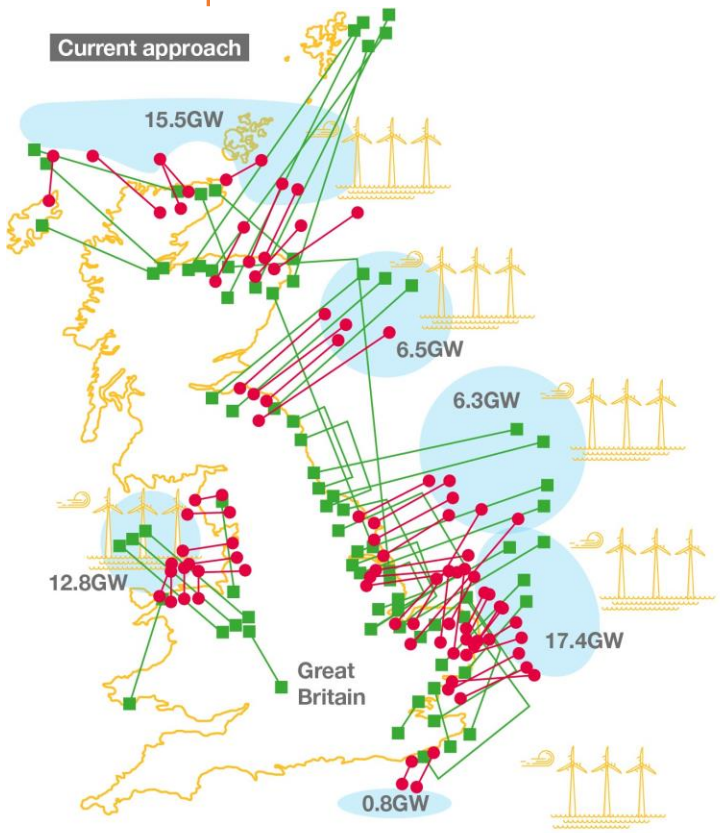


Cost: £12 billion (-17%)
Total Assets: 60% reduction



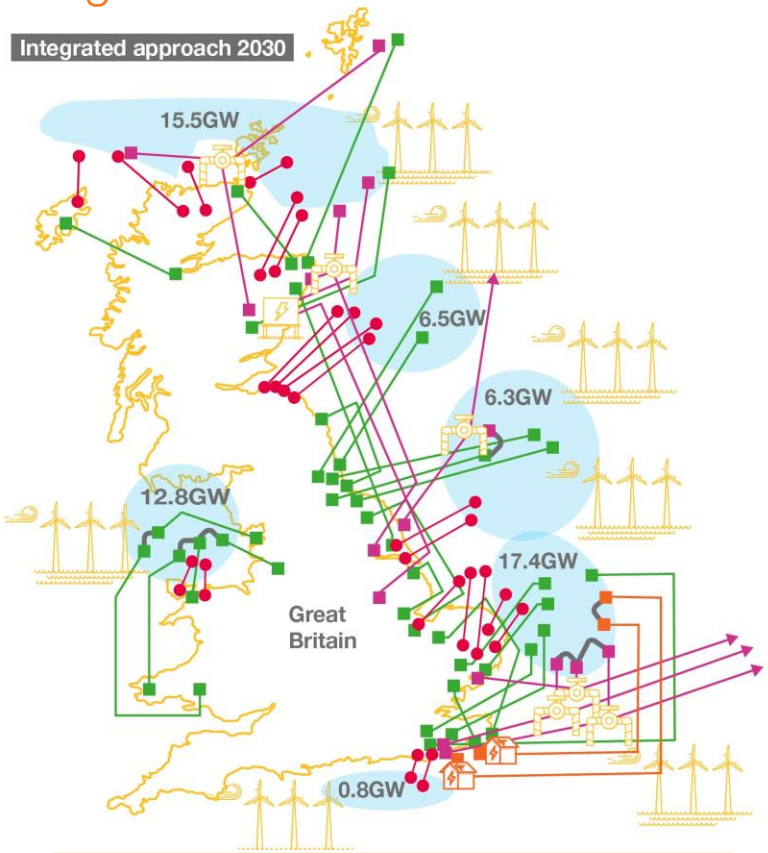
How the network could look in 2050

Status quo



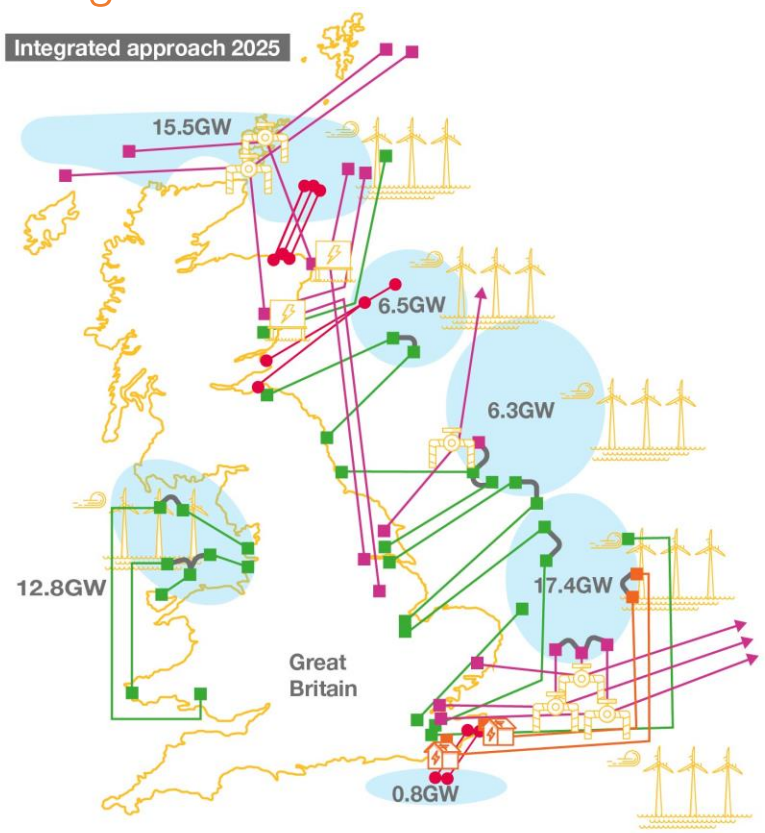
Capex Cost: £29 billion
Total Assets: 330
Total Landing points: 105

Integration from 2030



Capex Cost: £27 billion (-8%)
Total Assets: 40% reduction
Total Landing points: 60

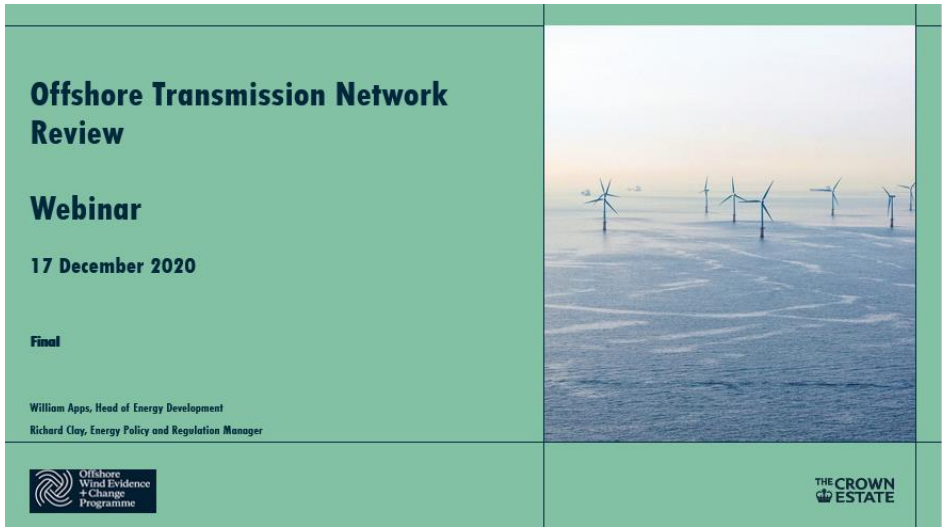
Integration from 2025



Capex Cost: £23 billion (-18%)
Total Assets: 70% reduction
Total Landing points: 30

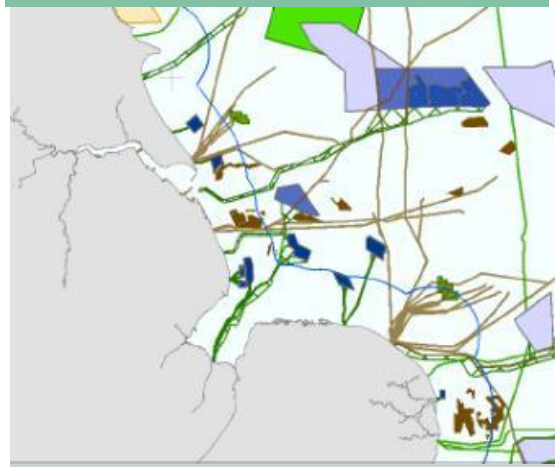
Spatial grid study

The Crown Estate



Current policy & regulatory setting: offshore

Land rights



The Crown Estate (TCE) & Crown Estate Scotland (CES)
- Leasing rounds
- Statutory obligations
- Stakeholder interests
- **Active management of seabed**

Consents to build and operate

Government
- Planning authorities
- Wales National Marine Plan and other regional marine plans
- Statutory advisors

Ofgem
- Generation licence

Transmission

Ofgem / System Operator / OFTO
- Developer/System Operator agree connection
- Separate licence for offshore transmission
- "Generator Build" model
- OFTO tender round – now 25 year revenue

Economic support

Government
- Deliver energy policy objectives, Net Zero, National Development Framework (NDF)
- Allocation for 15-year CfDs
- Allocation Round 4 (2021); every two years thereafter

Compete for sites → Obtain consents & licences → Secure grid connection → Compete for contracts

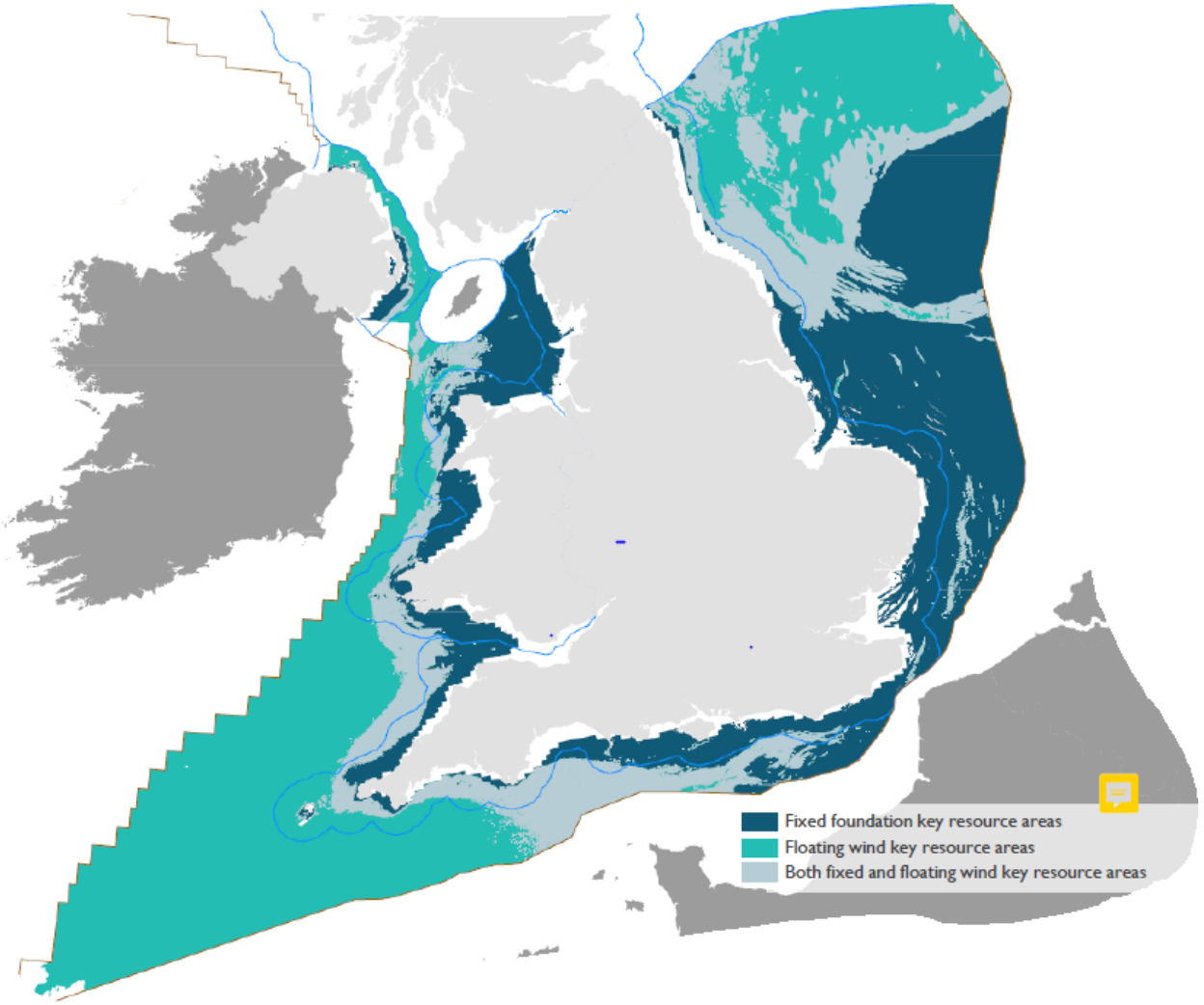
Private Sector / Developers / Investors

Enabling the future…

Offshore wind key resource areas… a first step to understanding which areas could practically be made available for development to meet net zero.

Given technological advances in the sector by 2040, including the floating offshore wind, there will be few technical limits to where offshore wind developments can be sited.

A much broader evidence base will now need to be established to account for the resilience of environmentally sensitive areas and the rich biodiversity offshore, as well as the many competing demands from an increasingly busy onshore, coastal and marine environment.



Ref: https://bit.ly/Broad-Horizons-Offshore-Wind

THE CROWN ESTATE

Enabling the future…

Offshore Wind Evidence + Change Programme - Mission

To facilitate the sustainable and coordinated expansion of offshore wind helping the sector to meet the UK's commitments to the low carbon energy transition whilst supporting action to secure clean, healthy, productive and biologically diverse seas

Department for Business, Energy & Industrial Strategy

THE CROWN ESTATE

Department for Environment Food & Rural Affairs

www.thecrownestate.co.uk/OWEC

Enabling the future…

Offshore Transmission Network Review

National Infrastructure Strategy

Air Defence Mitigation Task Force

Economic benefits and supply chain activity through activities such as BEIS Ports Competition and OWIC Growth Partnership

+

Offshore Wind Evidence + Change Programme

East Coast Grid Spatial Study

Future Offshore Wind Scenarios Project

→

40 GW by 2030
c.100 GW by 2050

Clean, healthy, productive and biologically diverse seas

Greater coordination on and offshore

Enhanced societal impact

East Coast Grid Spatial Study

- **A study to consider spatial context for connecting future offshore wind in the east of England.**
- Funded by TCE's Offshore Wind and Evidence Change Programme; tendered and awarded to AECOM in late July 2020.
- Study aims:
    - Develop a deeper understanding of potential terrestrial and marine constraints that future offshore wind farms connecting into the east coast of England are likely to face as and when grid connection solutions are developed under the prevailing radial connection model.
    - Assess the risks and issues to deployment of offshore wind projects driven by constraints, and
    - Consider if a coordinated or integrated approach to offshore transmission could mitigate those risks and issues.
- Study findings will provide spatial/constraint analysis evidence into the OTNR and other work

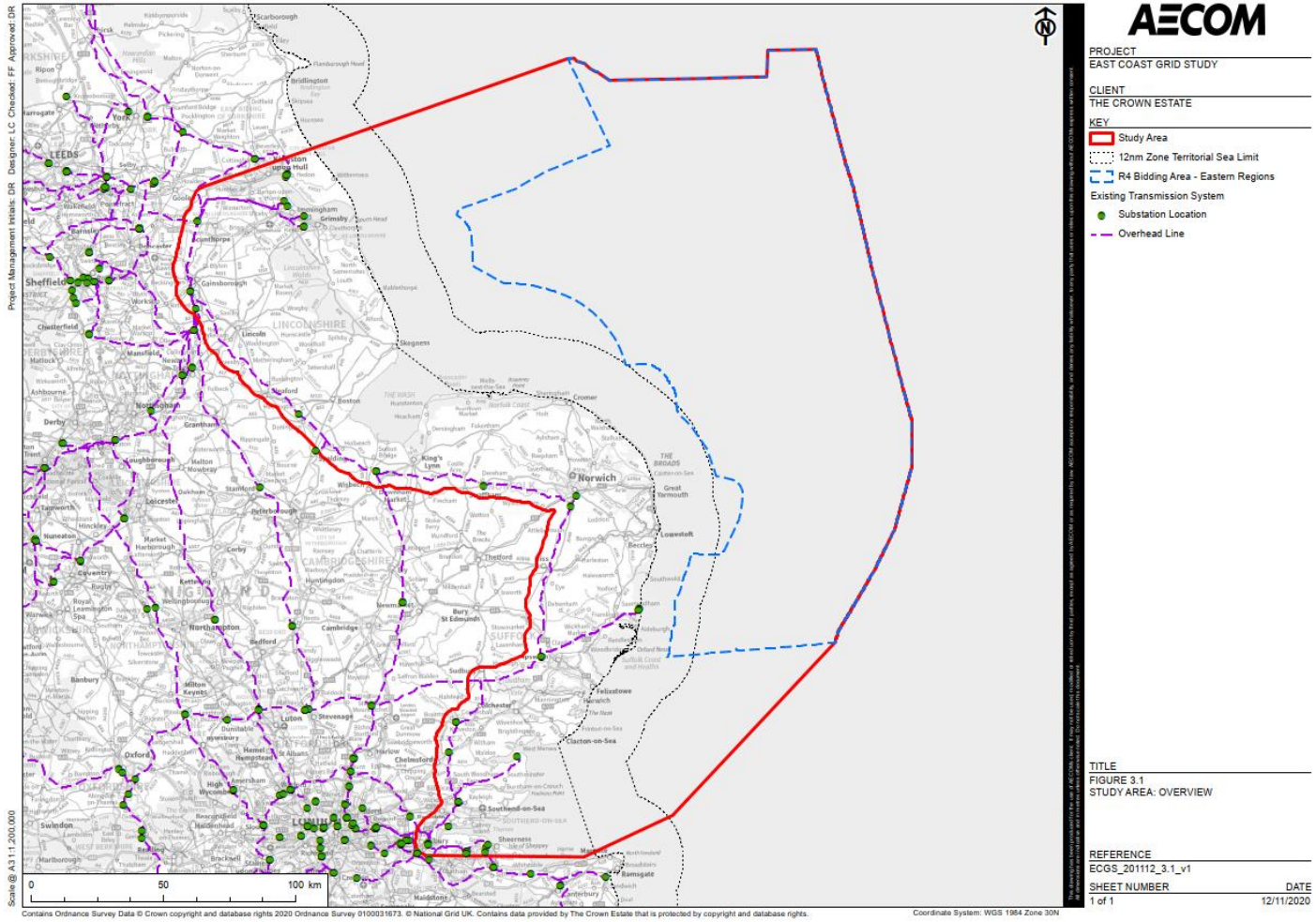
Study partners

- The Crown Estate is the lead partner commissioning this study. The Crown Estate's current Round 4 leasing round has the aspiration of up to 8.5 GW of new offshore wind in England and Wales.
- The MMO licenses, regulates and plans marine activities in the seas around England so that they're carried out in a sustainable way. The MMO oversees the development and implementation of regional marine plans for England.
- National Grid is the asset owner of electricity transmission network in England and Wales.
- National Grid ESO is the operator of the electricity supply system in Great Britain

Why undertake the work

- To date all GB offshore wind projects have been connected to grid on a radial or point to point basis - operated by OFTOs and licensed by Ofgem. Successful but not sustainable in context of Net Zero.
- The Crown Estate fully supports direction of travel toward more coordinated grid connection solutions and we are directly involved in the OTNR and wider policy evolution.
- Our study brings in a spatial and environmental perspective to the analysis – these aspects are vital considerations as we make the transition and work will support the largely economic and technical work underway by others.
- Focus on east of England region initially given:
    - the connection of offshore wind is expected to grow significantly over the coming years given the excellent wind resource in these areas,
    - other infrastructure is seeking to develop in addition in the region (such as electricity interconnectors and nuclear generation), adding to the pressure and disruption for onshore communities and environment, and
    - challenges on the environment and other marine activities, such as marine protected area and fisheries.

Study approach



- Strategic scale constraints mapping of study area, with focus on nearshore, beach landing points and onshore to the transmission system
- Regional level spatial assessment to understand relative level of constraints across the study area and potential implications
- Define connection scenarios for hypothetical future OSW build out in the study area beyond known projects – radial links and versions of coordinated designs
- Analyse strengths and weaknesses of alternative connection designs in context of marine and terrestrial constraints identified
- Make recommendations

Overview of spatial mapping

Marine Constraints Themes	Example Constraints / Considerations	Terrestrial Constraints Themes	Example Constraints / Considerations
Biological Environment	Protected sites e.g. SACs, MCZs, SPAs, SSSIs	Biological Environment	Protected sites e.g. SACs, SPAs, SSSIs
Physical Environment	Coastal elevation/typology, seabed substrate, erosion	Physical Environment	Topography, watercourses, flood risk
Historic Environment	Protected wrecks	Historic Environment	Protected sites e.g. Scheduled monuments
Other Sea-users/infrastructure	Shipping, fisheries, cables/ pipelines, O+G, OFW	Seascape/Landscape	AONBs and National Parks
		Other Land-use/infrastructure	Settlement, roads, railways, transmission system

Emerging conclusions from spatial mapping

Some areas within study area more or less constrained than others, former would benefit from a coordinated approach earlier.

Existing offshore wind projects have a significant spatial influence on future development, having likely taken optimal routeing options

Level of constraint is dynamic and will change over time, particularly if we continue on a radial basis only (reducing opportunities/diminishing returns).

Nearshore routeing/landfall selection is the most significant pinch point, acute in certain geographic locations

Coastal (offshore nodes) in the nearshore environment likely to be challenging – physical processes, landscape/seascape.

May be opportunities to extend the onshore transmission system to coastal locations i.e. build out once as opposed to build in several times (i.e. for each OSW farm).

Next Steps

- Draft report currently under review – helpful input received from OTNR Expert Group and other external parties

- Publish output in early 2021

- Use findings in OTNR workstreams and within broader OWEC programme

- Ascertain if/how findings from this study could be applicable elsewhere and consider potential and need for undertaking similar studies in other geographic locations

Open Letter, Pathfinders and Anticipatory Investment update

Ofgem

Offshore Coordination in wider context of our work

3.4 What have we done so far? – Ofgem

1. **Decarbonisation Action Plan (DAP) – February**
   Sets out the actions we will take in the next 18 months, beginning our next steps on an urgent, but decades-long journey towards net zero. Included actions for onshore and offshore.

2. **ESO Report**
   ESO published their final Phase 1 report yesterday. We initiated this work as a result of our DAP under Action 3.

3. **Interconnector policy review – August**
   We launched this review where we are considering regulation and approach to new electricity interconnectors including MPIs.

4. **Offshore Coordination Open Letter with BEIS – August**
   We published our letter with BEIS setting out our very early thinking and inviting stakeholders to contact us. The thinking this engagement has informed touched on in later slides.

5. **RIIO Final Determinations – December**
   We published our RIIO-2 Final Determinations, while focussed on the TOs these have the mechanisms (e.g. LOTI and Net Zero Reopener) to provide the flexibility to enable the delivery of the required onshore reinforcements.

Stakeholder themes in open letter

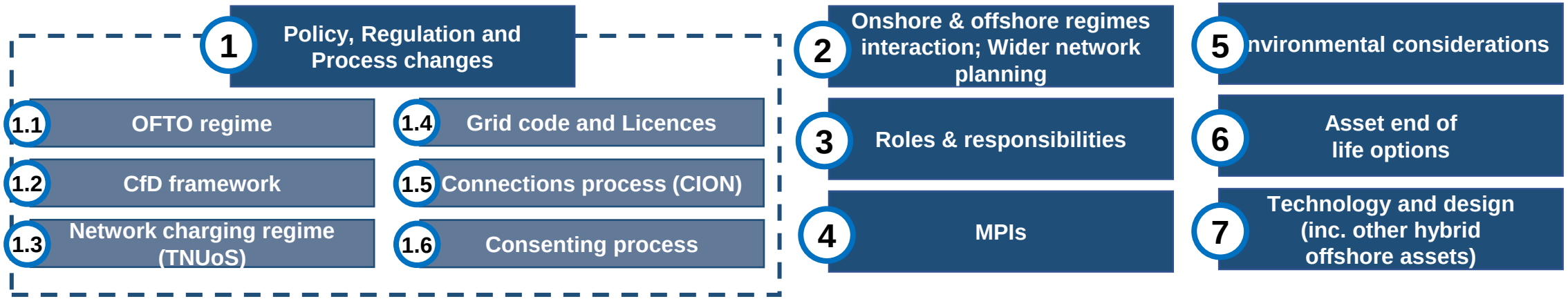
On 24th August 2020 BEIS and Ofgem published the Open Letter on '**Increasing the level of coordination in offshore electricity infrastructure'** and invited stakeholders to respond

We received 48 responses from a range of stakeholder groups such as offshore transmission owners (OFTOs), transmission owners (TOs), offshore wind and interconnector developers, local authorities, community interest groups and members of the public

Throughout the responses, stakeholders welcomed the launch of the OTNR and expressed resounding support for an increased level of coordination in offshore transmission infrastructure

We are carefully working through all the feedback and comments received and have ensured that all key themes are reflected within the scope and objectives of OTNR workstreams

BEIS and Ofgem are currently finalising the joint response to the Open Letter engagement which will be published shortly



Pathfinder concepts

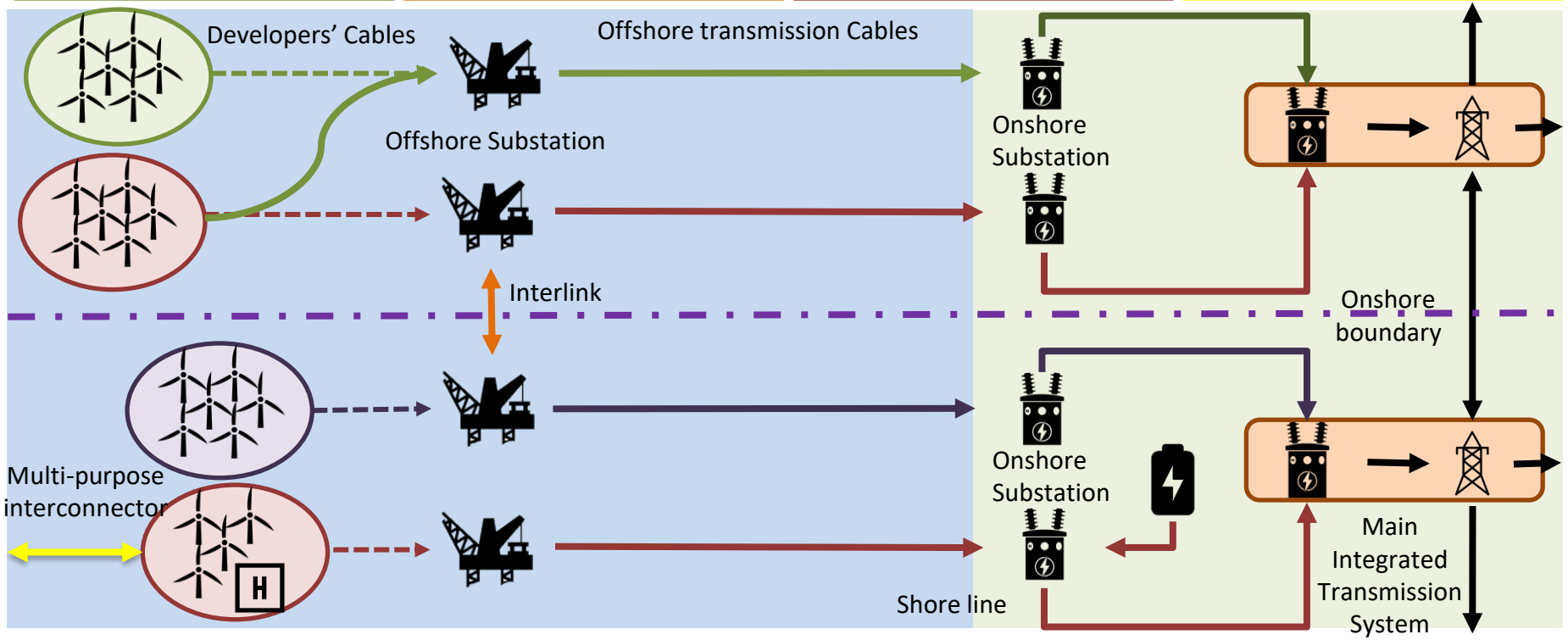
3.4 What have we done so far? – Ofgem

Shared offshore assets
Reducing landfall points and costs.

Interlinks
Mitigating onshore constraints and maximising export.

Co-location
Balancing benefits mitigating reinforcement costs.

Multi-purpose interconnectors (MPIs)
Reducing landfall points and enhancing security of supply



Each of these concepts will require us to develop policy solutions to facilitate them. We will be considering how to do this in the first quarter of 2021.

We will also be evaluating these and any other pathfinder concepts (this list is not exhaustive) against assessment criteria to validate consumer benefits

Facilitating Anticipatory Investment in Pathway to 2030

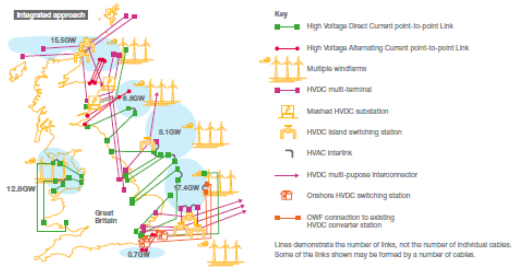
3.4 What have we done so far? – Ofgem

1. Need to establish a common view of where offshore generation will be connected across GB between now and 2030

Points for consideration:

- Accelerated infrastructure solution is likely to pose greater anticipatory investment risk
- A common view of where the generation will be delivered could mitigate this and provide a certain level of comfort to decision makers

2. Need a detailed network design, going beyond the current conceptual model for bringing the power generated offshore, onshore, taking into account TO networks



Points for consideration:

- Building e.g. on ESO's conceptual work to date detailed network design will need to be undertaken
- Determining whether a national or regional planning approach serves the consumer better
- Need to look into the roles and remit of organisations involved in the network design

3. Need to consider what is required to deliver infrastructure; under existing legislation 'Offshore Transmission' licensees generally need to appointed by competitive tender

Points for consideration:

- Designs could be developed and built out either on a national or on a zone basis
- Central design and central delivery of the infrastructure can be considered separately

4

Framework for delivering change

Matt Coyne

Head of Offshore Transmission, BEIS

Framework for changing how offshore wind is connected

Essential building blocks	Seabed leasing	Connections/ Network Planning	Planning	Gen/offshore transm. commercials (CfD)		Construction
Key actors	Crown Estate; Crown Estate Scotland	System Operator	MHCLG; Marine Scotland; Local Gov & Communities (Scotland)	BEIS	Ofgem	Developers; Onshore TOs
Types of change we can make	Who applies or runs it?					
	Order of building blocks					
	Project integration					
	Process integration					
	Amending activities within a building block					
Common assessment criteria	e.g. consumer benefit, coordination impact, competition impact, anticipatory investment risk, targets and deliverability, environmental impact					
Cross-cutting issues	Enabling multi-purpose interconnectors, flexibility to adapt to hydrogen production, oil and gas electrification and other use cases, environmental impacts					

5

OTNR approach and next steps

Matt Coyne

Head of Offshore Transmission, BEIS

OTNR workstreams

1	**Early Opportunities**	• Identify inflight projects which could be coordinated by leveraging flexibility within the existing regime or by making small changes to current processes • Some projects are likely to be too far in the development process to implement changes without major commercial consequences
2	**Pathway to 2030**	• Support the achievement of 40GW of offshore wind generation by 2030 through exploring opportunities for centralised planning and delivery of onshore and offshore grid infrastructure • Focus on a subset of existing planned and possibly new projects with connections planned in the late 2020s and early 2030s
3	**Enduring Regime**	• Developing options for the enduring regime as well as designing and implementing regulatory changes to current frameworks required to enable coordination • Enduring regime will apply to projects coming through from future seabed leasing, with the potential also to benefit projects emerging from Leasing Round 4 and ScotWind (2021)
4	**Multi-purpose interconnectors**	• Making tactical changes to enable the delivery of early opportunity Multi-Purpose interconnectors • Developing an enduring regime to effectively deliver projects from 2030 onwards

Multi-purpose interconnectors

Within each workstream we will consider the validity of options' design and associated regulatory change to support MPI projects

Early Opportunities Workstream

Objective	**Capitalise on early opportunities for coordination through identifying inflight projects that have the potential to coordinate with changes to, or existing flexibility within, current regulatory framework.**
Scope	• Existing projects where developer, or BEIS/Ofgem/ESO, identify opportunities • Possible options include reviewing the anticipatory investment process and TNUOS regime • Exploring what low-risk changes could be made to amend, enable and utilise flexibility in the existing processes
Assumptions	• Primarily rely on existing rules and processes, or relatively small changes • Retain developer led approach, with more coordination • Competitive transmission remains, even if exact nature of size/timing of competition changes • No substantive primary legislative changes
Indicative timings	• Mostly, but not necessarily, projects aiming for CfD AR5 • NB: Some projects currently planned to be earlier/later than this window could fall in as their plans change.

Next steps

Immediate next steps	• Identify pathfinder projects suitable for short-term coordination • Agree policy changes needed to enable pathfinder coordination (onshore and offshore elements)
2021 priorities	• Identifying suitable pathfinder opportunities • Identifying and developing early regulatory changes to support pathfinders (e.g. on Cost Assessment and TNUoS) • Process tweaks under existing regulatory flexibility

Pathway to 2030 Workstream

Objective	**Enabling achievement of 40 GW target for 2030 by increasing central coordination and accelerating delivery of the required onshore and offshore grid infrastructure**
Scope	• Part of the existing and emerging projects with connections planned in the late 2020s and early 2030s • Utilise existing mechanisms for adaptation in network price regulation (RIIO2) to facilitate onshore investment • Explore possibilities for coordinated and centrally delivered solution on a regional-level.
Assumptions	• Currently, delays and uncertainties in onshore grid expansion slow down offshore expansion • Early coordination of onshore and offshore assets will create overall consumer benefit • No substantive changes to primary legislation
Indicative timings	In 2021: • Facilitate anticipatory onshore investment • Develop detailed network plan for regional offshore transmission solutions • Develop design for central delivery of transmission assets

Next steps

Immediate next steps	BEIS, Ofgem, NG ESO, TCE, CES and others: • Develop a map of upcoming generation to early 2030s and identify priority regions • Form clear view of existing onshore blockers • Begin to develop processes to deliver detailed network design • Finalise TCE Spatial Grid study, assess its wider applicability/possible extension in the OTNR context
2021 priorities	• Accelerating investments for onshore transmission through the RIIO framework • Detailed network design • High level design of delivery model options

Enduring Regime Workstream

Objective	**Design and implement the changes necessary for more efficient connection of early-stage and future offshore wind projects**
Scope	• Projects from LR4, ScotWind and future leasing rounds (potentially excluding any included in Pathway to 2030 if progressed) • All key elements of the existing regime/frameworks could be subject to change: Approach to Leasing, consents/planning, CfD, OFTO and TNUoS
Assumptions	• Review can leverage change across the whole policy framework • Any changes to how leasing is undertaken will only take effect for the seabed leasing rounds coming after LR4 & Scotwind • Appetite for step-change not incremental change • Ready for primary legislation in Autumn 2021
Indicative timings	In 2021: • High-level design, detailed design and consultation • Timing may be driven by need/availability of primary legislation

Next steps

Immediate next steps	• Develop high level options for the enduring regime • Design assessment criteria to evaluate the options • Map any other major upcoming reforms and align appropriately
2021 priorities	• High level design of the enduring regime and associated consultations • Initial assessment of options against assessment criteria • ESO to assess opportunities to influence at European level • Changes to primary legislation (depending on timing of primary legislation)

Multi-Purpose Interconnectors Workstream

Objective	**Deliver near-term changes to facilitate the development of MPIs before 2030 and develop an enduring regime for the longer term.**
Scope	• MPI projects in the early stages of development with delivery expected before 2030. • An enduring regime for future MPI projects. • Ensure that topics being addressed in other OTNR workstreams appropriately consider and address MPI issues. • Address MPI-specific topics that are not covered in other workstreams e.g. Contract for Difference and MPI trading arrangements.
Assumptions	• MPIs provide potential benefits to consumers and reaching decarbonisation targets • Other workstreams will address certain cross-cutting issues relevant to MPIs, however any MPI-specific issues will be considered by the dedicated MPI workstream • That early opportunity MPI projects are likely to require changes to existing regimes and frameworks.
Indicative timings	• In 2021: identify potential MPI delivery models and potential legal and regulatory changes to existing regimes; identify the enduring regime model and design interventions required to deliver change

Next steps

Immediate next steps	• Identify MPI delivery models • Review legal and regulatory changes required for early opportunity MPI delivery models, with input from developers
2021 priorities	• Identify MPI delivery models • Ensure the proposed regulatory changes in other workstreams are compatible with MPIs, identify and develop additional MPI-specific changes required to facilitate MPIs • Engagement with potential connecting jurisdictions to facilitate compatible approaches • Design the enduring regime for MPIs and analyse the requirements

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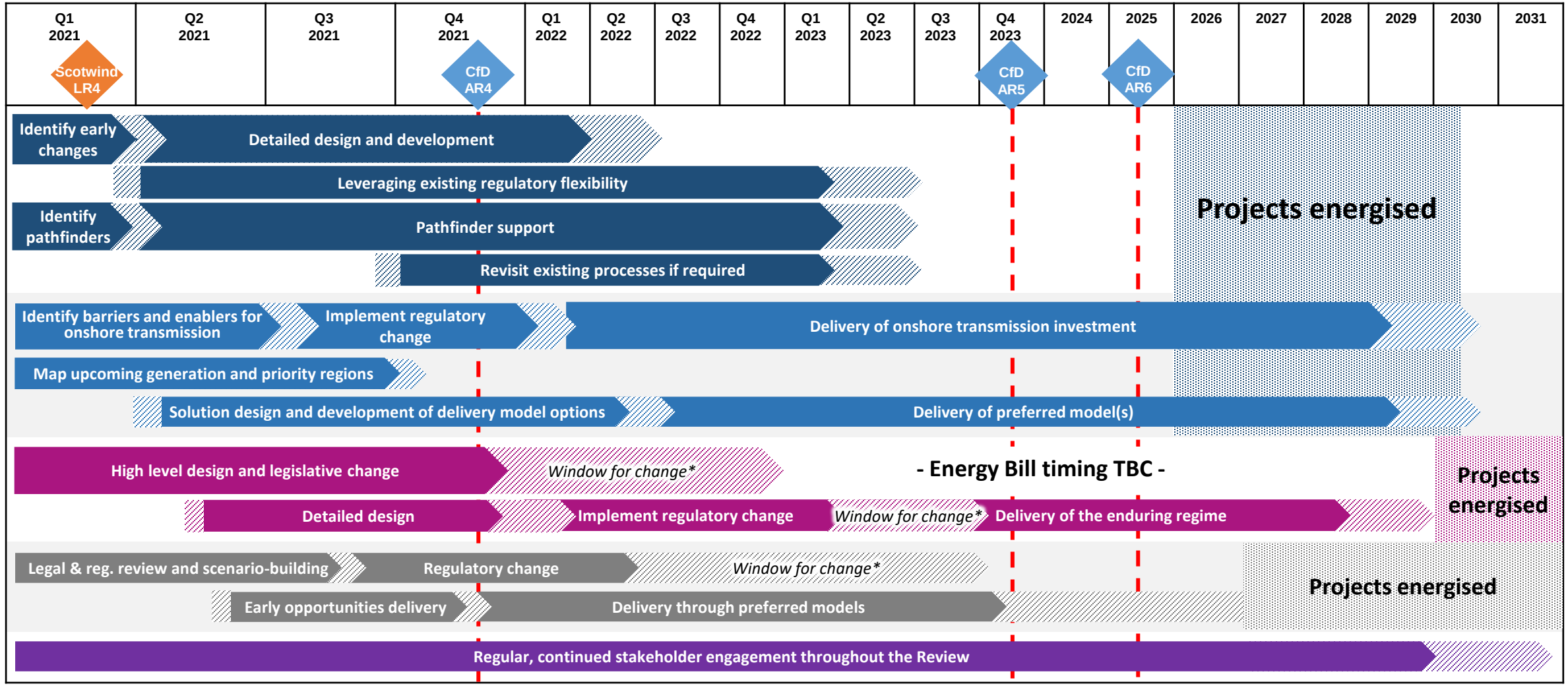
OTNR project timeline

Mark Darby

OTNR Project Manager, BEIS

OTNR Plan on a Page (PoaP)

Please note that the timings in this plan are based on a number of assumptions and hence should be treated as indicative only



*** Policy and regulatory change will be done in stages, prioritising changes that affect earlier development gateways.**

Department for Business, Energy & Industrial Strategy

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Closing remarks

Chris Fox

Head of Europe & Offshore, BEIS

OTNR Webinar Summary

- A more coordinated approach to offshore transmission could deliver strong consumer benefits and considerably reduce the impact on coastal communities and the environment.
- Approach: Balance increased coordination with the need for speedy offshore wind deployment by:
  - Developing an enduring regime
  - Ensuring onshore and offshore transmission is not a barrier to delivery of the 2030 target for offshore wind
  - Looking at coordination opportunities for well-progressed projects without causing undue risk to their timely delivery
- Work done so far:
  - Set up the institutional structure for the review including key stakeholders
  - Engaged with stakeholders (Open Letter process, Working Group, Expert Advisory Group)
  - Set out the workplan and had expert workshops to lay the foundation for the work in 2021
- Next steps:
  - Implement the workplan for 2021 in close cooperation with National Grid ESO, The Crown Estate, Crown Estate Scotland and Ofgem and consulting with stakeholders
  - Further updates in 2021

Thank You

Appendix - Acronyms

- **LR4** – ‘Leasing Round 4’; seabed leasing process in England and Wales run by The Crown Estate
- **Scotwind** – equivalent seabed leasing process in Scotland run by Crown Estate Scotland
- **CfD AR4/5/6** – Contracts for Difference Allocation Rounds
- **NG ESO** – National Grid Electricity System Operator
- **TCE, CES** – The Crown Estate, Crown Estate Scotland
- **OFTO** – Offshore Transmission Owner
- **MHCLG** – Ministry of Housing, Communities and Local Government
- **MPI** – Multi-purpose Interconnector
- **TNUoS** – Transmission Network Use of System Charges
- **TO** – Transmission Owner