



ESO Networks Stakeholder Group

26th January 2021

Agenda

1. Welcome
2. Review of previous minutes and action log
3. Early Competition Consultation Q&A
4. Break
5. Offshore Coordination Update
6. AOB & Close out



Action Log

ID	Description	Owner	Due	Status	Date Raised
9	Publish approved version of Terms of Reference on website	Rachel P	09/09/2020	Open	11/08/2020
20	Review wording of 'refining recommendation from network planning bodies'	<u>Urmi</u>	03/11/2020	Open	12/09/2020
21	Consider the approver role in more detail	<u>Urmi</u> / Sally	03/11/2020	Open	12/09/2020
24	Update the diagram on slide 7 to include advisory committee	Rachel	19/11/2020	Open	03/11/2020
26	Write Offshore Coordination report	Alice M	11/12/2020	Open	03/11/2020
28	Update wording of workstream 3 to 'analyse potential impact' rather than benefit.	Luke W	15/12/2020	Open	19/11/2020
29	Feedback to Alice E or Alice M if there are any more comments on phase 2 proposals	ENSG Members	11/12/2020	Open	19/11/2020
30	Feedback to Hannah KW or Alice M any comments on the Early Competition slides.	ENSG Members	11/12/2020	Open	19/11/2020

ENSG - Early Competition

January 2021



Commercial Model & Model Implementation

- Are you in agreement with our proposed commercial model?
 - What would you change about our proposed commercial model, and why?
- Do you agree with the identified activities for implementation set out in our proposals?
- Do you agree with our timeline for implementation?
- What implementation plan activities do you think the ESO should continue to progress prior to Ofgem making a decision on early competition?

Project Identification and End-to-End Process

- Are you in agreement with our proposed processes for identifying suitable projects for competition?
 - What would you change about our proposed processes and why?
- Are you in agreement with our proposed tender process?
 - What would you change about our proposed tender process and why?

Roles & Responsibilities and Early Competition in Distribution

- Do you agree with our proposals for the Approver role?
- Taking into consideration the role of the Approver, do you agree that an Independent Assurance activity is not needed?
- On our proposals on the approver role, would you change anything?
- Are you in agreement with our proposals on TO conflict mitigation?
 - What would you change and why?
- The prevailing feedback has been that there is not a role for the ESO in distribution sector early competition. Which of the roles do you think the ESO could perform and why?

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ENSG - Offshore Coordination Update

26th January 2021

Rhiannon Marsh

Agenda

1. Update on current position on Phase 2
2. Phase 1 Stakeholder Engagement
3. Phase 1 Findings – for noting only

1. Update on current position on Phase 2

Current position on Phase 2 of the project

- Funding in place for January to March 2021
- Working with Ofgem and BEIS to agree scope, funding, responsibilities and deliverables for April and beyond
- Our project takes overarching direction from BEIS's Offshore Transmission Network Review (OTNR) and we're re-aligning ESO workstreams more closely to the evolving OTNR plans (see below)
- From April 2021, we will need to utilise the OTNR Expert Group, as opposed to ENSG

ESO offshore coordination Phase 2 workstreams

Early opportunities for coordination

Identify and deliver early coordination opportunities for inflight connections, to support the transition between current state and an enduring integrated offshore regime.

Pathway to 2030

Recommend network planning and regulatory framework changes, develop integrated onshore and offshore network designs and processes to develop them and set out an operational strategy.

Enduring regime

Publish and deliver an industry-agreed roadmap, establishing the necessary changes to codes and frameworks to facilitate offshore integration and progress relevant regulatory assessments and changes for the Pathway to 2030 workstream, ensure ESO workstreams are and remain aligned to the OTNR.

Multi Purpose Interconnectors

2. Phase 1 Stakeholder Engagement

Purpose: For ENSG to take a view on the Offshore Coordination project stakeholder engagement to inform a report for submission to Ofgem

What was our engagement strategy for phase 1?

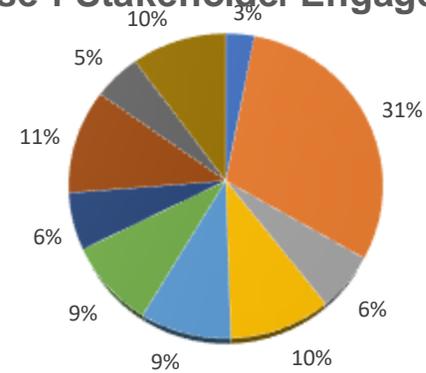
Due to the wide reaching impact of this piece of work on all of our stakeholders we set out to co-create and work closely with stakeholders to deliver phase 1 of the project. We set out to;

- Listen to stakeholders ahead of putting pen to paper
- Utilise existing stakeholder groups
- Listen and consult with local authorities
- Make documentation on the project available to local communities
- Ensure all those impacted by the project were informed of the work being completed and were able to contribute should they want to

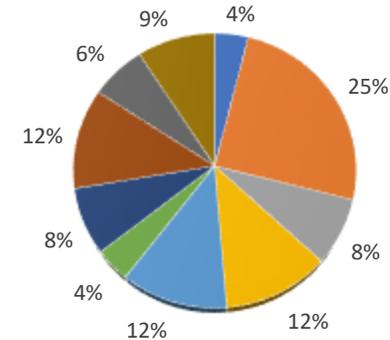
Engagement in Phase 1 – who did we engage with?

- ✓ Phase 1 – 99 organisations
- ✓ Consultation – 76 organisations
- ✓ Biggest sector Offshore developers and interconnectors
- ✓ Over 90 bilateral sessions held
- ✓ 7 webinars

Phase 1 Stakeholder Engagement



Consultation Stakeholder Engagement



- Onshore Transmission Owner
- Offshore developers and interconnectors
- Offshore Transmission Owners
- Environmental representatives
- Community representatives
- Government
- Technology providers
- Consultancies
- Legal, academia and trade associations
- Other

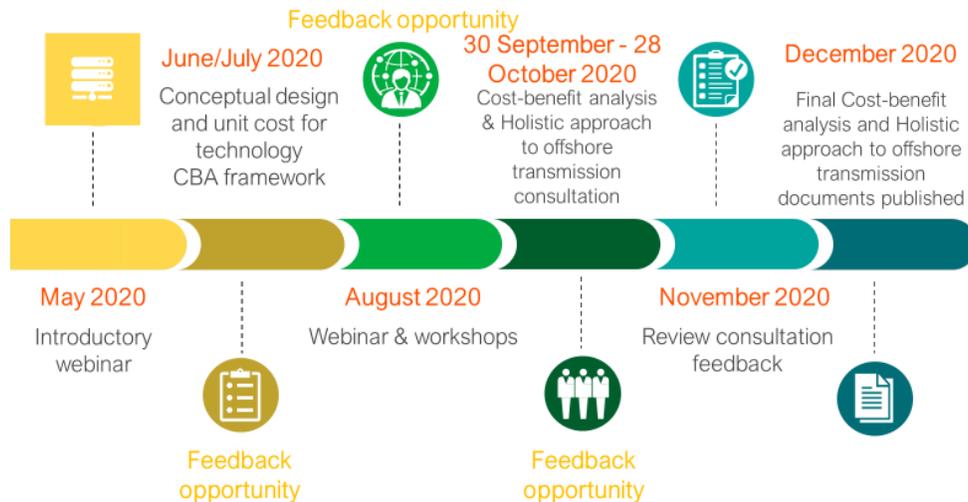
What documentation have we produced on stakeholder engagement?

You said, we did feedback documents

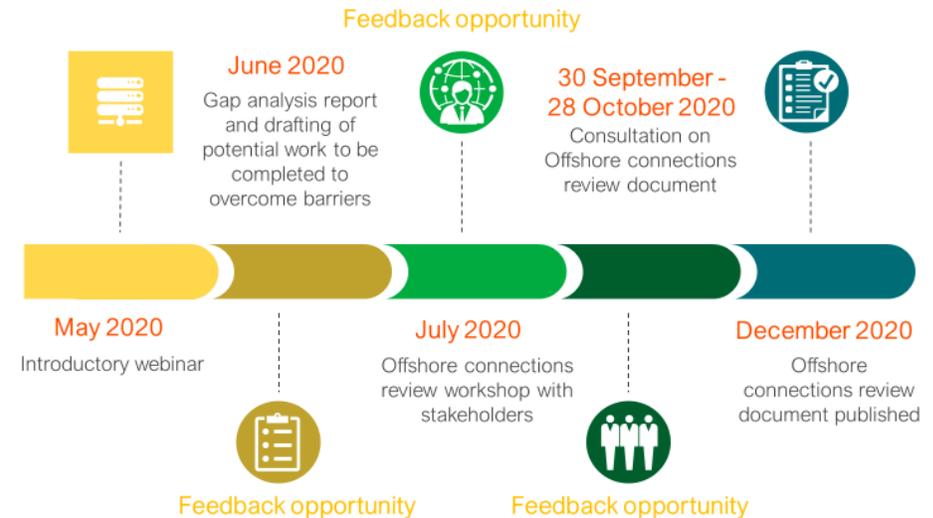
- We have published and or recorded all Q&A sessions to provide transparency on the work completed and questions asked with answers provided
- We have published three documents detailing the feedback received at each stage of the development of our Phase 1 work and what we have done with that feedback. This includes what we have adapted based on feedback and what we have not and why.
 - [July 2020](#)
 - [August 2020](#)
 - [December 2020](#)

When did we engage?

Commercial



Technical



Since the launch of the project in May 2020 we worked with stakeholders informally on a weekly basis in addition to structured feedback opportunities in June, August, October and when we published our final Phase 1 documentation.

How did the feedback shape our work?

Started work with a blank sheet of paper, ideas, views & thoughts captured through initial workshops and bilateral meetings

Areas shaped by feedback

- Non – technical key performance indicators (KPIs) used in network design assessment
- High Voltage Alternating Current (HVAC) design option added to network design options
- Offshore Connection Review - all areas to improve coordination co-created by stakeholders in mural session
- 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
- Phase 2 areas of focus shaped by feedback provided such as greater detail on onshore impact

When did we engage with ENSG?

2 September

Presentation of consultation approach. The group fed back that four weeks would not be enough time to provide feedback. The team provided feedback sessions during the consultation period to give stakeholders an alternative approach to drafting written responses. Environmental organisations' feedback discussed and actioned.

12 October

Post launch discussions around how the consultation had been launched and key messages. Positive feedback provided on consultation launch and webinars held.

3 November

Phase 2 report discussed and feedback on proposed areas of work for Phase 2.

19 November

Consultation insights and phase 2 scope presented and feedback provided.

Engagement next steps

- Developing our engagement strategy including who to engage with in Phase 2, when & what areas of work we can co-create
- Looking at workstream overlap and how to utilise stakeholder's time
- Preparing materials to share the scope of our confirmed phase 2 work
- Started discussions with stakeholders around early opportunities workstream

3. Phase 1 Findings – for noting only

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



Feedback from stakeholders

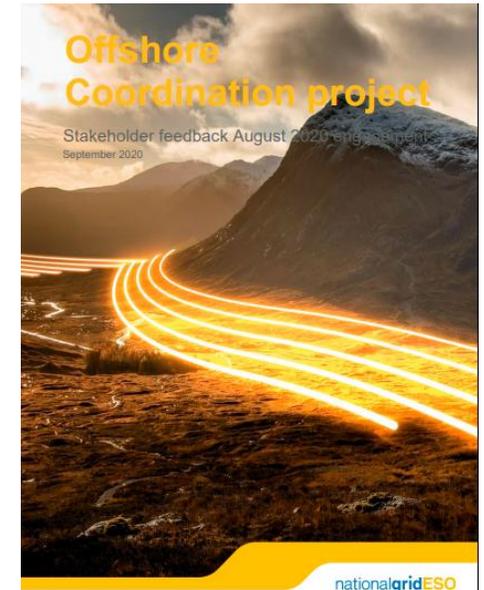
Our stakeholders have played a vital role throughout the project and we have sought their views to shape the final outcomes.

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.

Additional 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 this project.



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

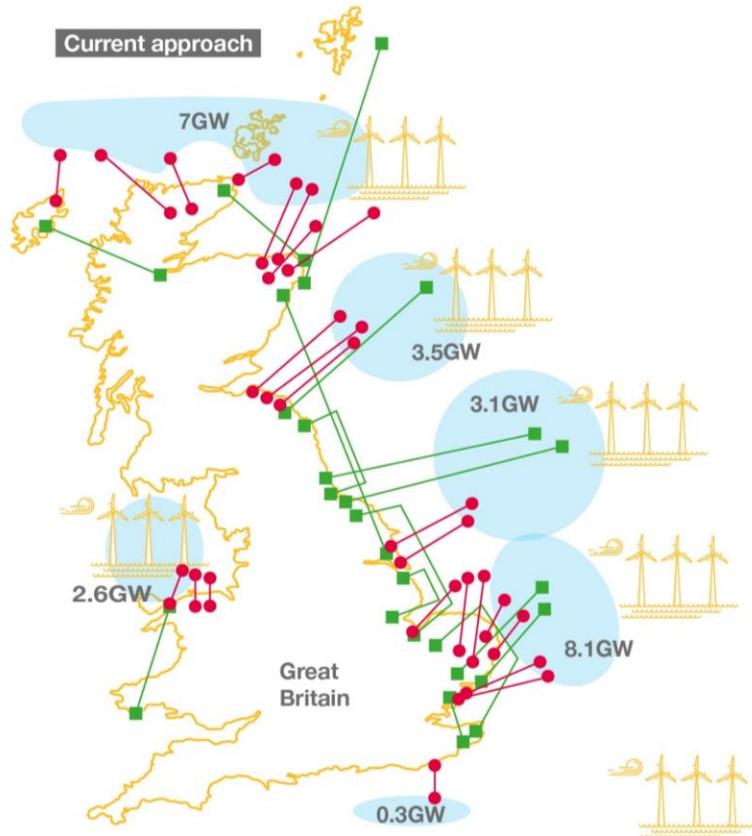


Support for commercial deployment is needed to deliver the required technology

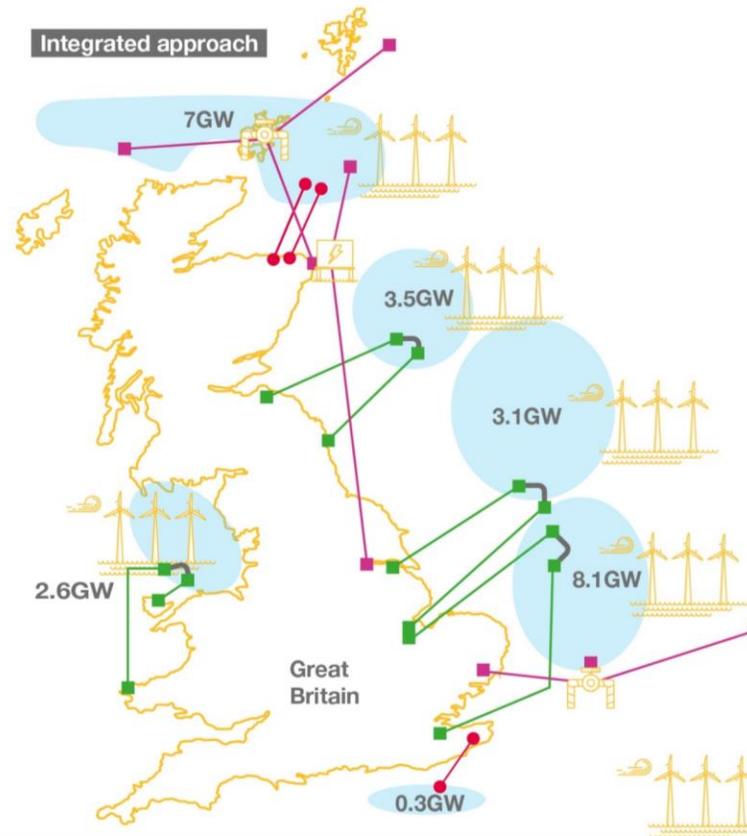
How the network could look in 2030

Status quo & Integration from 2030

Integration from 2025



Cost: £15 billion
Total Assets: 149



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

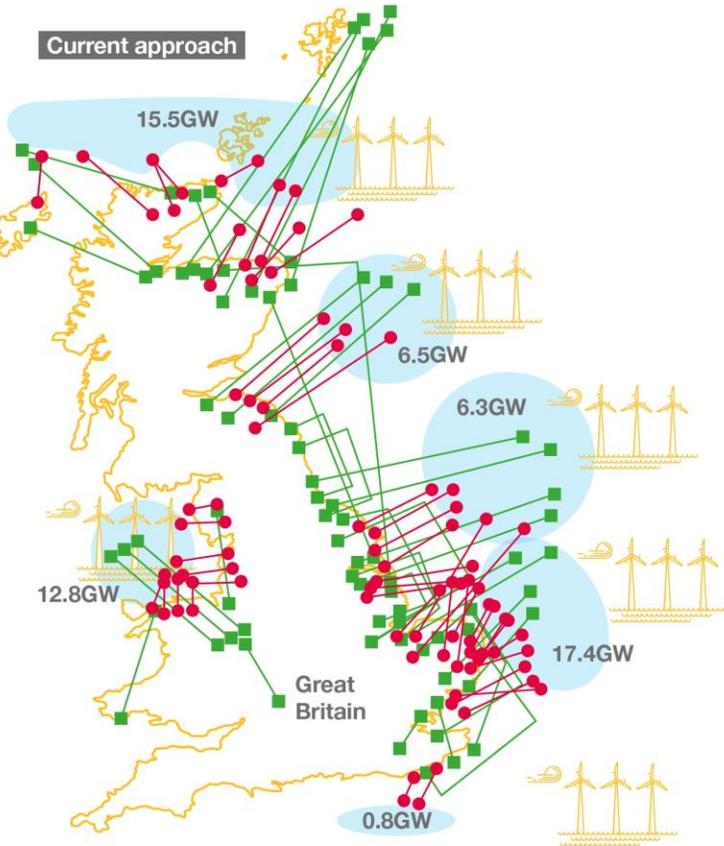
- Key**
- High Voltage Direct Current point-to-point Link
 - High Voltage Alternating Current point-to-point Link
 - Multiple windfarms
 - HVDC multi-terminal
 - Meshed HVDC substation
 - HVDC island switching station
 - HVAC interlink
 - HVDC multi-purpose interconnector
 - Onshore HVDC switching station
 - OWF connection to existing HVDC converter station

Lines demonstrate the number of links, not the number of individual cables. Some of the links shown may be formed by a number of cables.

How the network could look in 2050

Status quo

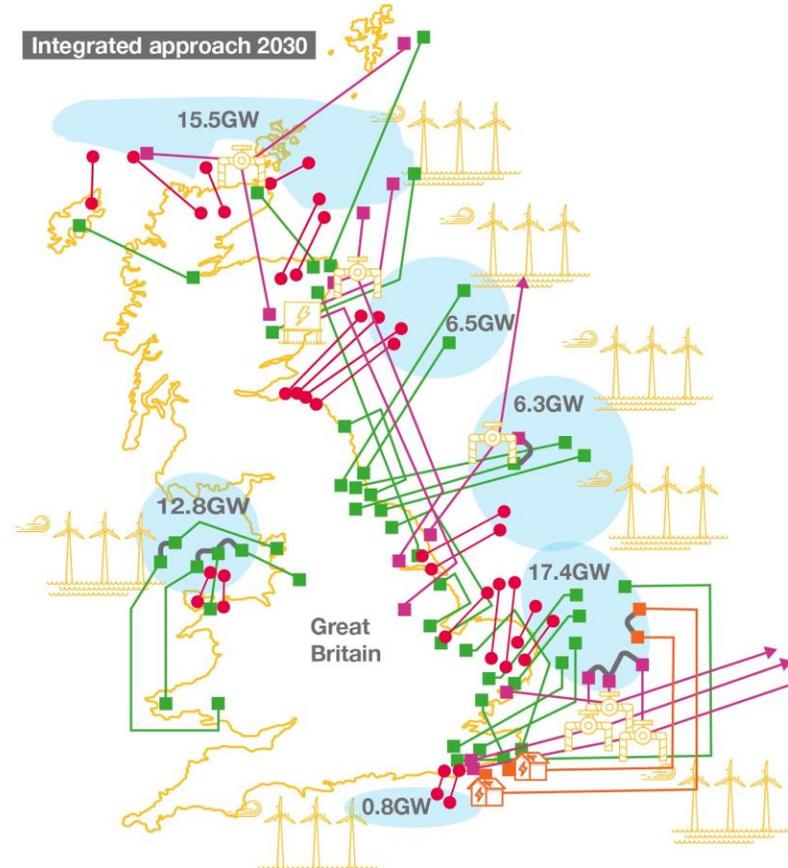
Current approach



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

Integration from 2030

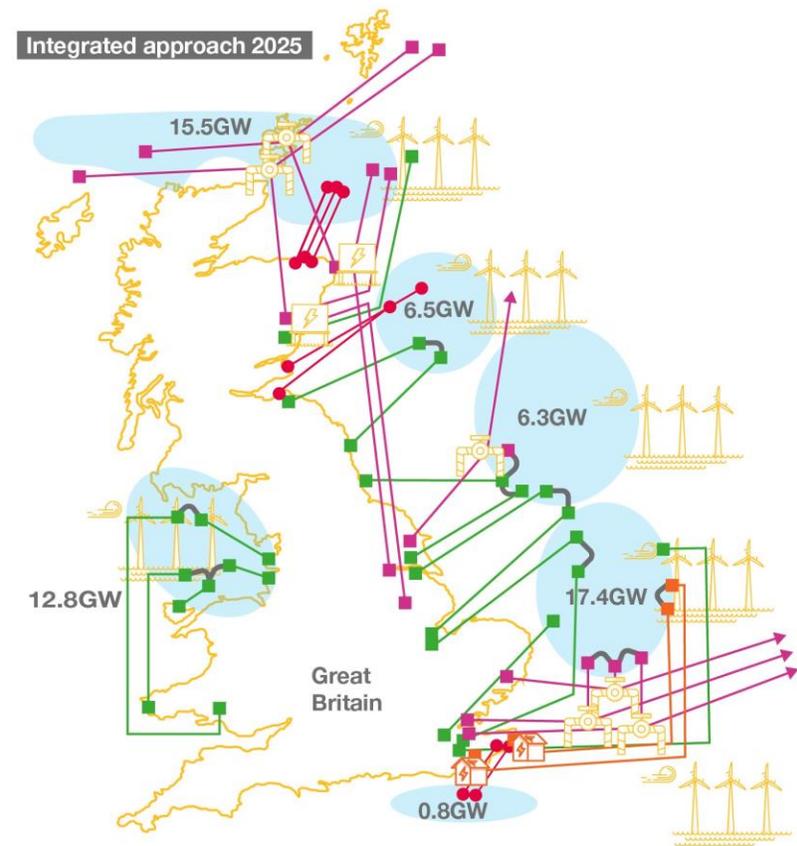
Integrated approach 2030



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

Integration from 2025

Integrated approach 2025



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

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