

Offshore Wind & CCUS Colocation Forum

Monitoring 101 Event - 6 March 2024

Overview

On 6 March 2024, the Offshore Wind (OW) and Carbon Capture and Storage (CCS) Colocation Forum held its third developer event, bringing together OW and CCS developers, broader industry experts and academics.

The audience heard from a panel of experts, featuring Prof. Simon Hogg, Durham University (OW), Dr Michael Blair, The Crown Estate (OW), Dr Amy Bloomfield Clarke, The Crown Estate (CCS), and Elle Lashko, Storegga (CCS).

Fifty-one developers from both industries engaged in a detailed Q&A session about the nuances of monitoring used in both industries, including storage processes, role of colocation in net zero targets and interplay between OW and CCS licensing and leasing.

OW Key Discussion Points

Please see slides 6 – 24 in the accompanying presentation

Dr Michael Blair focused on the reasons behind location selection for offshore wind farms, using wind farm examples from the Southern North Sea as a case study to illustrate how offshore wind sites are chosen.

Prof. Simon Hogg focused on the technical aspects of offshore wind turbine design, focusing on the increasing size of turbines, and their generational capacity.

CCS Key Discussion Points

Please see slides 26 – 36 in the accompanying presentation

Dr Amy Bloomfield-Clarke looked to communicate the basics of how, why and where the monitoring of a carbon store takes place. She outlined how measurement, monitoring and verification plans are created, and the safeguards that are put in place.

Elle Lashko updated the audience on the progress of the T&S Taskforce MMV Subgroup, outlining the key deliverables and objectives of the Taskforce and the range of CCUS monitoring technology recommendations the Taskforce had established in its new report.



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Audience Questions

During the event, developers in the audience showed a strong interest in learning more about the different forms of monitoring.

Key points included:

- Potential for OW turbines sizes to continue growing, which could support colocation
- Addressing concerns around understanding of mechanisms and permanence of storage
- Concerns highlighted around impact of CCS licences being issued below existing OW projects and interplay between The Crown Estate and NSTA
- Lack of a “one size fits all” solution to CCS monitoring programmes due to different geological conditions
- Progress The Crown Estate is making through its Whole of Seabed Programme, which is examining the extent to which colocation needs to be delivered, particularly in regard to enabling the UK to achieve net zero targets
- Understanding emerging monitoring techniques that could replace seismic and work more effectively with OW construction methods

Aligned with the Colocation Forum’s key objectives to facilitate cross-sector collaborative working, the Monitoring 101 event provided an important opportunity for developers from different industries to better understand the monitoring technology each other deploy.

By moving toward a consistent language and understanding of the current technology and future of technology, OW and CCS industries can work together to resolve the existing monitoring challenges that need to be overcome to enable colocation.

The Colocation Forum has commissioned Project Anemone to create practical guidance for how offshore wind and CCS technologies can operate alongside each other – from construction through to decommissioning, including monitoring. Events such as Monitoring 101 will build momentum for resolving these challenges and focus minds on how colocation can be delivered in practice.

