MOET online meeting – Policy and Regulation – 17th September 2024

MOET online stakeholder meeting - Session 1 – 17th September 2024 10:00-11:30

MS Teams

MOET attendees: Jim White (BGS), Maxine Akhurst (BGS), Jonathan Pearce (BGS), Emma Bedda (BGS), Kirstie Wright (BGS), Carl Watson (BGS), Jess Mackie (BGS), Hazel Napier (BGS), Gaye Bayrakci (NOC), Anna Lichtschlag (NOC), Marius Dewar (PML), Lizzi Gabe-Thomas (PML), Muchamad Al Azhar (PML)

Attendees: CEFAS, Centrica, The Crown Estate, DEFRA, DESNZ, Environment Agency Equinor, JNCC, MCGA, MMO, National Gas, NECCUS, NSTA, NWS, Scottish Government, The Wildlife Trusts

Session 1 - Policy and regulation

Stated objectives - This session will explore the policy and regulatory landscape: who the various regulators and policy makers are; the existing regulatory pathway; the options for coordination across different regulatory frameworks to support issues such as co-location; and priority areas for temporary storage of hydrogen, offshore wind farms, and permanent geological storage of carbon dioxide.

Item	Time	Description	Lead
1	10:00-10:10	Welcome and introductions Aim of meeting	Hazel Napier
2	10:10-10:20	Presentation – MOET project Brief overview and update of progress	Jim White
3	10:20-10:30	Presentation – experiences and challenges of regulatory pathways	Jonathan Pearce Chris McClane
4	10:30-10:45	Plenary Q&A - your own experiences of policy and regulation for the offshore energy transition	All
5	10:50-11:15	Breakout session • What are you perceived gaps and challenges in the current regulatory pathway? • Who holds the necessary data and information? • How can data and information be shared more effectively with stakeholders?	Groups chaired by MOET project team
6	11:15-11:25	Plenary feedback	Group chairs
7	11:25-11:30	Next steps and meeting close	Hazel Napier

Aims of session

To address topics raised by stakeholders in previous engagement sessions that would benefit from further exploration.

To support the development of MOET's dissemination activities.

Overview and presentations

Jim White (Principal Investigator) presented an overview of the MOET project and a brief update on progress (see attached slides). He encouraged participants to continue to engage with the project to ensure it remains relevant and useful, and that stakeholders have the opportunity to drive the research and benefit from the project results.

Jonathan Pearce, Head of CO_2 storage at BGS, and Chris McClane, of Centrica, shared their views on the experiences and challenges of regulatory pathways for storage of CO_2 and hydrogen beneath the UK Continental Shelf (slides attached).

Response to plenary questions

Question posed regarding sources of hydrogen for storage – blue or green hydrogen?

Operator policy is for low-carbon hydrogen, so either by methane reformation with CO_2 capture and storage or from electrolysis powered by renewable energy.

All sources of hydrogen would need to be stored to inform assessment of storage capacity requirement in porous rocks and salt caverns; both are being considered in the MOET project.

Breakout sessions

Participants were then split into three mixed groups and were posed the following questions:

What are your perceived gaps and challenges in the current regulatory pathway?

Who holds the necessary data and information?

How can data and information be shared more effectively with stakeholders?

Group 1 – Chaired by Jim White (BGS)

- There is now a well-prescribed process for CO_2 storage regulation. Regulator provides guidance and documentation. Timeline for project development is 6-10 years.
- Discussions are ongoing regarding understanding the needs for future licensing and there seems to a real drive to understand the interaction between licensing and regulation.
- Current CO_2 licence areas can have significant spatial extent. This is partly due to the recognition that licences need to include maximum possible extent of fluid substitution and understand wider pressure perturbation. This has a consequence for any future definition of potential leakage from the storage complex. There is a desire to see licence areas become more targeted, and offer more opportunities
- There are likely to be large, injected volumes of CO_2 offshore the east coast of England. Changes in pore pressure regime in connected hydraulic units related to this injection need to be understood i.e. changes to the wider geosphere and likely impact on other energy transition technologies
- There is a need to understand the potential interaction between CO_2 and hydrogen storage operations even though there will be differences in depths of storage and the spatial distribution of projects.
- Regulations can be edited and amended but only retrospectively. Evolution of regulatory guidelines has clearly been steered by learning from early projects.
- Overlap of monitoring areas for offshore wind and CO_2 storage projects need to be considered. There is a potential issue if monitoring areas overlap. Different approaches need to be considered, and regulatory approval for novel techniques needs to be assured
- Co-existence, co-location and trade-offs present challenges. Data and information that would be of interest to multiple operators will be generated during appraisal, construction, operation and closure of offshore sites. Schemes to share understanding, and highlight impacts, should be developed at the earliest opportunity.
- MOET is interacting with many offshore stakeholders, including Offshore Wind Energy UK and the CCSA, to understand operators' perspective.

Group 2 – Chaired by Maxine Akhurst (BGS)

- Stakeholders need more clarity on who the competent authorities are in onshore, nearshore, and offshore areas. Lack of clarity about who holds regulatory responsibility offshore, emphasizing that if offshore storage is to be promoted, clear accountability is needed.
- Commissioned work on inshore/nearshore storage indicates gaps in licensing within 12 nautical miles, this is publicly available. Scottish Government has set up a working group to explore the report and its policy implications.
- Work ongoing regarding onshore storage regulations and how COMAH (Control of Major Accident Hazards) regulations apply, to salt caverns for example (led by HSE).
- Risks to the marine environment will be a key issue when considering the impacts of the energy transition.
- Legislation and regulation is not yet fully joined up for onshore CO_2 storage.
- Stakeholders asked for short summaries of research findings with relevant policy points highlighted as needed for regulators and policy makers, rather than full academic paper focusing on detail.
- Information on how projects have progressed, onshore and offshore, timelines, challenges faced and how they were mitigated would be useful. A detailed set of storylines documenting how stakeholders have benefitted from project outcomes would support future roll out and broader understanding of the challenges associated with the offshore energy transition.

Group 3 – Chaired by Lizzi Gabe-Thomas (PML)

- The offshore system is complicated - miscommunication of this is a gap.
- There are gaps in maturity of legislation but that will come. We need a clear pathway from government and regulators.
- Gaps in confidence in new technologies, e.g. offshore salt cavern storage which is a lower TRL than onshore cavern storage. We need to increase the TRL for all these new approaches.
- Gaps in understanding of the pace at which energy transition can be delivered, how quickly the new knowledge can be delivered.
- There is complexity of different regulators, some duplication and overlaps, the interfaces between different regulators are not well understood. There is a lack of clarity on what the regulatory landscape is.
- What about the decommissioning requirements? Is there a need for an overarching body that looks across the different elements?
- Regulation appears to be very industry led and not a holistic ‘energy transition’ approach. Can MOET support a strategic understanding of the requirements for offshore technologies?
- There appears to be a lack of alignment between offshore storage planning with national energy needs.
- Lots of information is available on hydrogen and CO_2, and industry is very open to having dialogue about what is known and what is planned.
- Central government want things to happen quickly, and so data needs to be shared. Different regulators have different data requirements, and there is potential for duplication of effort. There is a need for better and more efficient sharing of data.
- There is a role for BGS and others to have a wider remit to complete regional-scale studies to benefit all prospective storage projects in a region.
- Uncertainty for environmental impacts; how transparent is impact data and who gets access to it? What’s the best format to improve the sharing of these data?

Close

Many thanks to all who participated.

More online sessions will be planned later in the project to explore other subjects in more depth.

Next in person meeting likely to be some time in the autumn of 2025. Date TBC