

<b>Project Name</b>	<b>OFFSHORE WIND &amp; CCS COLOCATION FORUM 11<sup>th</sup> PLENARY MEETING</b>
<b>Meeting Venue</b>	Northern Lights Project, Ljøsyvegen 97, 5337 Rong, Norway
<b>Date &amp; Time of Meeting</b>	10:30 – 12:30 BST on Wednesday 26 <sup>th</sup> June 2024

<b>Chair of the Meeting</b>	Denise Moylan (The Crown Estate)	
<b>Names of the Attendees</b>	<u>Forum members</u>	<u>Guests (Forum Projects)</u>
	<ul style="list-style-type: none"> <li>• Beth Hebditch, CCSA</li> <li>• Brian Rennie, CES</li> <li>• Scott Ross, CES</li> <li>• Jerome Malhotra, DEFRA</li> <li>• Paddy Dowey, DESNZ</li> <li>• Tom Hewitt, DESNZ</li> <li>• Nia Hunjan, DESNZ</li> <li>• Wael Khatib, DESNZ</li> <li>• Lauren Russell, DESNZ</li> <li>• Natasha Hall, Grayling (Secretariat)</li> <li>• Jo Bagguley, NSTA</li> <li>• Viana Iancu, NSTA</li> <li>• Nick Richardson, NSTA</li> <li>• Luke Eatough, OREC</li> <li>• Oscar Wilkie, OWIC(RUK)</li> <li>• Amy Bloomfield-Clarke, TCE</li> <li>• Helen Hallsworth, TCE</li> <li>• Denise Moylan, TCE</li> </ul>	<ul style="list-style-type: none"> <li>• Philippa Parmiter, NECCUS</li> <li>• Gordon Walker, NECCUS</li> <li>• Dr Sam Head, (UoA)</li> <li>• Nigel Platt, (UoA)</li> <li>• Professor John Underhill, University of Aberdeen (UoA)</li> </ul>
	<u>Apologies (Forum members)</u>	<u>Guests (Developers)</u>
<ul style="list-style-type: none"> <li>• Fiona Munro, Marine Scotland</li> <li>• Georgie Sutton, MMO</li> <li>• Elen King, Welsh Govt</li> <li>• Adrian Topham, TCE</li> </ul>	<ul style="list-style-type: none"> <li>• Ingrid Aalholm, British Embassy, Oslo</li> <li>• Rhiannon Mayall, Buchan Offshore Wind</li> <li>• Nick Terrell, Carbon Catalyst</li> <li>• Sven Unterberger, EnBW</li> <li>• Faisal Bachlani, Equinor</li> <li>• Sophia Northridge, Equinor</li> <li>• David Tutill, Perenco</li> <li>• Els Jooris, Shell</li> <li>• Susan Mackenzie, Spirit Energy</li> </ul>	

<b>Item</b>	<b>Notes</b>
	<p><b>AGENDA (see Plenary Meeting Presentation)</b></p> <ul style="list-style-type: none"> <li>• <b>Reflections on Northern Lights visit</b> – Chair – 15 mins</li> <li>• <b>Matters Arising</b> – Secretariat – 5 mins</li> <li>• <b>Project Colocate</b> – Virtual update from Prof John Underhill, Dr Sam Head, and Dr Nigel Platt, University of Aberdeen – 20 mins</li> <li>• <b>Project Anemone</b> – Philippa Parmiter, NECCUS – 20 mins</li> <li>• <b>Non-technical workstreams</b> – Chair – 15 mins</li> <li>• <b>Next Plenary Dates</b> – Secretariat – 5 mins</li> <li>• <b>AOB &amp; Actions Review</b> - Secretariat - 10 mins</li> </ul>

<p><b>1.0</b></p>	<p><b>UPDATE TO ACTIONS FROM PREVIOUS PLENARY</b></p> <p>Action 1) Project Colocate advisory group meeting</p> <ul style="list-style-type: none"> <li>• Closed – Meeting took place in May 2024 with all advisory group members, TCE, NSTA, CES and UoA, present in person in Edinburgh. Next advisory group meeting due to take place in August 2024.</li> </ul> <p>Action 2) Project Colocate update on Outer Moray Firth project</p> <ul style="list-style-type: none"> <li>• Ongoing – Update given at Project Colocate advisory group meeting and during Plenary Meeting #11.</li> </ul> <p>Action 3) Geneva Association CCS Insurance Framework Report</p> <ul style="list-style-type: none"> <li>• Closed – Report circulated as part of Plenary #11 pre-reading.</li> </ul> <p>Action 4) RUK / TCE Webinar</p> <ul style="list-style-type: none"> <li>• Ongoing – Secretariat explained that efforts had been focused on progressing the Forum’s visit to the Northern Lights Project since the 10<sup>th</sup> Plenary meeting. Secretariat to liaise with OWIC on holding a webinar for OW developers.</li> </ul> <p>Action 5) Northern Lights Project visit in Bergen, Norway</p> <ul style="list-style-type: none"> <li>• Closed – Visit took place in conjunction with Plenary #11</li> </ul> <p>Action 6) Explore how the Forum can quantify / categorise decarbonisation contribution of colocation</p> <ul style="list-style-type: none"> <li>• Update required – TCE to provide update in future plenary meetings. UoA (Nigel Platt) gave update in Plenary #11 on UoA’s findings.</li> </ul> <p>Action 7) T&amp;S Taskforce Monitoring subgroup report</p> <ul style="list-style-type: none"> <li>• Closed – Report circulated as part of pre-reading for Plenary #11.</li> </ul> <p>Action 8) Consider establishing a cross-industry liabilities / risk assurance workstream</p> <ul style="list-style-type: none"> <li>• Update required – Forum to consider establishing workstream based on feedback received during the “non-technical workstreams” agenda item.</li> </ul>
<p><b>2.0</b></p>	<p><b>Reflections on Northern Lights Project visit – Chair</b></p> <p>The Chair began the meeting by thanking Forum members and guests who attended the in-person site visit to the Northern Lights Project in Bergen, Norway, and thanked those that joined the plenary meeting virtually. In-person attendees reflected on the insights from the visit, including:</p> <ul style="list-style-type: none"> <li>• The cross-sectoral benefits of seeing a CCS site in person and building an understanding the practical operational potential of the technology.</li> <li>• The advantages of in-person interaction between Forum members and CCS / OW developers to further collaborative thinking.</li> </ul>
<p><b>3.0</b></p>	<p><b>Project Colocate – presentation from University of Aberdeen</b></p> <p>UoA began by reminding the Forum of the two Project Colocate focus areas, the first being in the East Irish Sea (EIS), with support from TCE, and the second being in the Outer Moray Firth (OMF), with support from CES. UoA restated that the aims of the Project and summarised engagements with OW developers that had taken place since the 10<sup>th</sup> Plenary meeting in March 2024.</p> <p>UoA gave a progress report on the EIS research project, explaining its advantages as a case study for colocation. UoA explained that since the March plenary, the team has begun a site risk assessment of prospective colocation sites to identify their challenges and opportunities. UoA updated that the team were now carrying out broader regional assessments of key risks associated with carbon storage and possible mitigations, instead</p>

	<p>of individual site assessments, noting that this was an action from the Project Colocate Advisory Group meeting in May 2024.</p> <p>UoA summarised the assessment of wells at prospective colocation sites, clarifying that they would be looking into wells further afield due to broader risk mitigation. UoA went on to demonstrate how they would work on identifying the necessary monitoring techniques required for different geological risks.</p> <p>UoA then gave a progress report on the OMF research project, outlining the rationale for the location of the case study, at the Acorn CCS site. UoA highlighted its proximity to the Marram Wind site and the overlapping scope of the two projects. UoA went on to explain a potential MMV seismic monitoring programme at the Acorn CCS site, outlining the benefits and challenges of different technologies such as 4D seismic.</p> <p>UoA then outlined the decarbonisation effect of colocation, citing TCE’s investigation into the same topic. UoA used the example of the Acorn CCS and Marram Wind sites to suggest that the two projects in conjunction would create around 65 million tons of decarbonisation benefit over the first decade of their operation. UoA highlighted the significance of this, and the importance of progressing solutions to colocation.</p> <p>UoA finalised their update by saying they would quantify the work from the EIS and OMF workstreams to ascertain the feasibility of a consistent monitoring technique on all sites, explaining that these results will inform decision-making around alternative techniques that might be deployed to enable the future colocation of wind and carbon storage sites. UoA added that the project team would be taking into account existing work being carried out around fluid substitution monitoring at the Acorn site as they carry out their work on the OMF.</p> <p>UoA and the Secretariat confirmed that the next Project Colocate Advisory Group meeting would take place ahead of the next Forum Plenary meeting.</p> <p>The Chair asked the group if there were any questions. Forum members and guests thanked UoA for their contributions.</p>
<p><b>4.0</b></p>	<p><b>Project Anemone – update from NECCUS</b></p> <p>NECCUS began by emphasising that Project Anemone was complementary to Project Colocate, and that NECCUS and UoA would be aligning to ensure synergy between the workstream outputs. NECCUS highlighted the key objectives of Project Anemone:</p> <ul style="list-style-type: none"> <li>• Increase understanding of key marine stakeholders of the associated challenges and mitigations of colocation</li> <li>• Develop good practice guidance for simultaneous operations for offshore wind and CO2 storage developers</li> <li>• Influence policy and regulation to enable colocation of OW and CO<sub>2</sub> storage</li> </ul> <p>NECCUS noted that an additional objective of improving the understanding of key marine stakeholders such as policymakers, regulators, OW developers, CCS developers of the challenges and mitigations of colocation.</p> <p>NECCUS reminded the Forum of the work packages for the project, suggesting that both OW and CCS developer expertise may be leveraged for the project outputs, due to their specific insights on industry.</p> <p>NECCUS gave attendees an update on Project Anemone’s progress since the last Plenary meeting, explaining that meetings were held with a number of both Offshore Wind developers and CCS developers. NECCUS explained that the focus of these had been on 1) challenges related to how the outputs of the project would be used, and 2) requests for further clarity on the scope and tasks of the project. NECCUS explained that following that feedback, TCE would use the recommendations from Project Anemone to inform the</p>

	<p>development of the Marine Delivery Routemap to feed into the cross-sector action needed for the delivery of net zero and nature recovery.</p> <p>TCE built on this by explaining that TCE was working on the Marine Delivery Routemap, and that they would look to incorporate the outputs from Project Anemone into TCE policy around colocation, using insights from developers involved in Project Anemone.</p> <p>NECCUS emphasised the importance of collaboration to facilitate meaningful progress towards net zero. NECCUS went on to explain the alteration of the structure and delivery to the Project Anemone, which will allow developers earlier involvement in the tasks and outputs.</p> <p>The Chair asked the group if there were any questions. Forum members and guests thanked NECCUS for their contributions.</p>
<b>5.0</b>	<p><b>Non-technical workstream – update from the Chair</b></p> <p>The Chair began discussions around potential non-technical workstreams for the Forum to explore, updating that the Forum had agreed upon exploring the potential of a cross-industry liabilities and risk assurance workstream.</p> <p>Forum members gave an update on a recent report from the Geneva Association around insurance in climate tech and summarised discussions to date with the insurance industry. They highlighted insurers’ focus on the challenges around long-term durability for carbon capture and storage. They also highlighted the difficulties with pre-empting insurance challenges associated with first-of-their-kind technologies such as CCS, and the need for communication between the sector and the insurance industry to address early challenges.</p> <p>This was echoed by Forum guests, who emphasised the importance of close alignment with insurers to drive the CCS industry forward, and the need for early collaboration between OW and CCS on insurance issues to ensure variables around factors such as liability are taken into account at an early stage.</p> <p>The Forum suggested that insurers are invited to a future Colocation Forum plenary meeting as part of a workshop exercise, to deepen understanding between the OW, CCS and insurance industries, and improve cross-sectoral knowledge. Guest noted the importance of not duplicating conversations around insurance already taking place in the separate OW and CCS sectors, emphasising that any workstream the Forum pursues must focus on an equally collaborative approach between the two industries.</p>
<b>6.0</b>	<p><b>Next Plenary Dates and AOB</b></p> <p>The Secretariat advised the next scheduled plenary session would take place on Wednesday 4<sup>th</sup> September 2024. However, the Secretariat was informed following the meeting that due to prior commitments, UoA will be unable to give an update on progress on Project Colocate. The Secretariat will suggest alternative dates for Plenary #12.</p>
	<p><b>ACTIONS FROM PLENARY #11</b></p> <ul style="list-style-type: none"> <li>1.5 TCE &amp; RUK to liaise on holding a webinar for OW developers</li> <li>3.6 UoA &amp; TCE to align on potential decarbonisation impact of colocation</li> <li>3.8 UoA &amp; TCE to schedule Project Colocate advisory group meeting</li> <li>5.5 TCE to consider a Forum meeting with the insurance industry, to inform the early-stage establishment of a future cross – industry liabilities workstream, whilst considering existing conversations around insurance taking place in the OW and CCS sectors, to avoid duplication</li> </ul>

	6.1 Secretariat to share alternative date for Plenary #12
	<p><b>USEFUL DOCUMENT LINKS</b></p> <p>OW &amp; CCS Colocation Forum plenary meeting documents and publications: <a href="https://www.thecrownstate.co.uk/en-gb/what-we-do/on-the-seabed/energy/offshore-wind-and-s-co-location/">https://www.thecrownstate.co.uk/en-gb/what-we-do/on-the-seabed/energy/offshore-wind-and-s-co-location/</a></p> <p>T&amp;S Taskforce Report: <a href="https://www.nstauthority.co.uk/media/melld4w5/monitoringsubgroupreportfinal.pdf">https://www.nstauthority.co.uk/media/melld4w5/monitoringsubgroupreportfinal.pdf</a></p> <p>Geneva Association Report: <a href="https://www.genevaassociation.org/sites/default/files/2024-01/climate_tech_full_report.pdf">https://www.genevaassociation.org/sites/default/files/2024-01/climate_tech_full_report.pdf</a></p>