

Webinar: The Bunter Sandstone Formation CO₂ storage in an extensive hydraulically-connected saline aquifer

Speaker bios:



Jonathan Pearce, British Geological Survey (Chair)

Jonathan Pearce is Head of Carbon Dioxide Storage Research at British Geological Survey, where he leads a team of experts on all aspects of geological storage. He specialises in assessing technical compliance with regulatory requirements for CO₂ storage, with a focus on monitoring storage operations, assessing risks, and storage permit applications for commercial developers. Jonathan is the CO₂ Storage coordinator for the European Energy Research Alliance (EERA) Carbon Capture and Storage Programme, leading the development of research priorities for CO₂ storage for Europe's Implementation Working Group on CCS. He has previously advised UK government, as well as the EU, on CCS and has led CCS feasibility studies internationally. He is currently the Chief Technical Officer for a new deep borehole-based Carbon Storage Research Facility, which will enable research into improving our understanding of CO₂ storage.



Lucy Heaton, North Sea Transition Authority

Lucy studied BSc Geology at The University of Edinburgh and MSc Integrated Petroleum Geology at The University of Aberdeen. She has worked in oil and gas exploration and new ventures for almost 15 years gaining experience in basins throughout the UKCS, Europe and Middle East. Her most recent experience focussed on characterising emerging plays across large swathes of onshore and offshore Africa. She joined the NSTA in 2022 as a Senior Geoscientist and is currently working in carbon storage for the New Ventures Directorate.



Adrian Topham, The Crown Estate

As technical lead, Adrian helps create a pipeline of geological CO₂ and H₂ storage prospects that delivers CB6 targets and meets market expectations, while playing a lead spatial planning role to optimise whole of seabed use.

His previous experience as an engineer, team leader, general manager and now development manager stems from academic training in chemical and petroleum engineering. He has worked as a reservoir engineer, aiding hydrocarbon extraction in many countries and is now committed to the carbon cycle and returning the by-products after use to the subsurface.

Adrian's energy transition interests are both technical (geophysical, geomechanical, geological), economic (capture feasibility, production, transportation, removals) and policy (CCUS and Hydrogen business models). Currently involved in supporting research into storage efficiency and colocation of CO₂ and H₂ storage in porous media alongside offshore wind arrays.



Amy Bloomfield-Clarke, The Crown Estate

Amy Bloomfield-Clarke is Development Manager for CCUS and Hydrogen at The Crown Estate. Amy is a structural geologist by training and has a PhD in the Geological Storage of Carbon Dioxide on the UK Continental Shelf. She has over 10 years' consultancy experience specialising in subsurface problems relating to the CCUS, Hydrogen, Oil and Gas, Gas Storage, Geothermal and Nuclear industries. Amy recently joined The Crown Estate focussing on the development of the CCUS and hydrogen industries and future leasing of seabed rights.



Lucy Abel, British Geological Survey

Lucy has recently joined the BGS as a Decarbonisation Geologist and is working on mapping the varying structural boundaries of the regionally compartmentalised Bunter Sandstone Formation in the Southern North Sea. This work is part of a larger investigation into pressure communication within the Bunter Sandstone. Prior to working at the BGS she worked in industry characterising the shallow subsurface for offshore wind farm developments, creating geological ground models integrating geological, geophysical and geotechnical data. She has a BSc Petroleum Geology University of Aberdeen and MSc Structural Geology and Geophysics University of Leeds.



John Williams, British Geological Survey

John is a senior geologist within the CO₂ storage research team at the British Geological Survey. His expertise includes storage site characterisation and estimation of storage capacity. He has published on a range of topics relevant to CO₂ storage on the UKCS, including pressure-limitations to CO₂ storage capacity, the nature of the contemporary in situ stress state, and fault reactivation potential. He is currently engaged in research into the subsurface structure, properties and geomechanical constraints to the storage capacity of the Bunter Sandstone saline aquifer formation of the Southern North Sea.



Nele Wenck, Imperial College London

Nele is a PhD student at Imperial College London supervised by Dr. Samuel Krevor and Prof. Ann Muggeridge. Her research focuses on the fluid mechanics of geological carbon storage. Prior to her PhD, Nele completed a MSc in Geophysics also at Imperial College.