



SCCS

Annual Conference 2023

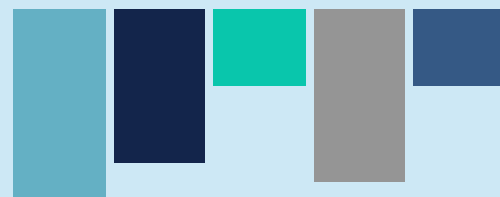
The Carbon Landscape:  
Methods & Metrics of  
CO<sub>2</sub> Storage

Speaker

Biographies

5<sup>th</sup> December 2023

CO<sub>2</sub>



## Session 1

### CCS developments and financing in Scotland, the UK and the EU



#### **R Stuart Haszeldine, SCCS Director and Professor of Carbon Capture and Storage, University of Edinburgh**

Stuart Haszeldine is Director of SCCS and the world's first professor of CCS. He is one of the key driving forces behind establishing CCS as a new industry in the UK, EU and worldwide. Stuart has over 35 years' research experience in energy and environment; developing new approaches to oil and gas extraction, radioactive waste disposal, carbon capture and storage, and biochar in soils.

Stuart provides advice to both the UK and Scottish Governments. He was elected Fellow of the Royal Society of Edinburgh, Scotland's national academy in 2002, awarded the Geological Society William Smith Medal in 2011 and in 2012 was appointed OBE for services to climate change technologies.



#### **Gillian White, Programme Manager, SCCS**

Dr Gillian White is the SCCS Programme Manager. Gillian oversees the work of the SCCS Secretariat, delivering public dissemination of knowledge to deliver impact for SCCS members and project partners. She engages with senior academics from multiple Universities and a wide network of business contacts. For five years prior to joining SCCS, Gillian specialised in building collaborative research and technology projects to accelerate decarbonisation of the energy sector as an independent consultant and also in various roles at the Net Zero Technology Centre. Her interests span diverse themes including CCS, geothermal, offshore renewables, hydrogen, operational decarbonisation and digitalisation. She is an industry expert in Earth Science, holding extensive technical, multi-disciplinary team leadership and project management experience in the energy sector.



#### **Kersti Berge, Director of Energy and Climate Change, Scottish Government**

Prior to joining the Scottish Government, Kersti was a director at Ofgem where she held a number of senior roles including on network regulation, consumer and competition issues, and energy security. Kersti was also Head of Ofgem in Scotland with responsibility for liaising with key Scottish stakeholders and managing Ofgem's office in Glasgow.

Before joining Ofgem, Kersti was a senior economic advisor at HM Treasury where she was responsible for the UK's medium term growth forecast and worked on European economic issues. Prior to that she was a lecturer in economics at Oxford University.



### **Chris Bolesta, CCUS Team Leader Directorate-General for Energy, European Commission**

Chris Bolesta is the CCUS policy team leader at DG Energy (European Commission). He's been involved in carbon capture and storage policy since 2007 when he co-authored the Commission strategic policy paper advocating for the deployment of 12 large-scale demonstration projects. Between 2012 and 2015 he advised two Polish environment and climate ministers, as well as the COP19 President. He is a co-founder and a former vice-president of the E-mobility Foundation – an NGO. He published several articles on climate and energy policies. He is an experienced speaker and moderator.



### **Emily Sidhu, Director Banking and Investments, UK Infrastructure Bank**

Emily Sidhu is a Director in the Banking and Investment team in UK Infrastructure Bank. She is responsible for the CCUS business sector as well as looking at hydrogen and other clean energy sectors. Emily was previously at UK Export Finance for 17 years, where her last role was as Head of Project Finance risk, having credit risk responsibility for project finance transactions from initiation, deal negotiation, monitoring the portfolio and restructuring.



### **Paulina McPadden, Investment Manager, Baillie Gifford**

Paulina graduated MA (Hons) Arabic and Politics from the University of Edinburgh in 2013 and joined Baillie Gifford the same year. She has worked with regional and global equity teams, and is a co-manager of International Concentrated Growth. In 2019 she co-founded a strategy focused on investing in companies that provide products and services that decarbonise the economy. The team's underlying philosophy leverages Baillie Gifford's success in long-term growth investing to find the most exciting businesses offering scalable solutions to the climate crisis. It has a dual objective that seeks financial returns as well as impact – defined as the potential to enable forward-looking avoided emissions.

## **Session 2**

### **Methods and Metrics**



### **Christian Wurzer, Biochar Research Engineer, UK Biochar Research Centre**

Christian Wurzer is a post-doctoral biochar research engineer at the UK Biochar Research Centre, University of Edinburgh. His work is focused on engineering biochar products designed for various applications ranging from soil application, to its use in wastewater filtration to construction materials. Beside material design, the development of biochar systems integrated into existing industrial value chains is another main area of his work. As an early career scientist, Christian is a member of the European Biochar Industry Consortium and organises the Green Carbon Webinar Series to accelerate knowledge transfer between academia and industry.



### **John MacDonald, Senior Lecturer in Anthropogenic Geomaterials, University of Glasgow**

John MacDonald is a Senior Lecturer in Anthropogenic Geomaterials in the School of Geographical and Earth Sciences, University of Glasgow. His research focuses on atmospheric carbon dioxide removal, primarily through mineralisation with a range of alkaline materials, ranging from natural rock (e.g. basalt quarrying by-products) through to process wastes such as slag from iron and steelmaking. His speciality is in using microscopic and geochemical approaches to understand the microstructures of the CO<sub>2</sub> mineralisation process. He has published and spoken widely on CO<sub>2</sub> mineralisation, and is involved in various UKRI-funded research projects around carbon dioxide removal, including working with industrial and policy-facing stakeholders.



### **Giulio Santori, Senior Lecturer, School of Engineering, The University of Edinburgh**

Dr. Giulio Santori is Royal Academy of Engineering Fellow and a Reader at The University of Edinburgh, where he leads the Emerging Sustainable Technologies Laboratory (ESTech-Lab) to forge innovative technologies for zero and negative carbon living. He is author of >60 articles in international journals on energy conversion technologies, separation processes and thermodynamics. His work ranges from thermodynamics of materials and processes to actual prototyping and testing, using thermodynamics as the necessary framework for the early design of novel technologies. From 2014 to 2018, he has been a Marie Curie Fellow on Atmospheric Carbon Capture and on the same research area is currently leading the SolDAC project, for demonstrating a sustainable production route of renewable Ethylene from the air.



### **Catherine Witt, Head of Technical, Storegga - Acorn Subsurface CCS**

Catherine Witt is Head of Technical at Storegga, an independent company pursuing carbon storage & hydrogen solutions with projects in the UK, Europe, USA and Asia Pacific. Catherine joined Storegga in March 2021 after over 25 years in BP in a variety of subsurface technical and leadership roles, latterly in BP's global assurance team, focussing on carbon storage. She leads a team responsible for the subsurface, wells and engineering evaluation of Storegga's storage projects in the Eastern Hemisphere. Catherine joined BP as a Reservoir Engineer in 1994 after doing an MEng in Engineering Science at Oxford University and worked in a variety of locations during that time, in the UK, Norway and Angola.



**Tavis Potts, Personal Chair in Sustainable Development and Environmental Governance, University of Aberdeen**

Professor Tavis Potts is Dean for Sustainability, Chair in Environmental Governance and Sustainable Development and co-coordinator of the Just Transition Lab at the University of Aberdeen. As an interdisciplinary social scientist, Professor Potts is interested in how people, from individuals to societies, navigate the concepts of sustainable development; how the political economy of sustainability shapes our narratives and actions and how institutions evolve to incorporate more sustainable outcomes. His work explores the world of societal values, behaviours and innovation; governance and policy; and challenges around enacting concepts of environmental and energy justice into daily life. His research over the past two decades explores topics such as coastal and marine resources; marine planning; just transitions in energy cities and the natural capital approaches to conservation. Having worked extensively in Scotland and the UK, North-East Europe, the Polar regions; East Asia and Australia (his home country) he is actively involved in moving between science, policy and civil society and developing participatory initiatives around Net Zero and the Sustainable Development Goals.

**Session 3**

**Project case studies**



**Michelle Thomson MSP, MSP for Falkirk East**

Michelle Thomson was elected constituency MSP for Falkirk East in May 2021. As well as a keen businesswoman, Michelle was previously MP for Edinburgh West. She was the SNP Business, Innovation and Skills spokesperson, member of the Business, Energy and Industrial Strategy (BEIS) Committee, Ambassador for the All-Party Parliamentary Group for Fair Business Banking and on the advisory panel to the Northern Ireland Assembly's All-Party Group on Fair Banking and Finance.

In the Scottish Parliament, Michelle is a member of 2 committees – Education, Children and Young People and Finance and Public Administration. She is Convenor of the CPGs on Music, St Andrew’s Day and Women in Enterprise, and is the Deputy Convenor of the CPG on Europe.



**Tom Snow, Engineering Manager Peterhead Carbon Capture Project Engineering, SSE**

Tom Snow is a chartered chemical engineer with over 20 years industrial experience. He is currently working for SSE as the Engineering Manager for the development of the Peterhead Carbon Capture Power Station. His main work interests lie in project development, thermal power plant emissions abatement technologies and performance and graduate pipelines development

### **Ian Cook, Head of Low Carbon Ventures, SSE**



Ian Cook is a global energy business leader who is the Head of New Ventures for SSE Thermal's UK Power business. Ian is focused on developing new low-carbon flexible power opportunities in his current role, considering post-combustion carbon capture, hydrogen, and medium/long duration storage technologies. Before his current role, Ian worked with SSE Distributed Energy, developing heat and electricity networks, EV hubs and battery projects. Before joining SSE, Ian worked for eight years in the upstream oil and gas industry for an engineering and technology provider and lived in the USA and Norway, delivering projects across the globe. Ian is a Chartered Chemical Engineer, holding an MEng from The University of Edinburgh and an MBA from Imperial College London.

### **Thomas Newell, General Operations Manager, The Future Forest Company Ltd**



Tom is the General Manager of The Future Forest Company, responsible for the running and strategic direction of the operations department and sits on the company's leadership panel. An early employee of the company, he recruited and established an operations team, which has gone on to plant almost 1M trees in only 36 months, and registered a quarter of a million tonnes of woodland carbon. A geoscience graduate of Southampton and Imperial College, Tom spent twenty years in the energy sector, working principally in sub-Saharan Africa. Pivoting out of sector, he sought to use his operational and technical skills in a climate positive focus, initially in geothermal energy before arriving at nature based carbon and The Future Forest Company.

### **Richard Nimmons, Co-founder & Director, Carbon Capture Scotland Ltd**



With a background in mechanical engineering in the oil & gas and construction sectors, Richard possesses unparalleled expertise in building and operating carbon capture facilities.

Since co-founding Carbon Capture Scotland in 2012, Richard has become a skilful business developer, securing multi-million-pound contracts across the USA, Europe, Africa, and Asia.

He is keenly committed to integrating proven technology with nature-based solutions, creating a more sustainable future.



### **Ed Nimmons, Co-founder & Director, Carbon Capture Scotland Ltd**

Drawing from a diverse background in consultancy, Ed is a master of the commercialisation of carbon-based projects and the development of CO<sub>2</sub> infrastructure.

Having received his MA in Management Studies from the University of Cambridge, he co-founded Carbon Capture Scotland alongside his brother Richard in 2012, and now works to ensure that all of the company's endeavours are undertaken with an appreciation for the environment and its intricate processes.



### **Gareth Johnson, Head of CCS Sustainability, Drax**

Gareth is a geologist with expertise in energy geosciences. He specialises in CCS and CDR and has also worked in the geothermal, energy storage and oil, gas and mineral production sectors. He joined Drax in 2023, after ten years of research at the Universities of Strathclyde and Edinburgh. Before that, he was a consultant geologist in the energy sector. He has a PhD in CCS, specialising in MMV. At Drax, Gareth leads on the science and evidence that underpin the sustainability of BECCS to help Drax deliver their commitment to be amongst the world's first carbon removal companies.