

Draft Strategic Management Plan for the Scottish Crown Estate - SCCS response

November 2019, Rebecca Bell

Scottish Carbon Capture & Storage (SCCS) welcomes the opportunity to respond to this consultation on the draft Strategic Management Plan for the Scottish Crown Estate¹. As part of the Stakeholder Advisory Group on the Scottish Crown Estate, we have been pleased to work with Scottish Government and other interest groups towards a management framework for the Scottish Crown Estate that will provide long term benefit to Scotland and its communities.

Our interest in the Scottish Crown Estate is primarily in the opportunities it provides for geological carbon dioxide (CO₂) storage, and potential impacts of its management on CO₂ transport. Our consultation response therefore focuses on these issues.²

Consultation questions

Q1 Are the opportunities to contribute to sustainable development appropriate for the Scottish Crown Estate? If no, please provide examples of additional or alternative opportunities.

Geological CO₂ storage

The Scottish Crown Estate has the capacity to store at least 5.7 Gt CO₂ and potentially 70 Gt CO₂³.

For context, Scotland's annual greenhouse gas emissions in 2016 were 38.6 Mt CO₂e⁴, so 5.7Gt CO₂ is nearly 150 years of Scotland's emissions at current rates.

The capacity for CO₂ storage in the offshore geological subsurface means that the Scottish Crown Estate has the potential to contribute significantly reducing greenhouse gas emissions across Scotland and beyond. CO₂ can be captured from the flue gases of industrial processes, then transported and permanently in the subsurface, preventing it reaching the atmosphere and contributing to climate change.

¹ <https://www.gov.scot/publications/consultation-draft-strategic-management-plan-scottish-crown-estate/>

² For background, see our evidence to the Scottish Parliament Environment, Climate Change and Land Reform Committee on the Scottish Crown Estate Bill, available at: https://www.sccs.org.uk/images/expertise/reports/working-papers/WP_SCCS_2018_03_ECCLR_Committee_evidence_on_Scottish_Crown_Estate_Bill.pdf

³ SCCS (2009) Opportunities for CO₂ storage around Scotland – an integrated strategic research study. Available at: <http://www.sccs.org.uk/images/expertise/reports/opportunities-for-co2/CO2-JointStudy-Full.pdf>

⁴ Scottish Government (2018) *Scottish greenhouse gas emissions 2016*. Available at: <https://www.gov.scot/publications/scottish-greenhouse-gas-emissions-2016/pages/3/>

For many industries, carbon capture and storage (CCS) is the only option available for decarbonisation – without the ability to capture and store their CO₂, these industries would have to cease production, causing job losses both in the direct workforce and in the supply chain.

In addition, CCS offers the opportunity to produce low-carbon hydrogen in bulk from methane, allowing its deployment in heat and transport, and creating a market for hydrogen from electrolysis as renewable generation capacity increases.

CCS also offers the opportunity to achieve 'negative emissions', for example by storing CO₂ from biogenic sources (BECCS), or captured directly from the air (DACCS). These negative emissions mean that Scotland can meet its 2045 net-zero greenhouse gas emissions target while allowing residual emissions where they cannot be avoided, such as from agriculture.

The CO₂ storage resource, which is part of the Scottish Crown Estate, is crucial to the deployment of CCS in Scotland: without it, CO₂ could not be stored in Scotland. The abundance of CO₂ storage capacity in the Scottish Crown Estate (hundreds of years' worth of emissions), combined with the expertise and knowledge that exists in the oil and gas industry and Scotland's research community, means that Scotland is uniquely well placed to develop CO₂ storage, and has advantages over most of the rest of the EU. The use of Scottish CO₂ storage would not have to be limited to storing CO₂ from Scottish industry: CO₂ from sources in the rest of the UK, Europe and beyond could be stored in the pore space of the Scottish Crown Estate – for a fee – providing a long-term source of revenue and supporting climate change mitigation beyond Scotland's borders.

Other Scottish Crown Estate assets

As well as Scotland's CO₂ storage capacity, the Scottish Crown Estate has other assets that could support the development of CO₂ capture, transport and storage, and thus Scotland's net zero ambitions.

For example, work by SCCS has shown that CO₂ transport by ship could be viable for the early stages of CO₂ storage in Scotland, and that Peterhead Port could be upgraded to accommodate CO₂ shipping.⁵

CO₂ can also be transported to offshore storage sites by pipeline on or buried below the seabed, requiring leases from the manager of the Scottish Crown Estate out to the 12 nautical mile limit, and crossing the foreshore where they make landfall.

Q2 Do you feel that the Vision in the Strategic Management Plan meets your expectations for the Scottish Crown Estate for the next 5 years?

⁵ Poster summary of recent research here: <https://ukccsrc.ac.uk/sites/default/files/documents/event/Peter%20Brownsort%20Cardiff%202019-min.pdf>; full report on shipping for storage in North East Scotland here: https://www.actacorn.eu/sites/default/files/ACT%20Acorn%20Expansion%20Options%20Report%201.0%20Rev_0.pdf

Yes. We are pleased that the vision provides for the Scottish Crown Estate to deliver long term social, economic and environment benefits for Scotland and its communities.

Q3 Do you believe that the objectives, priorities and policies contained in theme 1 will allow us to achieve our vision for the future management of the Scottish Crown Estate?

We welcome confirmation that the seabed is a national strategic asset that Scottish Ministers do not wish to become fragmented. We also urge Ministers to ensure that any sales of coastal or foreshore assets are assessed to ensure that they would not hamper the development of CCS. The ability to access and use the offshore geological pore space will be crucial for Scotland to meet its climate change targets at least cost, and this includes pipelines crossing from land to seabed, and the potential for deep water ports to be used for CO₂ transport by ship.

We strongly welcome objective 6, that managers should consider the potential for investments that contribute to the achievement of Scotland's Climate Change Plan. In our response to Q1 above, we have set out how we see the Scottish Crown Estate having a major role in decarbonising Scotland's industry and achieving net zero greenhouse gas emissions.

Scottish Carbon Capture & Storage (SCCS) is a partnership of the British Geological Survey, Heriot-Watt University, the University of Aberdeen, the University of Edinburgh and the University of Strathclyde working together with universities across Scotland.

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