

Economic Impacts of CO₂ EOR for Scotland | 2012

Scottish Enterprise

Customer: Murray Bainbridge, Senior Executive, Scottish Enterprise

Project phase: NA

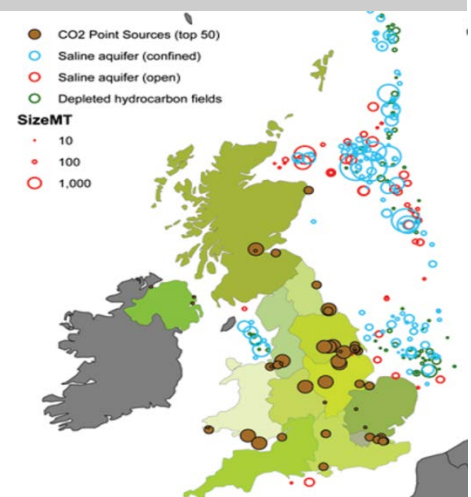
Dundas scope: Petroleum Economics
Cost Estimation
Supply Chain Analysis

Testimonial: *Awaiting approval of external affairs.*

PROJECT DESCRIPTION

Recognising that the combination of Carbon Capture and Storage (CCS) with CO₂-Enhanced Oil Recovery (EOR) could bring positive impacts to the Scottish economy, Scottish Enterprise commissioned a team led by Element Energy and including Heriot Watt University and Dundas Consultants to examine the issues related to CO₂-EOR and quantify the economic impacts in Scotland.

Financial modelling revealed that for several fields CO₂-EOR projects have the potential to yield a positive NPV at current oil prices. The commercial case for conventional oil companies to invest in CO₂-EOR is fragile. This study found numerous barriers and scepticism from a wide range of public and private stakeholders which together may form a barrier to the early uptake of CO₂-EOR in the North Sea.



DUNDAS ROLE

From an area sub-surface analysis provided by Heriot Watt University, Dundas worked with Element Energy to generate a set of scenarios for the growth of CO₂-EOR in the UKCS. Taking into account high-level cost estimates, infrastructure, taxation and decommissioning pathways, the development potential was coupled with a set of on-shore scenarios, involving changes to generating capacity and technologies.

Value estimates were prepared on this basis from the perspective of the UK exchequer, the Scottish Economy and the UK Oil and Gas Sector, including estimates of impacts on the industry service sector, employment etc.