**ACORN CCS Project Information**

**Project Developer Website**

Pale Blue Dot Energy Ltd www.theacornproject.uk

**Project Location**

­St. Fergus, Scotland

**Project Type**

Transport & Storage

**Project Description**

The Acorn Carbon Capture and Storage (CCS) Project is a full-chain project with initial industrial carbon capture of existing emissions at St Fergus gas terminal for transport via existing, now redundant, gas pipelines and permanent sequestration below the UK North Sea. There are several subsequent build-out options including the import and export of Carbon Dioxide by vessel at Peterhead Port, hydrogen production from natural gas with CCS at St Fergus gas terminal and connection via an existing gas transmission pipeline to the Grangemouth industrial cluster. The project has been granted PCI status.

**Operational Status**

Design & Engineering Phase

Planned date of operation: January 2024

Project is currently progressing towards FEED.

Storage: Currently in storage permit preparation phase.

Transport: Offtake agreements are currently under discussion.

**Technology Description**

Storage: There is one proposed storage site, offshore in a saline aquifer (named the Acorn CO2 Storage Site) in the North Sea at 2km depth, 100km offshore. A storage licence has been granted (2018) and the project is now in the permit preparation phase.

Transport: First phase will be pipeline transport through the pre-existing Goldeneye pipeline (102km from St. Fergus gas terminal to Acorn CO2 Storage Site). Second phase has the potential to develop a CCS and hydrogen hub with ship transport (e.g. from Peterhead Deepwater Harbour) and re-purposed onshore CO2 pipelines. Any info on pipeline specification? State of gas, pressure etc?

**TRL Progression**

Starting at TRL 9 (Industrial phase)

**CO2 Reduction Potential**

First phase: 340,000 t/yr of existing CO2 emissions from the St Fergus gas terminal captured

Storage reservoir capacity: 150Mt total

Injection rate: 2-4 Mt/yr

**Project Financing**

Support from industry partners (Chrysaor, Shell and Total), the UK and Scottish Governments, and the European Union.

Capital expenditure estimate: 300 M€