

**THE OFFSHORE OIL AND GAS EXPLORATION, PRODUCTION, UNLOADING
AND STORAGE (ENVIRONMENTAL IMPACT ASSESSMENT) REGULATIONS
2020**

Project Summary – Regulation 11(2)

**Liverpool Bay CCS Limited
HYNET CARBON DIOXIDE TRANSPORTATION AND STORAGE PROJECT -
OFFSHORE
Environmental Statement dated September 2023
ES/2022/009
25 October 2023**

Proposed Location of the Project

- **The project location:** The Project will be undertaken within the carbon storage license area (CS004), including within Offshore Licensed Blocks 110/13a, 110/13b, 110/14a, 110/14c and 110/15a;
- **The water depth at the proposed location;** The Project area is in water depths that range from 0.72 m below Lowest Astronomical Tide (LAT) to 35 m LAT, with average water depths across the Eni development area approximately 20 m LAT. The Lennox OP is in 7.2 m of water while the Douglas OP complex is in 29.2 m of water.
- **The distance to nearest UK coastline (km):** The Proposed Development is located in the CS004 CO₂ Appraisal and Storage Licence area (NSTA, 2020), approximately 12 km to the north of the Welsh coastline and 2 km west of the English coastline. The licence area covers approximately 576.82 km² and encompasses the depleted hydrocarbon reservoirs of the Hamilton, Hamilton North, and Lennox fields. The Project infrastructure will be located within the Eni development area defined by both the Licence area (CS004), and the pipeline and cable corridor connecting the Point of Ayr (PoA) Terminal to Douglas Offshore Platform (up to Mean High Water Springs (MHWS)). The corridor shore approach is located to the north of Talacre in Flintshire, Wales, near the mouth of the Dee Estuary.
- **The distance to nearest international median line (km) and identification of the relevant adjacent State.** Median line between Welsh and Irish waters is approximately 60 nm to the west.

Proposed Activities

The Project involves the repurposing of the existing offshore natural gas import pipeline from Point of Ayr (PoA) Gas Terminal to become a CO₂ export pipeline and will transport the CO₂ to the newly constructed Douglas Carbon Capture and Storage (CCS) platform. From the Douglas CCS platform, CO₂ will be transported along re-purposed natural gas pipelines to the Hamilton Main platform for injection into the Hamilton Main reservoir, to the Hamilton North platform for injection into the Hamilton North reservoir, and to the Lennox platform for injection into the Lennox reservoir. The Project will also

require new electrical and fibre optic (FO) transmission infrastructure seawards of Mean High Water Spring (MHWS), connecting the PoA Terminal to the offshore infrastructure.

Given the description of the Project concept, the proposal relates to the description under the Energy Act 2008 *Section 17(2)(a)*: - *the use of a controlled place for the storage of carbon dioxide (with a view to its permanent disposal, or as an interim measure prior to its permanent disposal).*

Regarding the 2020 EIA Regulations, the Project falls under both of the following parts of Schedule 1:

- *3. Activities captured by section 17(2)(a) or (b) of the Energy Act 2008 (activities related to the geological storage of carbon dioxide).*
- *7. A change to a project that falls under this Schedule where such a change in itself meets the thresholds, if any, listed in this Schedule (i.e. 1. Extraction of oil and natural gas for commercial purposes where the amount extracted exceeds 500 tonnes per day in the case of oil and 500,000 cubic metres per day in the case of natural gas).*

The Project is located entirely within the 12 nm limit of both Welsh and English territorial waters and will include:

- installation of a new Douglas CCS platform to replace the existing Douglas Process platform to receive CO₂ from the onshore PoA Terminal and distribute CO₂ to the Hamilton Main, Hamilton North, and Lennox wellhead platforms and when necessary, provide heating. Installation of the new Douglas CCS platform will include up to eight driven piles;
- installation of new topsides on the Hamilton Main, Hamilton North, and Lennox wellhead platforms to receive and inject CO₂ into the depleted hydrocarbon reservoirs;
- repurposing of the existing subsea natural gas pipelines for their change of use from hydrocarbon to CO₂ service;
- installation of new sections of pipeline to connect the new Douglas CCS platform to the existing subsea natural gas pipelines;
 - PL1030, existing 20" gas to Point of Ayr (approximately 592 m);
 - PL1039, existing 20" gas export from Hamilton Main (approximately 175 m);
 - PL 1041, existing 14" gas export from Hamilton North (approximately 68 m);
 - PL1035, existing 16" gas export from Lennox (approximately 128 m); and
 - PL1036A, existing 12" gas injection to Lennox (approximately 195 m).
 - The existing PL1034, 14" Douglas to Lennox pipeline will not be re-used for CCS and will be left in situ.
- development of the Hamilton Main, Hamilton North, and Lennox reservoirs for CO₂ storage through up to eight injection wells created by side tracking of existing production wells. This includes drilling and recompletion operations, all of which will be within the existing footprint (template) of each platform;
- implementation of a programme of Monitoring, Measurement and Verification (MMV) activities. This includes the drilling of two new monitoring wells, one at Hamilton North and one at Hamilton Main. Additional monitoring wells will be created from the recompletion of existing wells within the existing footprint (template) of each platform: one monitoring well created by side-tracking an existing well in Lennox; and two sentinel wells, one in Hamilton North and one in Lennox; These sentinel wells will be existing wells within the existing footprint (template) of each platform that will be recompleted for additional reservoir monitoring. They will not have CO₂ resistant cement or tubulars. As such, they will be Plugged and Abandoned (P&A) once the CO₂ front in the reservoir reaches them;
- installation, including trenching, and some dredging, of two submarine 33 kV armoured cables, with integrated FO cable connections (35 km from PoA Terminal onshore to the new Douglas CCS platform, including within the intertidal/foreshore area up to MHWS, within Welsh waters only);

- installation, including trenching, of new power cables with integrated FO connecting the new Douglas CCS platform with the Hamilton Main (12 km; 33 kV), Hamilton North (15 km; 33 kV) and Lennox (35 km; 33 kV) platforms; and
- installation of concrete mattresses and external cable protection, at crossings of existing cables, and in areas where cable burial is not deemed feasible, or as a remedial secondary protection measure if the target cable depth of lowering cannot be achieved.

Proposed Timeline for Activities

Installation of the new Douglas CCS platform will be carried out over approximately two months commencing with the new jacket, piles, and topsides during Spring 2027. To make way for the new Douglas jacket, during late summer to autumn 2025, there will be some subsea decommissioning works to remove redundant pipework and cabling from the seabed. These removals will also include disconnecting the gas export pipework from the existing Douglas complex and making it ready for later connection to the new Douglas CCS platform. **Figure 1** presents a summary programme for installation and commissioning of new Douglas CCS platform.

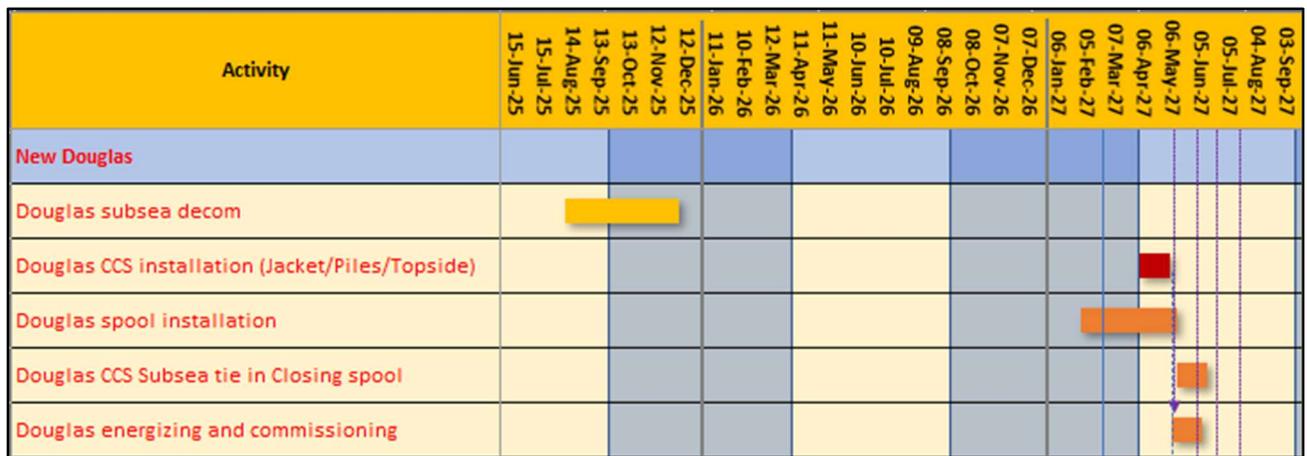


Figure 1: Summary programme for installation and commissioning of new Douglas platform

A summary programme for installation and commissioning of satellite platforms is shown in **Figure 2**. This shows a sequential campaign for drilling and side-tracking injection wells that will commence at Hamilton North will commence in Q3/Q4 2024 for approximately six months. The drilling rig will then move to Hamilton Main in Q1 2025 to carry out an up to seven months campaign until Q3/Q4 2025. Lastly, injection well drilling will be carried out at Lennox for up to 12 months from Q4 2025 until Q4 2026.

The removal of the existing topsides at the satellite platforms is scheduled to start at Hamilton Main in May 2027, then move to Hamilton North, and finish at Lennox in June 2027, as shown in **Figure 2**. The removal campaign at each platform will take around four to five weeks. The sequence for the installation and commissioning of the topsides at each satellite platform will be the same as for the removal works and will commence in June or July 2027. The commissioning works at each platform will also include the flushing and drying of the existing gas export lines from each platform to make ready for CO₂ transport. **Figure 2** shows that these works will take approximately six to nine months at each platform and pipeline, with the final works in the sequence scheduled for completion at Lennox in July 2028.

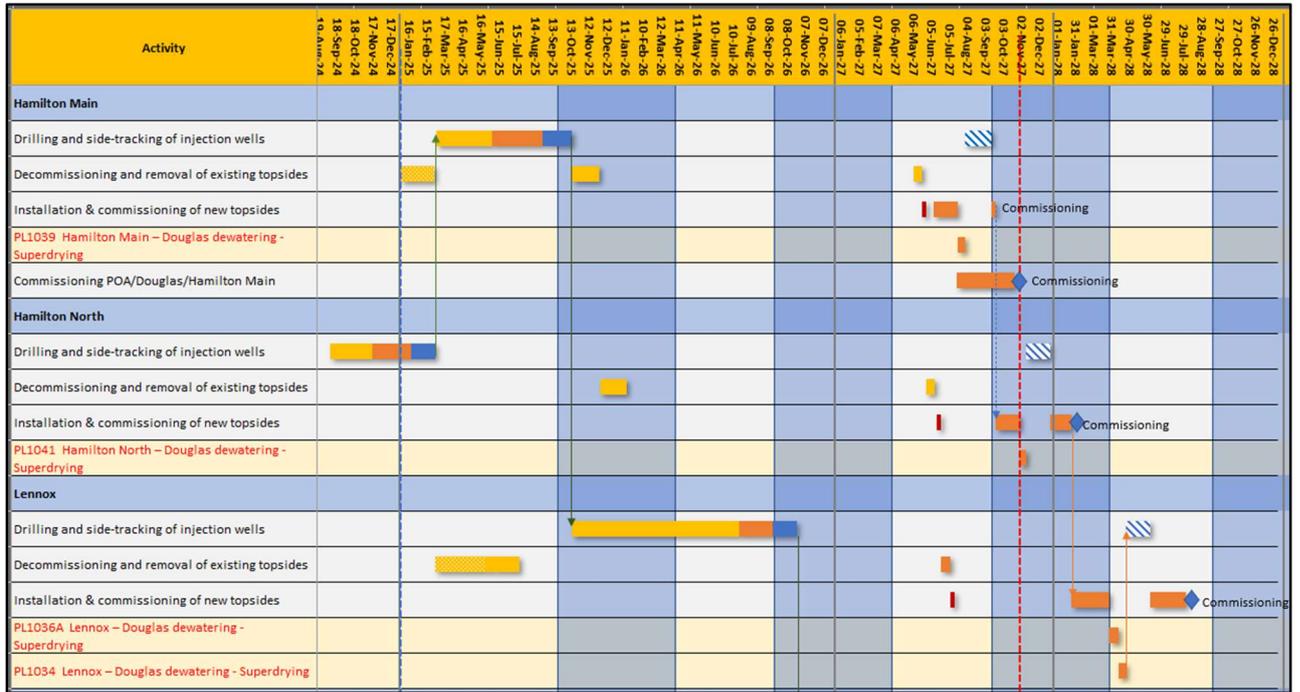


Figure 2: Summary programme for installation and commissioning of satellite platforms

An indicative summary schedule for the electrical cable laying and tie-ins to the CCS platforms is shown in **Figure 3**. This shows the cable laying activities are scheduled to commence and be completed in Q2 2026. Prior to this from July 2025 until April 2026, the onshore HDD tunnel under the Talacre sand dunes will be constructed in preparation for the offshore cable lay and pull in operations during spring 2026. During winter 2026/2027 the cable ends will be wet stored (i.e. left on the seabed) prior to the cable recovery and pull into each of the CCS platforms during Q2/Q3 2027.

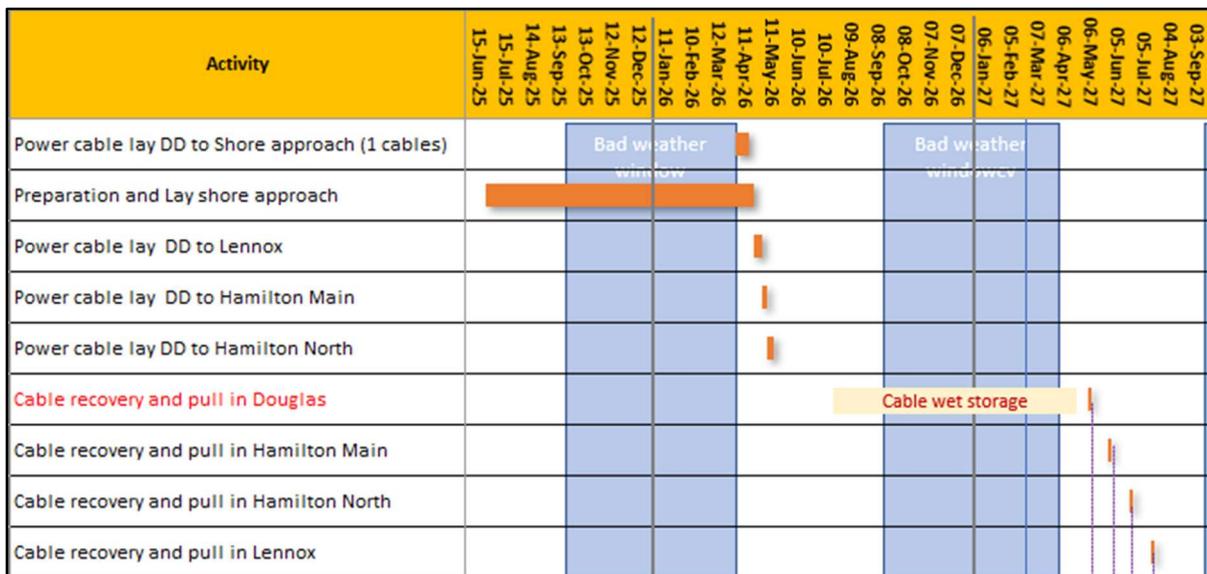


Figure 3: Indicative Summary Schedule For Electrical Cable Laying And Tie-Ins To CCS Platforms

Additional programme details can be found in the **HyNet Carbon Dioxide Transportation and Storage Project – Offshore Environmental Statement, Chapter 3 Proposed Development Description**.