



Liverpool Bay CCS T&S Project

Procurement packages

June 2022

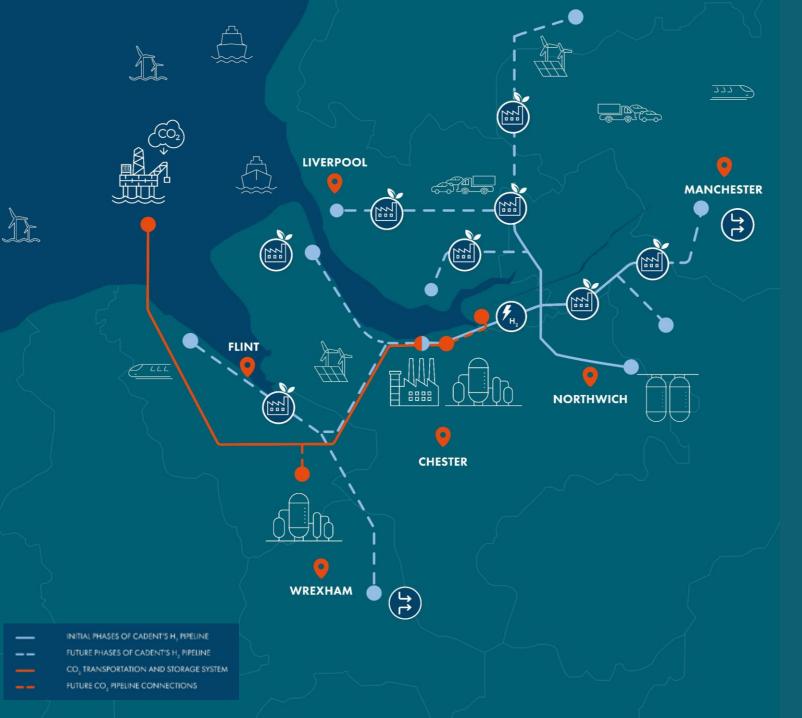
Agenda

- 1 Project overview
- 2 Procurement packages
- 3 Tendering & execution schedule



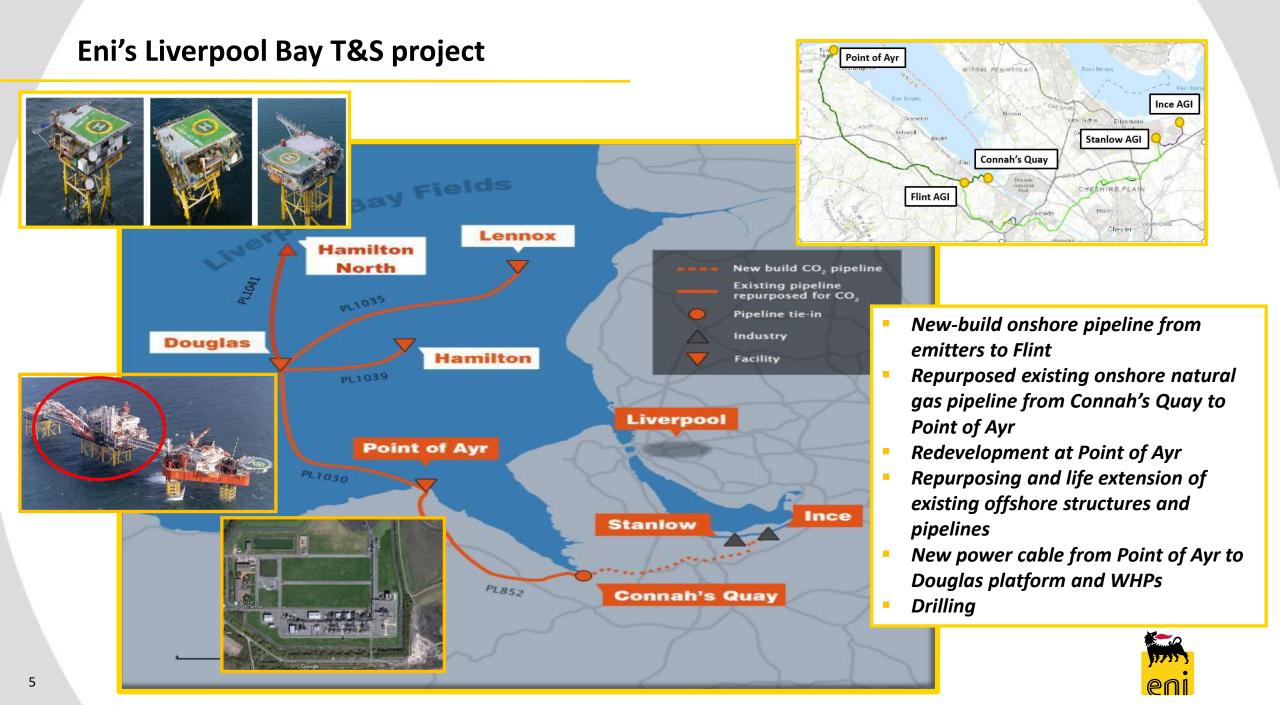
1 Project overview



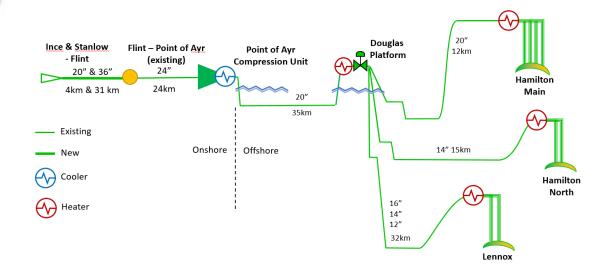


The HyNet North West Project – a "Track 1" Project

- Low-carbon hydrogen production plants, with CO₂ capture.
- A hydrogen distribution network, delivering hydrogen to industrial consumers.
- Hydrogen buffer storage in underground salt caverns.
- Facilities to capture CO₂ emissions from new & existing industry.
- CO₂ transport and storage infrastructure, delivering CO₂ to safe, permanent storage in Liverpool Bay.



Selected Concept and work package overview



Scope will be executed via four main Work Packages:

- WP1 Drilling package not covered at this event
- WP2 Offshore Decommissioning, CCS & Cable Installation EPC Package
- WP3 Onshore Decommissioning and CCS EPC Package at Point of Ayr
- WP4 Onshore pipelines contract

WP2 - EPC Package including:

- Detail Engineering
- Offshore decommissioning to enable CCS project
- CCS design, supply and installation offshore
- Power and fibre optic cable installation between Point of Ayr and offshore platforms
- Potential additional non-CCS related decommissioning offshore

WP3 – EPC Package including:

- Detail Engineering
- Onshore decommissioning at Point of Ayr to enable CCS project
- CCS design, supply and installation at Point of Ayr for "free-flow mode" start-up project
- Non-CCS related decommissioning
- Addition of compression and cooling at Point of Ayr

WP4 – EPC Package including:

- New build pipeline Ince to Stanlow and Stanlow to Flint
- Above Ground Installations and Block Valve Stations
- New Block Valve Stations on existing Flint to Point of Ayr pipeline
- Abandonment of existing pipeline Flint to Connah's Quay



2 Procurement packages



General Scope Overview for EPC packages

Contractor responsibility:

1. Decommissioning scope, where included

- Detailed engineering
- Decommissioning, removal and disposal

2. CCS Development

- Adoption of the FEED designs
- Detailed engineering and overall engineering design responsibility
- Procurement. Long Lead Items are being identified by Eni UK and where necessary will be free-issued or novated to Contractors
- Fabrication, transport to site
- Onshore construction / Offshore installation as appropriate
- Commissioning (up to ready to accept CO2)
- Preservation, where appropriate
- Commissioning assistance for introduction of CO2



WP2 Offshore Decommissioning & CCS development

Douglas Hub Platform

- Decommissioning engineering redundant equipment removal
- Offshore decommissioning, removal & disposal for CCS
- Detailed design, supply, installation and commissioning of CCS module, approximate weight 800t.

Wellhead Platforms (Lennox, Hamilton Main, Hamilton North)

- Decommissioning engineering full topsides removal
- Offshore decommissioning, removal & disposal for CCS
- Design, supply, installation and commissioning of CCS modules, approximate weight 600t – 1000t each.

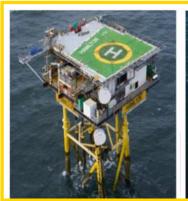
Optional decommissioning (Owner Option)

- Douglas WHP
- Douglas accommodation
- Conwy WHP
- Offshore storage installation
- Pipeline and subsea

Offshore cabling

- Electrical power cabling
- Point of Ayr to Douglas ~34km, twin cables
- Between platforms >60km













WP3 Onshore Decommissioning and CCS development at Point of Ayr

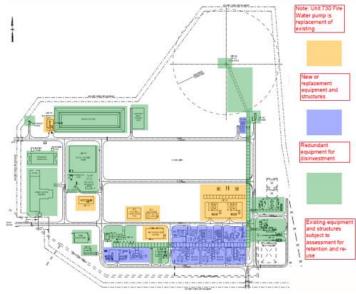
Decommissioning

- Decommissioning engineering
- Site decommissioning, removal & disposal

CCS Development

- Detailed design, supply, construction and commissioning
- Initial "free-flow mode" CCS Scope includes:
 - Power supply infrastructure
 - Site power system
 - Utilities
 - Site control system and control centre for full T&S system
 - Civil and structural works
 - Pipeline and site piping works
- Expansion CCS Scope includes:
 - 3 x 50% CO2 compressors
 - After-cooler system
 - Tie-ins to power, control and safety systems
 - Tie-ins to piping systems.
 - Any necessary utilities
 - Civil and structural works







WP4 - Pipelines



Existing 24"	New-build 36"	New-build 20"

	Existing 24"	New build 36"	New build 20"
Length (km)	24	31.1	4.1
Wall thickness (mm)	11.1 or 22.2	14.3 or 20.6	9.5 or 14.3
Material	CS X60	CS X60	CS X60

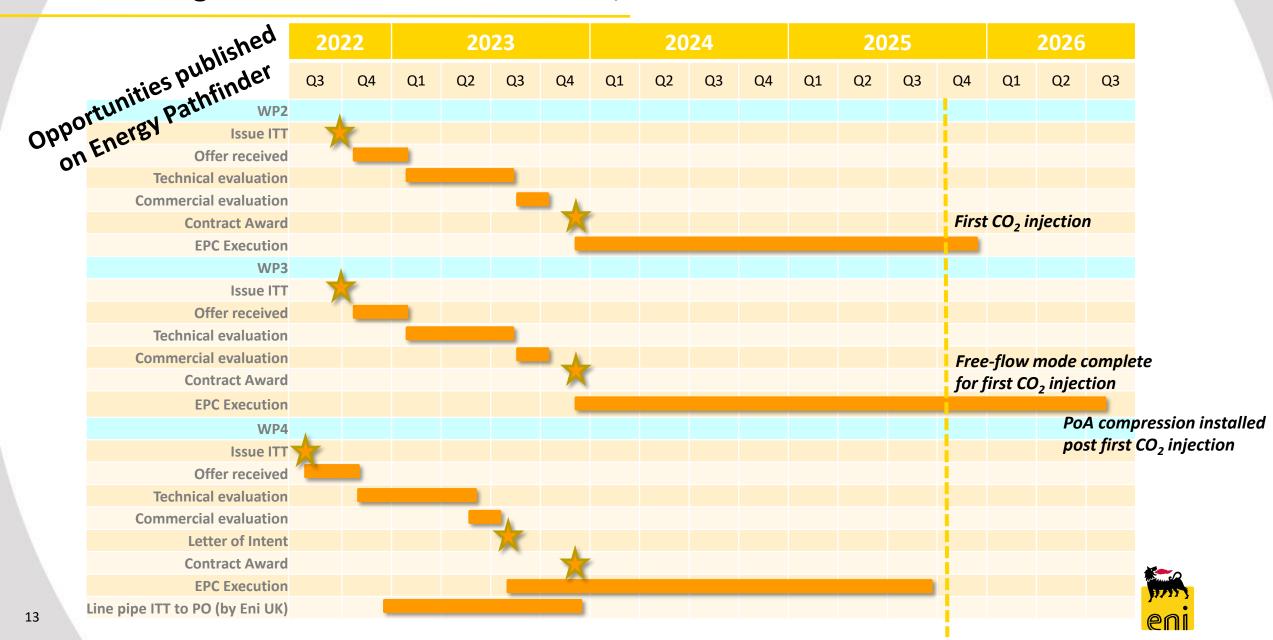
- Above Ground Installations at Ince, Stanlow (inside refinery), Northop Hall and Flint.
- 20" pipeline from Ince to Stanlow.
- 36" pipeline from Stanlow to Flint
- Four Block Valve Stations on 36" pipeline.
- 24" tie-in line from Flint AGI to existing 24" pipeline
- Three new Block Valve Stations on existing Flint to Point of Ayr pipeline
- Abandonment of existing pipeline section
 Flint to Connah's Quay
- XX railway crossings
- YY major road crossings
- ZZ crossings of waterways, incl. River Dee.
- AA crossing of major pipelines



1 Tendering & execution schedule



Tendering & execution schedule for WP2, WP3 and WP4



Tendering schedule for main items





Local Content

