

CCUS projects in Europe

Overview of existing and planned CCUS facilities

AUSTRIA

1. Vienna Green CO₂*

BELGIUM

1. Leilac 1
2. Antwerp@C*
3. Carbon Connect Delta
4. Steelanol
5. C4U
6. North-CCU-Hub
7. Power-to-Methanol Antwerp BV
8. Kairos@C[€]
9. H2BE*

BULGARIA

1. ANRAV[€]

CROATIA

1. Petrokemija Kutina*
2. Bio-Refinery Project*
3. CCGeo[€]

DENMARK

1. Greensand*
2. C4: Carbon Capture Cluster Copenhagen
3. Bifrost*

FINLAND

1. SHARC[€]

FRANCE

1. DMX Demonstration in Dunkirk*
2. Pycasso*
3. K6[€]
4. CalCC[€]
5. Cryocap
6. D'Aragnan

GERMANY

1. H2morrow*
2. Leilac 2
3. BlueHyNow*
4. OXYFUEL100 (subproject of Westkuste100)
5. H2GE Rostock*

GREECE

1. Prinos CCS
2. RECODE

ICELAND

1. Orca
2. Silverstone[€]
3. Coda Terminal[€]

ITALY

1. CCS Ravenna Hub*
2. Cleankerk

THE NETHERLANDS

1. Porthos*
2. Aramis*
3. H2M*
4. H-Vision*
5. Twence*
6. AVR-Duiven
7. AZUR*
8. L10 CCS

NORWAY

1. Sleipner CO₂ Storage*
2. Longship (including Northern Lights)*
3. Barents Blue*
4. Norsk e-fuel
5. Borg CO₂*
6. Snøhvit CO₂ Storage*
7. Smeaheia*

POLAND

1. Poland EU CCS Interconnector
2. Go4ECOPlanet[€]

REPUBLIC OF IRELAND

1. Ervia Cork CCS

SPAIN

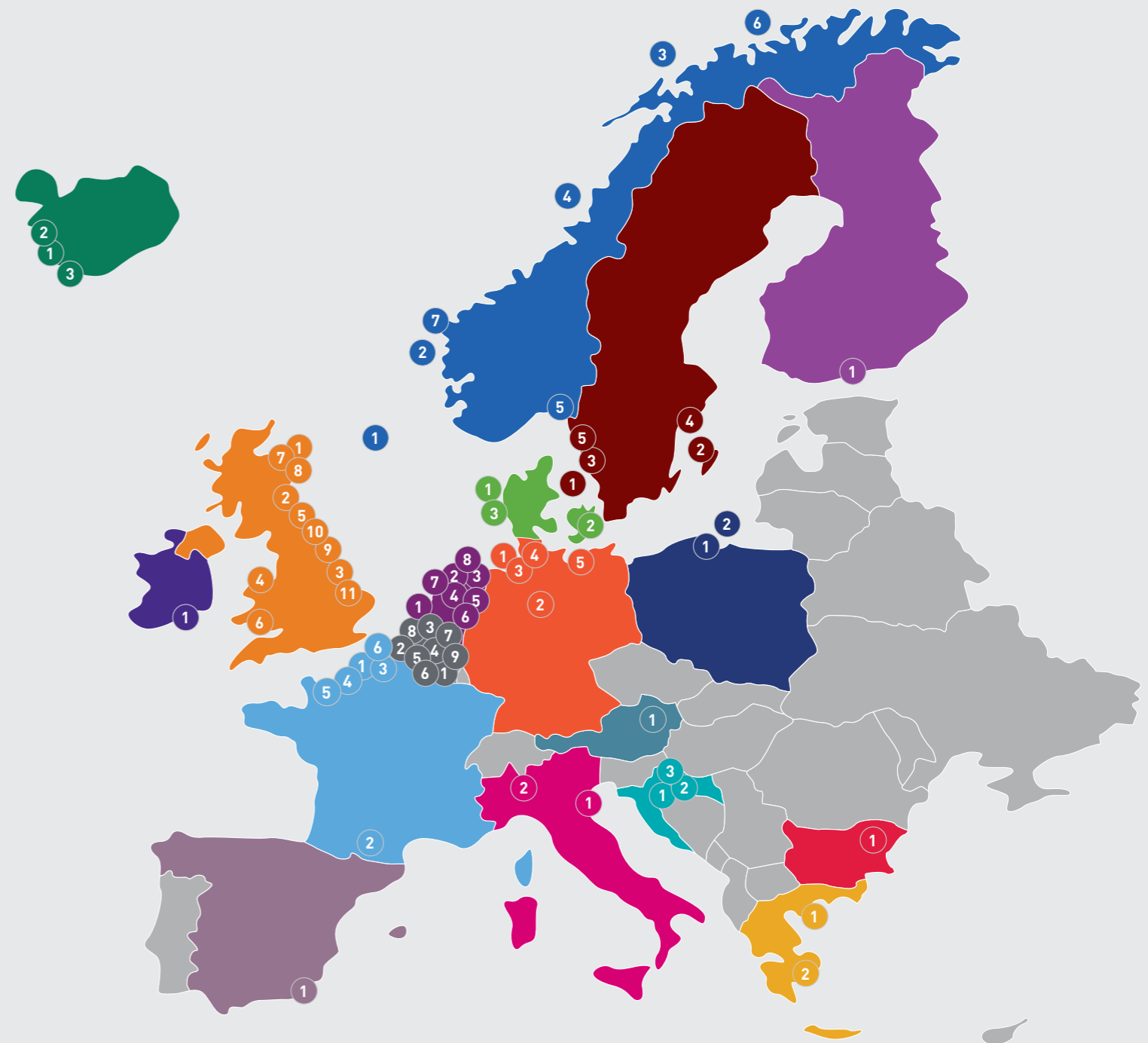
1. ECCO2

SWEDEN

1. Preem CCS*
2. Slite CCS
3. CinfraCap
4. BECCS@STHLM[€]
5. Project AIR[€]

UK

1. Acorn*
2. Caledonia Clean Energy
3. Zero Carbon Humber*
4. HyNet*
5. Net Zero Teesside*
6. South Wales Industrial Cluster
7. Peterhead CCS Power Station*
8. Acorn CO₂ SAPLING*
9. Northern Endurance Partnership*
10. H2Teesside*
11. H2H Saltend*



* Project where IOGP Members are involved
[€] EU Innovation Fund (11 selected, **4 awarded**)
 Projects listed in **bold** are in operation

Total number of projects: **71**
 Around 80 MtCO₂/yr stored by 2030

LOCATION	NO. ON MAP	PROJECT NAME	PROJECT TYPE CAPTURE/TRANSPORT/ STORAGE	TYPE OF CAPTURE PROJECT	PARTICIPANTS	STATUS OF THE PROJECT	PLANNED START OF OPERATIONS DATE	CO ₂ CAPACITY AT START DATE (MTPA)	CO ₂ CAPACITY AFTER FULL EXPANSION (MTPA)
Austria	1	Vienna Green CO₂	Capture	Power & Capture	TU Wein - BOKU - Shell - Bertsch - MTEC - Ik-projekt - LGV - Wien Energie	In Planning	no data	Not applicable	0.051
Belgium	1	Leilac 1	Capture	Industrial Capture (cement plant)	ECN part of TNO - Imperial College - PSE - HeidelbergCement - Lhoist - CEMEX - Tarmac and Calix	In Planning	no data	0.018	0.018
	2	Antwerp@C	Capture/Transport/ Storage	Industrial Capture (multiple industrial sources)	Air Liquide - BASF - Borealis - ExxonMobil - INEOS - Fluxys - Port of Antwerp - TotalEnergies	Early Development	no data	no data	9
	3	Carbon Connect Delta	Capture/Transport/ Storage	Industrial Capture (multiple industrial sources)	The cross-border consortium is composed of Smart Delta Resources, the Port Authority North Sea Port, the companies ArcelorMittal, Dow Benelux, PZEM, Yara and Zeeland Refinery and infrastructure partners Gasunie and Fluxys	In Planning	2023	1	6.5
	4	Steelanol	Capture	Industrial Capture (steel mill)	The Steelanol consortium consists of: ArcelorMittal, Primetals, LanzaTech, E4tech	Advanced Development	2022	no data	no data
	5	C4U	Capture/Transport/ Storage	Industrial Capture (steel mill)	UCL, Swerim, Radboud University, Spanish National Research Council (CSIC), ArcelorMittal, The University of Manchester (UM), Politecnico di Milano (POLIMI), TNO, Element Energy, Federal Institute for Geosciences and Natural Resources (BGR), the French Institute for Industrial Environment and Risks (INERIS), Centre for European Policy Studies (CEPS), Amec Foster Wheeler Italiana (Wood), The Carmeuse Group, Climate Strategies (CS), Johnson Matthey (JM), The University of Sheffield (UoS), Kisuma Chemicals BV (KISUMA), Dalian University of Technology (DUT)	Advanced Development	2020	no data	no data
	6	North-CCU-Hub	Capture	Industrial Capture (multiple industrial sources)	North Sea Port, Provincie Oost-Vlaanderen, POM Oost-Vlaanderen, Stad Gent, Oiltanking, Fluxys, Engie, Cargill, ArcelorMittal, Alco Bio Fuel, Universiteit Gent, Bio Base Europe, Capture, PMV, Mitsubishi Power, PROMAN	Early Development	2024	0.065	0.65
	7	Power-to-Methanol Antwerp BV	Capture	Industrial capture (multiple industrial sources)	ENGIE, Fluxys, Indaver, INOVYN, Oiltanking, Port of Antwerp, Vlaamse Milieuholding	Advanced Development	2023	0.008	0.008
	8	Kairos@C	Capture/Transport/ Storage	Industrial capture (multiple industrial sources)	Air Liquide, BASF	Early Development	2025	1.5	1.5
	9	H2BE	Capture/Transport/ Storage	Blue H2	Engie, Equinor	In Planning	2030	no data	no data
Bulgaria	1	ANRAV	Capture/Transport/ Storage	Industrial Capture (cement plant)	Devnya Cement (HeidelbergCement), Petrocetic, Bulgaria Eood	In Planning	2028	0.8	0.8

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Croatia	1	Petrokemija Kutina	Capture/Transport/Storage	Blue Ammonia	Petrokemija, MOL (INA)	In Planning	no data	0.19	0.19
	2	Bio-Refinery Project	Capture/Transport/Storage	BECCS - Bioenergy with CCS	MOL (INA)	Early Development	2026	0.055	0.055
	3	CCGeo	Capture/Transport/Storage	Power & Capture	AAT Geothermae, CLEAG	Advanced Development	2022	no data	no data
Denmark	1	Greensand	Capture/Transport/Storage	Industrial Capture (cement plant)	Wintershall Dea, INEOS Oil, Energy Cluster Denmark, Blue Water Shipping, SpotLight, Danish Technological Institute, Welltec, Semco maritime, Maersk Drilling, GEUS, Geelmuyden Kiese, Ramboll, Aker Carbon Capture, Resen Waves, Magseis Fairfield, ESVAGT, DTU, Wind Power Lab, DHI, Dan-Unity CO ₂ , University of Southampton, National Oceanography Centre, EUDP, Schlumberger New Energy	Early Development	2025	1.5	8
	2	C4: Carbon Capture Cluster Copenhagen	Capture/Transport/Storage	Power & Capture	Arc, ARGO, BIOFOS, Copenhagen Malmo Port, CTR, HOFOR, Vestforbraending, VEKS, Orsted	In Planning	2025	no data	3
	3	Bifrost	Transport/Storage	Not applicable	TotalEnergies, Noreco, Nordsøfonden, Ørsted, The Technical University of Denmark (DTU)	In Planning	no data	3	16
Finland	1	SHARC	Capture/Transport/Storage	Blue H2	Neste	Early Development	2025/26	0.4	0.4
France	1	Demonstration in Dunkirk ("3D" project)	Capture/Transport/Storage	Industrial Capture (steel mill)	ArcelorMittal, Axens, TotalEnergies, ACP, Brevik Engineering, CMI, DTU, Gassco, RWTH and Uetikon	Advanced Development	2025	1	1
	2	Pycasso - PYreanean Carbon Abolition through Sustainable Sequestration Operations	Capture/Transport/Storage	Industrial Capture (multiple industrial sources)	Avenia, CAPBP, Teréga, Schlumberger, Lafarge, Repsol, UPPA, BRGM, IFPEN, Sofresid, Geostock, SNAM	In Planning	2030	1	1
	3	K6	Capture/Transport/Storage	Industrial Capture (cement plant)	Air Liquide, EQIOM, VDZ	Early Development	no data	0.8	0.8
	4	CaLCC	Capture/Transport/Storage	Industrial Capture (cement plant)	Air Liquide, Lhoist	In Planning	2028	0.6	0.6
	5	Cryocap	Capture	Blue H2	Air Liquide	In Operation	2015	0.1	0.1
	6	D'Artagnan	Transport	Not applicable		In Planning	2025	3	12

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Germany	1	H2morrow	Capture/Transport/Storage	Blue H2	Equinor, OGE, Steel Europe	In Planning	2030	1.9	1.9
	2	Leilac 2	Capture	Industrial Capture (cement plant)	Calix (Europe) Limited - Engie Laborelec - HeidelbergCement AG - Geological Survey of Belgium - Lhoist Recherche et Developpement SA - BGR - Calix Limited - Politecnico Milano - Port of Rotterdam - Centre for Research & Technology Hellas - CEMEX - CIMPOR - IKN	Advanced Development	2023	0.1	0.1
	3	BlueHyNow	Capture/Transport/Storage	Blue H2	Wintershall Dea, Nord-West Oelleitung (NWO)	In Planning	no data	no data	no data
	4	OXYFUEL100 [subproject of WESTKUSTE100]	Capture	Methanol Sythesis	EDF Germany, Holcim Germany, Ørsted Germany, Raffinerie Heide, Stadtwerke Heide, Thügaans thyssenkrupp Industrial Solutions, Heide development agency, Westküste University of Applied Sciences	In Planning	no data	no data	no data
	5	H2GE Rostock	Capture/Transport/Storage	Blue H2	Equinor, VNG AG	In Planning	2029	2	2
Greece	1	Prinos CCS	Transport/Storage	Not applicable	Energiean	In Planning	2025	1	6
	2	RECODE	Capture	Industrial Capture (cement plant)	TITAN Cement, Instituto Italiano do tecnologica, European Research Institute, Politcnico di Torino, Avantium Chemicals, Deutscher Verein Des Gasund Wasserfaches-Technischwissenschaftlicher verein ev- DVGW, Rijksuniversiteit Groningen - RUG, Ethniko Kentro Erenvas Kai Technologikis Anaptyxis- CERTH, Karlsruher Institut Der Technologie- KIT, Hysytech Sol - HST	Early Development	no data	no data	no data
Iceland	1	Orca	Capture/Transport/Storage	Direct Air Capture	Climeworks, Carbfix	In Operation	2021	0.004	0.004
	2	Silverstone	Capture/Transport/Storage	Power & Capture	Carbfix, ON Power	In Operation	2025	0.037	0.037
	3	Coda Terminal	Transport/Storage	Not applicable	Carbfix, Dan-Unity CO ₂ A/S	Early Development	2026	0.5	3
Italy	1	CCS Ravenna Hub	Capture/Transport/Storage	Industrial Capture (multiple industrial sources)	Eni	Early Development	2027	0.1	4
	2	Cleankerk	Capture	Industrial Capture (cement plant)	LEAP, CSIC, VDZ, Politecnico di Milano, Tallinn University of Technology, Lappeenranta University of Technology, University of Stuttgart, Tsinghua University, Quantis, IKN, Buzzi Unicem, Italcementi-Heidelbergcement Group, Amici della Terra.	Early Development	no data	no data	no data

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The Netherlands	1	Porthos	Transport/Storage	Not applicable	Port Authority, Gasunie, EBN	Early Development	2024/2025	2.5	2.5
	2	Aramis	Transport/Storage	Not applicable	TotalEnergies, Shell, EBN, Gasunie	Early Development	2027	5	>5
	3	H2M	Capture/Transport/Storage	Blue H2	Vattenfall, Equinor, Gasunie	Early Development	2024	2	2
	4	H-Vision	Capture/Transport/Storage	Blue H2	Deltalinqs, Air Liquide, bp, EBN, ExxonMobil, Equinor, Gasunie, Port of Rotterdam, ONYX Power, Shell, Koninklijke Vopak NV	Early Development	2027	1.3	2.7
	5	Twence CO₂ capture plant	Capture	Power & Capture	Twence, Aker solutions	Advanced Development	2023	0.1	0.1
	6	Duiven CO₂ plant	Capture	Power & Capture	AVR Waste Processing BV, Air Liquide	In Operation	2019	0.1	0.1
	7	AZUR	Capture/Transport/Storage	Blue H2	Air Liquide, TotalEnergies, Lukoil	In Planning	2026	0.8	0.8
	8	L10 CCS	Transport/Storage	Not applicable	Neptune Energy, EBN Capital B.V., Rosewood Exploration Ltd., ExxonMobil	Early Development	2026	5	5
Norway	1	Sleipner CO₂ Storage	Capture/Transport/Storage	Industrial Capture (Oil&Gas industry)	Equinor, ExxonMobil, TotalEnergies	In Operation	1996	1	1
	2	Longship (includes Northern Lights)	Capture/Transport/Storage	Industrial Capture (multiple industrial sources)	Equinor, Shell, TotalEnergies	Advanced Development	2024	1.5	5
	3	Barents Blue	Capture/Transport/Storage	Blue Ammonia	Horisont Energi, Equinor, and Vår Energi	Early Development	2025	2	2
	4	Norsk e-Fuel	Capture	Direct Air Capture	Sunfire GmbH, Climeworks AG, Paul Wurth SA, Valinor, Lux-Airport	Advanced Development	2024	no data	no data
	5	Borg CO ₂	Capture/Transport/Storage	Industrial Capture (multiple industrial sources)	Borg Havn, FREVAR KF, NORSUS, Kvitebjørn Bio-El, Fortum Oslo Varme, EGE Oslo, Stormkast Utvikling, Equinor, IFE, CO ₂ Capsol, Borregaard, Acinor, Compact Carbon Capture, Baker Hughes, Biobe, Norske Skog Saugbrugs, Østfold Energi, Geminor and Sarpsborg Avfallsenergi	Early Development	no data	0.63	0.63
	6	Snøhvit CO₂ Storage	Capture/Transport/Storage	Industrial Capture (Oil&Gas industry)	Equinor	In Operation	2008	0.7	0.7
	7	Smeaheia	Transport/Storage	Not applicable	Equinor	In Planning	no data	20	20

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Poland	1	Poland EU CCS Interconnector	Transport	Not applicable	Air Liquide Polska Sp., Zarzad Morskiego PortuGdansk S.A., Polski Koncern Naftowy ORLEN S.A., Lafarge Cement S.A., Sogestran Shipping	In Planning	2025/2026	2.7	8.7
	2	Go4ECOPlanet	Capture/Transport/ Storage	Industrial Capture (cement plant)	Lafarge / Holcim, Air Liquide	In Planning	2027	no data	no data
Republic of Ireland	1	Ervia Cork CCS	Capture/Transport/ Storage	Power & Capture	Ervia, Gas Networks Ireland	Early Development	no data	no data	2.5
Spain	1	ECCO2	Capture	Industrial Capture (cement plant)	LafargeHolcim, Carbon Clean, Sistemas de Calor	Advanced Development	2023	0.07	0.7
Sweden	1	Preem CCS	Capture/Transport/ Storage	Blue H2	Preem, Aker Solutions, SINTEF Energy Research, Chalmers University of Technology, and Equinor	In Planning	2026/2027	0.5	0.5
	2	Slite CCS	Capture/Transport/ Storage	Industrial Capture (cement plant)	HeidelbergCement	Early Development	2030	1.8	1.8
	3	CinfraCap	Transport	Not applicable	Göteborg Energi, Nordion Energi, Preem, St1, Renova, and Gothenburg Port Authority.	In Planning	2026	2	2
	4	BECCS@STHLM	Capture/Transport/ Storage	Bioenergy with CCS	Stockholm Exergi	Early Development	2025	0.8	0.8
	5	Project AIR	Capture	CO ₂ Capture & Methanol Sythesis	Perstorp Group, Fortum and Uniper	In Planning	2025	no data	no data
UK	1	Acorn	Capture/Transport/ Storage	Industrial Capture (multiple industrial sources)	Storegga, Shell, Harbour Energy and NSMP	Early Development	2024	0.8	0.8
	2	Caledonia Clean Energy	Capture/Transport/ Storage	Power & Capture	Summit Power Group	Early Development	2025	3.1	3.1
	3	Zero Carbon Humber	Capture/Transport/ Storage	Industrial Capture (multiple industrial sources)	Associated British Ports (ABP), British Steel, Centrica Storage Ltd, Drax, Equinor, INEOS Acetyls, Mitsubishi Power, National Grid Ventures, px Group, SSE Thermal, Triton Power, Uniper, AMRC, Velocys	Early Development	2027	5	8
	4	HyNet North West	Capture/Transport/ Storage	Industrial Capture (multiple industrial sources)	Progressive Energy, Cadent, CF Fertilisers, Eni UK, Essar, Hanson, INOVYN (part of the INEOS Group) and the University of Chester.	Early Development	2025	0.8	0.8
	5	Net Zero Teeside	Capture/Transport/ Storage	Industrial Capture (multiple industrial sources)	bp, Eni, Equinor, Shell, TotalEnergies, Teeside Valley Authority, Suez, BOC, sembcorp,CF, Lotte Chemical, Nepic, UK BEIS	Early Development	2026	2	2
	6	South Wales Industrial Cluster	Capture/Transport/ Storage	Industrial Capture (multiple industrial sources)	RWE, Progressive Energy, Cadent, Valero, Tata Steel, BOC, South Hook, Wales & West Utilities, Western Power Distribution, Rice, Flexis	In Planning	2025	no data	no data

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UK	7	Peterhead CCS Power Station	Capture/Transport/Storage	Power & Capture	SSE Thermal and Equinor	Early Development	2026	1.5	1.5
	8	Acorn CO₂ SAPLING	Transport	Not applicable	UK Government, the Scottish Government, TotalEnergies E&P UK Limited and Pale Blue Dot Energy, Chrysaor, Shell	In Planning	no data	12	12
	9	Northern Endurance Partnership	Transport/Storage	Not applicable	bp, Eni, Equinor, National Grid, Shell and TotalEnergies	In Planning	2026	no data	no data
	10	H2Teeside	Capture/Transport/Storage	Blue H2	bp	In Planning	2027	no data	2
	11	H2H Saltend	Capture/Transport/Storage	Blue H2	Equinor	In Planning	2026/2027	0.9	2.6

Source: [Global CCS Institute](#) and Member companies



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