

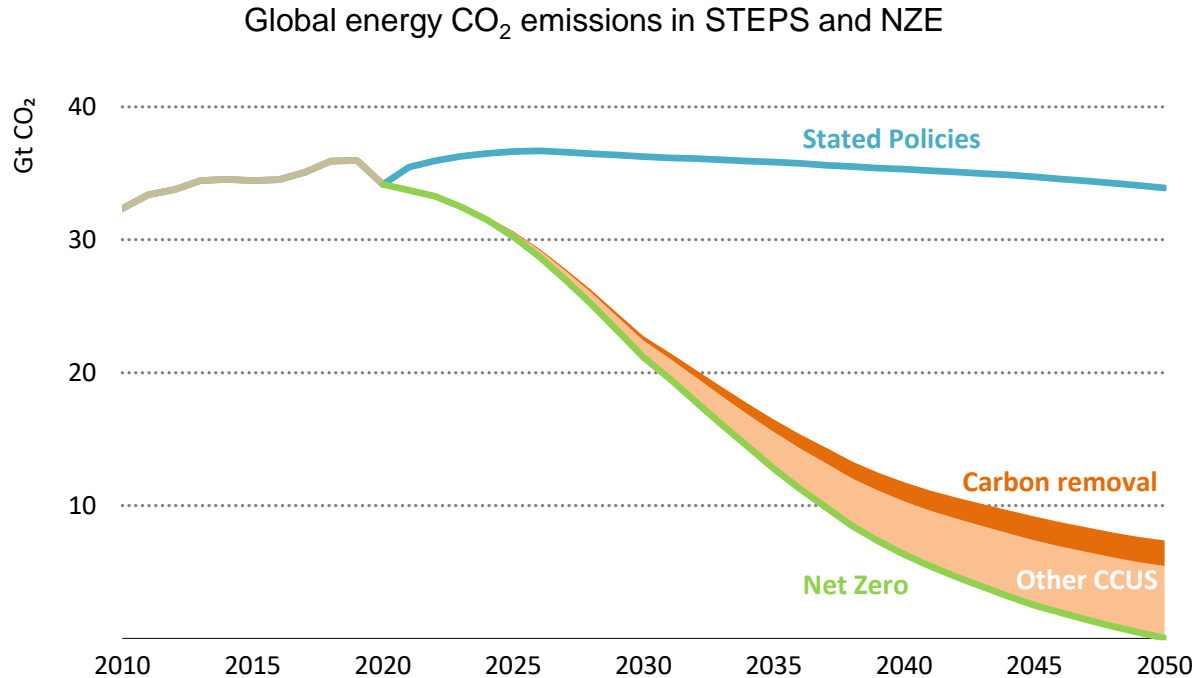


Role of carbon removal in IEA Net Zero roadmap

Paul HUGUES, Energy Analyst

Sustainable Carbon Cycles Conference, 31st January 2022

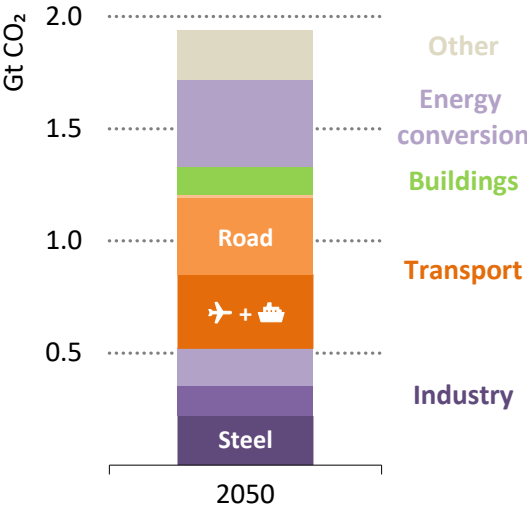
Carbon removal technologies play a key role in energy transition



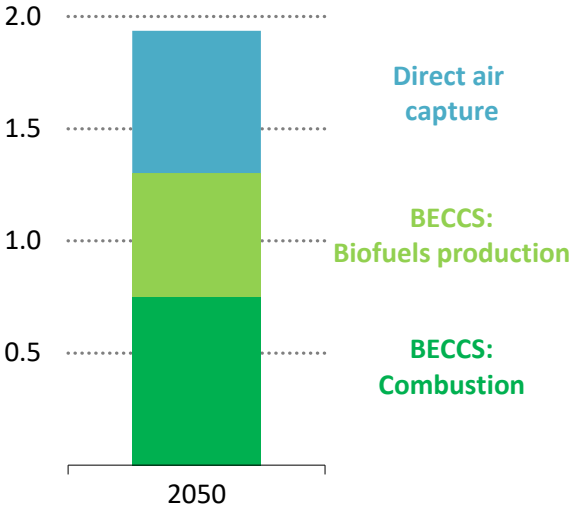
Carbon removal (BECCS and DACCS) accounts for 5% of cumulative energy-related CO₂ emissions reduction between STEPS and NZE

Carbon removal technologies offset hard-to-abate emissions

Residual CO₂ emissions in NZE



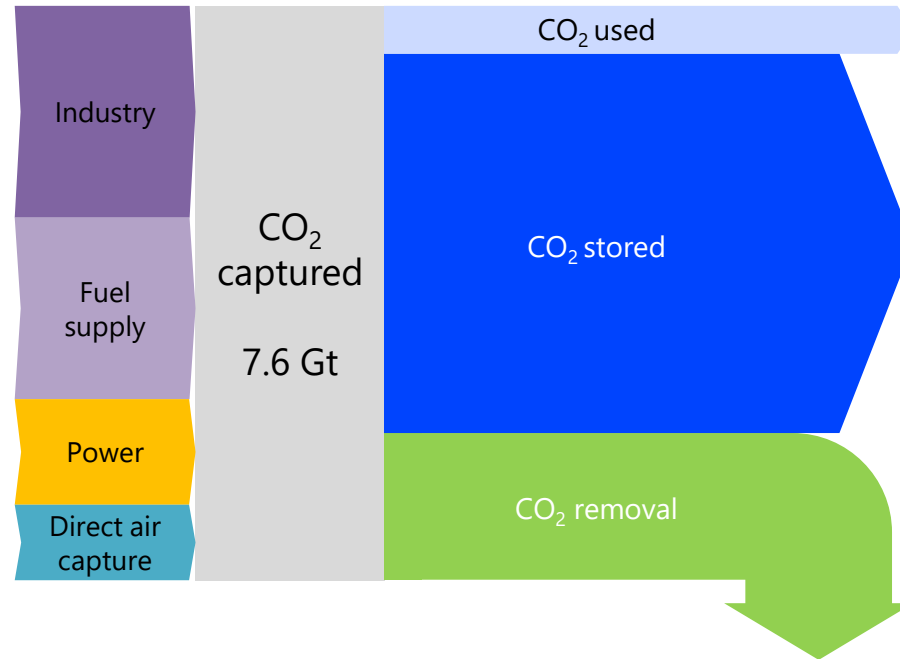
CO₂ removal in NZE



In the NZE, carbon removal technologies are instrumental to offset almost 2 Gt of residual CO₂ emissions in 2050

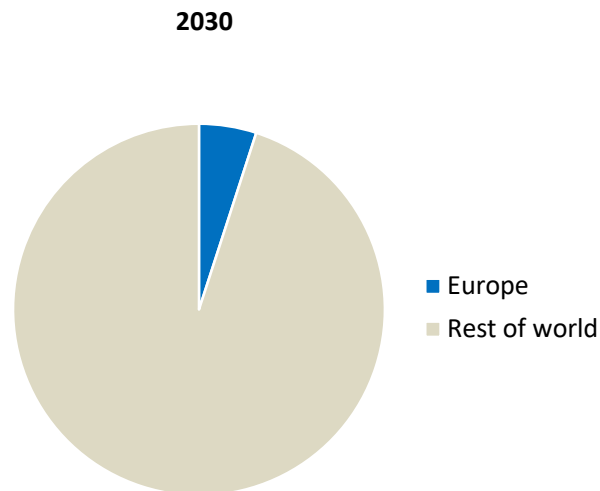
CO₂ removal technologies are part of CCUS industrial cluster

CO₂ captured by sector and downstream use in the NZE, 2050

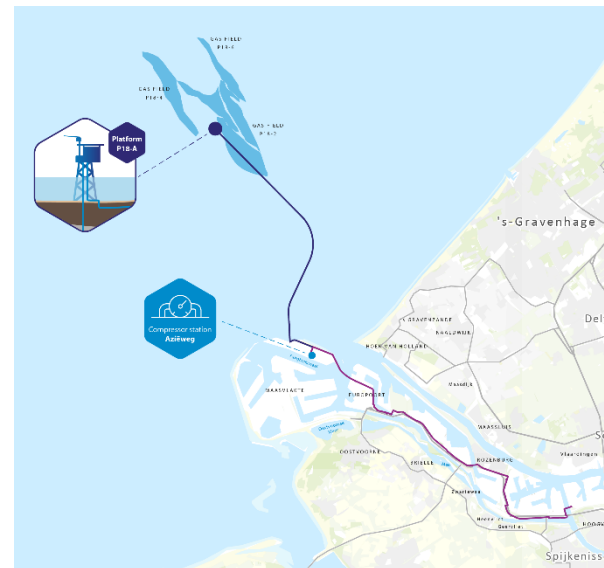


The diversity of CO₂ sources and downstream use requires several innovative industry technologies that are in the starting blocks today.

Share of Europe in global CO₂ captured in NZE



Example of a future carbon industrial cluster:
Rotterdam CCUS project Porthos



Source: <https://www.porthosco2.nl/en/>

**Building on existing industrial clusters and with favourable incentives,
the European Union can one of the leaders in large-scale deployment of CCUS**

