

The contribution of CCU to reach climate neutrality in the EU

by Dr Anastasios Perimenis, Secretary General, CO₂ Value Europe

CO₂ Value Europe has recently launched a first-of-a-kind quantitative assessment of the contribution of Carbon Capture and Utilisation (CCU) towards climate neutrality in the EU. This two-year exercise has been carried out with international industrial, technological, economical, and academic experts on CCU and related subjects to assess the mitigating potential of CCU technologies.

While the assessment looks at CCU in various pathways and sectors, the results show that 30% of olefin production could be CO₂-based in 2050 and that 20% of emission reduction from the industry could be coming from CCU. In terms of greenhouse gas reduction, CCU fuels will contribute the most by decreasing emissions of the maritime and aviation sectors by at least 35 and 38%, respectively. In 2050, about 1161 TWh of CCU fuels will be consumed in the EU representing 17,5% of total final energy consumption. The industry will represent 44% of the CCU fuels demand, followed by the aviation and maritime sectors (41%) and by heavy duty long-haul road transport and inland waterways (15%).

With this contribution, we will present the approach, the open-access web tool developed for this exercise, and discuss further the results and outlook.