

NEWEST-CCUS: Negative Emissions in the Waste-to-Energy Sector: Technologies for CCUS)

Publieke samenvatting / Public summary

Doelstelling

The aim of NEWEST-CCUS is to accelerate the development and deployment of CO₂ capture technologies that are tailored for effective operation at WtE plants. Expanding the range of fuel sources that are ready to use in combination with CCUS will create high quality jobs and respond to climate change concerns.

Korte omschrijving

The innovation focus is on progressing TRL of several promising technologies for WtE sites with a combination of pilot-scale testing and modelling. In particular, the project will focus on developing: - Oxy-firing technologies, focussing on developing circulating fluidized bed technology with a potential for higher efficiency with Solid Recovered Fuels when compared with grate fired boilers typically used for WtE combustion; - Membrane based CO₂ separation, considering also its combination as a hybrid method using partial flue gas recirculation and oxygen enrichment; and - Solvent-based post-combustion capture and, in particular, knowledge and technologies that address the need to handle a more diverse range of combustion impurities in challenging fuel flue gases associated with typical WtE plants.

Resultaat

* Establish a research and innovation platform for the deployment of CCS across the European WtE sector
* Extensive testing and demonstration at pilot scale and at industrial sites of relevant

Projectinformatie / Project information

Projectnummer / Project number
ACT18008

Subsidiebedrag / Grant amount
€ 422.387,00

Algemene informatie / General information

Penvoerder / Secretariat
Nederl Organisatie voor toegepast-natuurwetenschappelijk ond

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technologies in industrially relevant conditions for CO₂ capture with challenging waste fuel combustion, including facilities of the ECCSEL grouping and the International Test Centre Network.

* Optimise CO₂ capture design for integration in WtE plants for low energy use, cost and environmental impact, with relevant WtE plant conditions provided by industry partners *

Comparative assessment of technology in terms of performance, economics and possible market size *

Establish credible scenarios at regional and national level, using techno-economic assessment methods *

Evaluate the potential of the sector for net cumulative atmospheric CO₂ removal in Europe

De data in deze applicatie is afkomstig van de Rijksdienst voor Ondernemend Nederland (RVO) en wordt in samenwerking met de Topsector Energie ontsloten.

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