High Performance Capture - HiPerCap

Fact Sheet

Project Information

HIPERCAP

Grant agreement ID: 608555

Status
Closed project

Start date 1 January 2014
End date 31 December 2017

Funded under
FP7-ENERGY

Overall budget
€ 7 741 512

EU contribution
€ 4 890 111

Coordinated by
STIFTELSN SINTEF
Norway

Objective

This proposal aims to develop high-potential novel and environmentally benign technologies and processes for post-combustion CO2 capture leading to real breakthroughs. The proposal includes all main separation technologies for post-combustion CO2 capture; absorption, adsorption and membranes. Enzyme based systems, bio-mimicking systems and other novel forms of CO2 binding will be explored. For each technology we will focus on chosen set of promising concepts (four for absorption, two for adsorption and two for membranes). We aim to achieve 25% reduction in efficiency penalty compared to a demonstrated state-of-the-art capture process in the EU project CESAR and deliver proof-of-concepts for each technology.

The various technologies and associated process concepts will be assessed using a novel methodology for comparing new and emerging technologies, for which limited data are available and the maturity level varies substantially. Based on the relative performance using various performance indicators, a selection of two breakthrough technologies will be made. Those two technologies will be further studied in order to do a more thorough benchmarking against demonstrated state-of-the-art
HiPerCap involves 14 partners, from both the public and private sectors (research, academia, and industry), from 6 different EU Member States and Associated States, and two International Cooperation Partner Countries (Russia and Australia). The HiPerCap consortium includes all essential stakeholders in the technology supply chain for CCS: power companies, RTD providers, suppliers, manufacturers (of power plants, industrial systems, equipment, and materials), and engineering companies.

Field of science

/natural sciences/biological sciences/biochemistry/biomolecules/proteins/enzymes

Programme(s)

Topic(s)

Call for proposal

FP7-ENERGY-2013-1

Funding Scheme

CP - Collaborative project (generic)

Coordinator

STIFTELSEN SINTEF

Address

Strindveien 4
7034 Trondheim
Norway

Activity type

Research Organisations

EU contribution

€ 1 443 053

Website

Contact the organisation

Administrative Contact

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Participants (16)
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