

NATIONAL CARBON CAPTURE CENTER & ADVANCED FLASH STRIPPER

Developing technologies under realistic conditions to reduce the cost of advanced coal-fueled power plants with CO₂ capture

ENABLING TESTING AND SCALE-UP OF ADVANCED POWER GENERATION TECHNOLOGIES

The National Carbon Capture Center (NCCC) **accelerates the commercialization of advanced technologies to reduce emissions.**

Recent testing of an Advanced Flash Stripper (AFS) at NCCC demonstrated its potential to **reduce energy requirements** and **lower the cost of CO₂ capture.**

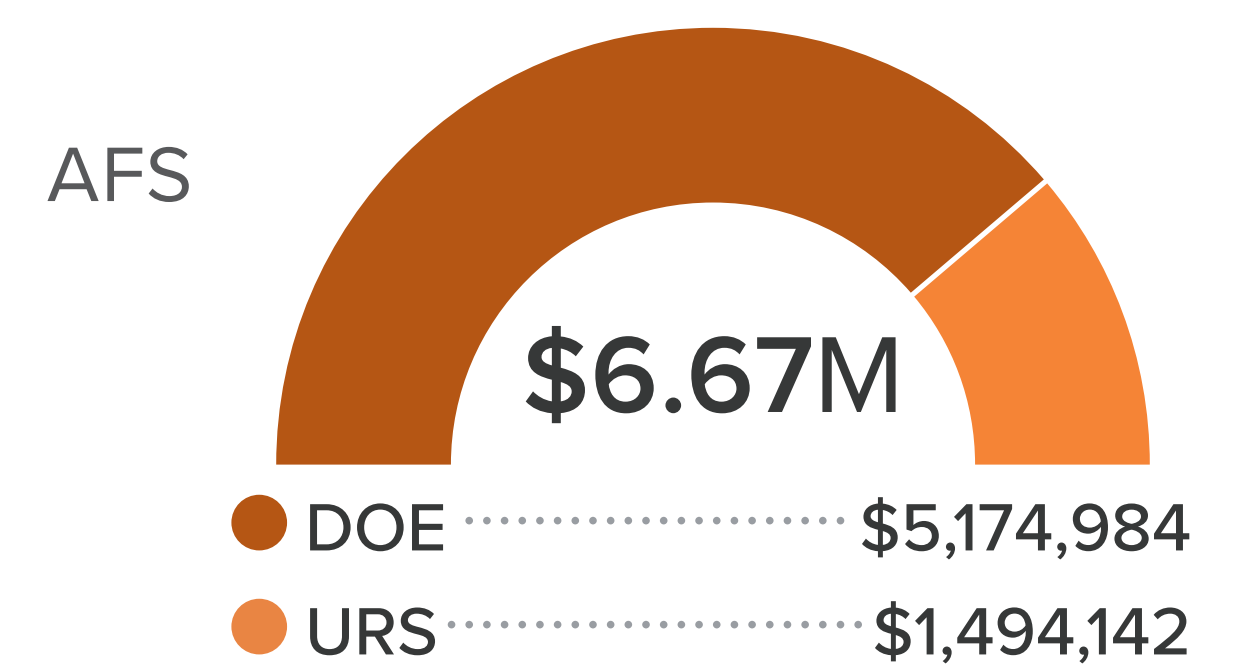
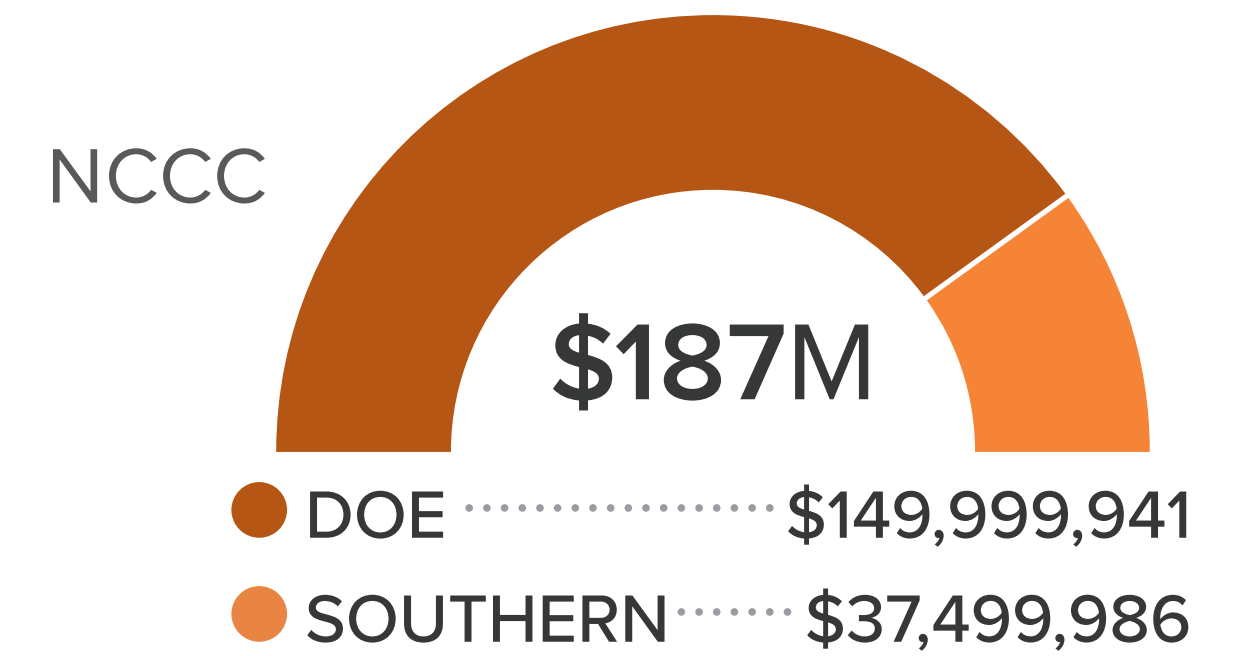


The National Carbon Capture Center in Wilsonville, AL

QUICK FACTS

AWARD NUMBER
DE-FE0022596 (NCCC)
DE-FE0005654 (AFS)

PROJECT BUDGETS



RESOLVING INDUSTRY CHALLENGES COLLABORATIVELY



The NCCC operates existing facilities to offer **third-party technology evaluation that addresses environmental, health and safety, operational, component, and system development issues** while collaborating with technology developers.

Southern Company announced the NCCC had **surpassed 100,000 hours of technology testing since opening in 2009.**

The NCCC **operated two major test runs at the Post-Combustion Carbon Capture Center** where technology developers conducted roughly **5,400 hours of testing.**

CONTACTS

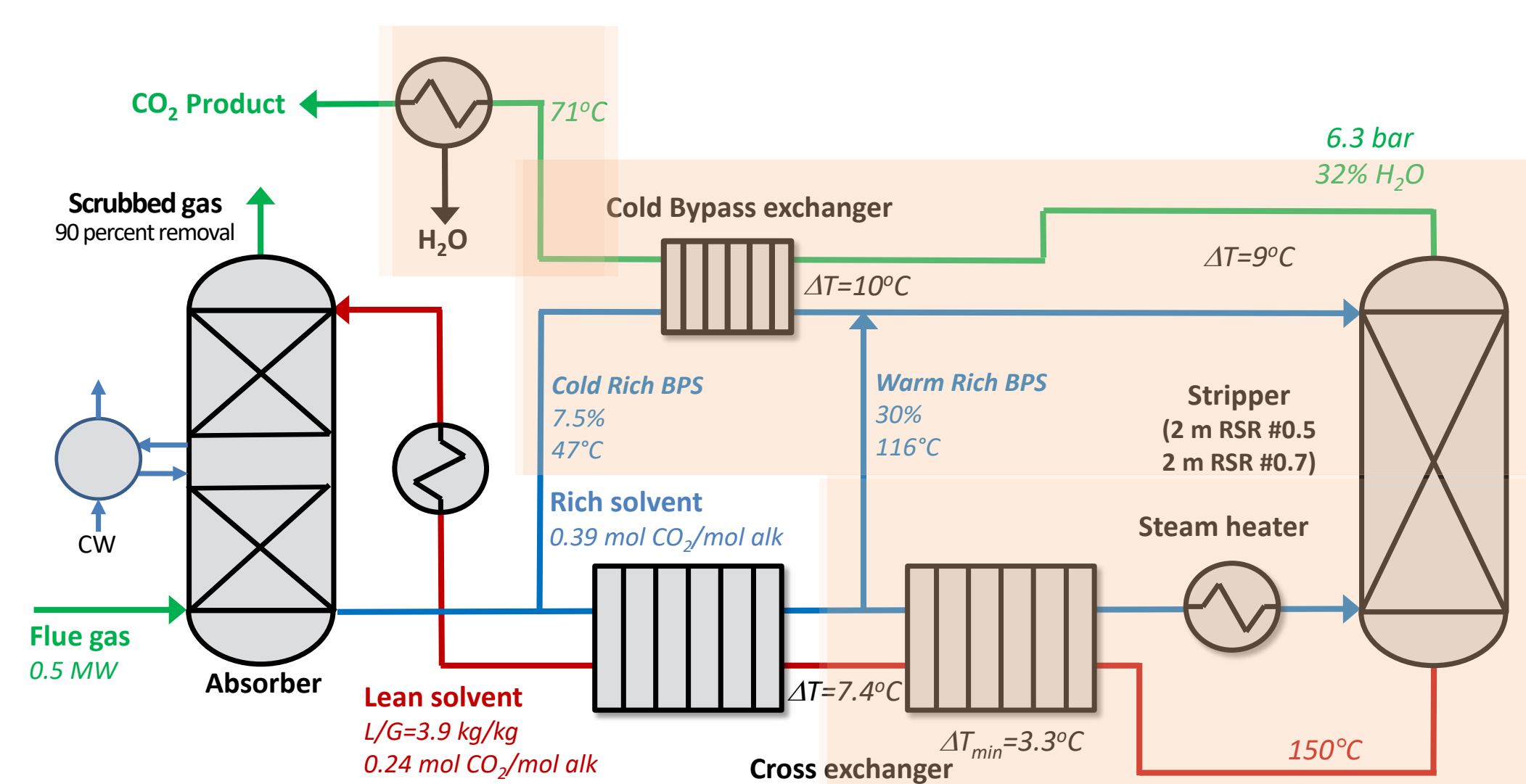
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FURTHERING RESEARCH AND REDUCING COSTS

Strippers are equipment in carbon capture systems that remove CO₂ from solvent for reuse. The Advanced Flash Stripper improves on this technology by lowering the energy requirement for CO₂ removal.



Schematic of the Advanced Flash Stripper tested at NCCC

AFS's preliminary NCCC testing at the 0.5MW scale with piperazine solvent shows the heat duty for the AFS ranged between 2.0–2.5 GJ/tonne CO₂.

These results **demonstrate AFS can lower energy requirements of regeneration for some solvents.**

PARTNERS

