NATIONAL CARBON CAPTURE CENTER ACHIEVES MAJOR MILESTONE WITH FIRST FIRE OF NATURAL GAS TESTING SYSTEM

The NCCC's new natural gas infrastructure paves the way for testing of carbon capture technologies using actual natural gas-derived flue gas.

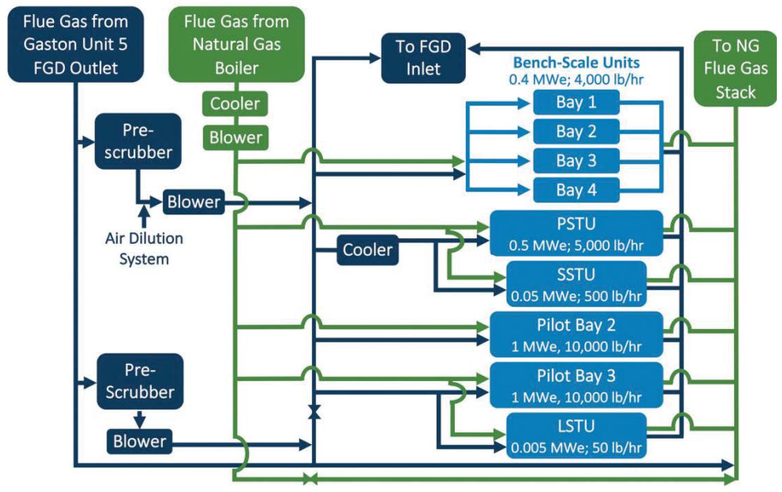
NCCC INTRODUCES NATURAL GAS FLUE GAS CARBON CAPTURE TESTING

Southern Company Services began operating a new natural gas-fired (NG-fired) boiler at the National Carbon Capture Center (NCCC) in early 2021 in a project sponsored by NETL.

The Carbon Capture Program, which develops and optimizes carbon dioxide (CO_2) capture technology for industrial, coal, natural gas sources, and negative emissions technologies, supported the expansion of technology testing capabilities at the NCCC.

This milestone is significant because it expands the NCCC's ability to evaluate carbon capture technologies for natural gas power plants, which generated ~1.6 Gigatons of CO_2 in the U.S. in 2020. First fire of the new system occurred in December 2020 with shakedown testing in January and February 2021.

The NG-fired boiler system, which was available for testing starting in March 2021, offers significant advantages for carbon capture technology developers to demonstrate and scale up technologies, including expanded testing windows and more flexibility.

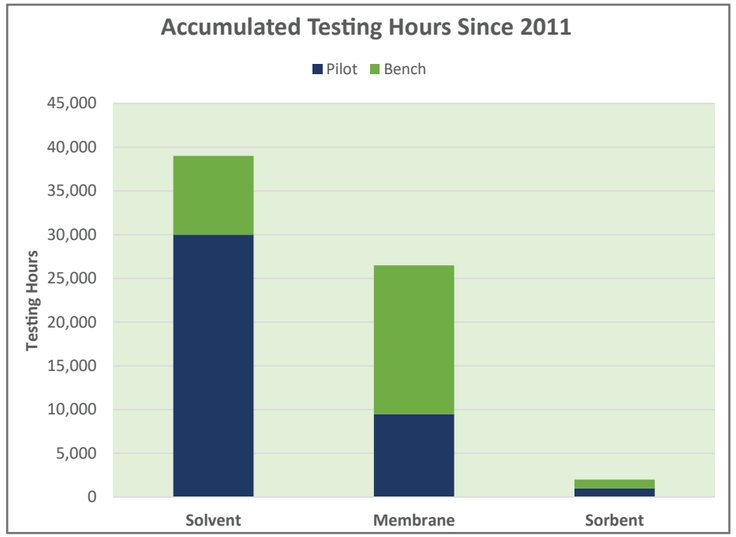


NCCC Test Bays Configuration

NCCC at Alabama Power's Plant Gaston in Wilsonville, Alabama

A DECADE OF IMPACT ON CARBON CAPTURE R&D

The NCCC is a world-class facility that works with innovators throughout the world to accelerate the development of technologies to reduce greenhouse gas emissions from fossil-based power plants, and to promote carbon utilization and direct air capture solutions.



Source: NCCC/Southern Company, August 2021

Commissioned in 2011, the NCCC completed a decade of testing in 2021, which has had a dramatic impact on carbon capture R&D. The NCCC has collected more than 68,000 hours of performance data on 46 technologies from 33 government, university, and research organizations from seven countries during that period. Eight of the technologies tested have been scaled-up to 10+ MW.

On the basis of pilot testing and development, the center has already reduced the projected cost of carbon capture from fossil-based power generation by approximately 40%.

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- DOE $253,385,107
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