

## U.S.-Canada Clean Energy Delegation Visits the Illinois Industrial CCS Project in Decatur

By Sai Gollakota

The United States-Canada Clean Energy Dialogue (CED) was established through the U.S. Department of Energy and Natural Resources Canada. Last year, Energy Secretary Dr. Stephen Chu and the Canadian Minister of the Environment Peter Kent released an action plan for the second phase of the CED, and carbon capture and storage (CCS) is one of the focus areas. This action plan states that, in terms of large-scale fully integrated CCS demonstration projects, governments and industry in both countries will periodically exchange technology developments. As part of this knowledge-sharing effort, the CED's CCS working group met in Champaign, IL, on April 23, 2013. This meeting was conducted under the chairmanship of Jarad Daniels (Office of Fossil Energy, DOE) and Claude Gauvin (Director of Energy Technology Policy, Natural Resources Canada) and

coordinated by FE's Robert Wright. The purpose of the meeting was to share knowledge on CCS post-injection plans and related regulatory perspectives.

The meeting venue was selected to facilitate the CED delegation's visit to the largest saline storage project under construction in the United States: Archer Daniels Midland Company's (ADM) Illinois Industrial Carbon Capture and Storage (Illinois ICCS) project in Decatur, IL. This project, managed by NETL, received \$141 million cost share from the American Recovery and Reinvestment Act of 2009. DOE's Regional Carbon Sequestration Partnerships, including the Midwest Geologic Sequestration Consortium's Illinois Basin Decatur Project (IBDP), presented information on their project's scope, carbon dioxide monitoring, and post-injection plans. The Illinois ICCS

project team presented the following topics: United States' requirements for a Class VI well, Illinois ICCS demonstration project post-injection plans, ADM site tour details, and an introduction to the National Sequestration Education Center (NSEC) at Richland Community College, Decatur.

On April 24, the CED delegation visited the NSEC, the Illinois ICCS project construction site, and the IBDP operations in Decatur. For the Illinois ICCS project, ADM has already completed mechanical installation of the major compression and dehydration equipment, piping, and electrical conduits. ADM successfully conducted the hydro test for the 5,000-ft CO<sub>2</sub> transmission line. The installation of instrumentation and controls is in progress. The construction of the 100-MW [\(U.S.-Canada Clean Energy... on page 17\)](#)



*The U.S.-Canada Clean Energy delegation visits the ADM's compressor facility being constructed under the Illinois ICCS project in Decatur. NETL's Sai Gollakota, who facilitated the site visit, is on the far left next to Claude Gauvin and Jarad Daniels.*

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electrical substation is also in progress. Baseline data are being collected by the Illinois State Geological Survey for monitoring the groundwater and soil gas.

ADM and Schlumberger Carbon Services have completed drilling two monitor-

ing wells. A 3,555 feet deep geophysical well and a 7,240 feet deep monitoring well will be used to track the subsurface movement of the CO<sub>2</sub> plume during the operations phase and beyond. The U.S. Environmental Protection Agency is reviewing ADM's application for an Underground Injection Control

Class VI injection well permit. The injection operations for the Illinois ICCS project are expected to begin next year. For more details on this project, which was recognized by the Carbon Sequestration Leadership Forum, please see the project [factsheet](#). ■