DOE Awards $1B for Oxy-Combustion Power Plant

A sign is seen in a window in Mattoon, Ill., Friday, Aug. 6, 2010, welcoming the FutureGen clean coal project to town. They date from the town's bid of more than two years ago to bring a power plant to town. The town succeeded but learned this week that the federal government no longer wants to build the plant here. (AP Photo/David Mercer)

Washington, D.C. — Today, U.S. Energy Secretary Steven Chu and U.S. Senator Dick Durbin announced the awarding of $1 billion in Recovery Act funding to the FutureGen Alliance, Ameren Energy Resources, Babcock Wilcox, and Air Liquide Process Costruction, Inc. to build FutureGen 2.0, a clean coal repowering program and carbon dioxide (CO2) storage network. The project partners estimate the program will bring 900 jobs to downstate Illinois and another 1,000 to suppliers across the state.

Today's announcement will help ensure the US remains competitive in a carbon constrained economy, creating jobs while reducing greenhouse gas pollution, said Secretary Chu. This investment in the world's first, commercial-scale, oxy-combustion power plant will help to open up the over $300 billion market for coal

unit repowering and position the country as a leader in an important part of the global clean energy economy.

As with the original FutureGen, Mattoon and the state of Illinois are positioned as leaders in innovative technology that can serve as a model for the nation, said U.S. Senator Dick Durbin. The new project stays true to the original goal of dramatically reducing pollution and providing thousands of good paying jobs in our state.

With the funds announced today, the partner recipients will repower Ameren's 200 megawatt Unit 4 in Meredosia, Illinois with advanced oxy-combustion technology. The plant's new boiler, air separation unit, CO2 purification and compression unit will deliver 90 percent CO2 capture and eliminate most SOx, NOx, mercury, and particulate emissions. Ameren Energy Resources estimates that the retrofitting of the plant is expected to create approximately 500 construction jobs and allow Ameren to recall 50 permanent workers who were laid off last year.

This project will also provide performance and emissions data for future commercial guarantees, and establish operating and maintenance experience for future large-scale commercial projects. The FutureGen Alliance will help design the test program for the new facility to incorporate a broad range of coals and operating conditions to expand the market for this repowering approach.

In addition, the project partners, working with the State of Illinois, will establish a regional CO2 storage site in Mattoon, Illinois and a CO2 pipeline network from Meredosia to Mattoon that will transport and store more than 1 million tons of captured CO2 per year. The project partners estimate the new pipeline network is expected to create 275 contruction jobs and 75 permanent jobs. The pipeline network, along with the repository in Mattoon, helps to lay the foundation for a regional CO2 network. The Mattoon site will be used to conduct research on site characterization, injection and storage, and monitoring and measurement.

Oxy-combustion burns coal with a mixture of oxygen and CO2 instead of air to produce a concentrated CO2 stream for safe, permanent, storage. In addition, oxy-combustion technology creates a near-zero emissions plant by eliminating almost all of the mercury, SOx, NOx, and particulate pollutants from plant emissions. The Department of Energy's National Energy Technology Laboratory studies have identified oxy-combustion as potentially the least cost approach to clean-up existing coal-fired facilities and capture CO2 for geologic storage.

FutureGen 2.0 stays true to the original spirit of the FutureGen project by advancing technology that can make the United States a world leader in carbon capture and storage. Secretary Chu and Senator Durbin intend to visit the Illinois sites for this project in the coming weeks.

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