

Powerspan Announces CO₂ Capture Technology Pilot Test Results

Portsmouth, N.H. – Powerspan Corp., a clean energy technology company, announced test results today from a one-megawatt pilot unit demonstrating its post-combustion ECO₂[®] carbon capture technology for coal-fired power plants. The 1-MW pilot test unit is located at FirstEnergy Corp.'s R.E. Burger Plant near Shadyside, Ohio. The test results show that the pilot unit is meeting its performance goals.

In a real world operating environment, the pilot averaged greater than 90 percent carbon dioxide (CO₂) capture from a slipstream of flue gas from the coal-fired power plant. The pilot performance data provides all of the information needed for Powerspan to confidently move to commercial scale demonstration systems. Commercial cost estimates based on pilot performance data are less than \$50 per ton for CO₂ capture and compression.

“Our goal with the ECO₂ pilot unit has been to demonstrate performance that results in lower energy costs than other post-combustion CO₂ capture technologies,” said senior vice president of engineering and R&D Christopher R. McLarnon, Ph.D. “The pilot performance data we have gathered shows that we have achieved this goal, and we are continuing to optimize the system.”

“We are pleased to have been part of the ECO₂ pilot test,” said Morgan Jones, staff environmental specialist of FirstEnergy. “We continue to believe that technology development is the best approach for cost-effectively reducing CO₂ emissions from existing power plants.”

Commercially proving post-combustion CO₂ capture technology is a key pathway toward meaningful CO₂ emission reductions from the existing power plant infrastructure. These pilot test results take the ECO₂ technology one step closer to commercialization as an industry-leading solution.

During extended runs, the pilot unit averaged greater than 90 percent CO₂ capture at design inlet CO₂ conditions with regeneration energy of less than 1,200 Btu/lb after heat integration. The product CO₂ was purified to meet industrial pipeline specifications using equipment that is part of the pilot installation. The pilot unit has demonstrated that it can adapt to the normal changes of an operating power plant, which is a necessary step in moving toward commercial scale systems.

In early 2010, Powerspan plans to publish an independent review of pilot test results along with an independent assessment of commercial cost implications. This review will be conducted by a leading global provider of engineering services to the energy, resource, and chemical process industries.

In December 2008, commissioning of the ECO₂ pilot unit was completed and pilot testing began. During 2009, Powerspan made enhancements to the pilot configuration resulting in improved performance at lower energy cost.

Powerspan is continuing to optimize the pilot system at the Burger Plant. The ECO₂ pilot unit is jointly funded by Powerspan and FirstEnergy.

Powerspan's ECO₂ technology is a post-combustion CO₂ capture process designed to capture 90 percent of CO₂ from the flue gas of coal-fired power plants. Once the CO₂ is captured, it is dried and compressed and is ready for pipeline transport and sequestration.

Powerspan Corp., a clean energy technology company headquartered in Portsmouth, New Hampshire, is engaged in the development and commercialization of proprietary carbon capture and multi-pollutant control technology for the electric power industry. The Company's post-combustion CO₂ capture technology, called ECO₂, can be applied to existing and proposed coal-fired power plants to capture 90 percent CO₂. Visit www.powerspan.com for more information.

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