

DOE Awards ION Engineering \$15 Million for Carbon Capture Pilot Project

Breakthrough technology limiting greenhouse gas emissions will be tested at Nebraska coal-fired power plant

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BOULDER, Colo.--(BUSINESS WIRE)--ION Engineering (ION) today announced that the Department of Energy's Office of Fossil Energy (DOE-FE) will provide \$15 million to support a CO₂ (carbon dioxide) capture one megawatt equivalent (1 MWe) pilot project at Nebraska Public Power District's Gerald Gentleman Station in Sutherland, Neb. ION and partners will contribute another \$4 million in matching funds bringing the total to \$19 million for the 45-month project. In addition to NPPD, partners include the University of North Dakota Energy & Environmental Research Center (EERC) and the University of Alabama Department of Chemical and Biological Engineering.

Previously, ION has received \$5M from DOE-FE to develop its advanced solvent process. During the past year, working in collaboration with the EERC and using their coal- and natural gas-fired Combustion Test Facility; ION has demonstrated that its state-of-the-art technology is capable of achieving greater CO₂ capture rates using less power plant energy relative to other solvent systems currently in development.

"The results obtained at the EERC demonstrate that ION's advanced solvent has the potential to significantly reduce capital costs, operating costs and the parasitic load on an operating power plant that implements ION's technology. When combined with CO₂ utilization opportunities such as Enhanced Oil Recovery (EOR), we can imagine a time when the incremental cost of carbon free fossil fuel electricity generation may be much less than previously considered," said ION Engineering CEO, Dr. Alfred "Buz" Brown. "By providing an affordable path to carbon free coal- and natural gas-generated power, we can have a significant impact on reducing carbon emissions worldwide."

"NPPD is interested in the project because our coal burning generating resources bring significant value to our customers," said NPPD Vice President and Chief Operating Officer, Tom Kent. "We also want technologies that can capture CO₂ in a cost-effective manner. Testing such technologies should be done on a larger scale to collect 'real world' data. We are pleased to be a participant in this project and hope to learn if the potential exists to capture carbon and advance the technologies in this area for the power industry."

"As our nation pursues a balanced energy portfolio and works to address global warming, we need to find new and innovative ways to capture carbon dioxide from power plant emissions. ION Engineering's exciting, job-creating project holds the promise of vastly improving our abilities to sequester more carbon and help reduce the effects of traditional energy sources like coal and natural gas on our climate," said U.S. Sen. Mark Udall, who serves on the

Senate Committee on Energy & Natural Resources. “Global warming is one of the most significant challenges of our time. This competitive grant supporting ION Engineering's technology development shows how Colorado is at the forefront of finding solutions and creating jobs.”

About ION Engineering

Based at the center of the emerging alternative energy industry in Colorado, ION Engineering is leading the development of CO₂ capture technology capable of reducing emissions from industrial and fossil power generation sources. The company's advanced proprietary processes are suitable for post-combustion capture carbon from coal- and gas-fired power plants and pre-combustion natural gas treating. To learn more about ION Engineering's advanced solvent process, please visit www.ion-engineering.com.

Contacts

For ION Engineering

Alfred “Buz” Brown, 303-578-1165

brown@ion-engineering.com

or

Jill Thompson, 720-438-8289

jthompson@metzger.com