

ION Engineering



BOULDER

CO

IMPACT

RECENT \$2.6M
 PHASE III CONTRACT FROM DOE

ION ENGINEERING

 3052 Sterling Circle
 Boulder, CO 80301

www.ion-engineering.com

Industrial emissions are the world's largest source of carbon dioxide. Both coal and natural gas power plants are responsible for CO₂ and other greenhouse gas emissions that are contributing to climate change. ION Engineering has developed a patented process to extract the CO₂ from these emissions, before it ever reaches the atmosphere. The Department of Energy (DOE) has been a critical partner for ION and has recently invested \$2.6M through its Carbon Capture Program implemented at the National Energy Technology Laboratory.

This process of carbon capture was not widely adopted in the U.S., although the technology had been around for close to a century. ION knew it had to align with both the DOE and strategic industry partners in order to make the technology more widespread and commercially viable. With these partners, ION has successfully tested its solvent technology domestically at the University of North Dakota Environmental and Energy Research Center and the National Carbon Capture Center. Worldwide, ION completed testing at the CO₂ Technology Centre Mongstad in Norway as part of a joint U.S. DOE and Norwegian-funded collaboration.

The company's carbon capture technology captures over 90% of the carbon dioxide from fossil fuel-based power plants and industrial sources before it is emitted. Post-combustion removal of CO₂ is the preferred method since it is the most cost-effective option for retrofitting existing power plants.

As for the CO₂ that is captured? There are a variety of industries that use recycled CO₂ including the craft brewing industry for canning, the car industry for manufacturing new interior parts, and the greenhouse industry to enhance plant growth.

ION, with the help of the DOE SBIR program, developed proprietary liquid solvent technologies for the capture of CO₂ from power plants, refineries, and other industrial sources more efficiently and at lower costs than commercial alternatives.

ION has partnered with industry leaders such as Chevron, BP, and Shell, as well as utility operators including Nebraska Public Power District and Tri-State Generation and Transmission Association.

ION credits the DOE SBIR program for its "high risk, high reward" platform of funding.

Total DOE SBIR Investment:
\$1.1M

PUBLISHED JUNE 2018