



TSX-V: CST

Outstanding shares: 79,187,836

## **CO<sub>2</sub> Solutions' Enzyme Development Partner Codexis Presents Positive Pilot Demonstration Results**

**Quebec City, Quebec, July 12, 2012** – CO<sub>2</sub> Solutions, Inc. (TSX-V:CST) announced today that its enzyme development partner Codexis, Inc. (Nasdaq: CDXS) presented the results of its enzyme-enabled carbon capture technology demonstration to the U.S. Department of Energy, National Energy Technology Laboratory's 2012 CO<sub>2</sub> Capture Technology Meeting.

The pilot-scale demonstration was conducted at the National Carbon Capture Center (NCCC) in Wilsonville, Alabama. Codexis developed the patented technology used under a license granted by CO<sub>2</sub> Solutions. The results of the field test, which used flue gas emitted from a Southern Company's power plant, showed that enzymes have promise to facilitate CO<sub>2</sub> capture at coal-fired power plants. This is the largest scale enzyme-based carbon capture technology demonstration to date, with the equivalent capture rate of 1,800 average sized trees per day.

"This achievement is a significant milestone for CO<sub>2</sub> Solutions and Codexis," said Glenn R. Kelly, CO<sub>2</sub> Solutions' President and Chief Executive Officer. "This demonstration confirmed the potential of our Company's patented enzyme-based carbon capture technology for use in large-scale industrial applications. We expect these results will raise our technology's profile and advance the development of enzyme-enabled carbon capture for power plant emissions."

In May 2010, Codexis received \$4.7 million from the U.S. Department of Energy's Advanced Research Projects Agency - Energy (ARPA-E) to develop the enzyme carbonic anhydrase, which catalyzes the transfer of carbon dioxide in nature and is designed to remove dangerous emissions from coal-fired power plants.

In the research funded by ARPA-E, Codexis saw a two-million-fold improvement in the thermal stability of carbonic anhydrase, at temperatures between 140 and 180 degrees Fahrenheit. In addition, preliminary analysis indicates the enzyme-based carbon capture technology can substantially reduce parasitic energy loss compared to the current state-of-the-art MEA technology.

A 2011 National Energy Technology Laboratory (NETL) report estimated that coal-fired power plants account for roughly 37 percent of total U.S. CO<sub>2</sub> emissions and that current state-of-the-art MEA technology to capture CO<sub>2</sub> could reduce power-generating capacity by 30 percent. Enzyme-based technology, if successful, could play a role in meeting the proposed new EPA standards (Carbon Pollution Standard for New Power Plants), first published in April 2012 – theoretically capturing up to 90 percent of CO<sub>2</sub> emissions of coal-fired power plants.

"Using Codexis' enzyme-based carbon capture technology, power plant operators may be able to capture carbon much more efficiently," said James Lalonde, Ph.D., Vice President of Biochemistry and Engineering Research and Development, Codexis, who led the demonstration. "By partnering with CO<sub>2</sub> Solutions, we were able to access their broad patent portfolio, which covers various processes for the use of carbonic anhydrase, and apply Codexis technology to make biocatalysts work under harsh, real-world conditions."

The U.S. Department of Energy (DOE), National Energy Technology Laboratory's 2012 CO<sub>2</sub> Capture Technology Meeting is a public forum for presenting CO<sub>2</sub> capture technology development status and accomplishments made under NETL's Innovations for Existing Plants, Carbon Sequestration, and Demonstration Programs and under DOE's ARPA-E. The event is being held July 9 to July 12 in Pittsburgh, Pennsylvania. More information can be found at <http://netldev.netl.doe.gov/events/2012-co2-capture>.

### **About the CO<sub>2</sub> Solutions-Codexis Collaboration**

A technology development collaboration between Codexis, Inc. and CO<sub>2</sub> Solutions Inc. was announced in December 2009. CO<sub>2</sub> Solutions and Codexis have collaborated on the development of customized carbonic anhydrase biocatalysts and processes that could significantly decrease the energy and capital costs associated with the capture of CO<sub>2</sub> from power plant flue gases. Program results to date have shown that combined CO<sub>2</sub> Solutions / Codexis proprietary technologies can be used to create and deploy CA biocatalysts with substantially improved stability and performance under harsh industrial conditions.

### **About CO<sub>2</sub> Solutions Inc.**

CO<sub>2</sub> Solutions is an innovator in the field of enzyme-enabled carbon capture and has been actively working to develop and commercialize the technology for stationary sources of carbon pollution. CO<sub>2</sub> Solutions' technology lowers the cost barrier to Carbon Capture, Sequestration and Utilization (CCSU), positioning it as a viable CO<sub>2</sub> mitigation tool, as well as enabling industry to derive profitable new products from these emissions. CO<sub>2</sub> Solutions has built an extensive patent portfolio covering the use of carbonic anhydrase, or analogues thereof, for the efficient post-combustion capture of carbon dioxide with low-energy aqueous solvents. Further information can be found at [www.co2solutions.com](http://www.co2solutions.com)

### **CO<sub>2</sub> Solutions Forward-looking Statements**

Certain statements in this news release may be forward-looking. These statements relate to future events or CO<sub>2</sub> Solutions' future economic performance and reflect the current assumptions and expectations of management. Certain unknown factors may affect the events, economic performance and results of operations described herein. CO<sub>2</sub> Solutions undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable law.

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