





TSX-V: CST

Outstanding shares: 60,261,136

# Alcoa Unveils Partnership for Carbon Capture Technology Pilot Test that Turns Emissions into Beneficial Commercial Products

Collaboration with CO<sub>2</sub> Solution and Codexis uses proprietary enzyme technologies to reduce the environmental impact of industrial byproducts

**NEW YORK** – **April 7, 2011** – Alcoa (NYSE:AA) today announced a new pilot program, in collaboration with CO<sub>2</sub> Solution Inc. (TSX-V: CST) and Codexis, Inc. (Nasdaq: CDXS) focused on carbon capture technology designed to sequester industrial carbon emissions, neutralizing the material to create a commercially viable product.

The project is the latest innovation from the world's leading aluminum producer and will be funded by Alcoa along with approximately \$13.5 million in funding from the U.S. Department of Energy (DOE) received from an award with the National Energy Technology Laboratory (NETL). This funding was made available by the American Recovery and Reinvestment Act (ARRA).

The pilot program, part of Alcoa's ongoing commitment to enhance its operational sustainability, will use an innovative and proprietary induct scrubber technology to capture emissions. The collaboration is intended to devise solutions that treat and utilize a primary byproduct of the aluminum manufacturing process known as alkaline clay, or bauxite residue, as well as other alkaline industrial residuals. This pilot project will test a scrubbing process that combines treated flue gas, enzymes and alkaline clay to create a mineral-rich neutralized product that could be used for environmental reclamation projects. The project is emblematic of how Alcoa is leveraging its extensive R&D capabilities and utilizing gamechanging technologies from companies like CO<sub>2</sub> Solution and Codexis to advance sustainable solutions that can have an impact beyond Alcoa's operations.

"Our mission at Alcoa is to create a more sustainable world through innovative solutions and responsible operations," said Kevin Anton, Alcoa's Chief Sustainability Officer. "Finding ways to turn industrial waste into beneficial products will create a more sustainable society for generations to come. We are committed to this project and partnership because it epitomizes our belief that sustainable technologies are fundamental for the maintenance of vital resources and, therefore, for our business."

Scientists and engineers from Alcoa Technical Center in Pittsburgh will lead the three-year project, which has an investigation phase that runs through December. Upon successful completion of this phase, the project will proceed to the pilot testing phase. The DOE grant was received as part of an initiative to find ways of converting captured carbon dioxide emissions from industrial sources into useful products such as fuels, plastics, cement and fertilizers.

Glenn Kelly, CO<sub>2</sub> Solution president and CEO, commented on the new partnership, saying, "We are delighted to be building on our relationship with Alcoa to support this important technology development and further expand into U.S. and global markets. This represents a significant new application of our technology, and we are pleased to be working with Alcoa as a global leader towards its realization."

"We are very pleased to be expanding deployment of our carbon capture technology with Alcoa," said Dr. Alan Shaw, Codexis president and CEO. "We recently reported significant progress in our first program to reduce CO<sub>2</sub> emissions from coal-fired power plants. With this agreement, we are expanding to a second large market where our technology can add real economic value, and where it may convert industrial waste to new, valuable products."

CO<sub>2</sub> Solution and Codexis have been collaborating since late 2009 on the development of custom carbonic anhydrase (CA) enzymes and processes that could significantly decrease the cost of carbon dioxide capture from industrial sources. CA is an enzyme which catalyzes the transfer of carbon dioxide in nature, and program results to date show that the technology can be used to create and deploy CA biocatalysts with substantially improved stability and performance under harsh industrial conditions.

For more information, visit www.alcoa.com, www.co2solution.com and www.codexis.com.

#### **About Alcoa**

Alcoa is the world's leading producer of primary aluminum, fabricated aluminum and alumina. In addition to inventing the modern-day aluminum industry, Alcoa innovation has been behind major milestones in the aerospace, automotive, packaging, building and construction, commercial transportation, consumer electronics and industrial markets over the past 120 years. Among the solutions Alcoa markets are flat-rolled products, hard alloy extrusions, and forgings, as well as Alcoa® wheels, fastening systems, precision and investment castings, and building systems in addition to its expertise in other light metals such as titanium and nickel-based super alloys. Sustainability is an integral part of Alcoa's operating practices and the product design and engineering it provides to customers. Alcoa has been a member of the Dow Jones Sustainability Index for eight consecutive years and approximately 75 percent of all of the aluminum ever produced since 1888 is still in active use today. Alcoa employs approximately 59,000 people in 31 countries across the world. More information can be found at www.alcoa.com.

### About CO<sub>2</sub> Solution Inc.

CO<sub>2</sub> Solution is an innovator in the field of enzyme-enabled carbon capture and has been actively working to develop and commercialize the technology for power plants and other large stationary sources of carbon pollution. In the process, CO<sub>2</sub> Solution 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 about CO<sub>2</sub> Solution can be found at <a href="https://www.co2solution.com">www.co2solution.com</a>

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

Certain statements in this news release may be forward-looking. These statements relate to future events or CO<sub>2</sub> Solution's future economic performance and reflect the current assumptions and expectations of management. Certain unknown factors may affect the events, economic performance and results of operation described herein. CO<sub>2</sub> Solution 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.

#### About Codexis, Inc.

Codexis is a clean technology company. Codexis develops optimized biocatalysts that make industrial processes faster, cleaner and more efficient. Codexis' technology is commercialized with leading global pharmaceutical companies and in development for advanced biofuels with Shell and in carbon capture.

Other potential markets include chemicals and water treatment. For more information, see www.codexis.com.

## **Codexis Forward-Looking Statements**

This press release contains forward-looking statements relating to Codexis' research in carbon capture technology. You should not place undue reliance on these forward-looking statements because they involve known and unknown risks, uncertainties and other factors that are, in some cases, beyond our control and that could materially affect actual results. Factors that could materially affect actual results can be found in Codexis' Annual Report on Form 10-K dated February 10, 2011 including under the caption "Risk Factors." Codexis expressly disclaims any intent or obligation to update these forward-looking statements, except as required by law.

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