The U.S. Department of Energy Grants $2.1M to Solidia Technologies to Develop CO₂ Capture and Utilization Technologies for Building Materials

The R&D grant will fund the development of synthetic supplementary cementitious materials (SCMs) through direct capture of CO₂ from cement plants.

Piscataway, N.J., May 23, 2022 – The U.S. Department of Energy (DOE) is providing $2.1 million in funding to Solidia Technologies® to develop and test methods for carbonating Solidia Cement™, broadening applications of Solidia’s low-carbon manufacturing technologies for building materials. With this funding, Solidia will develop processes for producing synthetic supplementary cementitious materials (SCMs) through direct capture and utilization of CO₂ from the flue gas stream of an operating cement plant.

Funded by DOE’s Office of Energy Efficiency and Renewable Energy (EERE), Solidia will develop an efficient carbonation method of Solidia Cement in laboratory scale and perform tests in mortar and concrete to determine the suitability of this material as a cement replacement in concrete. This will provide a low CO₂ alternative replacement material to OPC.

“We are proud to partner with the U.S. Department of Energy to continue innovating and ultimately deliver on our mission to provide commercially viable decarbonization technologies and sustainable solutions for the global construction and building materials industries,” said Solidia CEO Russell Hill, Ph.D.

The carbonated SCM will be added to concrete to create a product that will yield similar or better performance when compared to concrete made with commonly used SCMs, such as fly ash and ground granulated blast furnace slag.

“The DOE funding will advance our CCUS technologies and synthetic SCMs that can be easily integrated into Portland Cement-based concrete formulations, offering manufacturers a solution that is sustainable environmentally and economically, both lowering the carbon footprint and offering an alternative to traditional SCMs, which are in increasingly short supply,” added Dr. Hill.

###

About Solidia Technologies®
Based in Piscataway, N.J. (USA), Solidia Technologies® is a leading provider of decarbonization technologies and sustainable solutions to the construction and building materials industries. Investors include Imperative Ventures, Zero Carbon Partners, Canada Pension Plan Investment Board (CPP Investments), Breakthrough Energy Ventures, Prelude Ventures, PIVA Capital, John Doerr, BP, OGCI Climate Investments, Bill Joy, Kleiner Perkins, BASF Venture Capital, Holcim, Total Carbon Neutralty Ventures, Air Liquide Venture Capital (ALIAD), and other private investors. Follow Solidia on LinkedIn, Instagram, Twitter, and YouTube.

The Office of Energy Efficiency and Renewable Energy (EERE) is working to build a clean energy economy that benefits all Americans. Our mission is to create and sustain American leadership in the transition to a global clean energy economy.