



Company News

Rondo Energy and Siam Cement plan 90GWh Battery Factory

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Alameda (CA), United States –

On June 26, 2023, Siam Cement Group and Rondo Energy, Inc. announced plans to expand the production capacity of Rondo Heat Battery storage at Siam Cement Group's facility to 90 GWh per year. Mass production is now underway with a capacity of 2.4 GWh per year already online today. The Rondo Heat Battery stores electric power as high temperature heat in refractory brick.

The 90 GWh of planned capacity will result in 12 million tons of CO₂ savings annually, equivalent to removing over 4 million ICE vehicles to the road each year.

“Energy storage is just starting to scale around the world,” said Pavel Molchanov, energy analyst at Raymond James. “The size of the addressable market is such that all possible solutions are needed: it is truly an all-of-the-above story. In this context, electric thermal energy storage can play a useful role in addressing the needs of the industrial sector, which has been slow to decarbonize. And, from an energy security standpoint, it is worth noting that this technology avoids the use of scarce and expensive materials.”

Refractory brick has been used for centuries for industrial heat storage, and is made of Earth’s most abundant elements: oxygen, silicon, and aluminum. Rondo

Energy, Inc. (“Rondo”) breakthrough Heat Battery stores electric power as high temperature heat in refractory brick, without the use of combustibles, critical minerals, toxics, or liquids.

With Rondo’s technology, wind and solar can deliver continuous zero-carbon industrial heat at lower cost than fossil fuels, a critical need for industries worldwide producing every commodity from steel to baby food. The first Rondo Heat Battery is now commercially operating at a California ethanol plant, serving an industrial customer with the world’s highest temperature, highest efficiency energy storage of any kind.

Siam Cement Group (“SCG”), through its subsidiary SRIC, produces refractory brick at world-class quality and scale. Rondo and SCG are together addressing the next step toward large-scale industrial decarbonization: Heat Battery production at large scale, with the highest quality, long-term durability, and certainty of delivery. Rondo and SCG have brought together their innovations and capabilities to establish the multi-GWh production now underway. That production experience is the foundation for the planned expansion announced today.

SCG’s world class refractory production operations are the largest in Southeast Asia. SCG’s manufacturing excellence has been recognized by prestigious global quality awards including the Deming Prize for total quality management and supply refractory for leading industries in over 80 countries.

“Rondo offers an innovative solution to reduce the carbon emissions from industrial process heat used in factories worldwide. SCG can use Rondo’s technology to lower our own carbon emissions, and SCG Cleanergy can partner with Rondo to help our customers cut emissions,” said SCG’s Executive Vice President, Thammasak Sethaudom. “We also realized that we can leverage our 70 years of technical expertise in the refractory business and supply chain to support Rondo’s mission to decarbonize industrial process heat, and we are happy to increase our capacity to meet market demand.”

“SCG has been a phenomenal partner,” said Rondo CEO John O’Donnell. “We found we had a common vision and uniquely complementary capabilities to bring this technology to world scale to address the greatest challenge of our times. With the technology now in commercial operation, Rondo’s next milestone is creating the delivery capacity to meet the growing needs of projects worldwide.”

Industry uses more energy than any other part of the world economy, and most industrial energy is used as heat. Industrial heat consumes a quarter of total

world energy and today releases a quarter of the world's CO₂. Industrial heat has been seen as "difficult to decarbonize" due to challenges of cost, continuity, and temperature. Rondo Heat Batteries transform intermittent wind and solar power into the continuous high-temperature and low-cost heat that industry needs. This planned production will support installations powering a wide range of industries, from mining and metals to fuels to food production, at facilities around the world.

Rondo is an award-winning innovator in energy storage, having been selected by DoE among others for its leadership and transformation of lower costs of energy storage with its heat battery technology.

"Over the last few years we've seen validation of our founding vision," said O'Donnell, "Decarbonizing industrial heat is a trillion-dollar market requiring far more storage than the electric grid. The technology is here now. The demand is here now. This planned expansion means that the capacity is here now as well. Working with SCG, Rondo will maintain and extend our leadership position, and serve our customers' rapidly growing demands with world-class quality and certainty of supply."