Enel and EnergyNest explore thermal energy storage opportunities

Rotterdam, October 22nd, 2018 – Among innovative technology providers developing a thermal energy storage system, Norway-based cleantech company EnergyNest is currently one of the partners selected by multinational energy provider Enel for the analysis of the benefits and impacts of the integration of its technology in one of Enel’s numerous power generation assets. According to EnergyNest, impressive economic and climate-relevant figures could be achieved by the company’s latest thermal energy storage technology when integrated in full-scale: annual CO₂ reduction of up to 45,000 tons, 14 million liters of fuel oil saved per year and project payback in less than three years.

The collaboration launched with EnergyNest gives Enel the chance to evaluate EnergyNest’s Thermal Energy Battery solution in real-life conditions and identify full-scale business-applications for the technology integrated into thermal power plants. The objective of the innovative project is to demonstrate how waste heat recovery in Thermal Energy Storage can increase flexibility and sustainability of thermal power plants. This activity will allow Enel to assess technology robustness, its potential contribution to increasing efficiency and its positive environmental impact.

Last week, EnergyNest officially unveiled its first Thermal Battery Module, produced in its new manufacturing hub in Europoort, Rotterdam, on the site of partner Mebin. Manufacturing for two commercial projects is now expected to start at the end of the year. EnergyNest’s innovative battery modules consist of locally-sourced, recyclable materials – framed steel pipes set with Heatcrete, a high-performance thermal-energy-storing concrete developed in partnership with HeidelbergCement, Germany’s multinational buildings material company.


About EnergyNest

EnergyNest, the Thermal Battery company, creates values and new revenue potentials that would otherwise remain untapped for players in energy and industrial segments. The company has developed a technology that enables storing and time-shifting high-grade heat to when it’s most needed. By storing this high-value heat for later use, EnergyNest provides customers such as industrial energy producers and consumers with the flexibility to manage their energy. This flexibility allows customers to respond to the fluctuating market: either by reselling the stored energy or using it back in their own business as thermal energy or electricity.

EnergyNest delivers four combined or independent energy streams (electricity, process steam, district
heating and cooling) with a round-trip energy-efficiency of up to 98% percent. The solution is at least 50 percent cheaper than any other storage alternative like batteries or molten salt. EnergyNest’s unique Thermal Battery technology is modular, flexible, fully scalable and built for purpose. It is made from abundant, recyclable and non-hazardous geomaterials: steel and a concrete-like material Heatcrete®. These materials are easy to acquire, meaning that local workforces and materials can be used, and transportation can be kept to a minimum.

Founded in 2011 by Professor Pål Bergan in Norway, EnergyNest today is led by Dr. Christian Thiel (CEO), Dr. Christopher Greiner (CTO) and Eric Diedrich (CFO).

For further information, please visit the website: www.energy-nest.com

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