

0

Empower a sustainable tomorrow

Decarbonize industrial heat with thermal energy storage



ENERGYNEST



Welcome to ENERGYNEST!

Your trusted partner for sustainable energy and storage solutions.

By partnering with us, you will make a meaningful impact on your business by reducing plant operating costs, creating new revenue streams, enabling 24/7 clean heat supply and decarbonizing your company. Move towards the energy transition today and tomorrow – with thermal storage solutions.

Our ThermalBattery™ technology is at the core of all of our energy storage solutions:

- A solid-state, high-temperature thermal energy storage based on concrete (up to 400 °C)
- Modular and scalable
- Using thermal oil or steam as heat transfer fluid
- Storing heat for flexible 24/7 use
- At a cost level at par or below long-run natural gas and CO₂ prices

We create value in different applications:

- Electrification of industry with competitive power-to-heat solutions
- Grid flexibility services by integration, flexibilisation and load balancing of renewable energy assets (onshore and offshore wind, PV, etc.)
- Waste heat recovery
- Steam grid balancing and avoidance of steam dumping
- 24/7 use of concentrated solar thermal and concentrated solar power plants

Any industry in need of heat or steam can profit from our solutions: chemicals, food and beverages, paper and pulp, textiles, cement – and yours, too!

Why choose ENERGYNEST?

Commercially proven and operational

Two projects in operation with YARA International and Avery Dennison; one project in final execution with ENI

Minimal thermal losses (< 2%)

and round-trip efficiency of up to 98%

Fast charge and discharge

Near-instantaneous response time for supply of heat and to maximise trading opportunities and value from grid flexibility services

Range of scalability

Modular system from 3 MWh to > 1,000 MWh

No performance degradation

Lifetime of > 30 years and optimised reduced maintenance and minimal OPEX

Meets ESG / circular economy

credentials with abundant, recyclable and non-hazardous materials and two-month carbon payback of the full system

Low CAPEX alternative

to molten salts storage or oil tanks

Our projects

Elevating businesses worldwide – already today. Hear what they say about us:



“The technology will save about 12 GWh per year on electricity imports and reduce approximately 6,000 tonnes of indirect CO₂ emissions per year. The green transition is possible. And I am convinced that thermal storage will be part of the solution mix to eventually hit net zero.



Michiel Carbo
Project Manager at YARA Technology Center



Other projects deployed at industrial scale together with:



Financially supported by:



We can help you successfully fulfil your decarbonization ambitions and keep your business competitive without using fossil fuels. Get in touch with our experts today to find solutions for your company!



post@energy-nest.com



energy-nest.com

Billingstad, Norway (HQ) | Hamburg, Germany
Seville, Spain | Rotterdam, Netherlands

 **ENERGYNEST**

