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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.

At the core of all of our energy storage solutions is our ThermalBattery™ technology

- 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 a 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, flexibilization 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 & beverages, paper & pulp and textiles, cement, and yours too!



Why choose ENERGYNEST?

Commercially proven and operational
2 projects in operation with YARA International and Avery Dennison; one project in final execution with ENI

Minimal thermal losses (<2%)
and round-trip efficiency up to 98%

Fast charge & discharge
Near-instantaneous response time for supply of heat and to maximize trading opportunities and value from grid flexibility services

Range of scalability
Modular system from 3 MWh to >1000 MWh

No performance degradation
Lifetime of >30 years and optimized reduced maintenance and minimal OPEX

Meets ESG / circular economy
credentials with abundant, recyclable, and non-hazardous materials and 2-month carbon payback of the full system

Low CAPEX alternative
to molten salts storage or oil tanks

Our projects

Elevating businesses world-wide already today. Hear what they say about us:



“The technology will save about 12 GWh per year on electricity import and reduce indirect CO2 emissions about 6000 tonnes per year. The green shift is possible. And I am convinced 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 well backed by:



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



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