

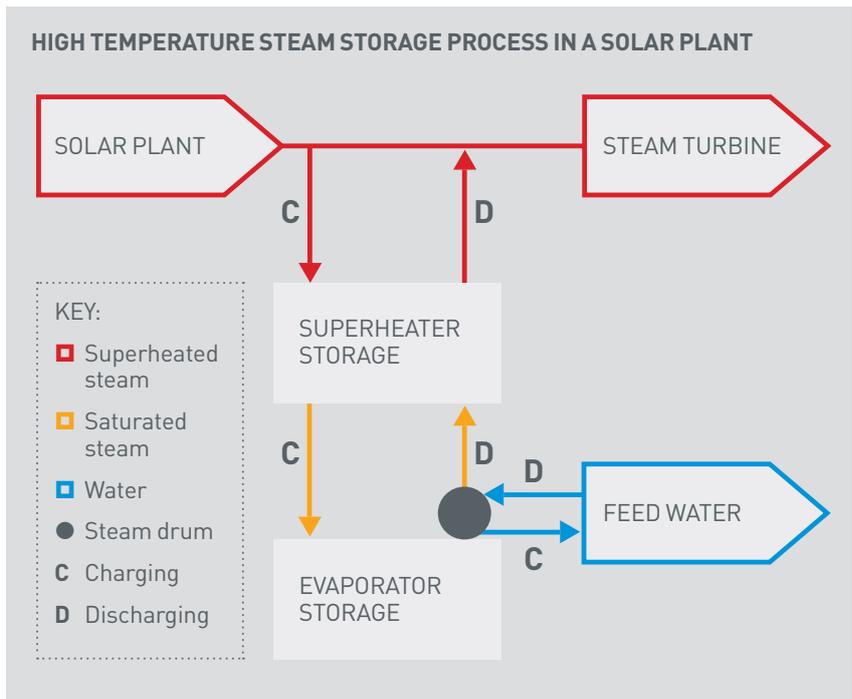
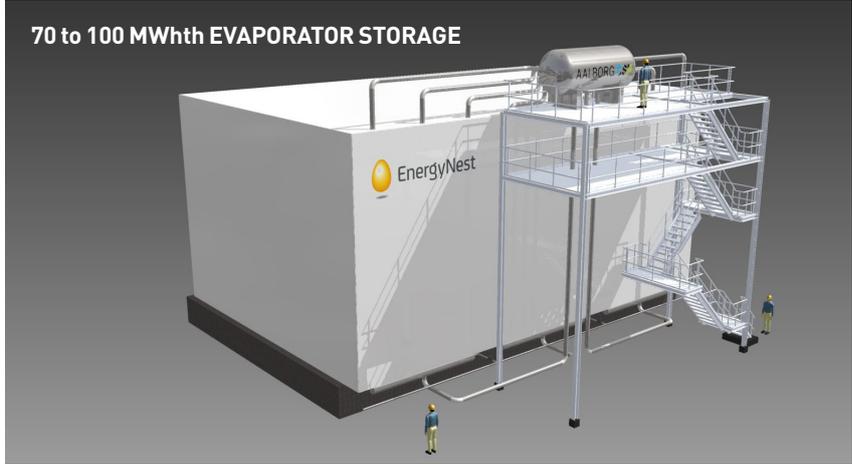
High temperature steam storage.

Value. Delivered.

- Reliably supplies high-temperature and high-pressure steam exactly when it is needed.
- Significantly less expensive than other storage alternatives.
- Ideally suited for steam-based power generation cycles, industrial process heat and smart grids.

Integration made easy.

- Low operational costs due to simplicity, robustness and absence of moving parts.
- Highly modular and scalable solution that can be adapted to local space and process requirements.
- Solid storage medium capable of withstanding thousands of stress cycles, with no performance degradation and extremely long lifespan.



Temperature
425°C
or higher

1 MWh
to
10 GWh

Up to
99%
thermal
efficiency

World-class expertise in a unique technology

The high temperature steam storage jointly developed by EnergyNest and Aalborg CSP is a storage system that avoids any intermediary heat transfer fluids and is charged and discharged directly with steam. The technology may comprise one or several storage units, depending on the power cycle it supports. In a solar plant with direct steam generation, the storage system can include a Superheater unit, which stores sensible heat, and an Evaporator storage unit, which stores latent heat from condensing steam. The Evaporator storage unit relies on natural circulation principles with no need for any circulation pumps thereby reducing electricity consumption. The high temperature steam storage system is ideally suited to provide daily or weekly storage capacity for steam-based systems.

Specific advantages

SMART DESIGN	EASE OF INSTALLATION	EASE OF OPERATION
<p>SCALABLE</p> <p>As a 'fit-to-purpose' system, the storage solution can take any proportion according to what the demand for storage requires.</p>	<p>ECONOMICAL</p> <p>The low-cost materials, including our unique HEATCRETE® storage medium, ensure extreme cost competitiveness.</p>	<p>SAFE</p> <p>The storage facility is made up of stable, non-hazardous, solid-state materials. It entails no HSE requirements beyond power plant specifications.</p>
<p>DURABLE</p> <p>The storage system is capable of withstanding millions of stress cycles. It has a 50-year lifespan with practically no performance degradation.</p>	<p>LEGO-LIKE</p> <p>Our standardized modules can easily be adapted to local space and process requirements.</p>	<p>VERSATILE</p> <p>Caters to a broad range of temperatures (50° to 550°C) and operates with both oil and steam as heat transfer fluids.</p>
<p>STORAGE DURATION</p> <p>Best suited for medium to long storage purposes (3 hours to several days)</p>	<p>LOCAL CONTENT</p> <p>More than 80% of all materials required for the assembly of the storage facility can be procured locally.</p>	<p>EASY TO OPERATE</p> <p>The storage facility has no moving parts, almost no parasitic loads and requires absolute minimal maintenance.</p>

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