

Germany Hamburg Electrochemical Energy Storage Industrial Park





Overview

What is the Hamburg ETES demonstration facility?

The Hamburg ETES demonstration facility is designed to draw surplus electricity from the grid, store it in the form of thermal energy, and utilise the same to produce electricity, when it is most needed. The facility is capable of powering 1,500 German households a day.

What is electric thermal energy storage (ETEs)?

The 130MWh Electric Thermal Energy Storage (ETES) demonstration project, commissioned in Hamburg-Altenwerder, Germany, in June 2019, is the precursor of future energy storage solutions with gigawatt-scale charging and discharging capacities. Siemens Gamesa, Hamburg University of Technology, and Hamburg Energie.

Why is the port of Hamburg a major economic opportunity?

Handling, production, distributing and using sustainable fuels and energy sources in the port represents a major economic opportunity, HPA said. The Port of Hamburg produces energy to supply more and more ships with onshore electricity from renewable sources.

Can ETES be scaled-up to store more than 1gwh of electricity?

Siemens Gamesa, Hamburg University of Technology, and Hamburg Energie. The ETES system has the potential to be scaled-up for storing more than 1GWh of electricity. Image courtesy of Siemens Gamesa Renewable Energy, S.A. The 130MWh Electric Thermal Energy Storage (ETES) demonstration project was commissioned in June 2019.



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Industrial power storage

May 29, 2023 · "Explore impressive results of 1.5 years of electricity storage at Hamburg's Speira aluminium mill with EDF Renewables and Energy to ...

New Energy Storage Technologies Empower Energy ...

Nov 15, 2025 · Based on a brief analysis of the global and Chinese energy storage markets in terms of size and future development, the publication delves into the relevant business models ...

Electric Thermal Energy Storage (ETES) System, Hamburg

Etes Project Background Financing Hamburg Etes Pilot Plant Details Efficiency Advantages of The Electric Thermal Energy Storage System The ETES prototype uses 1,000 tonnes (t) of volcanic rocks as the medium for energy storage. The facility is charged using hot air produced with the help of a resistance heater and a blower. The thermal energy converted from electricity is stored in the volcanic rocks at a temperature between 750°C and 800°C. The facility can also be charged with h See more on nsenergybusiness Modern Power Systems Novel high-performance storage enters final construction ... Nov 15, 2018 · On 26 September Siemens Gamesa Renewable Energy (SGRE) celebrated the topping-out ceremony of its electric thermal energy storage (ETES) facility in ...

Electric Thermal Energy Storage (ETES) System, Hamburg

Aug 2, 2019 · The 130MWh Electric Thermal Energy Storage (ETES) demonstration project was commissioned in Hamburg-Altenwerder, Germany, in June 2019.

China's battery storage capacity doubles in ...

Apr 4, 2025 · China's electrochemical energy storage industry saw explosive growth in 2024, with total installed capacity more than doubling year-on ...

Port to become "Sustainable Energy Hub Hamburg"

Oct 12, 2023 · An initiative to turn the Port of Hamburg into "Sustainable Energy Hub" and which will forge even closer co-operation between companies in the harbour launched Monday ...

Sustainable Energy Hub

Port of Hamburg kick-starts the Sustainable Energy Hub Initiative The Port of Hamburg is taking advantage of the opportunities presented by the energy transition and positioning itself as a ...

Novel high-performance storage enters final construction ...

Nov 15, 2018 · On 26 September Siemens Gamesa Renewable Energy (SGRE) celebrated the topping-out ceremony of its electric thermal energy storage (ETES) facility in ...

Comprehensive review of energy storage systems ...

Jul 1, 2024 · The applications of energy storage systems have been reviewed in the last section of this paper including general applications, energy utility applications, renewable energy ...



Leading the Charge: A Brief Analysis of ...

Apr 26, 2024 · Analysis on Installations in Germany In 2023, Germany witnessed an unprecedented surge in energy storage installations, ...

Conference Overview , Energy Storage Germany

Explore the comprehensive conference program at Energy Storage Germany 2026. Gain insights from industry experts on the latest trends in energy storage technology and innovation.

Energy Storage: From Fundamental Principles ...

Jun 12, 2025 · The increasing global energy demand and the transition toward sustainable energy systems have highlighted the importance of ...

Industrial power storage

May 29, 2023 · "Explore impressive results of 1.5 years of electricity storage at Hamburg's Speira aluminium mill with EDF Renewables and Energy to Market."

Electrochemistry companies from Germany => ...

EL-Cell GmbH Manufacturer, Laboratory analysis / Laboratory measurement technology, Hamburg, Germany EL-CELL develops laboratory equipment to research energy storage ...

Study on the hybrid energy storage for industrial park energy ...

The optimization methods and processes for designing and operating hybrid energy storage systems were proposed based on theoretical frameworks and methods. It is hoped that this ...

Production of PEM electrolysis stacks in Hamburg

Nov 16, 2023 · The MAN subsidiary, H-TEC SYSTEMS, is currently constructing its Stack Manufacturing & Development Centre in Hamburg-Rahlstedt, where it intends to build stacks ...

New Energy Storage Power Station in Hamburg Powering Germany ...

Discover how Hamburg's cutting-edge energy storage solutions are reshaping renewable energy integration and grid stability. This article explores the technical innovations, environmental ...

Symbolic start of industrial heat feed-in to Hamburg city ...

Hamburg, January 9, 2024 -- Today Aurubis AG CEO Dr. Toralf Haag and Hamburger Energiewerke GmbH (HENW) Managing Director Michael Prinz joined First Mayor of the Free ...

Press release: Symbolic start of industrial heat feed-in to Hamburg

Jan 10, 2025 · To deliver the industrial heat to Hamburg households, Hamburger Energiewerke is using an existing enercity Contracting Nord GmbH pipeline to cover the first segment from the ...

Energy Storage

Against the background of an increasing interconnection of different fields, the conversion of electrical energy into chemical energy plays an important role. One of the Fraunhofer ...



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