

Thermal Energy Storage Market By Technology (Latent Heat Storage, Sensible Heat Storage, Others), By Storage Material (Water, Molten Salt, Phase Change Material (PCM), Others) By Application (Power Generation, Heating, Cooling) By End Use (Residential, Commercial and Industrial, Utilities): Global Opportunity Analysis and Industry Forecast, 2024-2033

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Abstracts

The global thermal energy storage market was valued at \$20.8 billion in 2020, and is projected to reach \$51.3 billion by 2030, growing at a CAGR of 8.5% from 2021 to 2030.

Thermal energy storage systems make use of standard cooling & energy storage equipment to store thermal energy for later use. These systems are widely adopted to store solar energy for space heating during winter and stock cold winter air for air conditioning purposes during summer. Thermal energy storage helps to balance the supply and demand for energy on daily, weekly, and seasonal basis. Moreover, it provides several benefits such as reduced energy consumption, increased flexibility of operations, and reduced initial & maintenance cost.

The growth of the global thermal energy storage market is majorly driven by rise in demand for thermal energy storage systems for power backup, heating, and cooling applications. In addition, rapid increase in renewable power integration significantly contributes toward the growth of the global thermal energy storage market. However, high cost associated with installation of thermal energy storage and lack of long term thermal energy storage are key factors expected to hamper the growth of the market,



globally. Conversely, technological advancements in thermal energy storage and surge in demand for continuous power supply are expected to create potential growth opportunities for key players operating in the global thermal energy storage market during the forecast period.

The thermal energy storage market is segmented into technology, storage material, application, end user, and region. Depending on technology, the market is categorized into sensible, latent, and thermochemical. The storage materials covered in the study include water, molten salt, PCM, and others. As per application, the market is fragmented into power generation, heating, and cooling. On the basis of end users, the market is segmented into residential, commercial & industrial, and utilities. Region wise, it is analyzed across North America, Europe, Asia-Pacific, and LAMEA.

KEY BENEFITS FOR STAKEHOLDERS

The report includes in-depth analysis of different segments and provides market estimations between 2021 and 2030.

A comprehensive analysis of the factors that drive and restrict the growth of the global thermal energy storage market is provided.

Porter's five forces model illustrates the potency of buyers & sellers, which is estimated to assist the market players to adopt effective strategies.

Estimations and forecast are based on factors impacting the global thermal energy storage market growth, in terms of value.

Key market players are profiled to gain an understanding of the strategies adopted by them.

This report provides a detailed analysis of the current trends and future estimations from 2021 to 2030, which helps identify the prevailing market opportunities.

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Key Market Segments

By Technology

Latent Heat Storage

Sensible Heat Storage

Others

By Storage Material

Water

Molten Salt







Italy
Spain
UK
Rest of Europe
Asia-Pacific
China
Japan
India
South Korea
Australia
Rest of Asia-Pacific
LAMEA
Brazil
South Africa
Saudi Arabia
Rest of LAMEA
Key Market Players
Aalborg CSP
Abengoa



Cartesian	
Enel Spa	
EVAPCO, Inc	
Kraftblock GmbH	
Lumenion GmbH	
Magaldi Green Energy	
Man Energy Solutions	
PCM Products Ltd.	
Phelas GmbH	
Spirax Sarco limited.	
Sunamp Ltd.	
Thermofin	



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