

South & Central America Thermal Energy Storage Market Forecast to 2030 – Regional Analysis – by Technology (Sensible Heat Storage, Latent Heat Storage, Thermochemical Storage), Storage Material (Water, Molten Salt, PCM, Others), Application (Power Generation, Process Heating and Cooling, District Heating and Cooling), and End User (Utility, Nonutility)

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Abstracts

The South & Central America thermal energy storage market is expected to grow from US\$ 1,630.37 million in 2022 to US\$ 3,851.69 million by 2030. It is estimated to grow at a CAGR of 11.3% from 2022 to 2030.

Application of thermal energy storage technology in the defense sector Fuels South & Central America Thermal Energy Storage Market

Defense applications impose a set of challenges on the usage of energy storage infrastructure. A stable, reliable, and steady power supply is important in defense applications. Phase change materials (PCM) are one of the most promising technologies in thermal energy storage. PCMs are being significantly employed and researched for enhancing thermal performance of buildings by stabilizing temperature peaks as well as power-saving functions where heating or cooling is essential. The exclusive features of a PCM-based latent heat storage system can be used in lightweight prefabricated PUF (polyurethane foam) insulated shelters leveraged by security forces to upsurge the system's thermal resistance or used in the process of storing surplus heat from sporadic renewable sources during daytime for usage at night. These features primarily help in maintaining a comfortable temperature inside the shelters. Governments of various countries are launching several research and



development projects in the field of PCM applications to meet the problems of extreme temperatures met by armed forces: for example, high-capacity heat sinks for critical instruments and hot jackets for high-altitude areas. Thus, the rise in the application of thermal energy storage technology in the defense sector is likely to create lucrative opportunities for the thermal energy storage market growth during the forecast period.

South & Central America Thermal Energy Storage Market Overview

In South & Central America, Brazil and Argentina are the major countries in terms of thermal energy storage. Brazil dominates the thermal storage market in the region, followed by Argentina. The increasing energy demand from the residential, industrial, and commercial sectors, along with the rising renewable energy drive, is positively influencing the need for thermal energy storage in countries in South & Central America. Changing energy domain scenarios and growing approach toward energy security are anticipated to boost the thermal energy storage demand across the region in the coming years. Brazil is leading the market for thermal energy storage and is anticipated to remain the same in the coming years. The growing focus on increasing the share of renewables in the overall energy mix and aiming toward achieving net zero carbon emission targets are a few driving factors for the thermal energy storage market. At COP26, Brazil declared its long-term goal to achieve net-zero emissions by 2050 and a 50% carbon emissions reduction plan by 2030. Energy policy in Brazil mainly highlights renewable energy generation, specifically in transportation and electricity sectors. The country is still implementing and initiating plans, policies, and mandates to achieve a sustainable approach toward climate change and working toward influencing the end users for opting renewables instead of conventional energy sources. Increased demand for storing the energy produced from renewable sources for use in the time of requirement and cost-efficient approaches for storage are boosting the growth of the thermal energy storage market in Brazil.

South & Central America Thermal Energy Storage Market Revenue and Forecast to 2030 (US\$ Million)

South & Central America Thermal Energy Storage Market Segmentation

The South & Central America thermal energy storage market is segmented into technology, storage material, application, end user, and country.

Based on technology, the South & Central America thermal energy storage market is



segmented into sensible heat storage, latent heat storage, and thermochemical storage. The sensible heat storage segment held the largest share of the South & Central America thermal energy storage market in 2022.

Based on storage material, the South & Central America thermal energy storage market is segmented into water, molten salt, PCM, and others. The water segment held the largest share of the South & Central America thermal energy storage market in 2022.

Based on application, the South & Central America thermal energy storage market is segmented into power generation, process heating and cooling, and district heating and cooling. The district heating and cooling segment held the largest share of the South & Central America thermal energy storage market in 2022.

Based on end user, the South & Central America thermal energy storage market is segmented into utility and nonutility. The utility segment held a larger share of the South & Central America thermal energy storage market in 2022.

Based on country, the South & Central America thermal energy storage market is segmented int o Brazil, Argentina, and the Rest of South & Central America. Brazil dominated the South & Central America thermal energy storage market in 2022.

Baltimore Aircoil Co, Burns & McDonnell Consultants Inc, Evapco Inc, and MAN Energy Solutions SE are some of the leading companies operating in the South & Central America thermal energy storage market.



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