

# BITA iClima Long Duration Clean Energy Storage Index USD



September 2023

We shift the narrative on climate change investments, by looking for the companies with products and services that preclude emissions from ever taking place.

Equally unique is that we use tangible and quantifiable metrics in our methodology, such as Potential Avoided Emissions, as a proxy for impact & relevance.

Ours is a holistic ESG approach. We lead with "E", based on these tangible metrics, and additional "S" and "G" screens are based on UN Global Compact indicators.

## Index Details

**Index Name:** BITA iClima Long Duration Clean Energy Storage Index

**Index URL:**  
<https://www.bitadata.com/pages/BILDES>

**Inception Date:** September 2022

**Number of holdings:** 39

**Asset Class:** Equities

**Eligible Universe:** BILDES NR USD Index

**Weighting:** Equal weight

**Index Provider:** BITA GmbH

**Rebalance Frequency:** Quarterly

**Bloomberg Ticker:** BILDES

**ISIN:** DE000A3DV0C8

**Currency:** USD

**Base Value/Base Date:**  
15 Mar 2019, set at 437.58

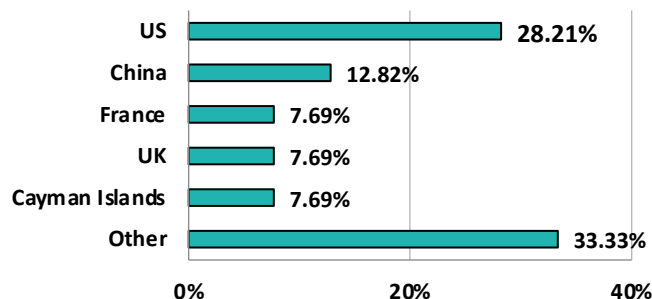
Emerging long-duration energy storage technologies will be critical for supporting the mass adoption of renewable energy sources as the world shifts to decarbonised energy infrastructure systems. Prevailing alternative solutions to energy storage involve the use of peak power infrastructure (typically powered by fossil fuels) or demand response programmes to shift electricity demand to off-peak hours. Energy storage allows for a few hours of time shift, and there is currently no intra-season storage solution. New battery capabilities would allow intermittent energy to be stored for later use, while also providing versatility to complement rapidly changing levels of demand and supply during the day.

## Why BITA iClima Long Duration Clean Energy Storage Index?

LDES refers to a group of traditional and novel energy storage technologies, such as mechanical, thermal, electrochemical, and chemical storage, that can be implemented commercially to store energy for long durations and extended to preserve power generation for days or even weeks. The BITA iClima Long Duration Clean Energy Storage Index's primary objective is to provide exposure to companies that are relevant in the long-term clean energy storage space. These are companies that have relevant solutions to the intermittent nature of renewable energy. The three main segments are 1) battery storage solutions, 2) green hydrogen storage solutions, and 3) additional solutions such as pump hydro, compressed air, gravity and kinetic energy solutions.

- 1.5 to 4.5 TW energy capacity by 2040:** LDES technology solutions are at varying levels of maturity, but they are garnering unparalleled interest with more than five gigatonnes (GW) and 65 gigatonne-hours (GWh) of LDES capacity announced or already functional. LDES has the potential to enable 1.5 to 2.5 terawatts (TW) of energy capacity by 2040, 15 times the total energy-storage capacity installed today.
- The proliferation of LDES:** The adoption of energy storage systems will increase as new battery cell technologies in commercial and industrial applications are developed. The price of energy storage devices has increased as a result of the recent sharp spike in the cost of lithium. The premise that LDES has relatively low expenditures for storing energy makes it the most economically feasible option for energy storage beyond a six- to eight-hour period.
- Government push:** Early LDES deployments supported by the government are helping to scale the industry and reduce market risk for investors. The United States Department of Energy's \$1 billion Earthshot programme and the United Kingdom's \$100 million LDES demonstration in early 2021 are examples of government support for the expansion of the long-duration energy-storage market.

## Exposure and Characteristics



**TOTAL Capitalization** \$1,562,685 Million

### % of Index

Mega Cap	2.56%	Small Cap	23.08%
Large cap	23.08%	Micro Cap	12.82%
Mid Cap	38.46%		

## Exposure and Characteristics

Security	% Weighted
Tesla, Incorporated	8.29%
Samsung SDI Co., Ltd.	7.43%
Iberdrola, S.A.	7.11%
Schneider Electric SE	6.9%
Contemporary Amperex Technology Class "A"	6.34%
Byd Class "H"	4.88%
Plug Power Inc.	4.71%
Nextera Energy Partners	4.63%
LG Energy Solution, Ltd.	4.48%
Orsted A/S	4.32%
<b>Total</b>	<b>59.09%</b>

## Sector Breakdown



**Battery Based Solutions**

62.66%



**Green Hydrogen Solutions**

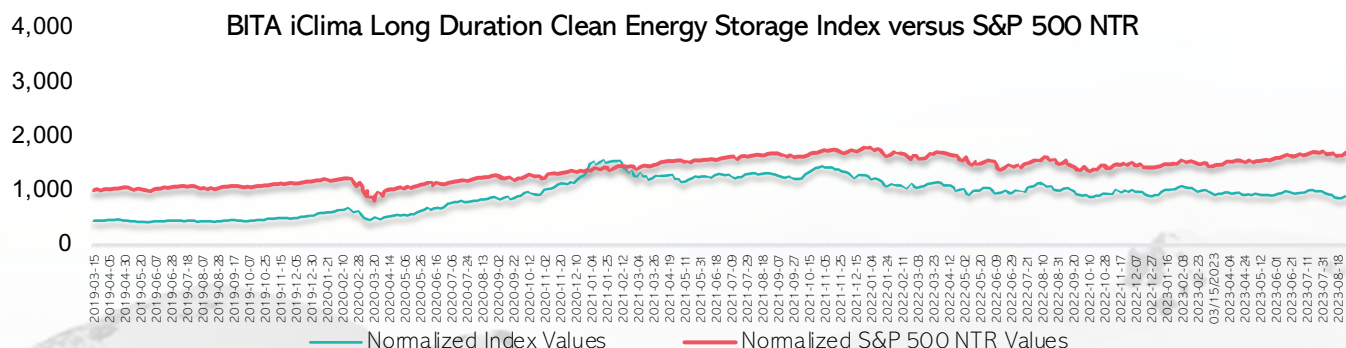
32.47%



**Additional Solutions**

2.48%

## Index Performance 2<sup>nd</sup> August 2017 to 31<sup>st</sup> August 2023



## BITA iClima Long Duration Clean Energy Storage Index

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	YTD
2023	16.02%	-5.58%	-0.87%	-5.96%	-1.80%	5.06%	3.39%	-10.45%					-2.4%
2022	-13.29%	-2.47%	10.25%	-12.03%	0.21%	-8.71%	14.24%	-7.47%	-10.63%	3.32%	7.19%	-8.45%	-28.14%
2021	4.75%	-15.32%	-4.90%	-4.71%	2.89%	5.77%	0.53%	0.13%	-8.17%	19.04%	-7.66%	-4.53%	-15.15%
2020	18.63%	-1.83%	-24.73%	14.72%	18.40%	11.71%	13.85%	5.03%	6.16%	5.75%	16.14%	34.44%	178.80%
2019				2.18%	-7.03%	7.27%	-3.29%	-1.35%	1.68%	9.14%	2.16%	11.39%	21.12%

## Methodology

iClima's methodology for company selection is guided by the definitions of what constitutes long duration clean energy storage as per the US Department of Energy. Full document can be found at [Energy Storage Grand Challenge Energy Storage Market Report](#). The segments represented in the Index constitutes long duration clean energy storage at utility scale level. The Index is not designed to represent the supply chain, particularly minerals, metals and mining activity, but rather the companies that are designing and selling the final key hardware and software.

## The Long Duration Clean Energy Storage Solutions

The index represents securities from sectors based on a list of products and services that enable climate change adaptation, across three broader sectors. Each company in the INDEX UNIVERSE is classified into one of three segments defined according to products and services that enable adaptation activities to at least one key risk as identified by the IPCC.



**BATTERY BASED SOLUTIONS:** Battery optimization, clean energy storage management; battery recycling; battery storage design and manufacturing.



**GREEN HYDROGEN SOLUTIONS:** Design and manufacturing of electrolyzers; design and manufacturing of fuel cells; green hydrogen production.



**ADDITIONAL SOLUTIONS:** Pump hydro; compressed air; gravity-based solutions.

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