

## European Solar and Energy Storage Solutions

# Iran long duration storage shot



## Overview

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Learn about the Long Duration Energy Storage Shot from the September 2022 Summit. The Long Duration Storage Shot — which aims to reduce the cost of energy storage systems by 90% within the next decade — ensures that a clean energy future is accessible and affordable for ALL Americans.

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Long Duration Energy Storage (LDES) provides flexibility and reliability in a future decarbonized power system. A variety of mature and nascent LDES technologies hold promise for grid-scale.

The Long Duration Storage Energy Earthshot establishes a target to reduce the cost of grid-scale energy storage by 90% for systems that deliver 10+ hours of duration within the.

2021 “Long Duration Storage Shot” 2030 100% 2020 90% 2030 levelized cost of storage (LCOS) 0.05.

The projects, selected by DOE’s Office of Electricity, address research and development barriers in the domestic energy storage industry and must enable an LDES technology with a pathway to a \$0. What is the long duration storage shot?

Recognizing the cost barrier to widespread LDES deployments, the U.S. Department of Energy (DOE) established the Long Duration Storage Shot in 2021 to achieve 90% cost reduction by 2030 for technologies that can provide 10+ hours or longer duration of energy storage .

What is the long duration storage energy earthshot?

The Long Duration Storage Energy Earthshot establishes a target to reduce

the cost of grid-scale energy storage by 90% for systems that deliver 10+ hours of duration within the decade. Energy storage has the potential to accelerate full decarbonization of the electric grid.

What is the long duration storage shot technology strategy?

The strategy developed as part of SI 2030 is described in a report series called the Long Duration Storage Shot Technology Strategy Assessments. The reports analyze the potential of long duration capable energy storage technologies to achieve future goals and benefit from widespread deployment on the Nation's electricity grid.

How can RD&D achieve DOE's long duration storage shot target?

The sessions discussed a range of energy storage technologies and identified pre-competitive RD&D innovation pathways to achieve DOE's Long Duration Storage Shot target—reduce the LCOS to \$0.05/kWh by 2030 for technologies that can provide 10+ hours of storage.

Is long-duration storage a good option?

Long-duration storage is not the only option to ensure system reliability during periods of reduced wind and solar output. Firm low-carbon generation can also step in to play this key role, often more cost-effectively than storage. LDES cannot be evaluated in a vacuum.

Which batteries achieve the storage shot?

The Technology Strategy Assessments'h findings identify innovation portfolios that enable pumped storage, compressed air, and flow batteries to achieve the Storage Shot, while the LCOS of lithium-ion, lead-acid, and zinc batteries approach the Storage Shot target at less than \$0.10/kWh.

# Iran long duration storage shot

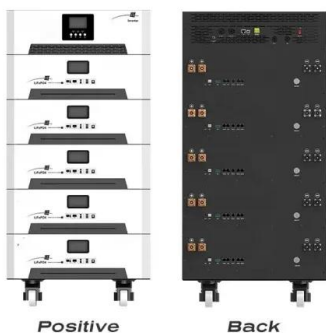


## How LPO Can Support the Long Duration Storage Earth Shot

The Department of Energy today continued its Energy EarthShot series with the start of the Long Duration Storage Shot Summit, which is focused on mapping out strategies to reducing the cost of long duration energy storage by 90% within the decade as part of the Biden Administration's goal of 100% clean electricity by 2035. Summit attendees will include high ...

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## Long-duration energy storage: A blueprint for research and

## innovation

The DOE Long Duration Storage Shot defines "long duration" as  $\geq 10$  h of discharge, while the Advanced Research Projects Agency-Energy (ARPA-E) Duration Addition to electricity Storage (DAYS) program focuses on resources capable of 10-100 h duration. Our findings indicate that the targets for both programs are likely to be too limited to



## ICYMI: What Happened at the Long Duration Storage Shot Summit Last ...

Last week, more than 1,000 people attended the U.S. Department of Energy's (DOE) Long Duration Storage Shot Summit in support of DOE's ongoing efforts to reduce the cost of grid-scale energy storage by 90% within the next decade. DOE Deputy Secretary David Turk kicked off the summit with welcome remarks, followed by a roster of distinguished speakers ...

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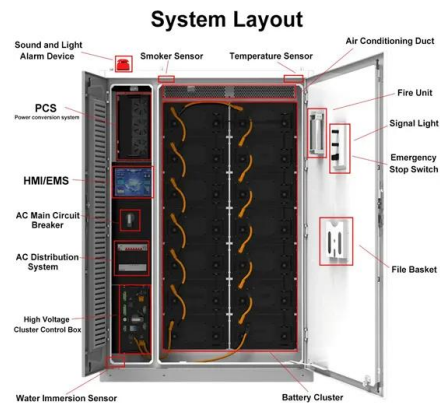
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????90%,???2030????????????(levelized cost of storage,LCOS)??0.05??/???????



## US Department of Energy: Cost reduction target of

The DoE said yesterday in a statement that the Long Duration Storage Shot will consider all types of technologies, including electrochemical batteries, mechanical, thermal and so on, as long as they have the potential to ...



### Applications



## California Market Leads on DOE's Long Duration ...

This week, the Department of Energy (DOE) announced the Long Duration Storage Shot, the latest under the organization's umbrella of Energy Earthshot Initiatives. Long Duration Storage Shot aims to accelerate ...

## DOE Earthshots Webinar: Long Duration Storage Shot Summit

In alignment with DOE's Energy Earthshot Initiative, the recently announced Long Duration Storage Shot sets a bold target to reduce the cost of grid-scale energy storage by 90% within the decade. Join thousands of stakeholders for the Long Duration Storage Shot Summit on Thursday, September 23, 2021 to learn more



about how we can work



## Second DOE Earthshot to advance energy storage

A Long Duration Storage Shot project has been launched by the U.S. Department of Energy (DOE) to reduce the costs and accelerate deployment of renewable energy storage technology. The introductory focus of the agency's Energy Earthshots Initiative was hydrogen in an effort geared toward reducing the cost of clean hydrogen by 80% to \$1/kg in

## Long Duration Storage Shot Summit , Department of Energy

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## Long Duration Energy Storage Technologies in US: Report

The strategy developed as part of SI 2030 is described in a series of reports called the 2023 Long Duration Storage Shot Technology Strategy Assessments. The reports analyse the potential of long duration capable energy storage technologies to achieve future goals and benefit from widespread deployment on the Nation's electricity grid.

## DOE taps 3 long-duration energy storage projects to receive \$15M

The agency announced the Long Duration Storage Shot challenge in 2021, seeking to reduce the cost of the resources by about 90%. And in 2022, the agency launched a \$505 million four-year long



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## Long Duration Storage Shot

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## Storage Innovations 2030

At the Summit, DOE will launch Storage Innovation 2030 to develop specific and quantifiable RD& D pathways to achieving the targets identified in the Long Duration Storage Energy Earthshot. Industry representatives are encouraged to register to present.



## Department of Energy

The Long Duration Storage Shot plans to reduce the cost of storage systems that can deliver 10-plus hours of electricity by 90 percent by the end of the decade. This 90 percent number is based on being able to store and deliver or charge and discharge a kilowatt-hour of ...



## Unlocking the potential of long-duration energy storage: ...

This paper investigates the pivotal role of Long-Duration Energy Storage (LDES) in achieving net-zero emissions, emphasizing the importance of international collaboration in R& D. The study examines the technological, financial, and regulatory challenges of LDES technologies, including thermal storage, flow batteries, compressed air energy

## Long Durage Energy Storage , Battery Council International

WASHINGTON - JULY 14, 2021 - Today DOE Secretary Jennifer Granholm announced the U.S. DOE's new goals to reduce the cost of grid-scale, long duration energy storage by 90% within the decade. The goals are to achieve breakthroughs

that store clean electricity to make it available anytime, anywhere and support more abundant, affordable, and reliable energy solutions.



## **Australia to collab on US' Long Duration Storage Shot**

The US DOE's Long Duration Storage Shot initiative aims to reduce the cost of grid-scale energy storage by 90% for systems that deliver over 10 hours of duration within 10 years. The two countries have signed a Memorandum of Understanding for the Long Duration Storage Shot initiative, with a view to agreeing to joint bilateral projects.

## **Contact Us**

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