



**FOR IMMEDIATE RELEASE**

**New Analysis Demonstrates Need for Long-Duration Energy Storage to Enable Deployment of Renewable Energy and Achieve Decarbonization**

*During National Clean Energy Week, ESS Inc., Citizens for Responsible Energy Solutions and U.S. Energy Association release brief detailing need for LDES to efficiently deploy renewables*

**Wilsonville, Ore. and Washington, D.C. – September 28, 2022** – ESS Inc. ([NYSE:GWH](#)), a leading manufacturer of long-duration iron flow batteries for commercial and utility-scale energy storage applications, in partnership with Citizens for Responsible Energy Solutions (CRES) Forum and the United States Energy Association (USEA), today released an issue brief detailing the critical need for long-duration energy storage (LDES) to create an efficient, low-carbon energy system and avoid the curtailment of renewable energy resources.

As policymakers and energy leaders gathered to celebrate National Clean Energy Week, the organizations released the brief which analyzes curtailment data from grid operators nationwide, illustrating the mismatch between renewable energy supply and grid demand and demonstrating the need for long-duration energy storage to decarbonize the energy system.

California provides one case study: In 2021, [solar accounted for 17%](#) of the state's utility-scale generation, with wind accounting for 8%. The state's grid operator, California ISO, curtailed approximately [1,400 GWh of utility-scale solar](#) and nearly 80 GWh of wind in 2021, for a total of just over 1,500 GWh – enough to power nearly 220,000 [California homes](#) for a year. In the first half of 2022 alone, the state curtailed nearly 2,000 GWh of solar and nearly 90 GWh of wind.

On an average afternoon in August 2022, energy generation within CAISO emitted approximately [233 mTCO<sub>2</sub>/GWh](#). At that rate, if all 1,500 GWh of curtailed solar and wind energy in 2021 had been stored for later use, over 350,000 metric tons (mTCO<sub>2</sub>) of carbon emissions could have been avoided. That is equivalent to the annual CO<sub>2</sub> emissions of over [76,000 passenger vehicles](#).

“Wind and solar energy are fulfilling the promise of low-cost clean electricity whenever the sun shines or the wind blows,” said Eric Dresselhuys, CEO of ESS. “As we move into the next chapter of the clean energy transition, it will be critical to accelerate the deployment of long-duration energy storage to build a reliable, resilient and affordable clean energy economy that delivers clean energy 24/7.”

“Energy storage bridges the gap when the wind isn't blowing and the sun isn't shining. The ability to cost-effectively store large amounts of electricity that can be discharged over long periods of time when needed will be critical to ensuring an increasingly cleaner electricity grid remains reliable and affordable,” said Heather Reams, CRES Forum president. “CRES Forum's issue brief highlights the critical



need for long-duration energy storage (LDES) to maximize the use of renewable energy resources, enable carbon emissions reductions and ensure clean energy can power the grid more reliably.”

“USEA is pleased to take part in this important briefing alongside ESS Inc., a major member of USEA, and CRES Forum. Accelerating the implementation of long-duration energy storage systems is a vital component of the global energy transition,” said USEA Acting Executive Director Sheila Hollis. “The ability to store large amounts of energy for extended periods of time is essential to ensuring the resiliency and reliability of electricity generated by renewable sources. It is critical that we continue to expand our renewable energy infrastructure and deploying long-duration energy storage systems should be a top priority in that mission.”

The brief, entitled “Long-Duration Energy Storage: The Key to Making the Most of Zero-Carbon Electricity,” is available for download on the ESS website [here](#).

#### **About USEA**

The United States Energy Association (USEA) is a nonprofit, apolitical, nonlobbying organization founded in 1924. USEA’s mission has two pillars of equal importance. USEA serves as a resource, by convening energy stakeholders to share policy, scientific, and technological information to foster the advancement of the entire energy sector. Internationally, USEA promotes energy development by expanding access to safe, affordable, sustainable, and environmentally acceptable energy in partnership with the U.S. Government. For more information, visit [www.usea.org](http://www.usea.org).

#### **About CRES Forum**

Citizens for Responsible Energy Solutions (CRES) Forum is a nonpartisan, nonprofit 501c(3) organization committed to educating the public and influencing the national conversation about clean energy and climate change. For more information, visit [cresforum.org](http://cresforum.org).

#### **About ESS, Inc.**

At ESS ([NYSE: GWH](#)), our mission is to accelerate global decarbonization by providing safe, sustainable, long-duration energy storage that powers people, communities and businesses with clean, renewable energy anytime and anywhere it’s needed. As more renewable energy is added to the grid, long-duration energy storage is essential to providing the reliability and resiliency we need when the sun is not shining and the wind is not blowing.

Our technology uses earth-abundant iron, salt and water to deliver environmentally safe solutions capable of providing up to 12 hours of flexible energy capacity for commercial and utility-scale energy storage applications. Established in 2011, ESS Inc. enables project developers, independent power producers, utilities and other large energy users to deploy reliable, sustainable long-duration energy storage solutions. For more information visit [www.essinc.com](http://www.essinc.com).



**ESS Contacts**

Investors:

Erik Bylin

[investors@essinc.com](mailto:investors@essinc.com)

Media:

Morgan Pitts

503.568.0755

[morgan.pitts@essinc.com](mailto:morgan.pitts@essinc.com)

**Source:** [ESS Inc.](#)