

## **King-McSally Joint Long-Term Storage Act (S. 2048)**

*Supported by the Energy Storage Association, Information Technology and Innovation Foundation, Union of Concerned Scientists and the Maine Renewable Energy Association*

**Benefits of long term energy storage:** Today's commercially available batteries can meet power needs for up to four hours, which is useful for short-term outages and load balancing.

However, in order to make critical improvements in energy resiliency and grid reliability, we need technology that will provide stored energy for days, not hours.

Long-duration energy storage technologies will have significant implications for increasing grid reliability and national security, such as:

- Making our military missions dramatically safer by reducing the need to transport flammable liquid fuels
  - o For example, it is reported that, in 2007 alone, 170 U.S. service members were killed or wounded in fuel-related missions in Iraq and Afghanistan
- Transforming intermittent renewable energy technologies like wind and solar into reliable, dispatchable energy sources
- Improving grid reliability as more renewable energy sources come online and are relied upon

**Joint venture between the Defense and Energy Departments:** The Department of Defense and Department of Energy have complimentary interests and mutually beneficial potential from collaborating on priority energy projects. Experts agree that cooperation on critical energy projects will benefit the missions of both the DOD and DOE while also using federal funds more efficiently by producing more effective and commercially-viable technological outcomes at a faster pace.

A joint demonstration program between DOD and DOE will also be able to utilize existing test-bed infrastructure and provide key field data at both agencies that will help accelerate commercial deployment of long-duration energy storage technologies to increase energy resilience and security.

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### Section-by-section:

**Section 1. Short Title.** Provides the title of the legislation as the Joint Long-Term Storage Act of 2019.

**Section 2. Purposes.** The purposes of this Act are to facilitate the development of long-duration energy storage technologies, increase commercial viability of long-duration energy storage technologies, and increase the energy resilience and energy security and national security of the United States through the use of long-duration energy storage technologies.

### **Section 3. Long-Duration Energy Storage Demonstration Initiative.**

**Initiative** – Establishes a demonstration initiative to demonstrate the potential benefits of long-duration energy storage, increase commercial viability, identify the range of grid services, quantify the value of those services, identify a range of technology types, and improve integration of energy storage and the grid.

**Joint Program** – The Director of ARPA-E and the Director of ESTCP will establish a joint program to carry out demonstration projects at scale and help technologies become commercially viable with priority given to demonstration projects that will be carried out in the field.

This section is authorized at \$20,000,000 for fiscal year 2020, \$40,000,000 for fiscal year 2021, and \$60,000,000 for each of fiscal years 2022 through 2024.

**Section 4. Authorization of DAYS Program.** Amends Section 5012(o) of the America COMPETES Act (42 U.S.C. 16538(o)) to authorize the Duration Addition to electricity Storage (DAYS) Program of ARPA-E at \$60,000,000 for each of fiscal years 2020 through 2024.