

## PFAS in Battery Storage and Clean Energy

Perfluoroalkyl & polyfluoroalkyl substances (PFAS) are a diverse group of synthetic compounds distinguished by their versatility, strength, and durability, setting them apart from other chemicals. There are perhaps as many as 700 commercially active substances that may be considered PFAS. However, not all PFAS compounds are the same - they contain unique properties and characteristics that yield distinct environmental and health profiles. PFAS compounds are highly differentiated, and while some may require limitations or prohibitions from certain uses, others have well-established profiles and do not pose unreasonable risks to human health or the environment when used appropriately.

The U.S. battery storage and clean energy industries depend on the advanced performance characteristics of PFAS compounds to enable the renewable energy revolution and essential energy storage needs:

- Mechanical strength: PFAS compounds increase the durability and strength of solar panels and windmill blades.
- **Energy storage:** PFAS compounds are used to produce a wide array of battery types that are used in green energy storage technologies, including hydrogen and solar, due to their chemical, temperature and oxidation resistance.
- Electric vehicle propulsion: Increasing the adoption of electric powered automobiles depends on advanced battery technology using PFAS compounds.

In each case, **PFAS compounds are essential** due to their unique chemical properties. While industry stakeholders continue to research and develop alternative chemistries, **there are no available alternatives** to support the U.S. battery storage and clean energy industries



## **U.S. BATTERY MANUFACTURING IMPACT\***

In total, battery manufacturing and related activity helps contribute *117,000 jobs* and *\$15 billion* toward GDP.

## DRIVING SCIENCE-BASED MANAGEMENT POLICIES

Creating regulations that treat all PFAS compounds the same, or impose blanket restrictions on uses, would have devastating economic and safety consequences for the U.S. battery storage and clean energy industries. Sustainable management of PFAS compounds enables continued economic advancement when using a **science- and risk-based approach** to effectively administer regulations that protect human health and the environment.