ESA RECOMMENDATIONS

TO CONGRESS AND THE ADMINISTRATION FOR 2021 ENERGY STORAGE POLICY

Energy storage employs over 60,000 people and enables a resilient, efficient, and affordable path to a 100% clean and carbon-free electric grid. Congress and the Administration can create investment in this fast-growing American industry that reaches 125,000 jobs by:

- Promoting domestic energy storage supply chain, finance, and innovation;
- Promoting equitable electric system resilience; and
- Establishing market designs that value and compensate flexibility.

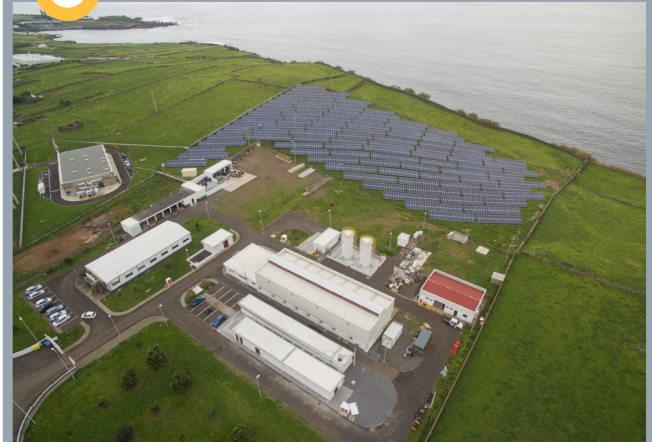
WHY ENERGY STORAGE MATTERS

Energy storage offers several key benefits for a clean energy future:

1. **Integrating higher shares of wind and solar, as well as distributed energy resources** by introducing more flexibility into the grid and thus improving reliability and enabling the path towards a 100% clean energy economy;
2. **Providing resilience to communities** by serving as back-up during power outages to help frontline communities mitigate the threat of extreme climate events, like heat waves, wildfires, storms, and hurricanes;
3. **Managing peak demand and volatility on the power system**, thus saving money for utilities, businesses, and homes;
4. **Supporting environmental justice** by reducing reliance on fossil-fuel power plants that pollute in historically disadvantaged communities; and
5. **Establishing a new domestic industry** with a large international export market, creating new jobs and investment in a clean energy economy in both rural and urban America.

Energy storage technologies include batteries, thermal storage, mechanical storage, pumped hydropower and other technologies. While lithium-ion batteries and pumped hydroelectric storage are mature and being deployed at scale, many of promising next-generation technologies are in early commercialization.

Numerous activities in the next Congress and Administration can promote development and deployment of storage technologies and projects while also driving new hiring and investment. This document lists recommendations for both existing authorities and new legislation, with ESA's top priorities highlighted.



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RECOMMENDATION:

Promote Domestic Energy Storage Supply Chain, Finance, and Innovation

Recommendations Requiring **New Legislation**

Recommendation	References
Make energy storage eligible for clean energy Investment Tax Credits (ITC) as a stand-alone asset	**Moving Forward Act** (H.R. 2, Sec. 90402 & 90404) **Energy Storage Tax Incentive & Deployment Act** (S. 1142 / H.R. 2096) **INVEST Act** (H.R. 5409)
Extend the clean energy ITC and include ITC "adders" for projects meeting specific US manufacturing, living wage, workforce diversity, environmental justice impact, and/or resilience end-use criteria.	Good Jobs for 21st Century Energy Act (S. 2185)
Appropriate $5B to DOE's Energy Efficiency and Renewable Energy Office to provide grants for domestic battery manufacturing, recycling, and other supply chain promotion.	FY21 Appropriations (H.R. 7617, pp. 391 & 394)
Re-establish refundable tax credits for building or retooling manufacturing facilities ("Section 48C") and for new unit production ("Section 45M") of energy storage systems and components.	ARRA (2009) EPAct (2005)
Appropriate $500M for cost-shared grid energy storage technology demonstration projects, emphasizing longer-duration storage.	BEST Act (S. 1602) Promoting Grid Storage Act (H.R. 2986)
Include onsite energy storage as an eligible asset in all federal programs and funds promoting electric vehicle charging infrastructure and transportation electrification.	CLEAN Future Act Sec. 432 (pp 343)

Recommendations Using **Existing Authority**

Recommendation	Authority
Remove lithium-ion batteries and other grid energy storage technologies from existing Section 301 tariffs.	**USTR**
Finalize administrative guidance in Notice 2015-70 on Sec 48 ITC eligibility of energy storage retrofits and dual-use storage rules.	**Treasury/IRS**
Exempt storage components without communications capability (i.e., battery modules) from EO 13920 supply chain control regulations.	DOE/OE
Establish a Research, Development, and Deployment (RD&D) program to improve processes for battery reuse, recycling, and minerals reclamation ("mining from waste"), including related workforce development.	DOE/EERE As new authority: Clean Energy & Jobs Act (H.R. 4447, Sec. 5302)
Expand the Energy Storage Grand Challenge, establishing a specific initiative for longer-duration storage technologies, including grid-connected demonstrations.	DOE
Provide $600 million in grants for distributed energy resources, including energy storage, that provide governments, communities, & businesses resilience and cost-savings.	DOE/EERE As new authority: LIFT Act (H.R. 2741, Sec. 31101)
Provide $200 million in grants that provide funds to states to (1) make grants for utility investments in GIS mapping and analyses of distribution systems, and (2) make grants to utilities, public power entities, and rural electric cooperatives to increase personnel and improve process efficiency for DER interconnection requests. Additionally, (1) identify and disseminate utility interconnection best practices and (2) provide technical assistance to regulated utilities, public power, and cooperative utilities to streamline interconnection processes.	DOE/EERE
Establish a program to drive soft-cost reductions in energy storage, similar to the SunShot initiative.	DOE/EERE

RECOMMENDATION:

Promote Equitable Electric System Resilience

Recommendations Requiring **New Legislation**

Recommendation	References
Direct $2B in appropriations to electric sector resilience investments, with a focus on low-income customers and at-risk communities.	**FY21 Appropriations** (H.R. 7617, pp. 394) **As new authority: LIFT Act** (H.R. 2741, Sec. 31101)
Reauthorize the Energy Efficiency and Conservation Block Grant program at $5B and add resilience as an explicit objective, with energy storage as an eligible investment.	FY21 Appropriations (H.R. 7617, pp. 391)
Increase military mission assurance and installation resilience by planning for, demonstrating, and deploying onsite energy storage and other investments.	FY21 NDAA (S. 4049, Sec. 316, 354, 2841, 2842)
Direct DOE, working with NERC and FERC, to establish metrics for electric system resilience and compile a library of methods for evaluating cost-effectiveness of electric resilience investments.	Draft language available upon request

Recommendations Using **Existing Authority**

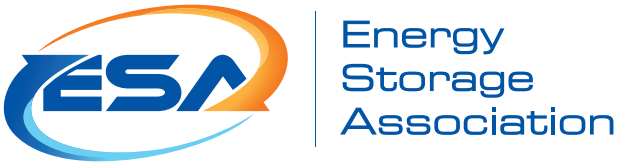
Recommendation	References
Develop a plan for deploying storage and other DERs as a part of disaster emergency response and recovery, prequalifying a set of vendors.	DHS/FEMA
Invoke Defense Production Act Title III to direct $1B+ funds into battery manufacturing promotion as part of the defense-critical industrial base.	DOD
Direct $500 million to identify military installations with highest resilience needs, deploy onsite energy storage for exceptional mission assurance and resilience.	DOD
Expand school renovation and modernization funds by $1B for investments in facility resilience, including as emergency shelters.	Dept of Education As a new authority: Open Back Better Act (S. 4060)
Identify federal facilities with the highest resilience needs, deploy onsite storage and reduce reliance on diesel gensets.	GSA

RECOMMENDATION:

Establish Market Designs That Value and Compensate Flexibility

Recommendations Using **Existing Authority**

Recommendation	Authority
Issue Executive Order directing federal agencies to procure electric supply from clean energy sources delivered coincident (i.e., time-matched) with federal facility demand, setting a standard of time-matching at least 50% of facility demand by 2024 and 100% by 2030.	**POTUS**
Start rulemaking on wholesale distribution access fees and eliminate inappropriate demand charges.	FERC
Call technical conference / issue NOI on market designs that value & compensate flexible resources (e.g. imbalance reserves, flexible ramping products) like storage.	FERC
Start rulemaking to establish a framework for storage-as-a-transmission-asset (SATA) to establish practices for utilizing storage to provide transmission-related services and receive corresponding compensation.	FERC
Start rulemaking on hybrid resources following the recent technical conference in Docket AD20-9-000, with a focus on determining when storage can be added to projects already in wholesale market interconnection queues without triggering material modification.	FERC
Call technical conference / issue NOI to review resource adequacy constructs, and to reform capacity markets to reduce barriers to market entry for energy-limited resources such as energy storage, including ensuring storage resources of various durations can all be correctly valued as capacity resources.	FERC
Call technical conference / issue NOI to evaluate interconnection queue best practices and methods to reduce delays associated with the interconnection study process.	FERC
Clarify qualifying facility (QF) eligibility for storage, including as hybrid generation-plus-storage facilities that pair storage and renewable and/or traditional generation at a single location.	FERC
Appoint Board members to Power Marketing Administrations who will mandate energy storage targets for each PMA.	POTUS
Appoint Board members to TVA who will use storage for new capacity where suitable for reliability and will accelerate retirement of existing capacity that can be replaced by storage, including as part of a portfolio renewables and storage resources.	POTUS



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