Policy Position on State-level Energy Storage Target Design

In this document, the U.S. Energy Storage Association (ESA) outlines its official principles and policy positions regarding state-level energy storage target design. ESA's principles reflect the fundamental values that we seek to uphold in our policy and regulatory advocacy. ESA's policy positions reflect specific matters that we will work to operationalize through laws, administrative rules, programs, and other policy or regulatory activities. The principles and policy positions presented herein are interdependent and, as such, ESA intends that the following principles and policy positions be referenced as a whole and not in part.

Principle 1: States should use energy storage targets to establish or support the market growth of storage. Existing state policy goals should inform the size, structure, and timeline of storage targets. State storage targets should correspond to the amount of storage that may be necessary to achieve established policy goals.

To that end, ESA holds the following policy positions:

1. State energy storage targets should establish a signal to the market (developers, regulators, consumers, utilities, and product manufacturers) for when and how energy storage needs to be deployed.

2. Shorter-term "learning by doing" targets should be used to jumpstart storage investments while a state determines what longer-term targets are appropriate. Initial targets can be established using "rule of thumb" metrics (e.g., percent of peak demand or percent of renewables). For example, based on shorter-term targets established in state jurisdictions to-date, an appropriate initial target might be the storage capacity equivalent to 3-7% of peak demand within 2-3 years.

3. Longer-term targets should be established through analysis that accounts for all energy storage costs and benefits, consistent with policy goals of the state (e.g., resilience, peak demand reduction, clean energy or RPS percent, greenhouse gas reduction goals). Timelines for longer-term targets should be set approximately ten years out.

    a. States should define achievement of targets based on contracted and/or operational megawatts (MW) of storage, with timelines established accordingly (e.g. contracted within X years; built Y years after that).

4. States should strive to set market signals that provide certainty and market stability to enable industry to invest and to meet targets. With this in mind, states should only adjust targets if warranted by a change in market assumptions.

Principle 2: Storage target metrics, review, and accountability mechanisms should be established in accordance with a state's overall policy goals.

To that end, ESA holds the following policy positions:

1. State storage targets should be measured in MW for simplicity of tracking and measurement. Individual program metrics to help meet a target may be in MW, MWh, or a combination thereof based on best fit with a state's goals (e.g., MW for peak reduction, MWh for integration of renewables).

2. States should establish review structures to ensure the target can be met. For example, states should consider interim targets (e.g., every 2-3 years) to review progress towards the overall target. States should strive to align these timelines with existing energy planning and procurement processes (e.g., integrated resource planning (IRP), renewable portfolio standards (RPS), energy efficiency procurement), as appropriate.

3. The target should identify accountable part(ies) (e.g., utility, regulatory commission) responsible for each of (1) reporting on progress toward the target and (2) establishing programs (e.g., procurements, incentive funding) to assist in meeting the levels of deployment set in the target. Parties should be held accountable via appropriate mechanisms, including financial incentives, that are consistent with established precedent in the state.

4. Accountable parties should be allowed to make a case for deferring an applicable deadline based on certain conditions determined up front as part of the establishment of a target, such as a lack of bids in response to a storage procurement or permitting delays during project deployment.

Principle 3: Energy storage targets should aim to deploy a diversity of project sizes, types, and business models. Diversity should be aimed at developing a state storage market that provides the widest range of benefits that storage can provide and permits assessment of various storage applications.

To that end, ESA holds the following policy positions:

1. For the purpose of state energy storage targets, states should draw on the following definition of storage:

   Energy storage refers to technology that is capable of absorbing energy, storing that energy for a period of time, and re-delivering that energy after it has been stored.

   For legislative and regulatory purposes, energy storage only includes technologies used in an application or system that provides direct or indirect benefits to the broader electricity system. Energy storage technologies include, but are not limited to, mechanical storage

(e.g., pumped hydro, flywheels, compressed air, liquid air); electrochemical storage (e.g., Li-ion, flow batteries, other battery technologies); thermal storage (e.g., end-use technologies like water heaters, dedicated technologies like molten salt); and power-to-gas storage (e.g., H2, ammonia). Energy storage technologies do not include fuels or power-to-gas storage that uses fuel inputs.

2. States may opt to modify the above definition to narrow or restrict target eligibility criteria to align it with a state's individual reasons for establishing a storage target. Eligibility criteria that states may want to consider include technology type and whether the system is tied to the electric grid. For example, some states may set a storage target with the primary purpose of facilitating integration of renewable resources onto the grid. In that case, the state may wish to limit target eligibility to only include storage that is "normally tied" to the wider electric grid. Other states may wish to encourage, for example, off-grid resilience and therefore might elect to permit off-grid storage facilities to be included in the target.

3. States should consider establishing allocations within an overall energy storage target to ensure deployment of a diversity of storage projects.

    a. Examples of different types of storage projects include transmission-interconnected storage; front-of-the-meter distribution-interconnected storage; behind-the-meter storage; stand-alone storage; and hybrid storage-plus-generation.

    b. Establishing allocations within an overall target may be appropriate to support project types that have not yet reached market maturity or do not otherwise receive favorable policy treatment; or conversely, to prevent certain project types that have achieved market maturity or otherwise receive favorable policy treatment from accounting for most or all the target.

4. While targets should explicitly encourage a diversity of project types, the target itself should not require specific use cases or revenue models (e.g., energy storage installations supplying Resource Adequacy or providing NWA services), as the state's needs may change over time. Rather, a diversity of use cases should be encouraged through program implementation to achieve the target.