**Overview**

- Zoning and siting of utility-scale battery storage is a unique challenge.
- Local planning and zoning officials are frequently tasked with deciding where storage systems may be sited to minimize community impacts, but they may lack the familiarity with the technologies required to make appropriate zoning decisions.
- Uncertainty at the local zoning level has led developers to withdraw projects in some areas, and has spurred moratoriums or bans on energy storage projects in others.
- Local officials may benefit from seeing how other jurisdictions have addressed the unique question of energy storage siting.

**Methodology**

- 97 cities and counties with energy storage systems with a capacity of 4.9 MW or higher were identified using EIA Form 860M. These codes were searched for references to batteries or energy storage, yielding 28 results.
- The search was then repeated for all codes in the Municode database, which contains local ordinances for more than 3,300 jurisdictions. These two searches identified 42 municipalities and 17 counties with storage-related ordinances.
- 55 municipal or county codes also included local adoption of updated standard fire or building codes that include standards for energy storage (note: not a mutually exclusive count).
- Overall, few cities and counties appear to have codes for energy storage.

The treatment of energy storage in local zoning ordinances can be divided into four categories, which are described in the table below.

<table>
<thead>
<tr>
<th>Ordinance Category</th>
<th>Selected Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordnances written to regulate solar installations that also include storage. (37 ordinances found)</td>
<td>Plumsted, New Jersey requires all equipment for a solar energy system, “including ... structures for batteries or storage cells” to “be completely enclosed by a minimum 12 foot high fence,” and prohibits all systems from being located in a “front, side, or rear yard setback.” (Township of Plumsted, NJ Code § 15-5.21)</td>
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<tr>
<td>Local adoption of fire or building codes that include standards for energy storage systems. (12 ordinances found)</td>
<td>Yarmouth, Maine has locally adopted NFPA 855, “Standard for the Installation of Stationary Energy Storage,” into its municipal fire and safety code. (Town of Yarmouth, Maine Code Chapter 319: Fire Prevention and Life Safety Ordinance, 2021) Daly City, California amended the California Fire Code, which already includes some regulations for energy storage, to specify that means for disconnection must be included with ungrounded conductors connected to energy storage systems. (City of Daly City, Municipal Code 15.24.130 - Article 706.7)</td>
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<tr>
<td>Ordnances specifically targeted at energy storage technologies. (12 ordinances found)</td>
<td>King George County, Virginia requires battery energy storage facilities to have access to water, provide access to the county fire department, have decommissioning plans, be labeled with NFPA 704 placards, and to not be visible from “any adjacent street, use or building.” (King George County, Virginia Code of Ordinances § 4.19) Madison, Maine requires battery storage systems to be enclosed by a minimum eight-foot fence with a locking gate and feature a visible sign to warn of potential voltage hazards. (Town of Madison, Maine Code of Ordinances § 484-41)</td>
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<tr>
<td>Ordnances that incent or encourage energy storage development. (5 ordinances found)</td>
<td>Lancaster, California ensures that all residents and businesses are “permitted to construct and operate stand-alone electric energy systems,” including “fuel cell systems [and] battery systems.” (City of Lancaster, California, Ordinance No. 1067) Wilton Manors, Florida’s “Green Building Design Option” system, written into its code of ordinances, requires new buildings to earn a minimum number of green building “points,” and allows on-site solar and storage systems to contribute to their total. (Wilton Manors, Florida Code of Ordinances § 170-050).</td>
</tr>
</tbody>
</table>

**Discussion**

Each of these approaches has advantages and disadvantages.

- The most common approach has been to add energy storage to ordinances written to regulate solar installations, which may be the fastest approach to adopting some oversight of battery projects, but does not address storage’s unique characteristics or risks.
- Adopting national or international codes offers the security of industry best practices, but many states prohibit counties or municipalities from exceeding state codes. Jurisdictions that have this authority may still be financially liable for any incremental requirements, presenting a significant financial risk.
- Adopting specific energy storage ordinances allows officials to address potential impacts from energy storage development regardless of whether they possess the authority to exceed state fire codes, but this approach requires familiarity with energy storage and the capacity to develop ordinances.
- Proactive steps to encourage or incent local energy storage development may be a vehicle for aligning local zoning decisions with energy policy priorities, but should be paired with more detailed ordinances that also enable safe and low-impact development of energy storage projects.

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