Pacific Northwest
NATIONAL LABORATORY

Supporting Energy Storage in Siting Proceedings

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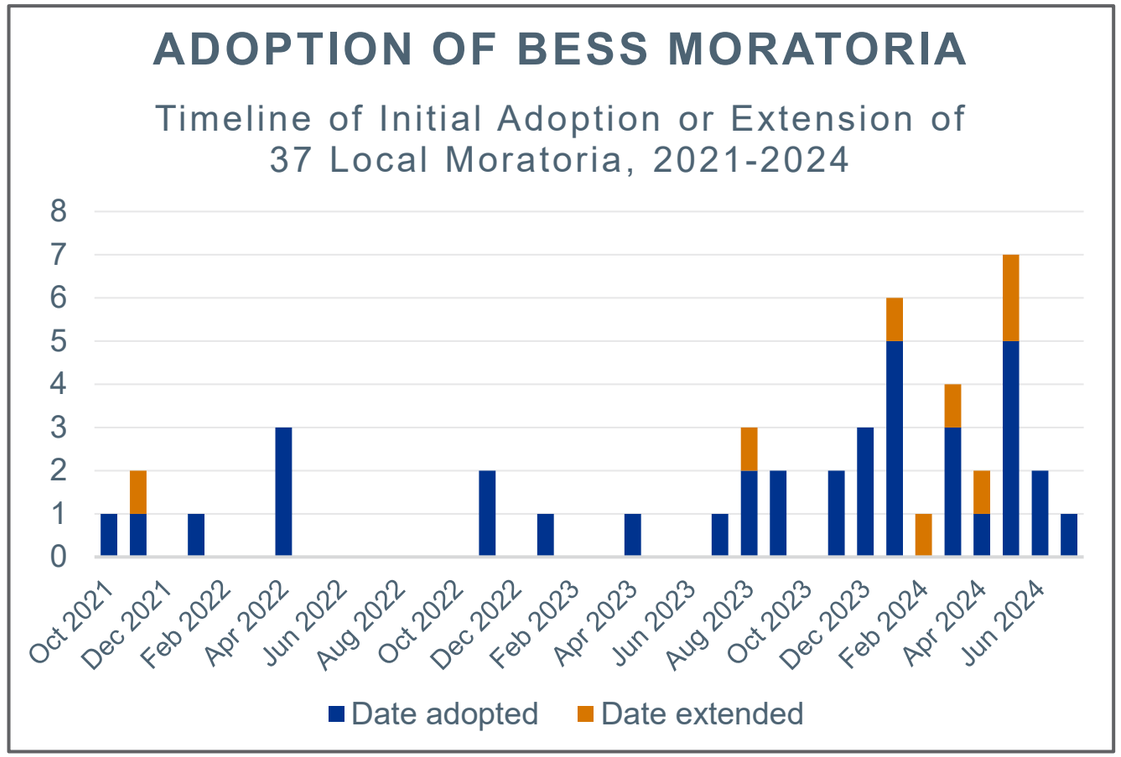
Rising Concerns over Battery Storage

- Energy storage enables:
  - Grid reliability
  - Peak demand reduction
  - Backup power for communities
- But projects are increasingly facing:
  - Local opposition
  - Misinformation
  - Fire safety concerns
  - Aesthetic and property value objections
- Moratoria **(temporary bans)** are a recent and increasing phenomenon driven by
  - Safety, noise, visual concerns
  - Lack of technology familiarity
  - Environmental impacts



Powell, Devyn, Twitchell, Jeremy, Prathit, Dave. *Tracking Local Moratoria and Other Key Considerations for Battery Energy Storage Siting.* Pacific Northwest National Laboratory. https://www.sandia.gov/app/uploads/sites/82/2024/08/PR2024_404_Powell_Devyn_Policy.pdf

Well-informed participation in siting proceedings can materially affect project outcomes and prevent moratoria.

Where Energy Storage Siting Decisions Happen

Different venues require different forms of participation

State-Level Proceedings (Public Utility Commission)

- Certificate approvals
- Cost recovery
- Integrated resource planning
- Often involves contested case hearings

Expert Testimony

Local Land Use Proceedings (Zoning / Planning Boards)

- Conditional use permits
- Variances
- Site plan approval
- More accessible for public participation

Public Comments

Two Ways to Participate in Siting Proceedings

Expert Testimony (Formal Proceedings)

- Expert witnesses retained or invited by a party
- Provide technical analysis and evidence
- Testimony becomes part of the official record
- Subject to procedural and evidentiary rules

Public Comment Participation

- Submit written or oral comments
- Participate in public hearings
- Provide local knowledge, concerns, and experience

Public Comments

WHAT

- Written or oral statements
- Submitted during formal comment periods
- Become part of the official decision record

WHY

- Issues need to be raised early
- Ensure agencies consider community perspectives
- Brings local knowledge into siting decisions

HOW

Identify the opportunity: Project, agency, docket, deadline

→

Review materials: Proposal, permit, or environmental review

→

Define your perspective and purpose: What do you want the agency to consider or change?

→

Add value to the record: Provide facts, data, or examples

→

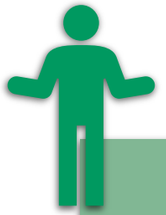
Structure clearly: Who are you → issue → requested action

Expert Testimony

WHAT

- Formal technical analysis
- Provided by qualified experts
- Part of the official decision record
- Subject to procedural rules

WHY



Helps decision-makers evaluate:

- Technical uncertainty
- Safety and engineering standards
- Grid performance impacts
- Economic considerations

HOW

- Confirm your qualifications
- Define the technical question
- Use credible evidence
- Explain methodology clearly
- Communicate in accessible language
- Follow professional ethics

Common Concerns in Energy Storage Siting

Argument	Response or Mitigative Action
Battery fires are dangerous	• Modern systems follow NFPA 855 • UL 9540A fire testing required • Setback, spacing, and thermal management systems present
Property values will decrease	• Studies show minimal measurable long-term effect • Proper screening & setbacks mitigate visual impact
Noise and aesthetics will be impacted	• Inverter sound levels similar to HVAC equipment • Noise modeling and property-line limits • Landscaping and vegetative buffers
There are better locations for siting	• Projects often require proximity to substations • Transmission and grid constraints limit options • Storage can provide local reliability benefits

Exercise: Mock Public Comment

- **Scenario:** A 100MW / 200 MWh lithium-ion battery storage facility is proposed near a residential subdivision adjacent to an existing substation.
- **Activity:**
  - Write a 2–3 minute public comment in your current capacity
  - Address one common concern
  - Propose one mitigation strategy
- **Things to include:**
  - Introduce yourself
  - State your position
  - Address safety concern
  - Recommend condition or mitigation
  - Close respectfully

Common Concerns
Battery fires are dangerous
Property values will decrease
Noise and aesthetics will be impacted
There are better locations for siting

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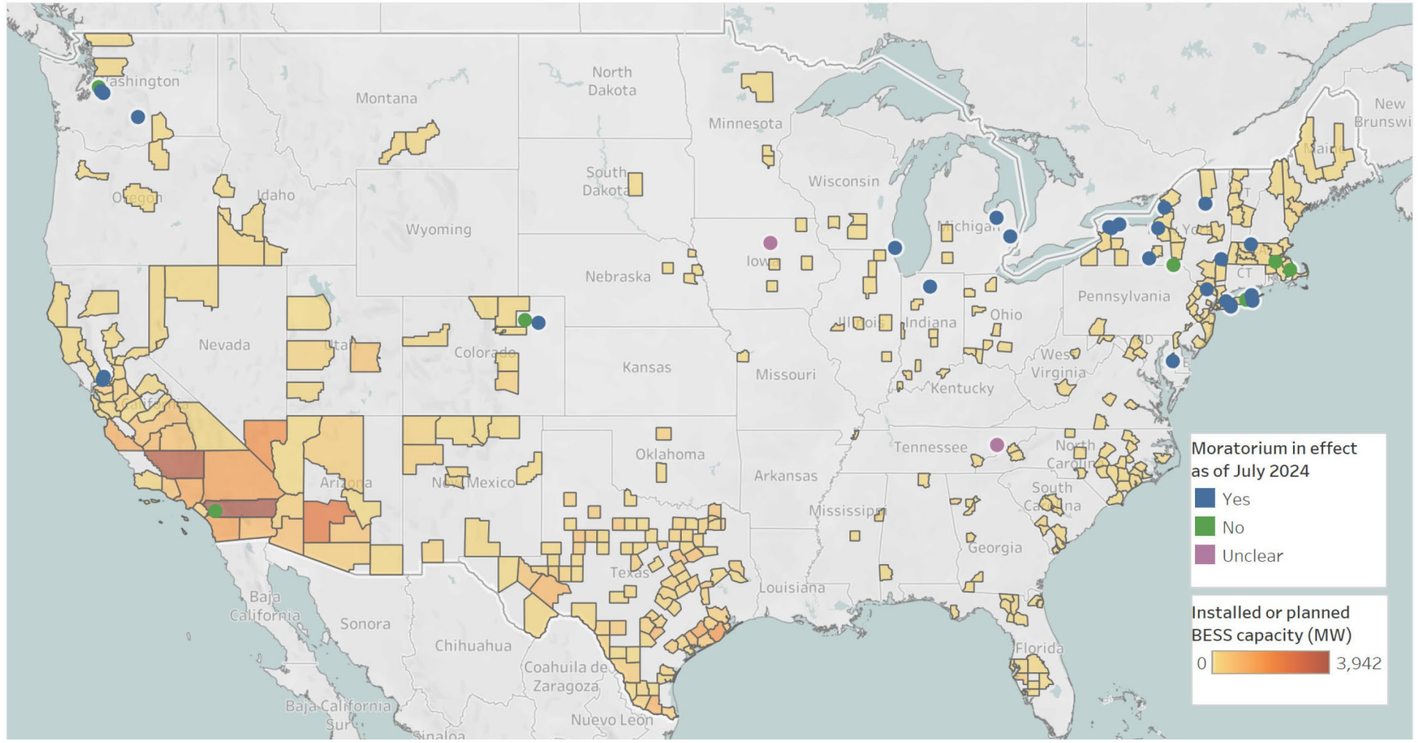
Thank you

Distribution of BESS Moratoria

Jurisdictions With Local BESS Moratoria and Installed or Planned Energy Storage Capacity in the U.S.



Source for BESS data: EIA 860M, May 2024. Capacity aggregated at county level. "Planned" projects are actively under construction or in the regulatory approvals process. Moratoria not in effect have been repealed or expired. Moratoria still in effect are as of July 2024.

- The **37** BESS moratoria in this review were present in **12** states.
- Moratoria were found to be present in areas with or near BESS projects.
- Moratoria are notably clustered in New York, where high BESS deployment, neighbor effects, recent local fires, and other state-level developments are drivers
- **Neighbor effect:** In many jurisdictions, officials cite adoption of a moratorium in a nearby city or county as a driver of their moratorium proposal.