



Energy Storage Permitting Guidebook

An initiative by the California Energy
Commission's Electric Program
Investment Charge (EPIC) Program



Improving Permitting for Small-Scale, Behind-the-Meter Energy Storage

Guidance and resources to streamline local review processes and support California's clean energy goals.

California's Storage Challenge

Once a rarely employed home upgrade, battery energy storage systems have moved from a niche add on to standard infrastructure—for rooftop solar, electric vehicle charging, power resilience, and smart energy management.

Yet adoption of this vital technology has been slowed by inconsistent, fragmented permitting requirements and processes across California's 540 jurisdictions. Complex rules, overlapping codes and standards, duplicative reviews, and uneven submittal requirements increase soft costs and delay projects.

The Solution: A Centralized Permitting Resource

The **Energy Storage Permitting Guidebook** consolidates valuable codes and standards information, best practices, and resources for permitting small-scale (up to 1 MW) energy storage systems on the customer's side of the meter.

It includes information on codes and standards impacting energy storage permitting, checklists, and standard workflows that can help both jurisdictions and installers alike better understand and improve the permitting process. Expected outcomes are:

- **Faster turnaround** on completed applications.
- **Fewer resubmittals** and clearer expectations for applicants.
- **Lower soft costs** for homeowners and contractors.
- **Strengthened safety** through consistent application of fire and electrical codes.

Why This Matters Now

- **Residents:** The Net Billing Tariff increased the value of solar + storage, shifting savings to evening hours and encouraging the installation of behind-the-meter batteries.
- **Small commercial:** Batteries can help lower demand charges and increase the earnings of demand response participation.
- **Communities:** Standardized permitting helps capture energy benefits to the grid like load shifting and enabling virtual power plants.

What's Inside the Guidebook

Replicable best practices

Built with input from contractors, fire marshals, building officials, manufacturers, and industry experts—scalable to jurisdictions of any size.

Templates & process maps

Step by step guidance for submittals, plan review, inspections, and close out, plus adaptable templates for local use.

Code alignment

Clear guidance to apply NFPA 855, IFC/IMC, and UL 9540/9540A test data consistently for residential and small commercial sites.

Integration with automated tools

Instructions for integrating with automated permitting tools such as SolarAPP+ and Symbium to fast track standard installations and free staff time for complex permitting cases.

Benefits in Practice

- **Predictable submittals:** Applicants know exactly what to include, meaning staff waste less time chasing missing pieces.
- **Rightsized review:** Standard projects move quickly; atypical or higher risk designs get the attention they need.
- **Knowledge transfer:** Highlighted best practices give jurisdictions and installers the opportunity to learn from what has already been working well for others in practice across the state.
- **Community trust:** Transparent, uniform processes build confidence for

Outcomes to Date

- Key permitting barriers identified and mitigated by example best practices.
- Central, trusted resource for navigating the codes and standards impacting energy storage permitting.
- Fire safety strengthened through guidance on standards and testing protocols.
- Ongoing coordination with stakeholders across California.



Energy Storage Permitting Guidebook
Free at EnergyStorageCA.com

Training & Technical assistance
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