California Energy Storage Permitting Guidebook

Improving Energy Storage Permitting Together

California Energy Commission Grant EPC-19-026

March 2026

Center for Sustainable Energy®

Agenda

1. Introductions
2. Project Summary
3. Review of Guidebook Sections
4. Discussion

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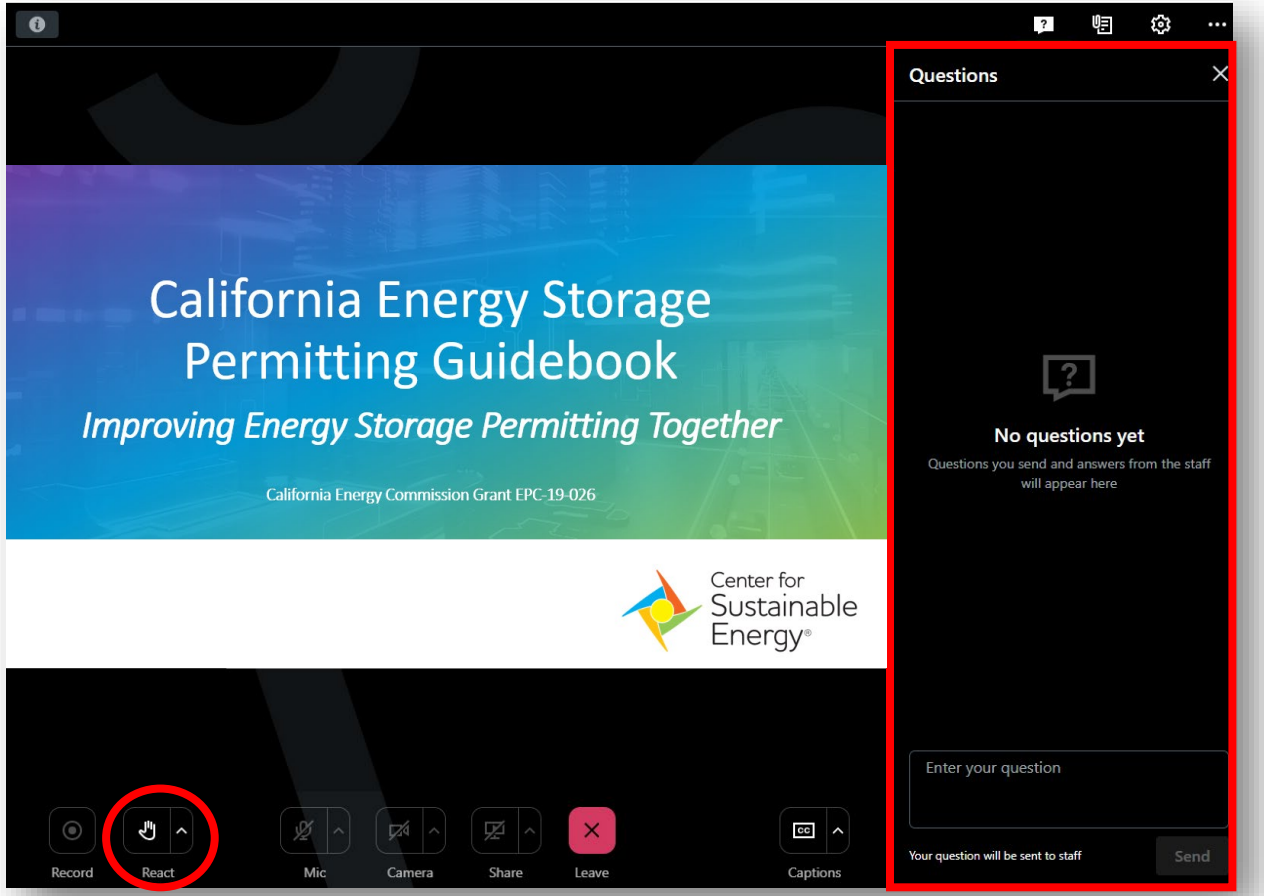
Two Ways to Participate

1. **Questions:**
   - Click the **question-mark icon** in the upper-right corner to open the chat and type your question.
2. **Hand Raising:**
   - If you have a question, click the **hand icon** on the lower-left side of your screen.
   - You will be prompted to unmute yourself to ask your question live.



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Introductions

About CSE

Mission-driven national nonprofit

Center for Sustainable Energy® (CSE) is a national nonprofit that accelerates adoption of clean transportation and distributed energy through effective and equitable program design and administration.

- Headquartered in San Diego with more than 200 employees across the nation
- Administers cutting-edge programs valued at over $4 billion for governments, utilities and the private sector across the U.S.
- Leader in data-driven incentive program design and administration for:
    - Electric vehicle and EV charging incentive programs
    - Renewable energy incentive programs (solar and storage)

One mission —

DECARBONIZE.®

Our vision is a future with sustainable, equitable and resilient transportation, buildings and communities.

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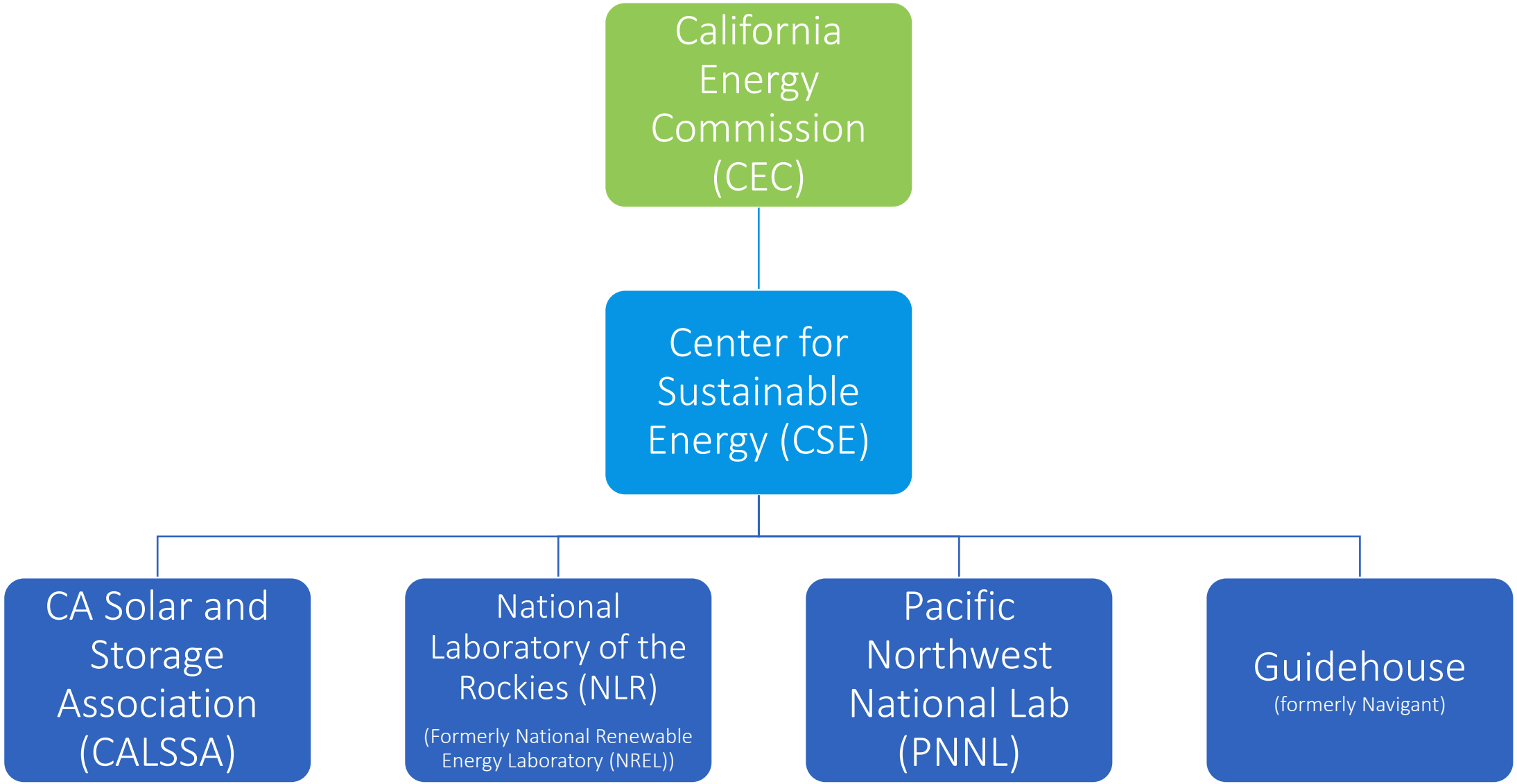

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Guidebook Project Background

Project Summary

Identify key permitting issues that act as barriers to success for cost-effective installation of energy storage on the customer side of the meter and provide a comprehensive set of guidelines in an electronic format to address those key permitting issues for storage systems less than 1MW in capacity.

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Project Goals

Greater reliability

Increased deployment of BTM energy storage reduces system peak.

Lower costs

Simplified permitting procedures can reduce soft costs & schedule delays.

Environmental benefits

Increased adoption of energy storage reduces dependence on peaker plants and reduces GHG emissions.

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Senate Bill No. 379 and the Guidebook

- *Senate Bill 379 (Wiener, 9/2022): Requires cities and counties in the state to adopt an "**automated permitting platform**", for solar and storage systems of less than 38.5 kW in nameplate capacity.*
- *Required for cities with populations of more than 5,000 and counties with more than 150,000 by **September 30, 2023***
- *A city with a population of fewer than 5,000 and a county with a population of fewer than 150,000 are required to comply by **September 30, 2024***
- The Guidebook provides limited guidance on how to adopt electronic permitting software such as Symbium and SolarApp+

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Review of Guidebook Sections

Guidebook Overview

Energy Storage Permitting Guidebook is hosted on the project website, available at https://www.energystorageca.com/

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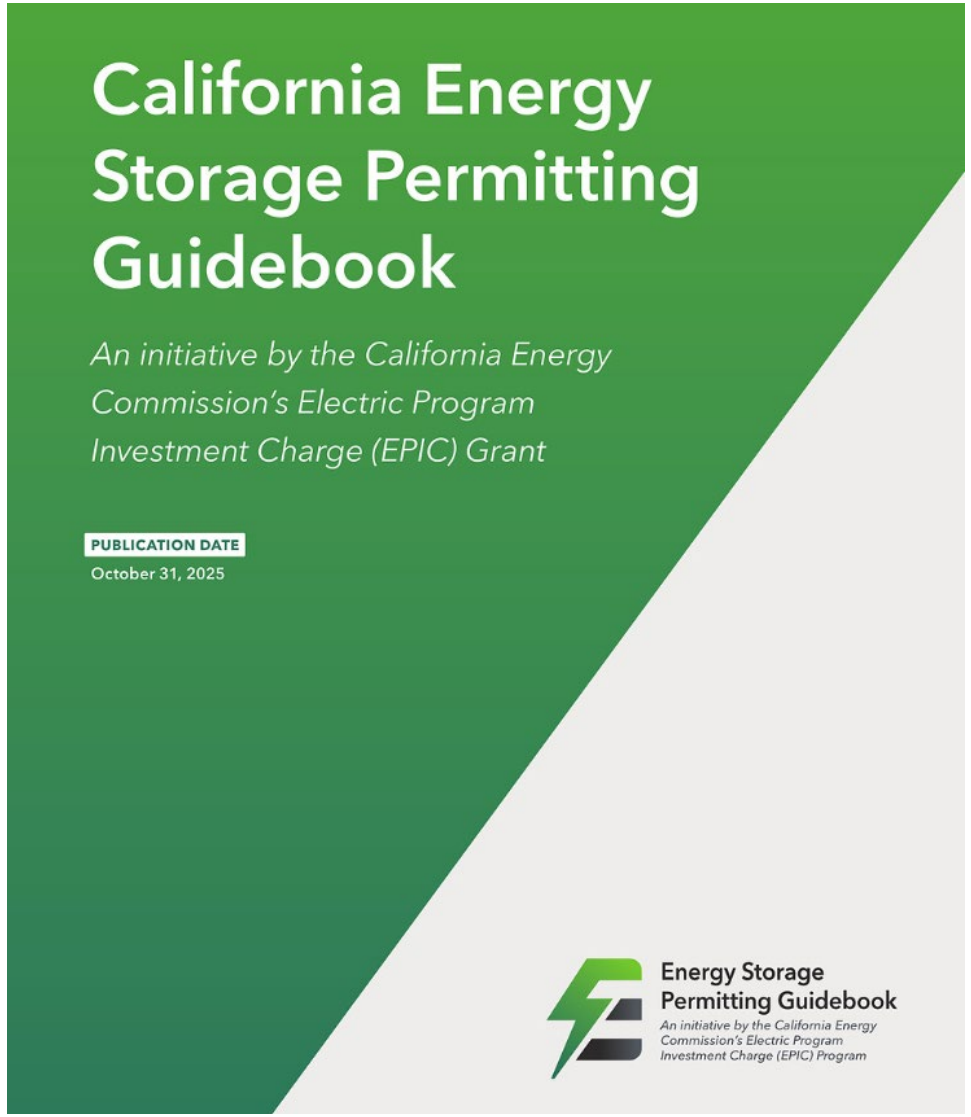
Energy Storage Guidebook Content

- Section 1: Introduction
- Section 2: Codes and Standards
- Section 3: Energy Storage Permit Process
- Section 4: Electronic and Automated Permitting
- Section 5: Permitting Resources



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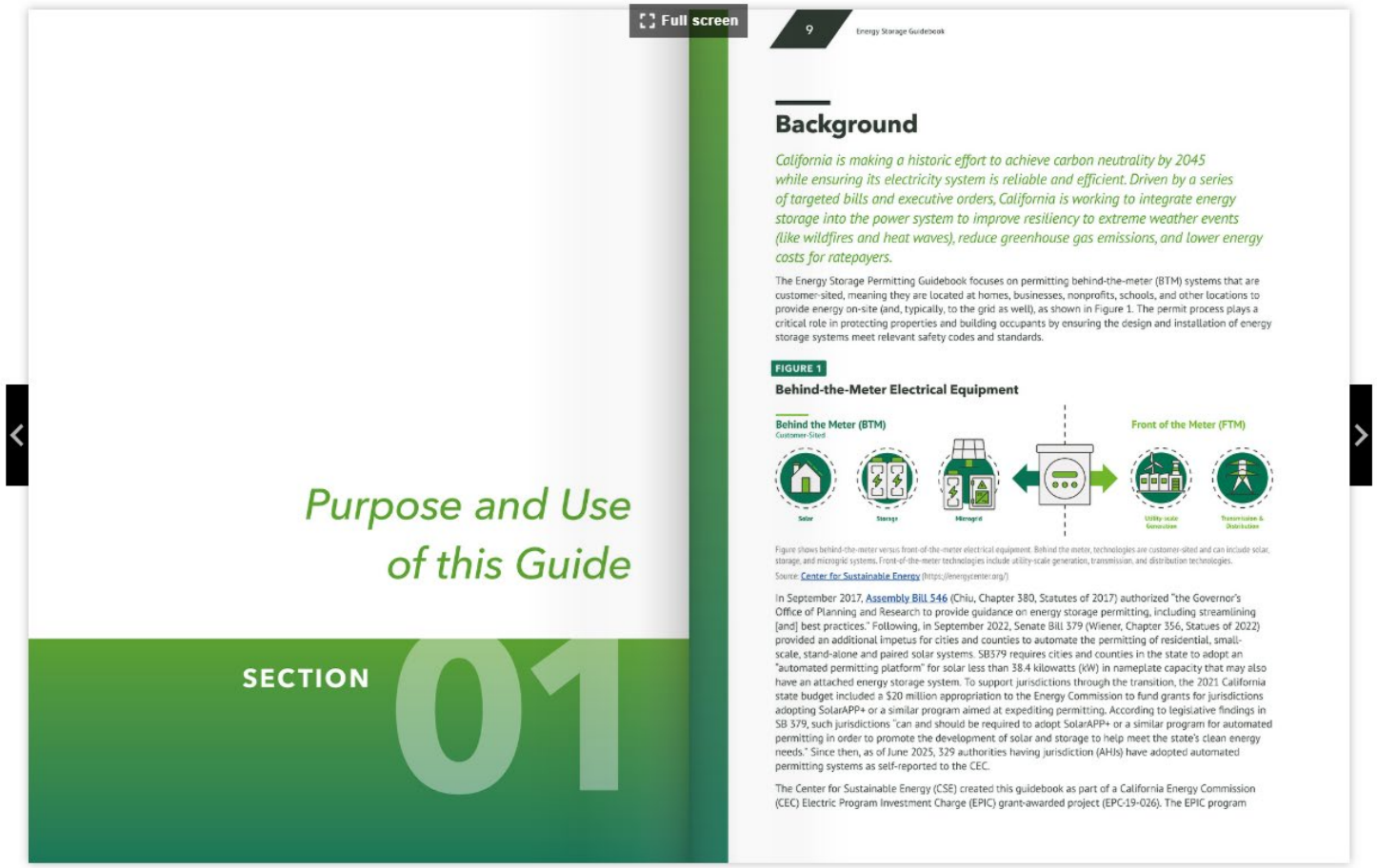
Section 1: Purpose and Use of this Guide



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Scope

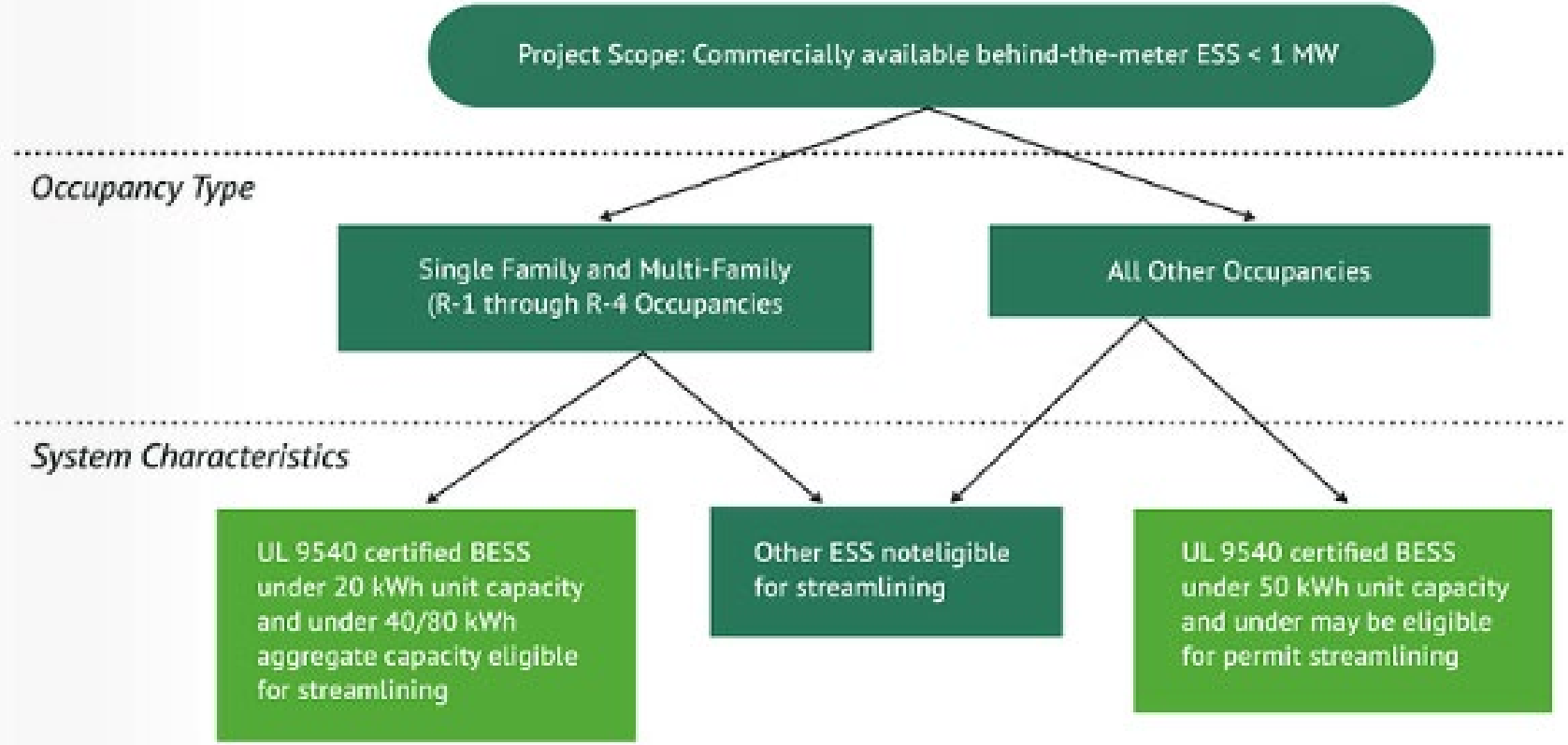

Figure shows the segmentation approach used to identify which energy storage technologies would be covered by the contents of the guidebook. The guidebook focuses on commercially available, behind-the-meter, electrochemical energy storage systems.

Source: Center for Sustainable Energy (https://energycenter.org/)

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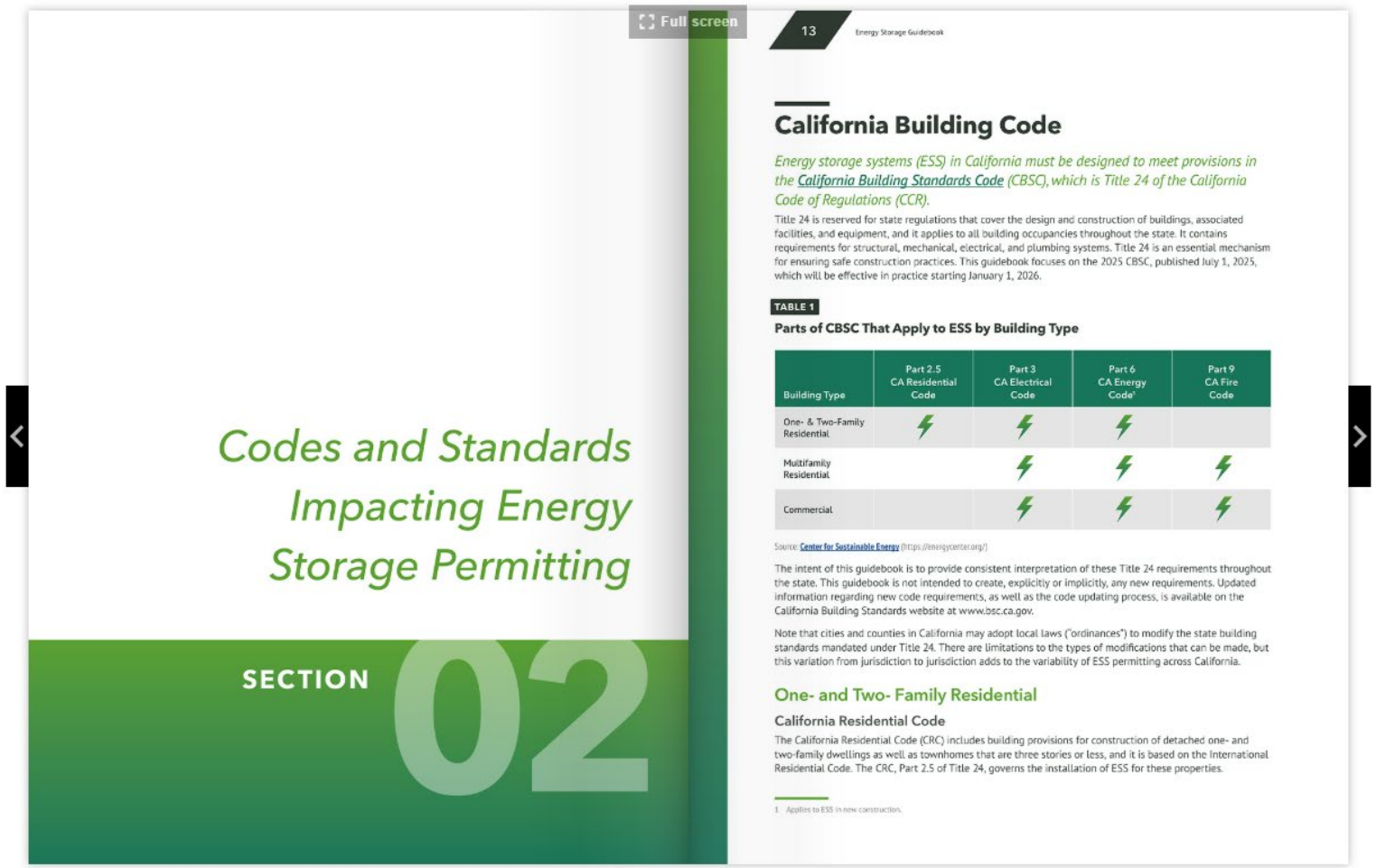
Section 2: Codes and Standards



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Relevant Building Codes

Parts of CBSC That Apply to ESS by Building Type

Building Type	Part 2.5 CA Residential Code	Part 3 CA Electrical Code	Part 6 CA Energy Code[1]	Part 9 CA Fire Code
One- & Two-Family Residential	⚡	⚡	⚡	
Multifamily Residential		⚡	⚡	⚡
Commercial		⚡	⚡	⚡

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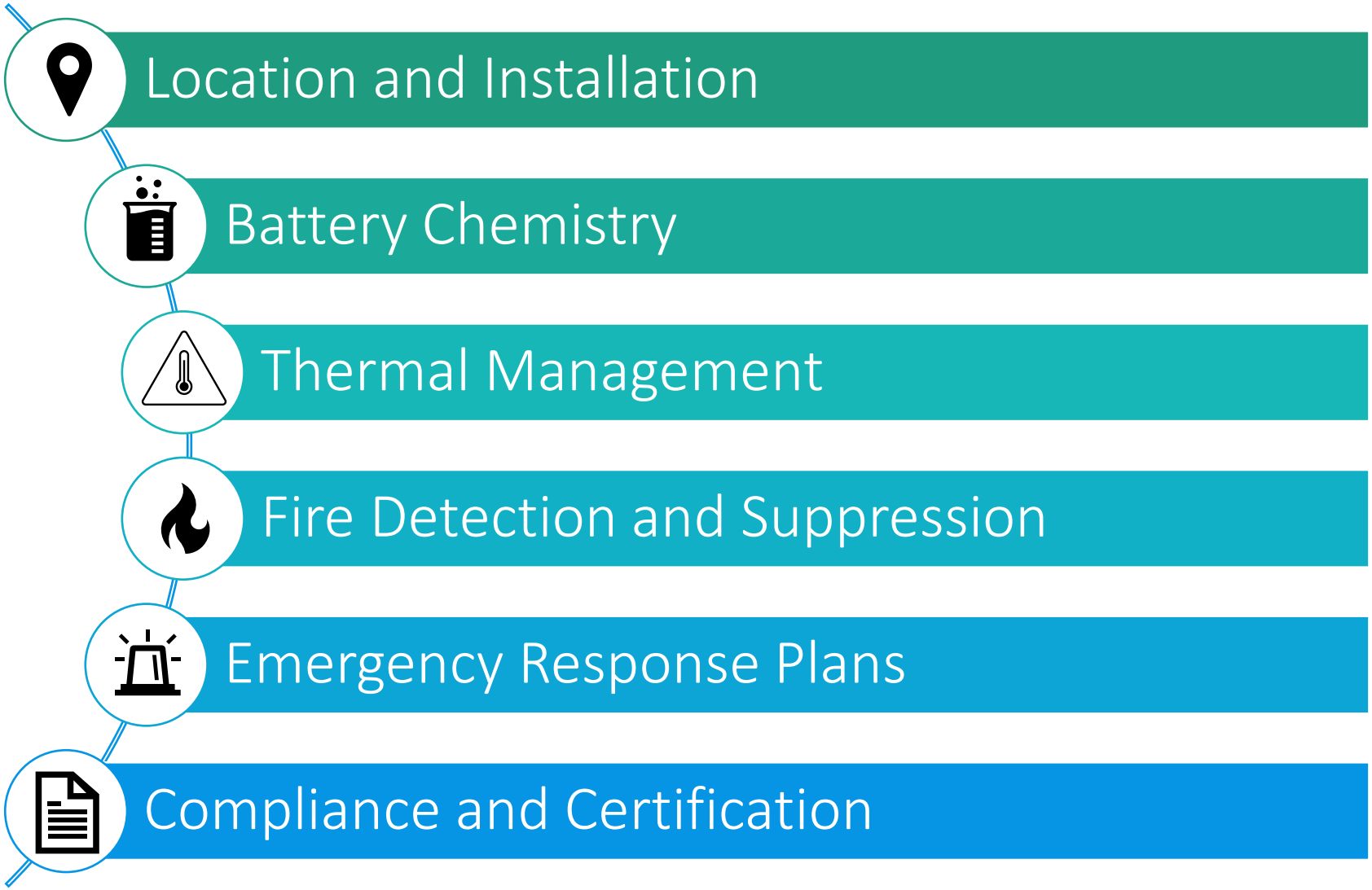
Key Considerations for Fire Safety



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Section 3: Energy Storage Permit Process

Typical Permit Review

The building permit process exists to protect public health, safety, and welfare. The process ensures that buildings, and certain kinds of installed equipment, such as ESS, meet the standards set out in California's Building Standards Code.

More details on the building codes and standards that impact ESS are included in the previous section, Section 2: Codes and Standards Impacting Energy Storage Permitting.

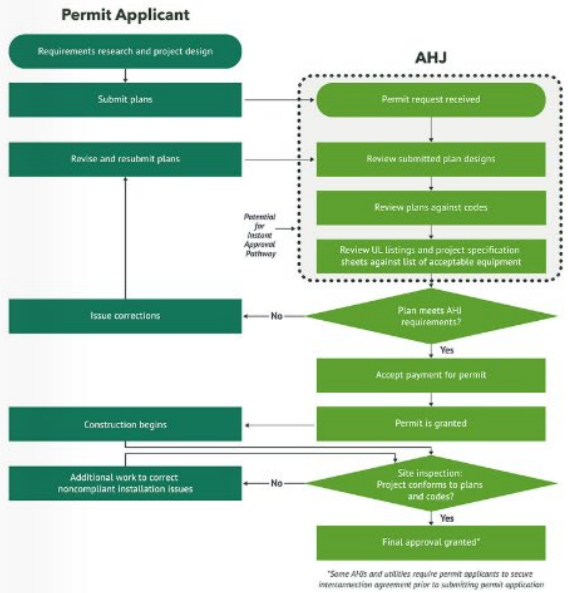
A wide range of permitting agencies exist in California. These range from AHJs affiliated with municipalities (i.e., city and county governments) to AHJs located within special districts (e.g., independent fire districts that provide permitting to state and federal agencies). Along with AHJs, other permitting agencies in the state include:

- ***The Division of the State Architect,*** which provides oversight for primary and secondary schools, community colleges, and other state facilities.
- ***CAL FIRE Office of the State Fire Marshal Plan Review Section,*** which provides construction plan review for buildings used by certain state agencies.
- ***The California Department of Health Care Access and Information*** (which was formerly known as the Office of Statewide Health Planning and Development), which provides permitting for hospitals and certain kinds of healthcare facilities.
- ***California Department of Housing & Community Development,*** which provides registration for mobile homes and inspections of mobile home parks.
- ***Water districts,*** which provide self-permitting for infrastructure related to water delivery.
- ***Federal agencies for federally managed properties,*** such as military bases, which typically follow their own federal building code.

Building permits must be reviewed following the state's requirements, but AHJs structure the permitting process for their areas of oversight. They have significant influence over the codes that govern construction and how projects are reviewed against these codes and standards. A standard process follows a flow as shown in Figure 3. AHJs seeking to expedite their permitting process may be able to automate the plan review for typical residential solar plus storage installations using an online automated permitting software.

FIGURE 3

Energy Storage Permit Review Process



Flow chart illustrating the typical permit application and review process from submission to final approval post inspection.

Source: Center for Sustainable Energy (https://energycenter.org/)

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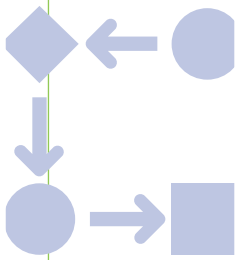
Best Practices Across California

Develop Public Data Dashboards

- Improve transparency with a live dashboard illustrating current volumes of building inspections and a daily list of planned inspections

Streamline Communication Channels

- Provide a single point of contact from each party involved in the permitting process (e.g., AHJ and ESS installer) to facilitate effective and efficient communication



Clearly Publish Processes and Requirements

- Post comprehensive guidance on accessible public websites regarding permitting requirements that is vetted by all relevant departments (e.g., building and fire departments, etc.).
- Develop an eligibility checklist to reduce incomplete permit applications

Leverage Educational Resources

- AHJs can engage with code and standard organizations to leverage guidance materials and provide resources to help their own staff and the installers in their jurisdictions navigate the relevant codes and standards.

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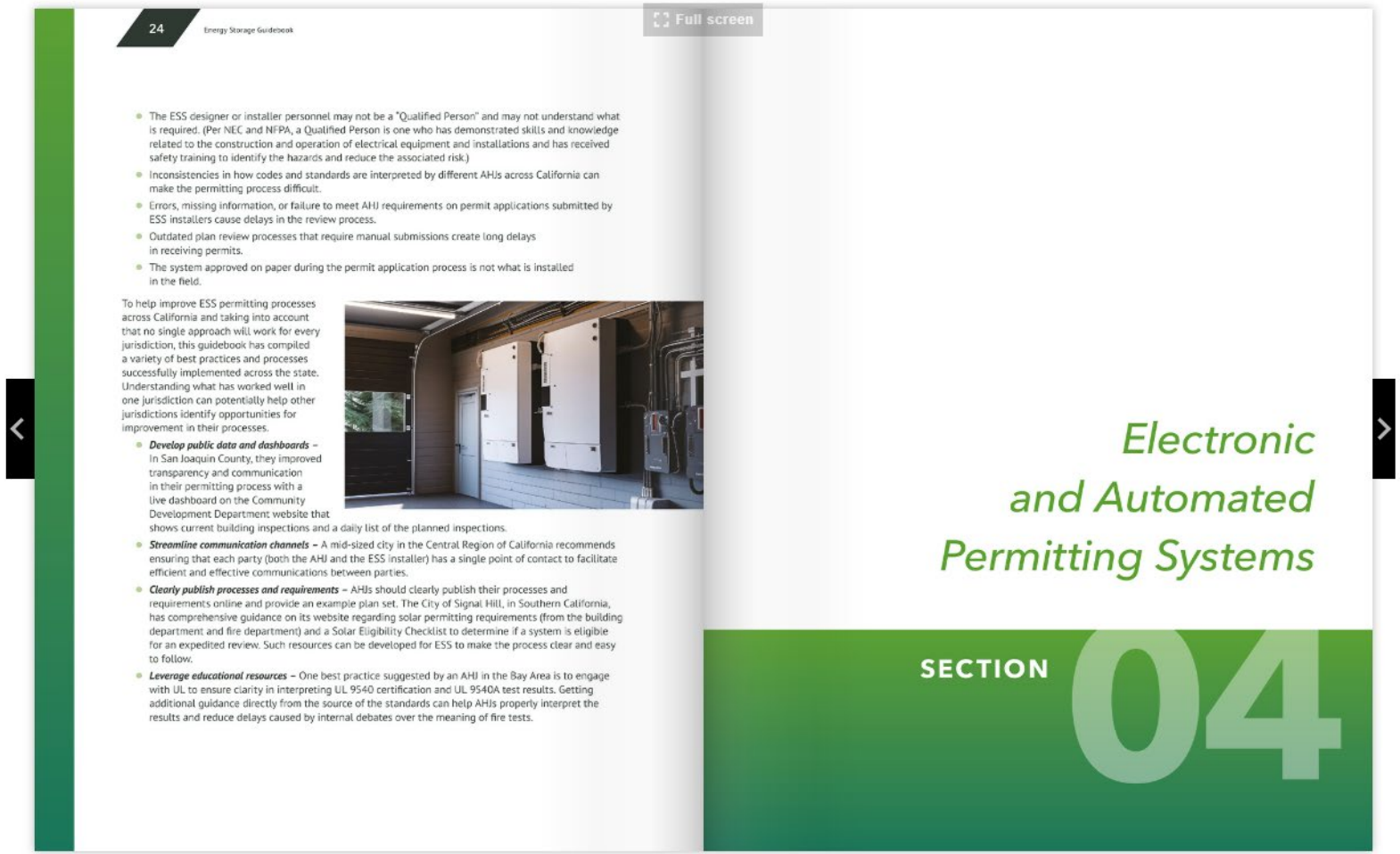
Section 4: Electronic and Automated Permitting



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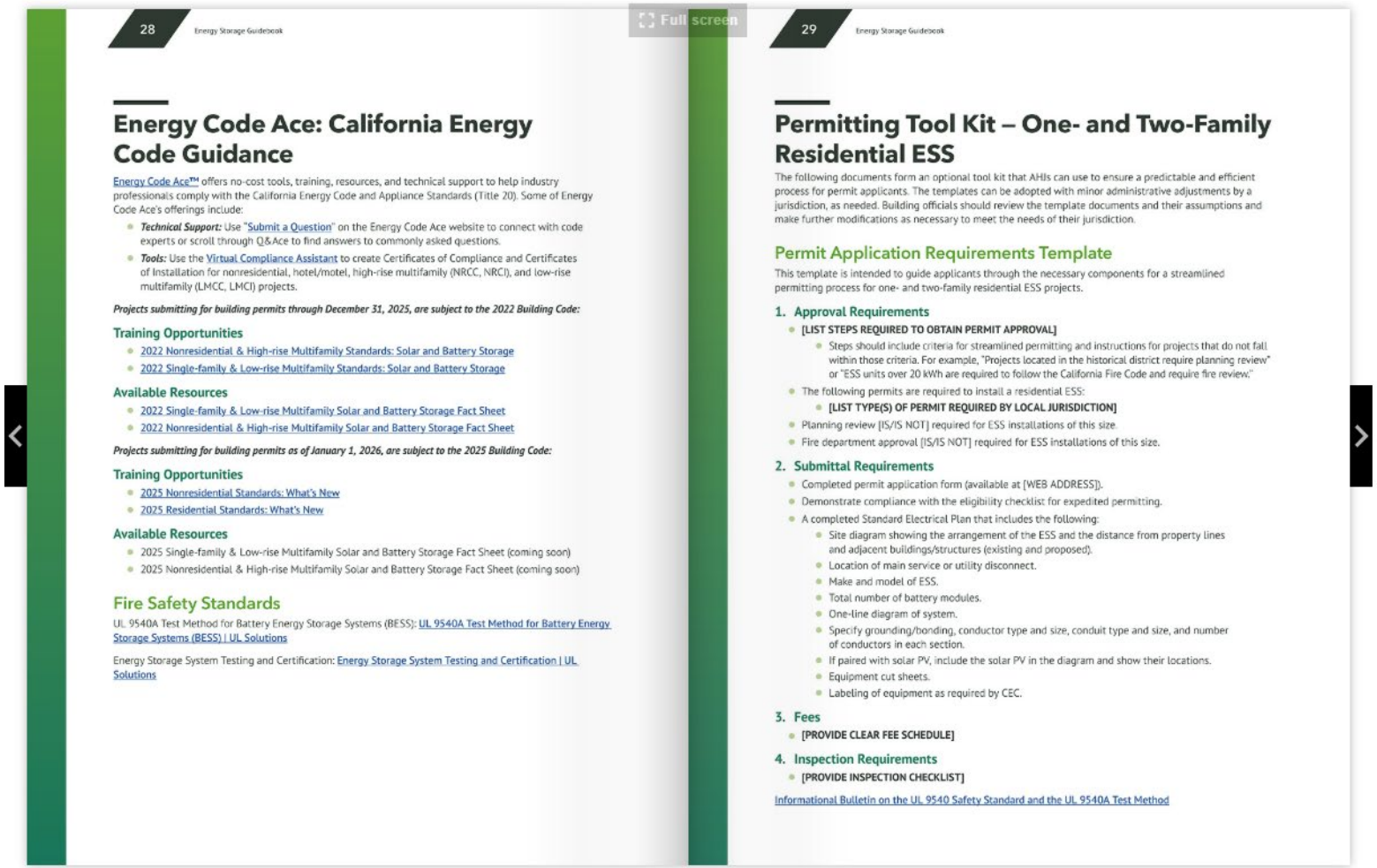
Section 5: Resources



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Discussion Questions

- Is any information inaccurate, outdated, or redundant that should be removed or updated?
- Is there any content that is clearly missing from the Guidebook that would make it more useful to your work?
- Are there any specific areas that could benefit from additional visuals (e.g., flowcharts, tables, checklists)?
- Does the Guidebook appropriately balance technical depth with accessibility for a non-technical audience (e.g., smaller AHJs, new installers)?
- Are there state or local regulatory gaps that the Guidebook could help clarify?
- Have you found particular code sections (e.g., UL 9540A, NFPA 855, Title 24) difficult to interpret or apply?

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