

DOCKETED

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Memorandum

To: Docket 22-BSTD-01

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From: **Efficiency Division**
California Energy Commission
715 P Street
Sacramento, CA 95814

Subject: 2025 Energy Code Compliance Tools Staff Workshop Summary

Introduction

On March 22, 2022, the California Energy Commission's (CEC) Efficiency Division held the first staff workshop related to the *2025 Building Energy Efficiency Standards* (Energy Code) proceeding. The intent of this staff workshop was to gather information related to digital compliance tools, to understand the existing tools available in the market, to get ideas for innovation and improvement, and to find ways to leverage these tools to support Energy Code compliance and implementation. The information gathered will help identify how digital compliance tools may be used or updated for the 2025 Energy Code and beyond, as well as identify other improvements that may be made to support increased compliance with the Energy Code.

The staff workshop included three panels; each panel focused on diverse stakeholder groups. The first panel included designers and energy consultants, the second panel included authorities having jurisdiction (AHJ) personnel, and the third panel included contractors and installers. Panelists and attendees had an opportunity to share information and experiences with using digital compliance tools and ideas for updating and developing digital compliance tools in support of Energy Code compliance and implementation.

Over the course of the staff workshop, the conversation expanded to general compliance improvement topics. Participants discussed several issues related to Energy Code compliance and strategies to improve compliance.

This memo provides a summary of the key topics that were discussed at the staff workshop related to compliance improvement and information on what the CEC is currently doing or planning to do to address compliance improvement moving forward. Many of the discussions, ideas, and comments that were expressed share similar themes, highlighting recurring topics related to compliance improvement. These topics were consolidated into the following central points:

- AHJ Resources
- Energy Code simplification
- Compliance documents
- Field Verification & Diagnostic Testing (HERS) program
- Certification and licensure

- Incentivizing permitting
- Digital compliance tools
- Energy Code training

Background

The Energy Code is updated by the CEC on a three-year cycle. As part of the update process, the CEC holds a public pre-rulemaking phase to gather information from stakeholders to help inform the updates. As part of the pre-rulemaking, the CEC holds and conducts public workshops and encourages public participation.

The pre-rulemaking phase includes the research and gathering of information necessary to develop the documentation required to conduct the formal rulemaking proceeding for the 2025 Energy Code.

The first pre-rulemaking staff workshop for the 2025 Energy Code was held on March 22, 2022. The purpose of this staff workshop was to solicit feedback regarding digital compliance tools that may be used for supporting Energy Code compliance. More information on this staff workshop can be found on the [CEC's webpage](https://www.energy.ca.gov/event/workshop/2022-03/2025-energy-code-compliance-tools-staff-workshop) at <https://www.energy.ca.gov/event/workshop/2022-03/2025-energy-code-compliance-tools-staff-workshop>.

Summary of Comments Received

The following summarizes and consolidates the key takeaways or comments received during the March 22, 2022, staff workshop. These comments cover several Energy Code compliance-related issues and strategies for improving Energy Code compliance. These comments were made by interested members of the public and do not necessarily reflect the ideas or opinion of CEC staff.

1. AHJ Resources

Many AHJs lack the resources necessary to thoroughly enforce the Energy Code. The Energy Code is complex and AHJs often do not have the time or personnel needed to become experts in and fully enforce the Energy Code. Due to time, complexity, and personnel constraints, Energy Code enforcement is often a lower priority compared to enforcement of other parts of the Building Code that affect occupant health and safety.

2. Energy Code Simplification

The Energy Code layout and formatting is inconsistent with other parts of the Building Code making it difficult for AHJ personnel, designers, builders, contractors, and other stakeholders to navigate and understand code requirements. Simplifying the Energy Code by reformatting and aligning with other parts of the Building Code would improve readability of the Energy Code, making it easier for stakeholders to understand, comply with, and enforce the Energy Code.

3. Compliance Documents

The compliance documents that are used to demonstrate compliance with the Energy Code are too complex. There is a lack of understanding by builders, contractors, and AHJs on how to use the compliance documents and ensure that compliance documents are prepared correctly, and that designs and installations comply with the Energy Code. Moreover, there are too many compliance documents, and AHJs lack

the time needed to thoroughly verify that compliance documents are accurate. Simplification and a reduction in the number of these documents is needed to reduce complexity, make them easier to complete, and make them easier to verify.

4. Field Verification & Diagnostic Testing Program

There are several Field Verification & Diagnostic Testing (FV&DT) program related issues that affect Energy Code compliance. These issues include conflict of interest, rater quality assurance audits and oversight, inconsistent testing methods, and misuse of group sampling procedures. Any program that AHJs can rely upon must address these issues, build interest in the program and demonstrate its credibility.

5. Certification and Licensure

Licensed or certified designers, consultants, and FV&DT raters/acceptance test technicians should be leveraged for improving Energy Code compliance. A trained and licensed/certified workforce that is involved during the design phase of a project will help to ensure that designs, plans, and documentation are Energy Code compliant from the start. Continuing education requirements for licensure and certification and improved oversight by regulating bodies can also be leveraged to improve code compliance.

6. Incentivizing Permitting

Building permits cost time and money which affects the bottom line for contractors and increases the costs to and inconvenience for homeowners. Energy Code compliance also can add complexity to projects further adding to the costs impacting consumers. Incentivizing permitting costs to help offset additional costs may encourage contractors and homeowners to pull permits and improve enforcement of the Energy Code.

7. Digital Compliance Tools

Digital compliance tools can be used to automate and simplify code compliance with the Energy Code. There are opportunities to improve compliance processes by using digital compliance tools that provide automation, real-time data collection and verification, and other benefits that can help to streamline and simplify compliance and permitting processes. Stakeholders recommended the following types of digital compliance tools:

- Third-party digital compliance software tools that streamline completion of compliance documentation and make the documentation process more user friendly
- Third-party digital compliance software tools that assist AHJs with completing Energy Code plan review and inspections, thus reducing the burden of Energy Code enforcement
- Third-party diagnostic tools and compliance software that streamlines field verification and diagnostic testing data collection and facilitates real-time verification/inspection, making the process more convenient for contractors, AHJs, and homeowners
- Third-party electronic plan review and online permitting software that improve the efficiency of the permitting process for AHJs and make the process more convenient for permit applicants

- Statewide central data registry and equipment tracking to standardize compliance processes and facilitate AHJ Energy Code enforcement

8. Energy Code Training

Training in how measures are to be installed and tested for performance is important for all stakeholders involved in the compliance process. A trained and informed workforce can improve code compliance. Providing more resources and training will help stakeholders better understand compliance requirements.

CEC Compliance Improvement Efforts

Staff are evaluating and carefully considering all the feedback received from the March 2022 workshop and are following up with individual stakeholders to gather specific information about their comments and may hold targeted workshops to explore these compliance improvement ideas further.

There are several compliance improvement efforts already underway or are planned over the next few years. Some of the items summarized previously may be addressed through these efforts. The following provides a summary of current and upcoming work being done by the CEC Efficiency Division related to compliance improvement:

- CEC is focusing on solutions to support AHJs by providing tools and resources to support Energy Code compliance and enforcement. This includes encouraging and accommodating third-party digital compliance tools alongside those developed by CEC; and funding to harmonize and pilot innovative third-party and CEC developed digital compliance tools that may help to simplify and streamline the Energy Code enforcement process.
- Staff are working on two rulemaking proceedings, started in 2022, aimed at simplifying and improving the FV&DT program. These proceedings seek to update the HERS program requirements and FV&DT requirements to address program issues that may lead to Energy Code compliance improvement. This includes addressing conflict of interest, rater quality assurance, sampling, and field verification and diagnostic testing procedure issues. The CEC will be conducting the HERS program rulemaking in parallel with updating the FV&DT provisions in the 2025 Energy Code update rulemaking, aiming to adopt and implement updated FV&DT program requirements in future Energy Code cycles.
- Staff has begun to evaluate the compliance documents to identify ways to reduce complexity of these documents, improve the relevancy of the forms, and make them easier to complete, understand, and use in the field for verification. Staff are evaluating metrics such as frequency that data fields and forms are used, compliance pathways taken, construction trends, and other relevant metrics that can be used to simplify and streamline the documents and identify opportunities for improvement. The CEC has identified this as a high priority issue and a key strategy to improving compliance with the Energy Code. This evaluation will be done in parallel with development of the 2025 Energy Code and changes will be reflected in the 2025 Energy Code update.
- Staff are working on development of the Commission Compliance Document Repository (CCDR), which will store all Energy Code compliance documents statewide. The CCDR will be an important tool for collecting compliance data

and information necessary to identify specific compliance improvement strategies moving forward.

- Staff is investigating concerns about complexity of the Energy Code and the need to simplify it to make it easier to understand and navigate. This includes evaluating changes to formatting of the Energy Code to align with other parts of the California Building Code to improve consistency. This work will be done in parallel with the 2025 Energy Code update proceeding and may be considered for implementation in future code cycles.
- Energy Code outreach and education continues to be a focus. The CEC offers free training to educate stakeholders on the Energy Code. The CEC also publishes educational and technical resources including the Blueprint newsletter, fact sheets, Energy Code videos, Energy Code presentations, and other publications meant to assist stakeholders. The Title 24 hotline is another resource that is available to help answer questions on Energy Code-related topics. More information on training, educational resources, and the Title 24 hotline can be found at the [CEC's Online Resource Center](https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/online-resource-center) at <https://www.energy.ca.gov/programs-and-topics/programs/building-energy-efficiency-standards/online-resource-center>.

These are the high priority efforts that staff are focusing on over the next few years. This work is being done in parallel with the 2025 Energy Code update proceedings and 2022 Energy Code implementation. There are resources that may be used to support the CEC with compliance improvement efforts which include leveraging potential federal funding, CEC partnerships, and contract support. As these compliance improvement efforts develop, opportunities will be available for further public participation.