

Zero-Emission Space and Water Heater Standards

Update to the AB 32 Environmental Justice Advisory Committee April 17, 2025

Presentation Overview

Topics

- 1. Guiding Values and Regulation Purpose
- 2. Process to Date
- 3. Public Engagement Themes
- 4. Next Steps
- 5. Discussion

Goals

- Recap public engagement activities, key learnings to date, and highlight staff work underway and planned.
- Hear EJAC's perspectives and learn how EJAC would like to be involved moving forward.



Guiding Values for the Development of the Regulation

- Support climate change mitigation and resilience and public health.
- Evaluate economic and other impacts as they relate to historic and ongoing disparities in clean air, affordable healthy homes and workplaces, and load implications.
- Encourage manufacturers and the broader workforce to create affordable, reliable, and convenient solutions that support widespread zero-emission space and water heater adoption.
- Coordinate with public agency partners to ensure clarity, alignment, and long-term feasibility for any proposed standards.
- Create an accessible, transparent, and inclusive process.



Why space and water heater standards?

By growing the market for healthy heating equipment, we can lower building emissions and improve the lives of Californians.

Reduce climate pollutants.

- Space and water heaters account for ~8% of statewide greenhouse gas (GHG) emissions.
- 2022 Scoping Plan set a goal for 3 million climate-ready homes by 2030 and 7 mission by 2035.

Improve air quality and public health.

- Smog-forming nitrogen oxides (NOx) increase the risk of asthma, heart disease, and other illnesses.
- 2022 State SIP Strategy included building emission standards.



Zero-Emission Space and Water Heater Standards

Process to Date



Zero-Emission Space and Water Heater Standards Regulatory Development Process





Public Engagement Process to Date



- **2023 Summer:** Kickoff Workshop, Assessment Interviews
- 2023 Winter: <u>Assessment Report</u>, <u>Outreach</u> and Engagement Strategy and Plan, <u>Public</u> <u>Solicitation</u>

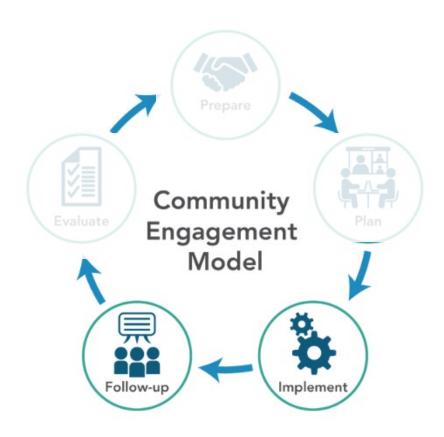
Current Public Experts

- Association for Energy Affordability
- Allensworth Progressive Association
- Building Decarbonization Coalition
- Climate Action Campaign
- Climate Resilient Communities
- CalMTA
- Ceres
- Channing Street Copper Company
- Construction Trades Workforce Initiative
- Climate Resilient Communities
- Consultancy to National Propane Gas Association
- Earthjustice
- Energy Solutions
- Emerald Cities Collaborative
- HPBA Hearth, Patio, and Barbecue Association
- GRID Alternatives

- Individuals (3)
- Lawrence Berkeley National Laboratory
- Lennox
- Natural Resources Defense Council
- Peninsula Clean Energy
- Pacific Gas & Electric
- Rinnai America
- Redwood Energy
- RMI
- Sierra Energy Reimagined
- Silicon Valley Clean Energy
- Southern California Edison
- SPUR
- Strategic Actions for a Just Economy
- TRC
- Tre' Laine Associates
- Western Propane Association



Public Engagement Process to Date (2)



- **2023 Summer:** Kickoff Workshop, Assessment Interviews
- **2023 Winter:** Assessment Report, Outreach and Engagement Strategy and Plan, Public Expert Solicitation
- 2024
 - Technical Feedback Meetings
 - Public Expert Briefings
 - Public Workshops
 - Listening Sessions

2024 Workshops, Briefings, and Feedback Meetings

Technical Feedback Meetings

- Emissions Modeling
- Building Retrofits
- Market and Technology
- Cost Analysis
- Equity Analysis
- Pool and Spa Heaters

Public Workshops

- Staff Analysis Overview
- Regulatory Proposal Update and Request for Alternatives

Public Expert Briefings

- "Affordable Housing Decarbonization: Utility Allowances" by Climate Action Campaign
- "Tenant Protections for Equitable Building Decarbonization" by Strategic Actions for a Just Economy
- "Single-Family Building Readiness" by Energy Solutions
- "Affordable Housing Retrofit Needs" by Association for Energy Affordability





August - October

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Public Engagement Themes



1. A manufacturer-oriented regulation may still face household- and business-level challenges.

We aim to meaningfully address them in a statewide policy design.

Key Concerns Raised

- Equipment costs and incentives.
- Energy costs and rate designs.
- Retrofit needs and low-cost solutions.
- Energy system needs, especially in cold climates and rural areas.
- Manufactured home and multifamily housing needs.
- Renter impacts and protective policies.
- Workforce needs and training resources.

Current Work

- Explore additional regulatory concepts.
- Solicit feedback on technology cost, retrofit, and emission analysis methods.
- Research contracts to inform approach: Anti-displacement policy, propane and wood use, nonresidential retrofits, and equitable decarbonization.



2. Interagency alignment remains critical to successful regulation design and implementation.

Broader Policy

- Protective housing policies
- Workforce readiness

Affordability

- Incentive programs
- Energy rates

Implementation

- Energy system planning
- Building permit streamlining

Existing Coordination Venues

- California Heat Pump Partnership
- Joint Agencies Steering Committee
- CEC Integrated Energy Policy Report and Energy Action Plan
- Bimonthly CARB-CEC-CPUC-HCD staff calls
- Air District meetings
- Scoping Plan Updates
- Local Climate Action Plans



3. Effective collaboration with on-the-ground practitioners is fundamental to successful implementation.

Reflections on process:

- Co-host support with venue, logistics, and outreach was critical to the success of inperson events.
- CARB staff benefit from working with practitioners to check assumptions and identify potential implementation strategies.
- CARB staff are hearing a need for accurate and accessible information about zeroemission heating solutions.
- Considering how to appropriately integrate additional outreach into our regulatory research, proposal development, and potential implementation.

Listening session responses: Who should CARB reach and include?



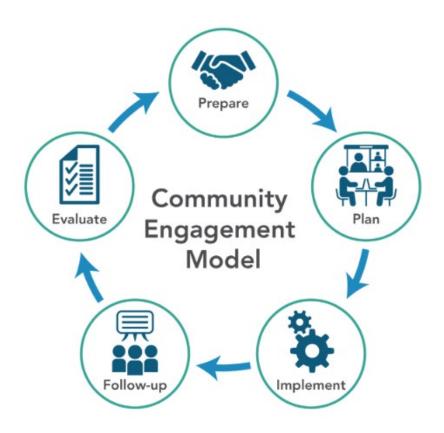


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Next Steps



Public Engagement Process Next Steps



• 2025 Winter:

- Public Expert Evaluations
- Public Expert Report-Back Meeting

• 2025 Spring/Summer:

- Update to EJAC
- Publish Listening Session Summary Report and updated Outreach and Engagement Strategy and Plan.
- Additional public expert briefings and discussions.

• 2025 Fall - 2026 and beyond:

- Host a public workshop to share the revised regulatory concept.
- Once regulation concept is closer to final, begin implementation planning.
- Consider additional outreach modes, including tours/site visits, and another round of co-hosted community meetings.

Discussion

What questions do you have for our team?

What recommendations do you have for CARB staff as we continue our regulation development work?

Ideas for EJAC involvement moving forward:

- Participating as public experts (reviewing staff methods, sharing briefings, co-hosting outreach/engagement events, and/or planning for implementation).
- Receiving a staff update like this after our next workshop.
- Other ideas?

Thank you!

