

4th Quarter 2025

CalMTA continued to make progress on market transformation initiative (MTI) development and operational milestones in the 4th quarter of 2025, driving us closer to MTI implementation and achieving California's goals for cost-effective energy efficiency and decarbonization while supporting workforce development and equity goals.

For previous Quarterly Reports, visit: [Resources and Reports](#)

For the 2025 CalMTA Operations Plan, visit: [2025 Operations Plan](#)

SECTION 01

Introduction

Stacey Hobart
Principal of Engagement &
Communications

CalMTA is a program of the California Public Utilities
Commission and is administered by Resource Innovations.



4th quarter activities summary



MTI idea development	Administration and operations	Engagement and communications	Completed	In Progress	Not Started
			●	●	○

4th quarter milestones	Q1	Q2	Q3	Q4
Publish Commercial Rooftop Units (CRTUs) market characterization report				●
Complete 120V induction stove data collection at Emerson Arms				●
Final CRTUs MTI Plan, including evaluation metrics, submitted to the MTAB and Commission for approval - <i>in process</i>				●
Complete Strategy Pilot Assessment Report: ESRPP - <i>held over from Q3, in process</i>				●

4th quarter activities summary (cont.)



MTI idea development	Administration and operations	Engagement and communications	Completed	In Progress	Not Started
			●	◐	○

4th quarter milestones	Q1	Q2	Q3	Q4
Host Equity Sounding Board meeting				●
Public comment on CRTUs MTI Plan				●
Hold quarterly update webinar				●
<i>Idea to Initiative</i> education series ongoing				●
Develop 2026 Operations Plan - <i>in process</i>				◐
Issue implementation RFPs for approved MTIs (<i>Room Heat Pumps</i>)				●
Hold MTAB meeting				●

4th quarter key outcomes



CPUC Decision 25-11-023

- First-ever statewide Market Transformation Initiatives approved via [Decision 25-11-023](#)
 - The Room Heat Pumps MTI was fully approved for deployment
 - The Induction Cooking MTI was conditionally approved

Room Heat Pumps Implementation RFP

- Released RFP in December seeking contractor(s) to implement the Room Heat Pumps MTI

4th quarter key outcomes (cont.)



Induction Cooking research

- Completed 120V induction stove data collection at Emerson Arms and [final report](#)

CRTUs MTI Plan

- Final draft of [CRTUs MTI Plan](#) completed and released for MTAB and public comment

SECTION 02

MTI Development

CalMTA is a program of the California Public Utilities Commission and is administered by Resource Innovations.



Ideas in process



Room Heat Pumps



Induction Cooking



Commercial
Rooftop
Units



Residential
Heat Pump
Water
Heating



Commercial
Replacement
&
Attachment
Window
Solutions



Foodservice
Water
Heating
Systems



Commercial
Building
Efficiency
Accelerator

2025

- Approved/
conditionally
approved by CPUC
Decision
- In market in 2026

2026

- Preparing for submission via
CPUC application in Q2

2027

- Preparing for
submission after
next application
decision

Section 2.1

Initiatives

Entering the Market

Alex Wurzel, Program Manager

Clarissa Kusel, Program Manager



Room Heat Pumps MTI approved for implementation



- CPUC approved Room Heat Pumps MTI for market deployment via [Decision 25-11-023](#) in November 2025.
- Decision approved \$43.7M budget, funding MTI to 2031.
- Room Heat Pumps Implementation RFP:
 - Released December 4
 - Closed January 30
- **Expect to be in market by end of 2nd quarter 2026**

Room Heat Pumps outreach RHP Collaborative



- Inaugural year summary:
 - Four virtual meetings
 - Two in-person meetings at industry conferences: ACEEE, CEE
 - 64 members across 35 organizations
- Last RHP Collaborative meeting on Dec. 12
 - Key learnings:
 - Support for deemed measure development
 - Window data very desired
 - Collaborative is highly valuable to members



Room Heat Pumps outreach RHP Collaborative (cont.)



- 2026 will bring further growth for the collaborative. Planned activities include:
 - Labeling, education, and tools for consumer awareness-building
 - Support for program via measure development and pilot learning
 - Working groups to supplement quarterly meetings
 - Membership recruitment and development of support tools.
- Contact Jaclyn Kahn to learn more: jkahn@calmta.org



Room Heat Pumps Window Stock Study

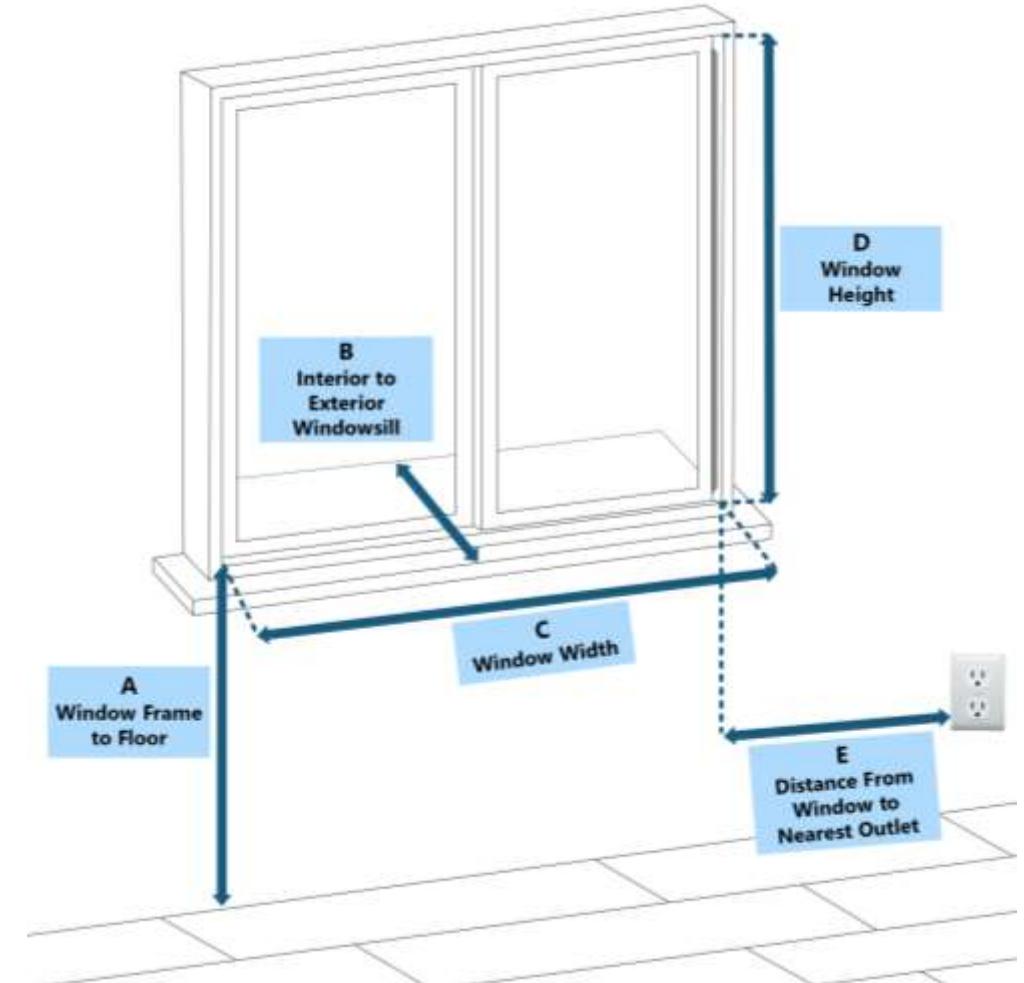


- Window Stock Study published in Dec. 2025
- Documents the inventory of horizontal sliding window stock in multi-family and single-family homes
- Key findings:
 - 50-62% of windows are horizontal-sliding in bedroom and living spaces
 - Horizontal-sliding only:
 - Single-family: Living room - 34%; bedroom - 45%
 - Multi-family: Living room - 41%; bedroom - 54%
 - Supports need for new form factor California market
 - Window measurement collected for dimension specification

Room Heat Pumps Window Stock Study



Measurement	Finding
Distance to outlet	90% of responses within 4 feet
Floor-to-window distance	69% of responses 20 inches or more
Interior-to-exterior wall depth	61% between 3 and 8 inches
Horizontal window width	50.1% of responses are 3 feet wide or more
Horizontal window height	70.6% of responses are 2 feet high or more



Room Heat Pumps

Lab testing



- [CalMTA Room Heat Pump Lab Testing Report](#) published in Dec. 2025
- Key findings include:
 - RHP efficiency exceeds electric resistance heat at coldest temperatures tested
 - Fixed-speed tests confirmed manufacturer efficiency claims
 - Fixed-speed and load-based showed similar efficiencies at near full-load operation
 - Type 3 and 4 demonstrated similar efficiency under load-based testing consistent with California climate zones
 - Type 3 more cost-effective for California

Induction Cooking



Induction Cooking MTI Plan conditionally approved



- The CPUC granted conditional approval for the Induction Cooking MTI via [Decision 25-11-023](#) in November 2025.
- Next steps:
 - Update MTI Plan to focus on 120V induction technologies, with or without battery back-up
 - Submit a Tier 2 Advice Letter by April 3, 2026
 - Emphasis on environmental and social justice (ESJ) communities

Induction Cooking outreach

Let's Connect Event - October 2025



- **Event overview:** Chapter meeting, exclusive pricing tiers from manufacturers, industry market intelligence and a vendor showcase
- **Manufacturers:** GE, LG, Frigidaire, Summit Appliance, Danby, Samsung, Thor Kitchen, Electrolux
- **Learnings:** How midstream incentives can support induction, trends towards induction, how manufacturer representatives discuss induction and pricing



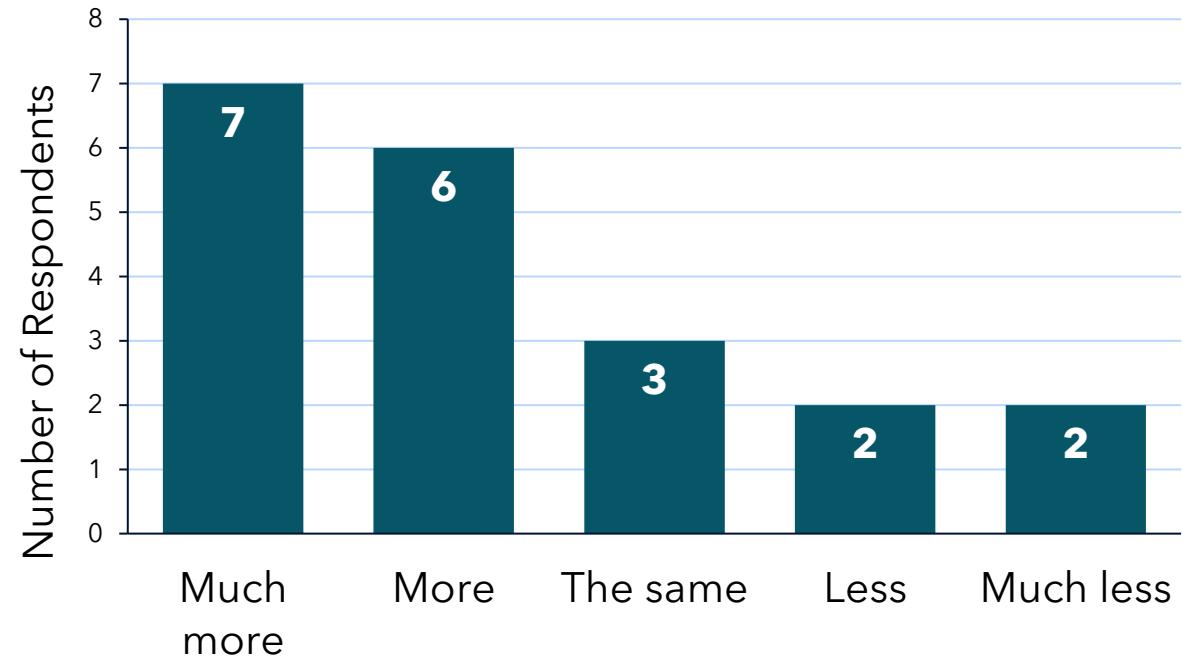
Pictured left to right: Elaine Miller (CalMTA), Alex Flores (Executive Director, United Stores), Manny Meraz (Director of Member Services, United Stores), Frank Sandtner (Senior Director of Business and Financial Services at Nationwide Marketing Group), Clarissa Kusel (CalMTA)

Induction Cooking research 120V report findings

- Battery capacity was sufficient for almost all cooking needs
- When used together, oven and cooktop required higher power output
- A slightly smaller battery may be possible, but with tradeoffs
- Cooking habits vary - but more cooktop hobs in use don't necessarily mean higher power
- Learning curve can be eased by support and education



Satisfaction with induction compared to previous range



CalMTA Copper Eden Housing Qualitative Survey Question 33: "How satisfied are you with this range relative to your previous gas range?" (n=20)

Read the final [field study report](#)

Induction Cooking and RHP research ENERGY STAR Retail Products Platform (ESRPP) retailer feedback



- Overall sales of induction rising
- Increase in more affordable induction models
- Started pilot with one partner to understand roles matching CalMTA SPIFFs with manufacturer SPIFFs
- Retailers are interested in continuing engagement and bringing RHPs into retail channel



Questions?

Section 2.2

Forming Initiatives

Nick Fiore, Program Manager

Clarissa Kusel, Program Manager

Simone Cobb, Program Manager



2025-2026 Timeline

Learn more: [*Idea to Initiative*](#)

Commercial Rooftop Units

Part 1

- Logic Model
- Market Transformation Theory
- Market Characterization

August

Part 2

- Market Progress Indicators & Milestones
- Product Assessment

September

Part 3

- Total System Benefit & Cost Effectiveness
- Evaluation Plan
- Draft Market Transformation Initiative Plan & Appendices

November

Part 1

- Logic Model
- Market Transformation Theory
- Market Characterization

November

Part 2

- Market Progress Indicators & Milestones
- Product Assessment

January

Part 3

- Total System Benefit & Cost Effectiveness
- Evaluation Plan
- Draft Market Transformation Initiative Plan & Appendices

March/April

Residential Heat Pump Water Heating & Commercial Replacement & Attachment Window Solutions

Commercial Rooftop Units (CRTUs)



Targeted CRTU product



Single-zone **heat pump** RTU with 3-20 tons of cooling

Connected Controls and Commissioning (CCC)

- Application-based startup and commissioning
- Automated fault detection and diagnostics (beyond Title 24)
- Remote connection
- Demand response

Exceed federal minimum cooling efficiency by at least 20%



CRTUs 4th quarter progress



- ***Idea to Initiative Part 3:*** Presented key portions of the forming CRTUs MTI plan at the [November 12 MTAB meeting](#)
 - Topics included: Total System Benefit (TSB), cost-effectiveness, and the Evaluation Plan
- ***MTI Plan draft released*** for MTAB and public review in December 2025

Next steps in the 1st quarter 2026



- Respond to MTAB and public feedback on [CRTUs MTI Plan](#)
- MTAB feedback and CalMTA's responses will be added to MTI Plan as Appendix I
- Finalize MTI Plan and prepare to submit to CPUC via an Application in the 2nd quarter
- Attend Air Conditioning, Heating and Refrigeration (AHR) Expo and continue RTU market engagement

Commercial Replacement and Attachment Window Solutions (CRAWS)

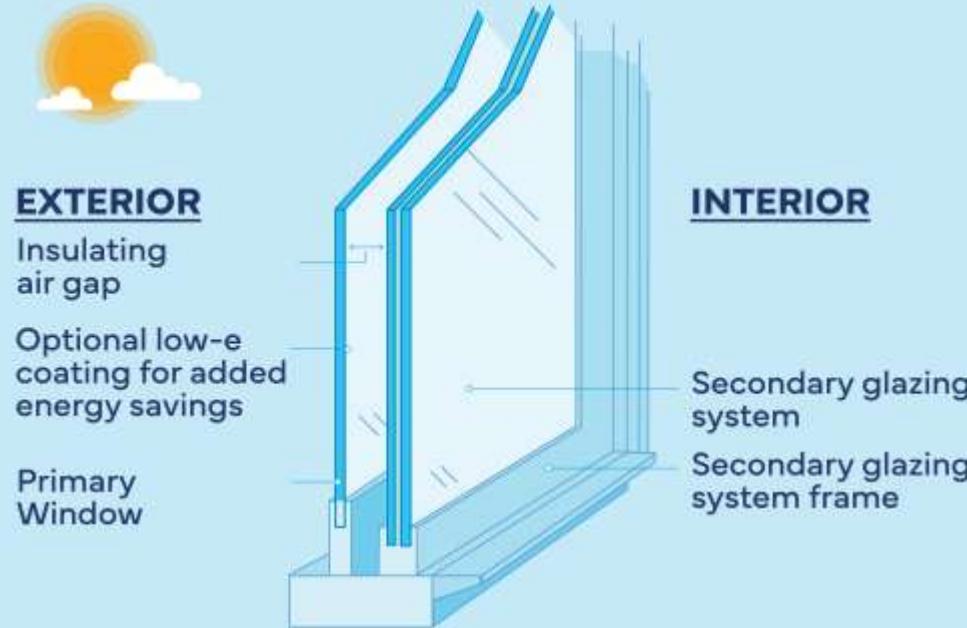


CRAWS technologies

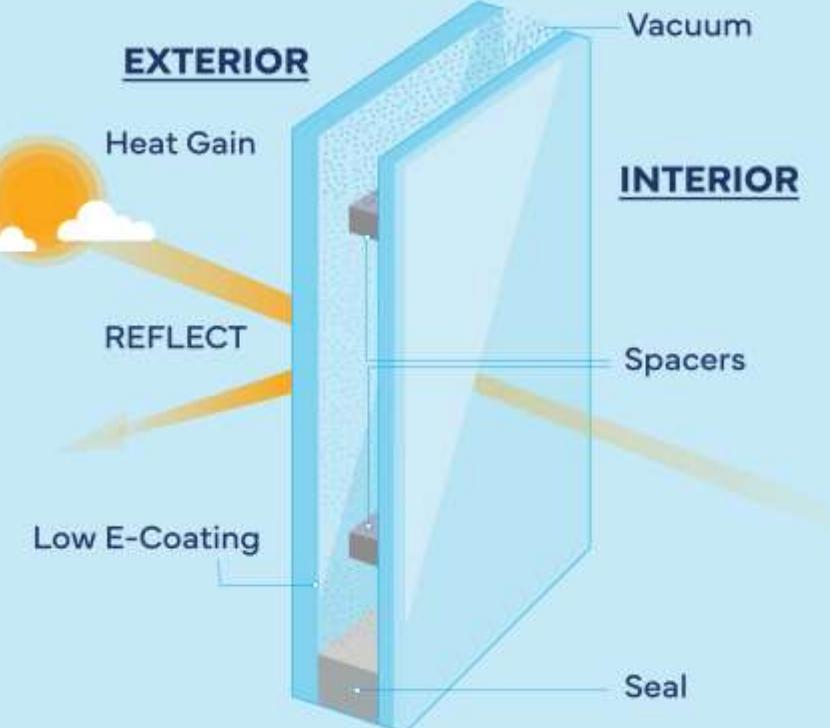


COMMERCIAL REPLACEMENT AND ATTACHMENT WINDOW SOLUTIONS

COMMERCIAL SECONDARY WINDOW



VACUUM INSULATED GLASS FOR SINGLE PANE REPLACEMENT



CRAWS 4th quarter progress



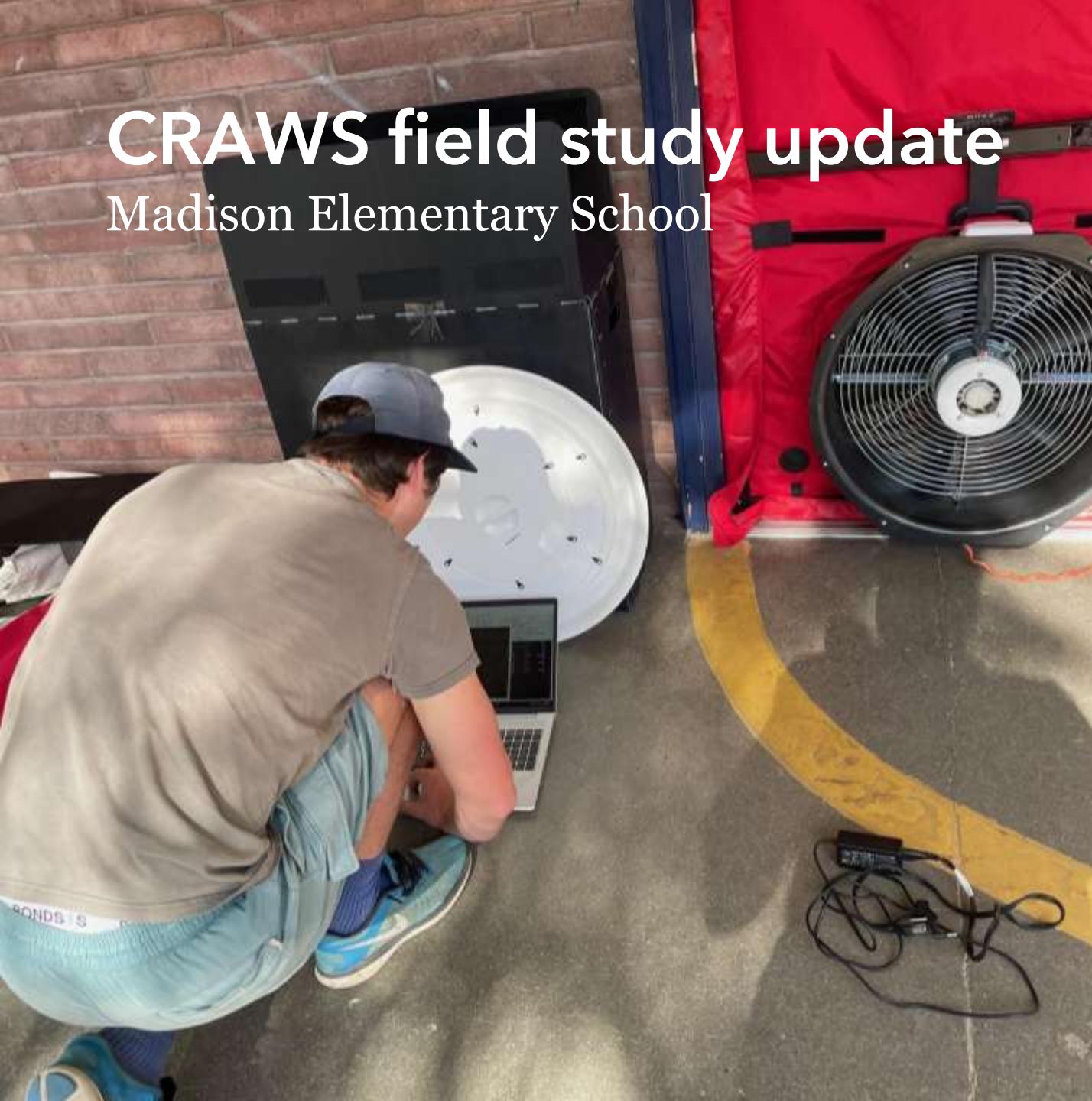
Idea to Initiative Part 1: Presented key portions of the forming CRAWS MTI Plan at the [November 13 MTAB meeting](#)

- Logic Model and MT Theory: Analysis on the interventions needed to remove barriers, expected outcomes of those interventions, and a pathway to the desired end-state
- Market Characterization Report: Key findings from the market research that informed the logic model and MT Theory development

Developed Product Assessment Report and drafted Market Progress Indicators (MPIs)

CRAWS field study update

Madison Elementary School



Lawrence Berkeley National Lab (LBNL) performed testing related to infrared (IR) thermography, irradiance, and glare

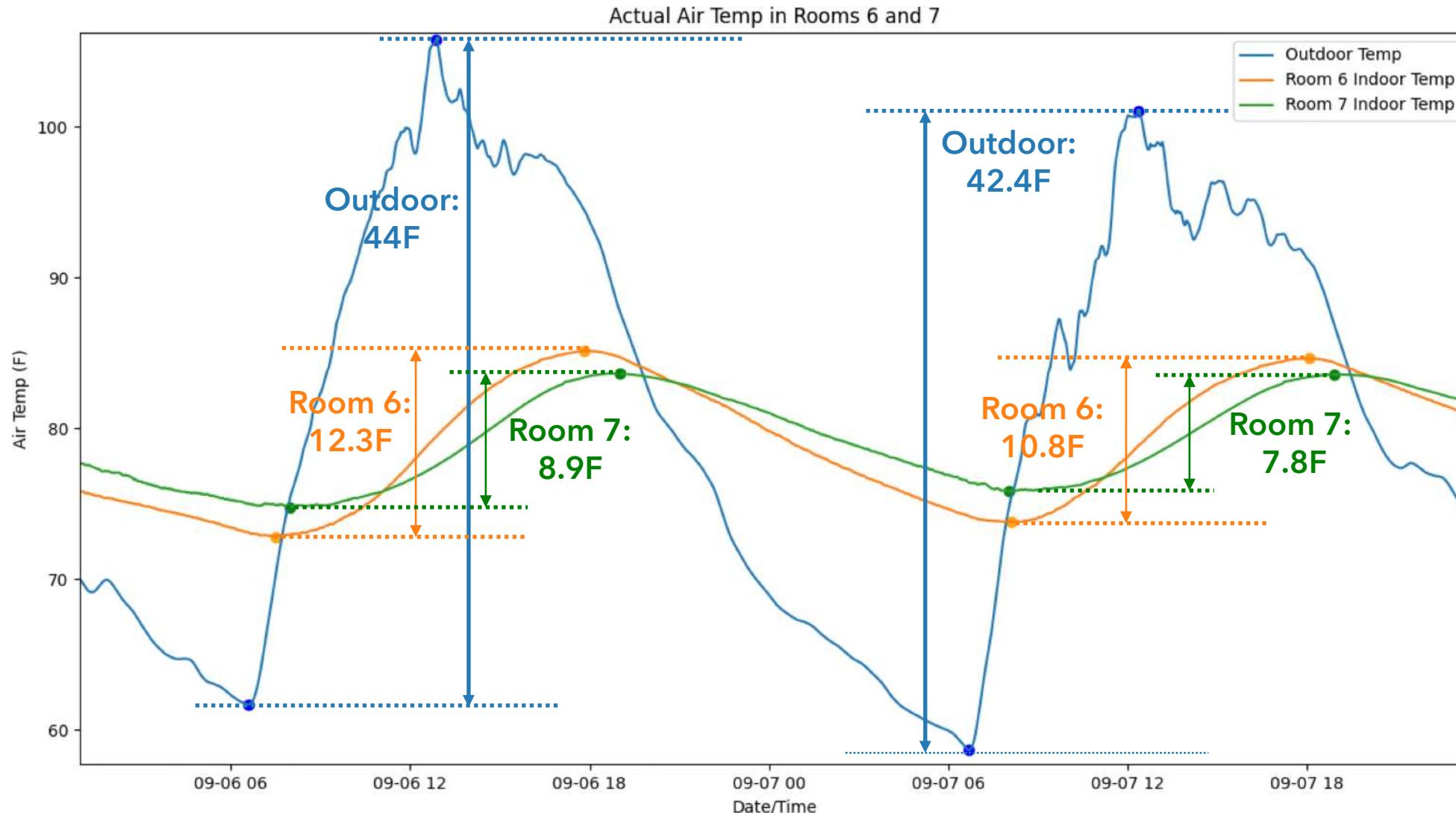
Survey conducted with teachers to understand impact of non-energy benefits (NEBs) on staff and students

Ongoing classroom data collection includes:

- Electricity and gas usage
- Air temperature and quality
- Door opening cadence

CalMTA is a program of the California Public Utilities Commission and is administered by Resource Innovations.

Isolated window performance data



"Isolated window performance" data is taken from weekends, which have no HVAC use, occupancy, or door openings.

A representative weekend (Sept. 6th and 7th) is shown to the left.

CRAWS

Next steps in 2026



- Continue data collection at field study site at Madison Elementary
- Finalize and publish the CRAWS Market Characterization Report
- ***Idea to Initiative*** sharing, including the following topics:
 - Part 2 - Market Progress Indicators & Milestones, and Product Assessment (Jan. 29 MTAB meeting)
 - Part 3 - TSB, cost-effectiveness, Evaluation Plan and draft MTI Plan (April MTAB meeting)
- Prepare to submit MTI Plan to CPUC via an Application in the second quarter

Residential Heat Pump Water Heating (HPWH)



Residential HPWH 4th quarter progress



Idea to Initiative Part 1: Presented key portions of the forming Residential HPWH MTI Plan at the [November 13 MTAB meeting](#)

- Logic Model and MT Theory: CalMTA's understanding of the interventions necessary to remove barriers, expected outcomes of those interventions, and a pathway to the desired end state
- Market Characterization Report: Key findings from the market research that informed the logic model and MT Theory development

Developed Product Assessment Report and drafted Market Progress Indicators (MPIs)

Residential HPWH

Next steps



- Finalize and publish the Market Characterization Report
- ***Idea to Initiative*** sharing, including the following topics:
 - Part 2 - Market Progress Indicators & Milestones, and Product Assessment ([Jan. 29 MTAB meeting](#))
 - Part 3 - TSB, cost-effectiveness, Evaluation Plan and draft MTI Plan (upcoming March MTAB meeting)
- Prepare to submit MTI Plan to CPUC via an Application in the 2nd quarter



Questions?

Section 2.3

Initiatives in Development

Simone Cobb, Program Manager



Foodservice Water Heating Systems



Foodservice Water Heating Systems 4th quarter accomplishments



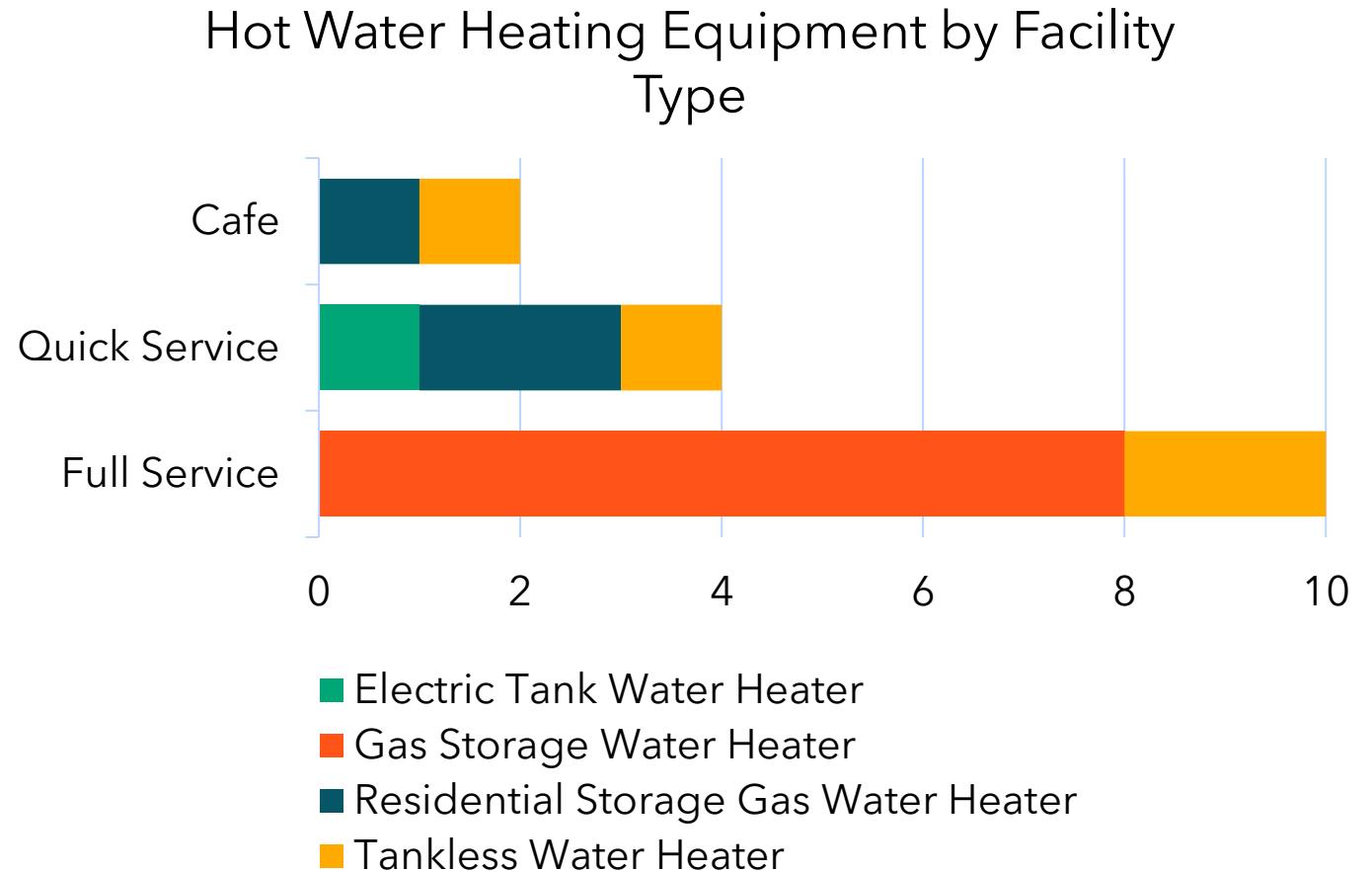
- Completed **site survey** at foodservice establishments across California and began analyzing results
- Purpose of the research:
 - Establish baselines: Collect field data on hot water systems, equipment, and end uses across café, quick-service, and full-service restaurants in California
 - Identify market opportunities: Use baseline data to assess technical, economic, and market readiness challenges and opportunities for transformation
 - Support market transition: Highlight conditions under which HPWHs could become a standard technology choice

Foodservice Water Heating Systems

Site survey key takeaways



- Majority of sites (15 of 16) used natural gas-fired hot water heating systems; combination of tank style and tankless systems
- Tankless systems were seen across all subsectors
- Dishwashing machines were not reported in any of the quick service facilities, but were present at full-service facilities and one café



Foodservice Water Heating Systems

Site survey key takeaways (cont.)



- Most sites reported adequate ventilation and/or proximity to exterior access, enabling consideration of either an integrated HPWH or split system installation
- Rated panel capacities across the 16 sites varied from 100 amps to 600 amps; nine of the 16 reported a 208/120 VAC service
 - Based on the site surveys, a valid presumption can be drawn that electrical infrastructure considerations are likely more impactful for HPWH adoption opportunities compared to space or ventilation requirements

Foodservice Water Heating Systems

Next steps in the 1st quarter



- Leverage site survey findings and begin developing Product Assessment Report
 - Complete lab load shifting testing data analysis and develop the final report
- Complete interviews and surveys with foodservice owners and regulators to understand decision-making processes



Commercial Building Efficiency Accelerator (CBEA)



CalMTA is a program of the California Public Utilities Commission and is administered by Resource Innovations.

4th quarter progress

- Market research is underway:
 - Researchers developed an interview guide and initiated the first round of market observer interviews with key building decision-makers
 - Primary objective is to identify and understand financial strategies commonly used when investing in existing commercial buildings
 - What financial strategies are common across owners?
 - What is known about which owners use which kind of strategies?

CBEA Outreach activities



- Met with the CEC and discussed potential areas of alignment between CBEA and the forthcoming BPS
- Engaged with organizations (e.g. USGBC, NEEA)
 - Findings indicate that building decarbonization is increasingly the standard way of thinking within the energy efficiency industry
- Evaluated and met with companies developing financial tools for building owners to understand:
 - Core features and gaps
 - Opportunities to improve usability and outcomes
 - **Key takeaway:** Strong need for a specialized tool and AI powered functionality



Next steps in 1st quarter

- Analyze market observer interview responses and synthesize insights into a key findings report to inform the next phase of research
- Initiate assessment of the market landscape, including baseline market conditions
- Complete literature review of existing commercial building stock data, metrics collected, building segments covered, and accessibility of the data





Questions?

Section 2.4

Open RFI & Technology Scanning

Rick Dunn, Senior Manager,
Emerging Technology



Technology scanning and screening



Completed research on Industrial Heat Pumps (IHPs) and Limestone Calcined Clay Cement (LC3) markets and technology readiness to inform potential future MTI development.

Limestone Calcined Clay Cement

- The business case for LC3 requires analysis of the impacts of switching raw materials AND fuel-switching savings
- Next steps:
 - Address threshold questions relating to policy drivers, regulatory hurdles, current fuel-use practices and application-specific product suitability
 - Engage with ACEEE regarding potential collaboration on threshold questions and other research

More background presented at the Jan. 29 MTAB meeting.

Technology scanning and screening



Industrial Heat Pumps

- Completed Phase 1 TSB estimate based on high-temperature heat pump and steam-generating heat pumps applications
- Identified CA beachhead markets
- Next steps:
 - Develop Phase 1 estimate of TRC and PAC
 - Identify threshold research topics to be addressed prior to advancement plan commitment.



More background presented at the [Jan. 29 MTAB meeting](#).

Request for Ideas (RFI) Portal



- Permanently open [RFI portal](#) enables interested parties to share recommendations for energy-efficient products and practices to be considered for MT development year-round.
- The [All Submitted Ideas Dashboard](#) includes all previously submitted ideas to date, their descriptions and status.
- 138 MT ideas submitted to date

Open RFI Portal submissions



Received one idea submission via the CalMTA Idea Portal:

IDEA-0234 - Updated EndoTherm / Hydronic Additives Idea

- Update of previously submitted IDEA-0100
- No new data to modify savings estimates, only validation of previously submitted performance data
- Idea 0234 was combined with 0100 and status is archived at Stage 1



Questions?

SECTION 03

Operations & Administration

Stacey Hobart, Principal of
Engagement & Communications



Operations and administration highlights



- **Organizational Review**

- Selected contractor to conduct an Organizational Review
- Executed contract and kicked off the project
- Report expected to be complete in the 2nd quarter

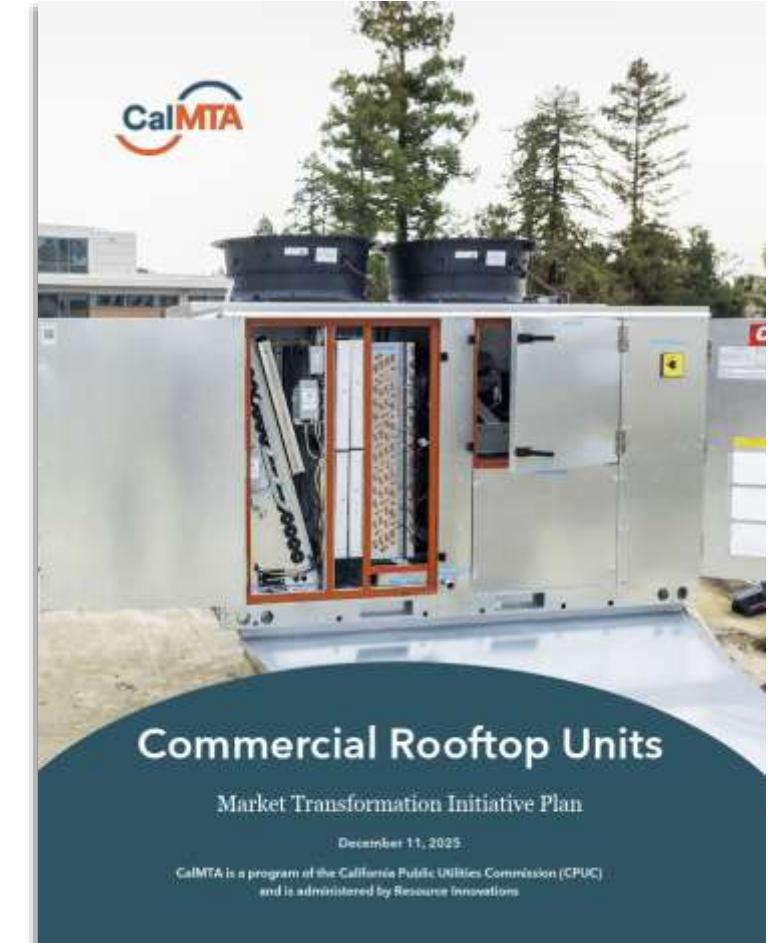
- **MTAB meetings**

- Nov. 12 & 13: Held in-person meeting in San Francisco
- Coming up in 1st quarter:
 - Jan. 29 in-person meeting in Oakland
 - March 5 & 25 virtual meetings

Published plans and reports



- [California Window Stock Study Report](#)
- [Room Heat Pumps Lab Testing Report](#)
- [Draft CRTUs MTI Plan](#)
- [Room Heat Pumps MTI Plan Overview](#)
- [Induction Cooking MTI Plan Overview](#)
- [3rd quarter activity report webinar](#)



CalMTA in the news ...



Secured positive media coverage of the CPUC Decision approving California's first MTIs across multiple reputable news organizations, including:

- **Bloomberg news** - [California Wants Residents To Have Cheap Heat Pumps and Electric Stoves](#)
- **Canary media** - [California's plan to boost plug-in heat pumps and induction stoves](#)



Outreach highlights

Engagement activities



CalMTA engaged with key stakeholder groups and shared information about our work across multiple channels in the 4th quarter:

8
conferences and
industry events
attended

2
days of MTAB
meetings held

1
quarterly reporting
webinar

5
blogs and news
items shared

9
email
newsletters
distributed

196
engagements with
programs and
market actors

Applying our equity lens



- **Consulting sessions with Equity Sounding Board members** provided valuable insight into:
 - leveraging informal networks,
 - potential biases in research, and
 - the redesigned Induction Cooking MTI
- An October Equity Sounding Board meeting garnered **input on equity-focused CRTU MTI MPIs/milestones**
 - Builds on internal guidance on integrating equity into MTI research, logic models, and strategic interventions

Tracking our impact

Equity Sounding Board year-end survey



Equity Sounding Board met for a **year-end workshop designed to yield insight into members' experience**. Included a follow-up survey to gather other feedback.

ESB members expressed strong appreciation and satisfaction with serving on the board in 2025. All respondents rated the structure and content of both meeting and consulting hours as "very good."

Opportunities for improvement:

- Greater visibility into how input is used
- More real-world examples of MTI impact

"It meant a lot to be part of a space where community voices were welcomed and taken seriously. Continuing to create open, respectful dialogue and grounding the work in real community experiences will keep strengthening the impact of the Equity Sounding Board."

- survey respondent



Questions?

SECTION 04

Financial Reporting

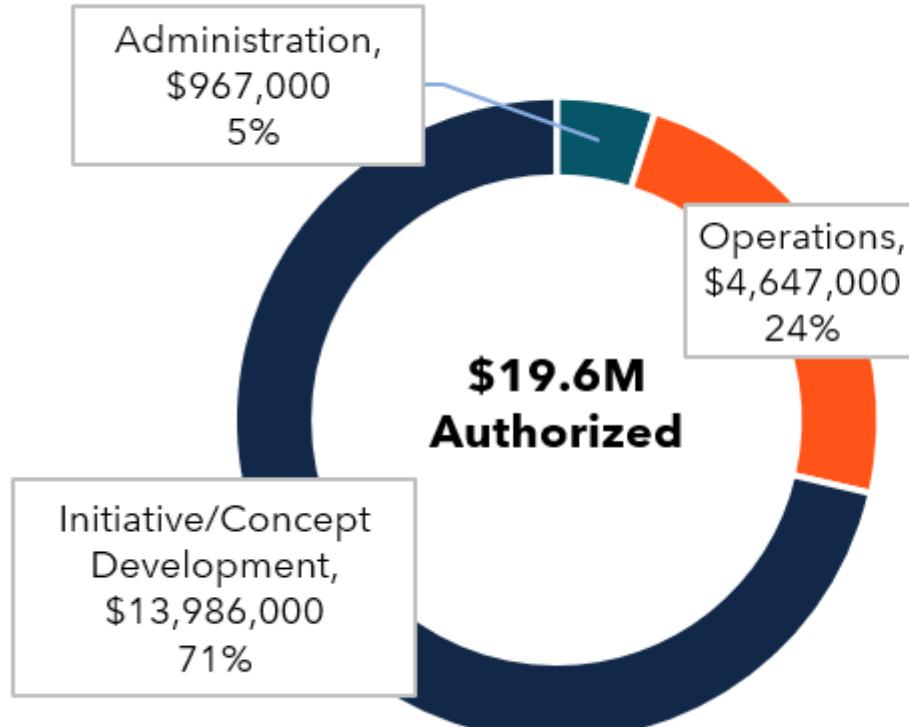
Jim Giordano
Principal of Operations



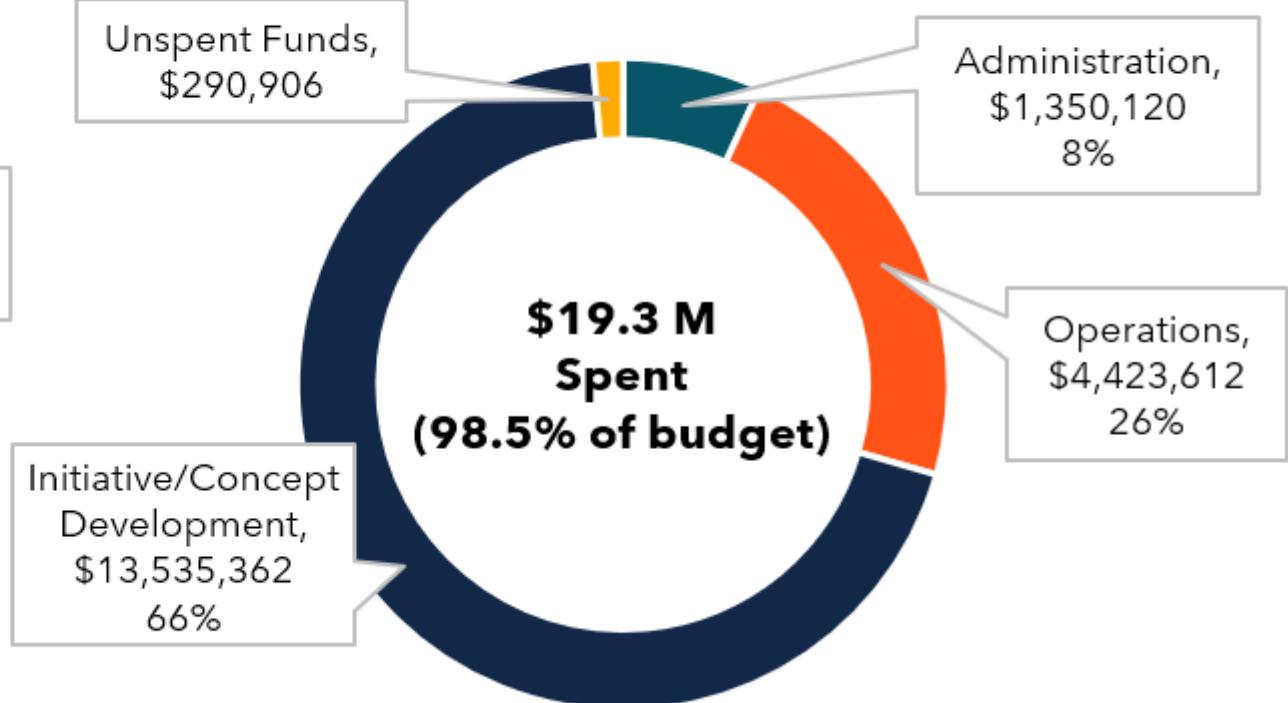
Full-year expenditures by cost category



ABAL Budget Allocations



Final Expenditures



Higher admin. costs required fund shifts



- Non-routine Administration and Policy costs in support of the Application proceeding and associated data requests exceeded our planned budgets
- Shifted a total of \$384,323 from the other two cost categories to cover higher admin. costs:
 - Moved \$88,144 from Operations to Admin.
 - Moved \$269,179 from Initiative/Concept Development to Admin.
- Total admin. spending still only 8% of total budget

Spending detail:

Administration, Operations, Initiative/Concept Development



Cost Category/Major Activity	ABAL		Final Spend	% of Ops Plan Budget Spent
	Budget Estimates	Ops Plan Budget		
Administration	\$ 967,000	\$ 1,163,323	\$ 1,350,120	116%
Routine Admin	\$ 674,000	\$ 823,101	\$ 796,196	97%
Non-Routine Admin	\$ 293,000	\$ 340,222	\$ 553,924	163%
Operations	\$ 4,647,000	\$ 4,596,856	\$ 4,423,612	96%
Proj. Mgmt.	\$ 683,000	\$ 776,436	\$ 889,074	115%
MTAB Operations	\$ 351,000	\$ 301,000	\$ 264,921	88%
Policy	\$ 649,000	\$ 521,267	\$ 745,115	143%
Stakeholder Engagement	\$ 2,404,000	\$ 2,627,152	\$ 2,189,258	83%
Data Systems Develop. & Mgmt	\$ 560,000	\$ 371,000	\$ 335,243	90%
Initiative/Concept Development	\$ 13,986,000	\$ 13,839,821	\$ 13,535,362	98%
Phase I - Concept Development	\$ 2,060,000	\$ 2,068,129	\$ 1,672,071	81%
Phase II - Initiative Development	\$ 11,926,000	\$ 11,771,692	\$ 11,863,291	101%
Totals	\$ 19,600,000	\$ 19,600,000	\$ 19,309,094	98.5%

Spending detail: Concept Development (Phase I)



Concept Development Activity	ABAL		Ops Plan Budget	% of Ops Plan	
	Budget	Estimates		Final Spend Amount	Budget Spent
Technology Scanning and Research	\$ 614,815	\$ 614,815	\$ 614,815	\$ 622,093	101%
Prelim. Analysis, Modeling & Forecasting	\$ 576,315	\$ 576,315	\$ 576,315	\$ 386,750	67%
Advancement Plan Development	\$ 877,000	\$ 877,000	\$ 877,000	\$ 663,227	76%
Totals	\$ 2,068,129		\$ 2,068,129	\$ 1,672,071	81%

Spending detail: MTI Development (Phase II)



MTIs in Phase 2	ABAL		% of Ops Plan	
	Budget Estimates	Ops Plan Budget	Final Spend Amount	Budget Spent
Induction Cooking	\$ 1,584,000	\$ 2,126,535	\$ 1,985,994	93%
Room Heat Pumps	\$ 1,132,000	\$ 1,352,799	\$ 1,454,035	107%
Commercial Rooftop Units	\$ 1,008,000	\$ 1,789,000	\$ 2,171,583	121%
Efficient Streetlighting ¹	\$ 1,495,000			
Comm. Replacement/Attachment Wind	\$ 2,060,000	\$ 2,279,000	\$ 2,209,132	97%
Food Service Water Heating Systems	\$ 1,877,000	\$ 1,278,042	\$ 1,493,645	117%
Residential Heat Pump Water Heating	\$ 1,563,000	\$ 2,027,316	\$ 2,194,194	108%
Comm. Bldg. Efficiency Accelerator ²	\$ 1,207,000	\$ 919,000	\$ 354,708	39%
Totals	\$ 11,926,000	\$ 11,771,692	\$ 11,863,291	100.8%

¹ Efficient Streetlighting did not advance. Budget was reallocated to other initiatives.

² Budgeted as "MTI#8:Batch 3 MTI" in the Advice Letter



Questions?

Transformative Energy Solutions for the public good

Market transformation is a proven approach that works to remove market barriers so that energy efficient, equitable, and climate-friendly approaches become the new standard practice for all Californians.

Sign up for updates at: calmta.org/subscribe/

Questions? Email info@calmta.org

Follow us on
LinkedIn:

