Draft MTAB Meeting Notes

January 29, 2026
Virtual and In-Person Meeting

Welcome, Agenda & Conflict of Interest Declarations

Stacey Hobart opened the meeting by introducing MTAB members and reviewing CalMTA's internal and MTAB conflict of interest policies. There were no disclosures.

She then asked MTAB members for any comments regarding draft notes from the previous meeting (11/12-13). Fred Gordon mentioned several editorial updates for improved clarity of several bullets in the notes. Those updates have been made but documentation of the discussion points made have not changed.

Phase I MT Ideas: Industrial Heat Pumps & Low Carbon Calcined Clay Cement

Rick Dunn introduced the discussion of ideas currently in consideration for advancement, clarifying the process by which ideas are scored and prioritized. Corey Luker then presented the Industrial Heat Pump idea, including a technology overview, market opportunities (including potential beachhead markets), and preliminary Total System Benefits (TSB) analysis.

MTAB questions and comments related to this idea included:

- Are the targeted technologies mostly custom designs or standard? This would help clarify whether the MT approach will target upstream interventions or will need to address many one-off retrofits.
    - Corey replied that there is a wide spectrum of industrial heat pump design, ranging from fully packaged to one-off engineering-specific designs. The use of waste heat, a beneficial feature that dramatically improves efficiency, as a requirement is often what requires a more customized approach.
    - Rick added that this is an established market where some barriers have already been addressed, but opportunities still exist to create case studies that instill confidence in the technology and to create pathways toward adoption. There is more work to do on validating the performance of the technology and making it applicable for California, which will not happen organically without structured market transformation (MT) interventions.
- Are there specific end-uses or use cases that would be well-suited to a non-custom solution, as this might be an easier area to target?
    - Rick said this is something to explore in the next phase of development as part of efforts to identify beachhead markets for this technology.

- Will this make economic sense for facility operators? What is the customer payback? Even if the technology saves energy and has a positive TSB, customers won't necessarily see bill savings.
    - Corey confirmed that looking at cost-effectiveness at every level will be a next step if this idea moves forward. CalMTA's initial assessment indicates that there is a high upfront cost at this point but good lifecycle savings from improvements in efficiency.
    - Rick added that dairies and breweries have come up as market segments with a greater return-on-investment at this stage, but more analysis is needed.
- Thermal storage is similar to this technology in terms of functionality. How do industrial heat pumps compare competitively and what is the cost-effectiveness for the operator? There is a lot of variation with rate structures and industrial processes can have a high cost.
    - Rick said that this assessment will be a key next step – determining where we could scale demand and adoption in specific segments to bring costs down.
    - Corey noted that thermal storage can actually work with industrial heat pumps, so these are more complementary than competing technologies.
- What market-level differences between Europe and the U.S. have driven greater adoption in the former – different fuel mix, regulatory barriers, costs?
    - Corey replied that the spark gap/higher cost of natural gas in Europe is likely a significant driver there. Favorable regulation and policy play a critical role.
- Many high-tech manufacturers have greenhouse gas (GHG) emissions reduction goals and in the Northwest, this has led them to adopt electric resistance boilers – switching to industrial heat pumps would make good economic sense in these cases. It might be worth exploring this segment in California and looking at the role of industrial heat pumps in helping to meet corporate emissions goals.
    - Rick agreed and added that the team had also discussed looking at European-owned businesses in the U.S. (e.g., pharmaceutical), as their goals align with the European market despite site location.
- CalMTA could look at industrial heat pumps as a dual-fuel solution and not a complete substitute. Other entities in the Northwest have staged boiler replacements in a way that enables them to run the industrial heat pump for the base load without investing capital in every aspect needed to fully decarbonize their equipment, which maximizes economics and enables load-shifting.
- The benefits of this technology are almost entirely based in carbon emissions reductions, which links to rate impacts. CalMTA should track and explore this potential.
- Support was expressed for having industrial-focused applications in the MTI portfolio.
- The technology is promising but rate structure seems like a key barrier, and this is a very challenging issue that could limit the MTI's prospective success. If CalMTA's assessment indicates that rates won't be a major barrier or identifies other ways to address this issue, the idea would be more strongly supported.

- CalMTA should engage with firms like Bosch about what factors impact equipment decisions, since they have a strong presence in the U.S. but are Europe-based.

Rick asked MTAB members to rank their overall excitement about this idea by green (excited), yellow (neutral or unsure), or red (no way). Four members selected yellow; two opted for green. Most MTAB members who selected yellow indicated this was due to needing more time or information to assess.

Marcus Dimeo provided an overview of the Low Carbon Calcined Clay Cement (LC3) idea, including rationale for CalMTA's interest in this idea, technology description and benefits, and potential market opportunity and challenges.

MTAB questions and comments included:

- If most available data is from 2019, is CalMTA confident that cement plans are still burning coal, tires, and other fossil fuels?
    - Marcus confirmed that conversations with ACEEE, who conducted much of the market analysis, indicate that this continues to be the case, but CalMTA has been discussing opportunities to update this data in collaboration with ACEEE.
- Are cement plants subject to cap-and-trade; how does that factor into this analysis?
    - Marcus stated he was not sure how this applies to cement plants specifically but will explore further.
- If the California Air Resources Board (CARB) mandated a reduction in GHG emissions equivalent to what this technology would achieve, market transformation might not be needed – the market would move in that direction to comply.
- Cap-and-trade might be a more cost-effective way to accelerate adoption of this technology than MT. There are already conversations happening across the state about how to support the transition; CalMTA should investigate this potential approach further.
    - Rick agreed to the importance of investigating multiple drivers. He noted that plants are already investing in carbon sequestration, so there are different economic streams to explore.
- Are there cement manufacturers nationally who are already working on these products? Are the firms that produce these products national or local?
    - Marcus said that the active plants represent a mix of factors. CalMTA looked at federal grants to help identify plants that were approved for funding for retrofit opportunities and had LC3 as part of their plan.
- Are there competing blended cement solutions and how does LC3 compare?
    - Marcus replied that CARB outlines several blended cement products that could be used. CalMTA is looking into clay/LC3 specifically because of the lower temperature required to heat it, which promotes efficiency and yields heat savings, and because it is an abundant resource.

- In developing strategic interventions, CalMTA should emphasize which entities in California would be purchasing this product. CalTrans hasn't yet approved this material so it is worth understanding how to make sure vendors will accept it.
    - Rick clarified that CalTrans was not opposed to using the product, but that substantial testing was still needed to determine applications and where in the portfolio it fits as a plug-and-play solution.
- How does this fit into the broader context of MT if there are only seven plants in California to influence? Will the MTI make sense if these impact adoption nationally?
    - Jeff Mitchell agreed that it would be difficult to move the market without the MT because of the small number of end-users.
    - Rick added that this small pool posed greater risk for MT but also more potential impact and quicker path toward a transformed market.
- If the current fuel being replaced is coal but CalMTA is funded by electric and gas utilities, how will this work from a funding perspective?
    - Rick noted that SoCalGas has been interested in this technology and was exploring investing in this as a decarbonization solution.
    - Jeff added that converting a customer from coal to natural gas would yield significant environmental benefits.

Rick asked MTAB members to rank their overall excitement about this idea by green (excited), yellow (neutral or unsure), or red (no way). All MTAB members selected yellow.

CRAWS: Product Assessment

Stacey shared an overview of CalMTA's MTI Plan components and the Idea to Initiative process used to preview key aspects with MTAB prior to plan finalization.

Brian Meinrath then presented CalMTA's Product Assessment for the Commercial Replacement & Attachment Window Solutions (CRAWS) MTI, including the product definition, technical barriers and opportunities, competitive landscape, energy policy landscape, and preliminary findings from CalMTA's field study.

MTAB feedback included:

- What strategies could influence better incorporation of non-energy benefits (NEBs) into California's energy efficiency portfolios? Being able to quantify and count NEBs in these terms would be very useful including to be accounted for in some cost-effectiveness tests.
    - Rick replied that there are three target audiences impacted by NEBs, including policymakers who determine how NEBs can be counted in cost-effectiveness calculations. The other target audiences are financial (banks, ESCOs, insurance) and consumers. From a policy perspective, the California Energy Commission and others are already exploring work to quantify and monetize NEBs.

- There is consideration of NEBs in current regulatory conversations, especially for ESJ communities, and some flexibility exists to include these in cost-effectiveness tests like TRC. The ultimate decision lies with the committees overseeing these metrics.
- In developing strategic interventions for this MTI, CalMTA should address the fact that window upgrades are often motivated by factors beyond energy efficiency.
- In terms of cost-effectiveness tests, PAC has always been, on paper, of equal value to TRC, but has often been the threshold for evaluating ratepayer-funded programs. Highlighting PAC and Ratepayer Impact Measure (RIM) results may help convey the value of this MTI to ratepayers.
- Ultimately, CalMTA's work should ensure that there is a strong value proposition to guide customers who have to choose between CSW and primary replacements.

CRAWS: Logic Model Review, Market Progress Indicators (MPIs) & Milestones

Rick Dunn then presented a snapshot of the CRAWS logic model as a foundation for understanding the MPIs and milestones used to evaluate impacts of the MTI. Jun Suzuki presented CalMTA's MPI and milestone development process before sharing the proposed metrics that would be tracked and reported on for the CRAWS MTI.

MTAB feedback included:

- When quantifying NEBs, it would be useful to know which of them customers care about and value in their decision-making process.
- While the MTI itself is compelling, there are some concerns about how impact is being measured and whether this poses a risk for CalMTA. Inclusion in utility efficiency programs is a challenging metric since there are increasingly few HVAC programs due to cost-effectiveness challenges. On the ESCO side, creating demand will be critical – customers need to want the measure to be included regardless of payback; if they do, ESCOs will include it.
- CalMTA should think strategically about the timing of specific MPIs. Building awareness at the relevant moment is critical to its market impact – unlikely to drive adoption without awareness-building first.
- The MTI logic model and MPIs are extremely well-thought-out and clearly linked to market characterization research.
- Milestones regarding inclusion of CRAWS in California programs will be challenging and may not be possible. CalMTA should scale back the target or make sure MTI success doesn't depend on this.
- CalMTA should look closely at synergies with the Commercial Building Efficiency Accelerator (CBEA) and specifically incorporation of CRAWS in capital planning.
- As this technology relates to HVAC optimization, HVAC market actors make profits from selling more tonnage, so getting them to think about selling less tonnage due to

CRAWS will be counterintuitive. Architects/building decision-makers will need to address this upfront before engaging HVAC installers.

- Outcomes and solutions related to environmental and social justice (ESJ) communities are clear in the MPIs and greatly appreciated but should be more clearly reflected in logic model outcomes.
    - Rick replied that CalMTA would update this before finalizing the MTI Plan.
- The CPUC has had ongoing conversations about how to incorporate NEBs into the energy efficiency ecosystem, but if people are pursuing those benefits for reasons other than efficiency, CalMTA should look at organizations beyond EE programs to gain momentum in the market.
- There is an understandable tension between HVAC contractors who want to sell larger systems and window installers who lower HVAC demand. This may be similar to the heat pump water heating (HPWH) market in which electrical contractors and plumbers had to learn how to work together. Is the longer-term play encouraging HVAC contractors to work in tandem with window contractors – maybe profit-sharing – or even encouraging HVAC contractors to expand services to include windows?
    - Rick agreed this was an interesting strategy to explore further.

Public Comment

There were no public comments received.

Residential Heat Pump Water Heating (HPWH): Logic Model Review & Product Assessment

Alexis Allan walked through the draft logic model for the Residential HPWH MTI as a foundation for discussing the initiative overall.

MTAB feedback included:

- CalMTA should closely assess how the federal standard timeline aligns with the timeline for this MTI, since the standard might shift the electric resistance market significantly without MT intervention.
    - Alexis noted that a large percentage of California housing stock is gas-fueled so the MTI is not exclusively looking at electric homes. In order to use the electric resistance market as a catalyst, CalMTA will have to closely track the application process as that window of opportunity will get smaller closer to the federal standard.
- Is it accurate that CalMTA is looking at electric resistance as the target market?
    - Alexis clarified that this is one of the sub-markets that seems well-positioned for accelerated adoption at scale but is not the only one being considered. Specific sub-markets to target will be determined following MTI approval based on market conditions at that time.

Debra Brunk then shared results of CalMTA's Product Assessment, including product definition and key product features, competitive landscape, primary technological barriers and opportunities, policy landscape, and high-level energy modeling findings.

MTAB comments and questions included:

- Is there a reason to use ENERGY STAR certification vs. the Advanced Water Heating specification from NEEA, which includes some beneficial factors not required by ENERGY STAR?
    - Debra replied that CalMTA was seeking a specification with broad national implications while also focusing on products with high degrees of efficiency without features that drive up cost.
- It seems that one of the issues with high installed cost is contractor margins, which cannot be addressed at the manufacturer level.
    - Debra agreed with this statement overall but clarified that the presentation was focused on product-level drivers.
- When will the 2025 California Building Energy Code take effect?
    - Debra replied that the code took effect Jan. 1, 2026, but it will be a while before market activity reflects this.
- Thinking about the federal standards and timeline, does it make sense to support adoption-at-scale before the standard takes effect by driving the market toward higher voluntary standards during MTI ramp-up? If the standard does take effect, it will likely shut things down beyond that.
    - Debra acknowledged the potential opportunity to drive a significant increase in volume before the standard takes effect. CalMTA is also encouraging a Uniform Energy Factor (UEF) above the federal standard. The MTI is looking at ways to address this opportunity – ideally a market as large as California's will help get manufacturers prepared leading up to the standard.
- The federal administration is looking at ways to roll back the gas standard, which will make electric products even more expensive and add complexity to the market approach. Other activities would incent use of gas and deter adoption of HPWHs further. How does the MTI plan to address this?
    - Debra agreed that these were important points to consider that will be explored thoroughly before market deployment.
- The Advanced Water Heating specification address some attributes of the product (noise rating, extended warranty, etc.) that are valuable to the consumer experience beyond what's in ENERGY STAR. The California market has an opportunity to influence manufacturers to make product improvements that can address factors critical to market success. CalMTA should seriously consider including some of those features.
- What factors drive the increased electricity use for 120V products seen in the product assessment?
    - Debra said that 80-gallon products have more standby losses – the 120V product has to work harder due to product limitations (UEF of 2.2 vs. 3.3).

    - Jeff added that this does create an opportunity to improve the product over time if that is what the market needs.
- Most Tier 4 products in the Advanced Water Heating specification at UEF of ~4, which would create even greater savings.
- With the quick connect lines for refrigerants, CalMTA should look forward to the dismantling or removal of those lines. Technology exists that can enable a cleaner or easier removal.
    - Debra agreed and said that CalMTA wants to better understand refrigerant leakage and proper system charging.

Residential HPWH: MPIs & Milestones

Ellen Rubenstein presented the MPIs and milestones proposed as metrics to evaluate the market impact of this MTI.

MTAB feedback included:

- There are many installers in this market. Is CalMTA seeking to reach the largest installation firms to drive overall volume or 50% of all installers, knowing that will require getting many small firms on board?
    - Ellen replied that the MTI's primary goal was volume and that she would clarify the milestone.
- CalMTA should not feature inclusion of lower GWP refrigerants as an MPI, even if it's tracked. Many factors in the global market influence manufacturer decisions about refrigerants and California drivers alone may not be effective in moving the market.
- The metrics target very high penetration rates but far off in the future. Is there value in having lower targets earlier on?
- Similar to comments about refrigerants: California load management standards will result in 100% compliance with load shifting requirements. CalMTA should track this but it should not be included as a measure of the MTI's impact.
- Responsible disposal of refrigerants remains an opportunity to push the market, as pollution is released at the time of disposal, so CalMTA shouldn't exclude this.
- However, CalMTA might not be the right entity to address this – there is a substantial ecosystem of companies focused on refrigerant recycling and CalMTA might not be poised to take on the related risk factors.
    - Jeff clarified that CalMTA will not take the lead on this work but will be engaged in monitoring or supporting related activities to get the market ready and show overall impact.
- Preparing the market for SB 49 compliance is not a priority for some regulatory entities as along as the shift is cost-effective. Mechanisms for aggressively fining market actors for non-compliance result in high rates of compliance regardless. Some small players may not be aware of the related issues and will need support/education, but most others are.

- Refrigerants and demand response capabilities seem primed to happen without the MTI, so CalMTA should focus energy on other areas.
- Are the potential submarkets separated between new construction and replacement markets, which have very different considerations?
    - Ellen replied that part of the MTI's early work will be to determine which submarkets to focus on.
    - Alexis added that while the logic model identifies potential early submarkets, the market deployment phase will include a housing stock characterization and development of a tool to identify additional submarkets that can be reached at volume.
- The targeted 15% increase in HPWH sales should explicitly be in the existing buildings market since Title 24 will drive that regardless.
    - Alexis agreed that if the expected rate of adoption in new construction happens, CalMTA would exclude that market from this milestone. If, when this MTI kicks off, new construction entities have found workarounds or are not actively including HPWHs, this market might still be considered.
- If MTI interventions target the retail channel, is there a risk or more complications due to the increased complexity of HPWH installation?
    - Ellen confirmed this should be considered as modeling and MPI development are finalized.
- Installing electric resistance water heaters is very expensive in California, so the 23% saturation estimate seems aggressive.
    - Karen noted that the market characterization report provided a detailed analysis of data sources and assumptions behind this number but added that the team would follow up to discuss further and refine.
- 2037 is a long way away. CalMTA should include fractional numbers to assess progress earlier in the market deployment process.
- CalMTA should look at the inclusion of aligned messaging in programs by volume vs. percentage of programs (inclusion in several large statewide programs has a greater market impact than in many small rebate programs).
- One of the barriers identified for this MTI is the start/stop cadence of incentives, but nothing in the logic model or MPIs/milestones seem to track or influence that. If there was a statewide financing or incentive pool that was a guaranteed, consistent, reliable way to provide incentives for HPWHs, that seems like it would have greater impact than coordinating on messaging.
    - Alexis replied that the MTI wasn't necessarily trying to figure out how to make funding stable across the state but trying to create a consistent infrastructure of messaging and product requirements to keep market momentum consistent regardless of the incentive flow.
- ESJ considerations are not apparent in the logic model outcomes. They should be front-and-center and very visible.
    - Ellen said she would work with team to update and clarify.

- One key barrier is the limited customer value proposition/supply chain business case, which is impacted by higher upfront and operating costs. Where does rate design fit in – could entities curtail solar energy and give it away to any customer with a HPWH? Cal ISO curtailment indicates enormous value of curtailment that could be shipped to HPWH owners instead.
- Rate design is a thorny issue that is very hard to address and requires demand flexibility. The Codes & Standards program is currently doing testing that indicates many HPWHs do not respond well to AHRI 1430 and that substantial work is needed to get commands to HPWH – the market simply isn't ready.
    - Smita Gupta noted that there are electrification-friendly rates in development that can be positive for HPWHs with a fairly nuanced bill impact analysis.
- If most of the value of HPWHs is in carbon reduction then perhaps the Greenhouse Gas Reduction Fund (GGRF) should pay customers that adopt them. This is a different payment stream from a funding source beyond rate reform.

Induction Cooking Update

Elaine Miller shared an update on the Induction Cooking MTI, which is being refined based on results of the CPUC Decision that conditionally approved it. This included a discussion of new market entrants, details of the Decision related to narrowing the MTI's focus to 120V products, revisions to the strategic interventions based on that focus, and reforecasting approach.

MTAB comments and questions included:

- What is the rationale for the MTI's decreased focus on new construction and related building codes?
    - Elaine replied that the market is already moving toward induction, with other active parties supporting this transition, and that 240V products are the best fit for this market – not 120V.
- With the increased focus on multifamily retrofits, will there be more of an emphasis on working with programs that are specifically engaged with multifamily housing providers – such as the work CalMTA is currently doing with AEA/Eden Housing?
    - Elaine confirmed that this will likely be a key implementation area in the future Request for Proposals.
- Is there a risk that by investing too much in the 120V non-battery products, you inhibit the growth of the 120V-with-battery products?
    - Elaine noted that these are very different products with different use-cases, but that the risk would be monitored.
- Are there any opportunities for a retrofit battery that can be dropped into a 120V non-battery product?
    - Elaine said that she was not aware of any market activity in this area.

Clarissa Kusel then shared impacts of these updates on MTI budget and MTI Plan components, most of which will be shared as redlined documents or with attached memos.

- Why offer a $5 incentive to retailers for 240V products at all?
    - Clarissa clarified that this was not a conventional incentive, but the base fee needed to collect data.

Karen then provided a brief update on the reforecasting approach for this MTI, results of which should be available soon.

MTAB questions included:

- Did cooktop-only products get included in previous forecasting or only slide-in ranges?
    - Karen replied that the previous forecast included permanently installed standalone 240V cooktops but not 120V products. Because the MTI is now focused on 120V products, cooktops are excluded. The future third-party evaluator will review CalMTA's forecast/related assumptions and may flag the need to include standalone cooktops based on market factors.

Outcomes from the Decision and Update on 2026 Operations and Budget Planning

Lynette Curthoys provided a summary of the CPUC Decision on CalMTA's application for the first tranche of MTIs and subsequent impacts on CalMTA budget and operations.

MTAB feedback included:

- The CPUC has never approved a nonprofit before – or hasn't in a very long time – so there are many unknowns about what the transition plan and subsequent approval process will look like.
- CalMTA had previously discussed tracking spillover of benefits/savings to non-IOU utilities. Is that still happening?
    - Lynette clarified that this spillover doesn't show up in the TSB, which is specific to the IOUs. MTI Plan calculations do include all statewide efforts.
- Non-IOU utilities sometimes claim savings from IOU ratepayer-funding programs and might do so here, which is something to monitor.
- Given the six-year portfolio budget (2026-2031) authorized by the Decision, the CPUC will work with CalMTA on this transition well in advance to avoid a funding cliff.
- Is it correct that CalMTA's nonprofit transition plan would get filed at the end of 2028 and that the transition would be completed by 2031?
    - Lynnette confirmed this timeline.
- CalMTA could start planning for this transition before 2031 by securing bridge funding that would be sufficient to start doing the work.

- In case it's a useful precedent, Energy Trust of Oregon subcontracted to program administrators/implementers to start doing ramp-down activities as they were ramping up their own nonprofit transition.

MTAB Recruitment Process and Terms Ending

Stacey reviewed the terms of active MTAB members and recruitment schedule, with an application for new and re-applying incumbent members opening in early February.

Public Comment

No public comments were received.

Next Meeting & Next Steps

Stacey shared the plan for upcoming MTAB meetings based on new MTI Plan and application timelines, targeting two virtual meetings in March and another meeting in April.

The meeting was adjourned.

Attendees

MTAB Members

Mary Anderson, Pacific Gas & Electric
Cyane Dandridge, SEI
Fred Gordon, Context Consulting
Jennifer Green, MCE
Jeff Harris, Northwest Energy Efficiency Alliance
Peter Miller, Natural Resources Defense Council
Christie Torok, California Public Utilities Commission

Participating Staff & Consultants

Alexis Allan, Brio
Debra Brunk, 2050 Partners
Lynette Curthoys, CalMTA/Resource Innovations
Marcus Dimeo, CalMTA/Resource Innovations
Rick Dunn, CalMTA/Resource Innovations
Rachel Good, CalMTA/Resource Innovations
Stacey Hobart, CalMTA/Resource Innovations
Karen Horkitz, KSH Advising
Clarissa Kusel, CalMTA/Resource Innovations
Cory Luker, CalMTA/Resource Innovations
Brian Meinrath, 2050 Partners
Elaine Miller, CalMTA/Resource Innovations
Jeff Mitchell, CalMTA/Resource Innovations
Ellen Rubinstein, CalMTA/Resource Innovations
Jun Suzuki, CalMTA/Resource Innovations

Meeting Registrants

Joanne Bachmann, VEIC
Lauren Bates, Opinion Dynamics
Jonathon Belmont, BPA
Peter Biermayer, CPUC
Juan Carlos Blacker, NEEA
Britney Blankenship, Energy Solutions
Rob Bohn, PG&E
Corey Brophy, EcoGreen Solutions
Brittany Calderon, Friedrich Air Conditioning
Paul Campbell, ICF
Tom Chase, VEIC
Matthew Chill, Orange County Power Authority
Megan Ching, PG&E
Simone Cobb, Resource Innovations
Colleen Collins, Resource Innovations
Fernanda Craig, LA County
Sebastien Csapo, PG&E
Rachel DiFranco, City of Palo Alto Utilities
Laren Eagan, Evergreen Energy Partners
Lacy Estes-Hill, Rheem Manufacturing
Anthony Eulo, Silicon Valley Clean Energy
Senait Forthal, OC Goes Solar
Richard Fennelly, CoilPod LLC
Rafael Friedmann, Friedmann Clean Energy
Adin Hamilton, Alpen HPP
Mark Handy, C+C
Sue Hanson, EMC Insights
Jack Hawley, Clean Power Alliance
Julia Hegarty, U.S. Department of Energy
Pepper Hunziker, Tre'Laine
Gaby Ibarra, Peninsula Clean Energy
Harshad Inamdar, Rheem Manufacturing
Karthig Kathirvel, Rheem Manufacturing
Jason Leung, PG&E
Pui-Wa Li, CPUC
Alice Lideell, ICF
Jim Lutz, Hot Water Research
Cooper Marcus, QuitCarbon
Christopher McCabe, Resource Innovations
Savannah McLaughlin, CPUC
Scott Melberg, 350 Palo Alto
Vidhisha Moopnar, New Buildings Institute
Nataly Morales, Orange County Power Authority
David Murphy, BPA
Martin O'Gorman, Summit Appliance
Prathamesh Patil, Eversource
Emily Pelstring, CPUC
Edwin Reek, Daikin
Anthony Roy, Earth Advantage
Brady Seals, Stanford University
Shawn Shahrokhi, BC Hydro
Paul Storch, Summit Appliance
Christine Tam, City of Palo Alto Utilities
Marty Turock, Cleantech San Diego
Garett Valenzuela, C+C
Pranesh Venugopal, Orange County Power Authority
Abrielle White, RMS Energy Consulting
Rod Williams, Eco-logical
Michael Winka, Rutgers/NJIT/MSU
Kate Zeng, SDG&E
Robert Zwerling, Znrg Innovations