



MTAB Meeting Notes

October 13, 2023

In-Person Meeting

Introductions & Approval of the Previous Meeting Notes

Margie Gardner opened the meeting with introductions and a request for comments to the previous meeting (9/8) notes. There were no comments.

Disposition Report Outline Review

Margie reviewed the schedule for MTI Advancement Plan development and answered questions. Jennifer Barnes, 2050 Partners, reviewed the Disposition Report Outline.

There was discussion about the timing of deciding what would go into Batch 2 market transformation initiatives (MTIs) and how MTIs could meet desired portfolio characteristics such as equity, gas v. electric investment, length of time for initiative implementation, etc. It was explained that these topics would be covered in upcoming MTAB meetings.

Staff was encouraged to include context in the report about what impact and benefits the market transformation initiatives will bring to the state. MTAB members were encouraged to send feedback if they had further comments on the material.

Advancement Plan Template

Jeff Mitchell reviewed the Advancement Plan Template, which will be used for development of the full MTI plan. Jeff explained that there would be budget estimates and that the logic models in the Advancement Plans will include market progress indicators (MPIs).

There was further discussion about whether the development process would define a methodology to translate the market progress indicators (MPIs) for evaluation into savings. Karen Horkitz explained that the MPIs primarily will be tied to the theorized market changes and outcomes in the logic model and the MTI Plan will measure how we will get to those outcomes. Evaluation will consider savings in the market and whether the MTI caused them. The estimate of savings will come from comparing total market adoption against the baseline, so we will be measuring units in the marketplace. Other feedback on the Advancement Plan template included:

- The need for a research plan that shows what market research and other studies depend on other things—whether they are sequential, simultaneous, or contingent.

- That the market opportunity should describe why these actions are important at this time to create a transformed market with the following benefits.
- The need to identify and include in the plan market data sources that would be used to translate MT efforts into savings.
- Add challenges or hurdles in the foreseeable future that might prevent progress.

Overview of ideas moving to Batch 2

Jeff Mitchell presented information about the ideas that came in through the Request for Ideas, how they were grouped (as similar ideas), scored, and disposed. He then described ideas that are being scored in Stage 2. Specific questions and comments from MTAB members included:

- Whether there were equity aspects in the ideas related to heat pumps. It was explained that the portable heat pump idea in particular had a strong equity aspect.
- Efficient street lighting is mostly about controls and the MTI could couple efforts to further reduce wattage and upgrade controls.
- A question about how the induction cooktop MTI would play out with policies banning of gas for new construction. It was explained that these kinds of policies would be a good example of leverage that could drive market change or that we may opt to not pursue because the policy on its own would create the change we seek.
- Whether there were any ideas on transportation. Jeff said only an idea about bi-directional EV charging.
- If there were ideas related to controls. Jeff explained that there were a lot in HVAC and building controls, which were batched with the related technology.

Front Runner MTI Presentations

Portable/Window Heat Pumps

Jennifer Barnes presented the portable/window heat pumps concept. Jeff Harris of NEEA disclosed that they are working in this same area. MTAB member feedback included:

- A recent test showed that this technology works somewhat as intended and can be installed, but product efficacy should be reviewed. Excited that these are going to sell, but need to make sure the product is quality.
- This is a good opportunity to require low-GWP refrigerants because disposal is an issue.
- These products currently do not include efficiency ratings or identification as a heat pump. There would be a need to educate consumers on how to choose the right product and DIY installation.

- A question on whether this MTI would include packaged terminal heat pumps (Ephoca, for example) to help address air filtration. Jeff explained Ephoca would be a contractor/distribution channel.
- There was a group of low-income advocates that put forward a policy under landlord habitability that would have required landlords to provide air conditioning. While this isn't law, this technology provides a good option for that idea and, in the case where the household buys it, gets around the split incentive problem between tenants and landlords.
- With California's electric rates, it would be necessary to analyze whether this technology would help low-income households come out ahead on their utility bills. Jeff explained that assessing bill impacts would be part of the modeling plan.
- There is not a standard rating or consistency in the product currently.
- Should review how the product would interact with the ducted or ductless system in place to ensure they work together.
- Products need a test standard to be developed, which DOE has started, and PG&E is supporting.
- If this is a potential candidate for the ENERGY STAR Retail Products Portfolio (ESRPP), there are opportunities to partner with NEEA, existing efforts in California and NYSERDA in New York, which is an ESRPP sponsor.
- Excited that this product offers competition for ductless heat pumps, which have not come down in price. This would present an alternative room-level comfort option.
- Need to get the product registered with the California Energy Commission.
- A question about how this relates to emerging technology programs? It was explained that MTI development is coordinated with CalNEXT, so there is a good hand off and no overlap in efforts.
- Wondered if there was an aspect related to workforce education and training such as residential contractors being aware of the enhanced incentives and conversations with homeowners and tenants and expanding their work to include this as an option for customers. Jeff explained that he thought there could be, but generally this is a self-installed product.

Induction Cooking

Jeff Mitchell presented the induction cooktop concept. MTAB member feedback included:

- Asked whether this work could be leveraged with existing incentives. Jeff explained that there are incentives for appliances, but don't yet know the extent that they would cover induction stoves.
- Cultural barriers would apply to this technology since electric cooktops are seen by certain ethnicities as undesirable. There was discussion about finding ways to move past cultural barriers to the notion that these technologies are better and safer. We need to make induction cooking "insanely great."

- Certain markets are starting to move like in Portland. May need to focus on lagging marketings. Do we have data on current state of home stoves? It was shared that PG&E has data on current cooking end use loads.
- DOE has a ruling in process for gas and electric cooktops—advocates, utilities and manufacturers negotiated and submitted efficiency recommendations to DOE a couple of weeks ago.
- Suggested that the initiative look at cooking more broadly to include induction and higher-efficiency gas cooktops.
- Smaller 24-inch induction ranges are nearly impossible to find, which is an equity issue because small apartments need this size. There is also a 120V product with a battery that would help with demand flexibility.
- Another issue is the weight of the pans that are needed and that consumers must buy new cookware.
- Need to address panel upgrades in the MTI to make sure there's amperage necessary to run the stove.
- Discussion about the reported issue with pacemakers, but research is limited.
- The price barrier may be able to be addressed by removing some of the premium features of currently available products.

Efficient Rooftop Units (ERTUs)

Elaine Miller presented material on heat pumps to be used as efficient rooftop units for HVAC in commercial buildings. Jeff Harris disclosed that NEEA is working on a tiered efficiency specification so manufacturers could make products with better insulation and dampers and then move to Tier 2 or Tier 3 with additional measures. NEEA collaborated with the PG&E team and just finished negotiations for upcoming test procedures. MTAB member feedback included:

- There is a lot of stuff that can be done that's easy. We may be able to get the first 10% savings at the factory with a relatively low-hanging opportunity.
- One of the leverage points to go after is the mechanical engineers as a target audience, who service a lot of buildings, and could be educated on ERTUs.
- There is a need to address federal pre-emption.
- Concerns that economizers don't always work well and are required in California for any 3-ton units or greater. There is a new concept from ASHRAE that is total system performance ratio. Rather than looking at the RTU and economizer individually, the Total System Performance looks at the interactions between these two.
- This is a dual fuel opportunity. Whatever you do will likely save gas so this will allow a lot of different participation from different building types and supply. Manufacturers want to set up a dual fuel option and as things progress toward electrification, it's an opportunity to lower energy use and greenhouse gas (GHG) emissions.
- The equity aspect is that this initiative would target small to mid-sized commercial and provide products that are more affordable for small business/building owners and workforce development in low-income areas.

- A Building Performance Standard is coming to California and may be a leverage opportunity for this idea.

MTAB members discussed the need to review the top 20 in more depth and to be able to compare these three Batch 1 recommendations in relation to the others. It was clarified that Batch 1 ideas were chosen because they were high-scoring MTIs that were also the most ready for implementation and would allow CalMTA to meet the application deadline at the end of 2024. Still MTAB members felt they needed more information about the larger set of ideas to give advice or support to ensure success. Staff agreed to bring the other highest-ranking ideas to the next MTAB meeting for further discussion including the Disposition Report, which will have some information to show how the 117 ideas were disposed.

Individual MTAB members expressed questions about whether induction cooktops could be a quick mover. Another had similar comments about ERTUs stating that the fuel substitution test for rooftop units when you have electric or gas and replace with heat pump can have a negative TSB and challenges because of refrigerants.

Evaluation Framework

Karen Horkitz presented on the Evaluation Framework. MTAB comments and feedback included:

- The need to ensure that evaluations document markets where CalMTA was engaged and had impacts. There is a need to determine collective impacts brought to market transformation and other programs due to CalMTA's work and collaboration. Karen explained that one of the MPIs will always be market adoption and from that we will have a methodology to access data to measure the savings impacts.
- There was discussion about how to ensure that data is available from the start and to have contracts for implementation that state what data is needed and how to get it.
- Concern was raised that the approach is biased against market transformation. In this proposal, the resource acquisition (RA) program savings are primary even though we are clearly intending to design the MT program to make the RA program possible or more successful. To give all the units with incentives to RA and take only what's left seems too limiting.
- MTAB members further discussed how baselines for saving estimates are set differently for RA and market transformation and concerns about how that would affect market transformation credit for savings. They reviewed the role of free ridership and differing timelines for RA versus market transformation and how the MTI would receive the savings from long-term market effects.
- There were questions about the non-energy benefits of MTIs. Karen explained that these would be included in evaluations.
- The need to have evaluations of CalMTA programs coordinated with other program evaluations was discussed. "You have two different programs that you are trying to get the sum total of savings for, but because they're not aligned at the baseline you end up leaving energy savings on the table or worse double counting." It was generally agreed that coordination would be very important, and some coordination practices are needed and that the MPIs could help facilitate the evaluation process.

- The use of the 3X rule and concerns that the Framework ignores the 3X proposal were raised. Karen explained that while the Evaluation Framework does not ignore the idea, it recommends another path. It was confirmed that even though the 3X rule is not in currently recommended, it could be included as an option in the Application.
- The need for transparency for evaluations was stated including that evaluators have the final say in the outcomes, all evaluations are published, and the evaluation team does not work for the initiative development team.

Public Comment

Richard Fennelly: "If your proposal doesn't overlap or compete with existing initiatives, do you get extra credit for that?" Jeff Mitchell responded that the team worked through the criteria but didn't give extra credit.

Carol Yin: "I suggest not taking the 3X option off the table. The 3X option would incentivize the CalMTA to really break down market barriers. We were talking about the equity needs . . . there are a lot of market-barrier-based needs that may not tied in neatly with a particular code or standard. We want to make sure that CalMTA has a way to be recognized for doing the hard groundwork of breaking down market barriers. Rather than doing something that C&S calls technology transformation that is clean and tidy. The other reason is that it is by far simpler than anything we are talking about right now. So, if we're really working toward success without getting tied down into details, let's keep that option on the table."

Richard Fennelly (public comment via online form post meeting): "It might be a good idea for topics being held for future consideration to reach back to them and identify areas where their proposal might seem weak so that they have the opportunity to supply further information to hopefully cure such a deficiency."

Other public comment can be submitted via this form: <https://calmta.org/mtab-comments/>

Next Meeting & Next Steps

Stacey Hobart explained that the next meetings would be held in Southern California at the end of November and subsequently in a location to be determined on Jan. 25, 2024.

The meeting adjourned.

Attendees

MTAB Members

Haley Goodson, TURN

Fred Gordon, Energy Trust of Oregon

Jeff Harris, Northwest Energy Efficiency Alliance

Randall Higa, Southern California Edison

Lujuana Medina, County of Los Angeles County Environmental Division Manager

Peter Miller, Natural Resources Defense Council (virtual)

Steven Miller, SEI and proxy for Cyane Dandridge (virtual)

Christie Torok, California Public Utilities Commission
Ky-An Tran, California Public Advocates

Staff and Consultants

Taqua Ammar, CalMTA (administered by Resource Innovations)
Jennifer Barnes, 2050 Partners on the CalMTA team
Lynette Curthoys, CalMTA (administered by Resource Innovations)
Jim Giordano, CalMTA (administered by Resource Innovations)
Stacey Hobart, CalMTA (administered by Resource Innovations)
Karen Horkitz, Consultant to CADMUS on the CalMTA team
Elaine Miller, CalMTA (administered by Resource Innovations)
Jeff Mitchell, CalMTA (administered by Resource Innovations)
Nils Strindberg, CalMTA (administered by Resource Innovations)

In-Person Guests

Carol Yin, ETCC
Ann, Enervee
Mary Anderson, PG&E
Anad Jen

Virtual Guests

Richard Fennelly, CoilPod LLC	Edward Merkel, Innovative Facilities Solutions
Jay Luboff, Jay Luboff Consulting LLC	Samantha Putlak, Energy Solutions
Marc Costa, The Energy Coalition	Spencer Lipp
Mark Isaacs, GS Research LLC	Ben Bunker, Pearl Certification
Saro Hoffman-Dachelet, Center for Energy and Environment	Lisa Ash, Brio
Pat Eilert, PG&E	Allegra Steenson, PNNL
Don Arambula, DAC	Rafael Friedmann
Joseph Gallegos, www.UmidaAG.com	Kim Page, Recurve
John King, Energy Solutions	Maddie Hansen-Connell, MN Center for Energy and Environment
Irina Krishpinovich, Ortiz Group	Marisa Lee, Energy Solutions
Nick Brod, DNV	Carlo Gavina, SoCal Gas
Savannah McLaughlin, CPUC	Kevin Berry
Emily Pelstring, CPUC	Stephanie Gutierrez, San Diego Gas & Electric
Melinda Lopez, The Ortiz Group	Alton Kwok, San Diego Gas & Electric
hob Issa Lincus, Inc.	Dan Suyeyasu, CodeCycle.org
Jessica Granderson, Lawrence Berkeley National Laboratory	Amy Barr
Denis Livchak, Synergy Energy	Christopher Malotte, SCE
Steven Long, ICF	Christian, Valoria
Nick Leritz, NEEA	

Jesse Emge, Evergreen Economics

Charles Kim, SCE