



Advancement Plan Feedback Response

Commercial Building Efficiency Accelerator

This document provides a comprehensive list of comments received from both the public and the Market Transformation Advisory Board (MTAB) on the draft Commercial Building Efficiency Accelerator (CBEA) Market Transformation Initiative (MTI) Advancement Plan and CalMTA's response to those comments. Feedback provided through these processes is presented verbatim in the table below.

The draft Advancement Plan was posted to the CPUC's PDA website for comment from June 20 - July 9, 2025. [Updated Advancement Plans will be posted on the CalMTA website.](#)

#	Source	Feedback Provided	CalMTA Response
1	MTAB (Fred Gordon, Evaluation Professional)	<p>My comments are largely suggesting that this approach may work better for some owners than others within the intended scope. I don't think this is a surprise to the writers. The scope of this initiative is very large and will need to be focused and whittled down to succeed.</p> <p>However, I see a lot of promise here if the initiative becomes properly focused. These comments should not be construed as pessimism about the value of the initiative.</p> <p>I think that it should eventually be considered as two initiatives for owners with many vs. few square feet of property (with customized analysis and marketing tools as indicated in the proposal) or expectations of sophistication within this initiative should be reduced within this initiative.</p>	<p>CalMTA agrees with this recommendation. We plan to focus on specific segments of the market based on Phase II research findings. Ownership type will likely be a determining factor, since the barriers vary so much for each of those segments. We plan to segment the market by the amount of floor space owned, as well as whether the building is publicly owned, privately owned and occupied, investor owned, etc. Multifamily buildings will likely be another segment to consider separately.</p>

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2	MTAB (Fred Gordon, Evaluation Professional)	I also think the focus of analysis should distinguish not only small and large buildings but, more importantly, owners with many vs. few square feet. While the analytic needs of an owner of a million SF building vs. 25 smaller building may differ they both pay big enough bills to consider life cycles, ROI, etc. The owner of a single 25,000 retail or office building may need a vastly simpler approach than this proposal suggests.	We agree with this comment and intend for Market Research task MR 1a to identify the percentage of commercial buildings >20,000 sq ft owned by large portfolios (exact threshold TBD). We have also added MR 0 to characterize building valuation. Technology Assessment task TA4 will assess tools that inform building upgrades. We envision that the playbook and tool will be straightforward and simple enough for single-building owners to use, with added features (consolidation or rolling up of analyses) for multiple-building owners. Current benchmarking and analysis tools (e.g. Cambio, Measurabl) already have this flexibility.
3	MTAB (Fred Gordon, Evaluation Professional)	Page 7: Just above section 4. When discussing the building's lifespan, add the owner's investment and ownership cycles.	CalMTA agrees with this suggestion. We have revised that paragraph accordingly.
4	MTAB (Fred Gordon, Evaluation Professional)	Page 9, 4.1: Will the life cycle tool also analyze differences in asset value? This is important especially for CRE investors who flip property more often. More on this subject below. This discussion made me wonder how sensitive this initiative is to defunding of Federal initiatives (e.g., how much of green loans, etc. are indirectly or directly Federally funded) and attempts to take away California's special status for code development.	Yes, we see asset value as a critical part of the tool. We plan to research funding mechanisms, including federal initiatives, described in MR 5a in the plan. Additional information can be found in our response to comment #30.
5	MTAB (Fred Gordon, Evaluation Professional)	Page 11, 4.3: Market barriers should include the structure and business plans of some owners. Some flip properties more frequently than others. Some have frequent staff and structural changes. These factors have limited or impeded some prior initiatives, or reduced their "stickiness".	CalMTA acknowledges that a short holding period may be a barrier for some owners. Alternately, it may be an opportunity for those who are buying, upgrading, and selling. In any case, holding period will be a key factor in the lifecycle tool. We theorize that by making long-term planning the

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			standard way of doing business, asset managers and building owners will train new employees in this way of thinking, so staff changes will be less impactful.
6	MTAB (Fred Gordon, Evaluation Professional)	Page 13: National collaboration. How much of DOE better buildings is still there? I think for the current stage-gate it's important to assess scale of sensitivity to Federal changes in a qualitative way. Fatal? Big? Recoverable? Will Delay? or Modest Impact? The current draft seems to skate by the issue. We discussed this briefly at the last meeting but things have change a lot.	We expect the changes in federal funding to be recoverable. Federal funds and 179D tax credits are only one aspect of the complex funding for building upgrades. Recent articles predict that CPACE funding will increase in 2025, for example, and the Office of the Comptroller of the Currency recently published a notice of proposed rulemaking to keep the Community Reinvestment Act rules unchanged. In any case, CalMTA plans to research all relevant funding, with MR 5g added as a research area to explicitly investigate the impacts of changes in federal policy. Because MT is a long-term play, we believe the impact of the current administration and its policies can be navigated and recovered from.
7	MTAB (Fred Gordon, Evaluation Professional)	Page 13: Is the ESJ approach to include diverse owners with large holdings, or are they more like other owners with large holdings? As noted below, I think if we keep the current SF threshold (and as suggested, focus on sf/owner, not building), we may need to think about these groups within diverse owners differently	The preliminary ESJ approach to understanding specific barriers and possible points of intervention will focus on all portfolio sizes that align with our current square footage thresholds, and that have buildings located in an ESJ community. Any emergent distinctions from research will be incorporated into our interventions.
8	MTAB (Fred Gordon, Evaluation Professional)	Page 16: Important not to train the workforce until the work is about to show up. A mistake I've seen made elsewhere.	We agree that in the implementation planning stage it will be important to sync the timing of the training and the opportunity for work.

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9	MTAB (Fred Gordon, Evaluation Professional)	Page 16, 5.2: Last paragraph. I wonder if this is redundant.	We updated the last sentence to reduce redundancy.
10	MTAB (Fred Gordon, Evaluation Professional)	Page 19, Table 1: Second row. Is this about life cycle investment or owner investment cycle investment? Seems like there are two goals- improve profits during the investment cycle, and then sales price. Each take significant change in investment analysis. The first seems a lot easier than the second. Important of each depends on each investor's profit strategy.	The preliminary metrics in this table are based on the program logic model, which will evolve based on Phase II research. We are adding a new research activity that will first explore the financial investment strategies building owners use in making building and project investment decisions and those strategies' implications. Ultimately, revisions of these metrics will be tied back to the fundamental investments strategies and what that means for decision makers in practice.
11	MTAB (Fred Gordon, Evaluation Professional)	Page 19, Table 1: I wonder if a first preliminary outcome is enhanced (not perfect) clarity about which markets are good prospects, how much segmentation of tools and outreach approaches are necessary, and based on this, refinement of estimates of cost savings, and investment criteria. Based on this early draft proposal, this isn't an initiative, it's a scope that can encompass several. What is realistic?	<p>The team is considering your observation about the breadth of this initiative while being mindful of the need for prioritization and sequencing. We agree with the need to prioritize and distinguish among the initiative's opportunities based on market segmentation.</p> <p>Separately from this review process, we have identified the need to guide market segmentation by the financial management strategies that building owners follow to gain a deeper understanding of how those strategies correlate with identifiable market segment. We expect that needed interventions will vary based on factors such as whether a building owner is seeking to maximize building value for resale, increase the value of the building to its users (for owner-occupancy), maximize long-term income, or</p>

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			maximize short-term income. Research into the nature of these financial strategies has been added to our Phase II market research plan so that findings can inform the nature of the interventions needed and the opportunities for different building types, portfolio types, and investment strategies.
12	MTAB (Fred Gordon, Evaluation Professional)	Page 21: Are owners with many square feet of property who are ethnically diverse distinct from other large owners in their technical and communication needs?	We do not expect ethnicities of building owners to drive how they approach building decisions. Related to ESJ considerations, we are looking at the location of the buildings, the functions they serve for the local community (housing, work location, etc.) and whether/how the buildings can access the energy-related services and financing that might be needed.
13	MTAB (Fred Gordon, Evaluation Professional)	Page 21: Should services for owners with less property (e.g., 20-50,00 square feet, I don't know if this is the right threshold) really focus on BPIs and EUIs, or to get through do trade allies really need to talk about likely equipment replacement needs, energy costs, and payback?	Our market research and subsequent product refinements will consider how the strategies/approaches pursued by owners with smaller total property volume differ from those with large portfolios.
14	MTAB (Fred Gordon, Evaluation Professional)	Page 22: Among the technical assessment objectives should be: Identify the impact of technical and market approaches of prior similar programs, their overall and annual success rates, and the reasons and learnings.	CalMTA agrees with this recommendation. We have added a new task addressing this objective as TA 7e and will consider reordering activities to complete this task earlier. We will also assess other commercial whole building programs, like those administered by NEEA, to identify successes and challenges.
15	MTAB (Fred Gordon, Evaluation Professional)	Page 22, TA 1a: Crosswalk segment of building types with ownership types to the extent possible. Including multiple vs. single building owners.	We have updated the technology assessment activities to note the synergy between this TA task and MR 1a.

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16	MTAB (Fred Gordon, Evaluation Professional)	Page 23, TA 2a: Same comment	We have updated the technology assessment activities to note the synergy between this TA task and MR tasks 1a, 1b, 1g, 1j, and 2a.
17	MTAB (Fred Gordon, Evaluation Professional)	<p>Page 23, TA 3: As noted above, there may be two different potential initiatives here. The full initiative as described may be feasible for owners with a large floorspace area owned, either in one or multiple buildings. There may need to be a simpler approach, perhaps focusing on retrofit measures and very simple operational improvements for owners with less aggregate square feet. A key related question. If there are diverse building owners with large holdings, do they need different market approaches than other owners with large aggregate holdings? Or is the distinction most important only for owners with smaller holdings? I'm not choosing a square foot threshold here, but that may be necessary to analyze. This is one place where the market research may inform the technical research.</p> <p>I'm focusing on square foot per owner, not building. I think this is more difficult to inform with data, but pretty important.</p>	We agree that CBEA's strategic interventions, including the retrofit playbook tool, will need to address both aspects of market segmentation raised by this comment: (1) that there are different "scales" of ownership with different needs (i.e., owners with smaller portfolios for whom the concepts in our MTI may be new, versus large-scale, professional property owners and managers), and (2) that there are different types of property improvements, which require different degrees of effort and capital. We also recognize that more accessible improvement strategies may be more appropriate for small-portfolio owners. Phase II findings will help determine whether this creates the need for two different initiatives or just distinct interventions.
18	MTAB (Fred Gordon, Evaluation Professional)	Page 23, TA 4: Other parts of the proposal suggest multiple tools. I think this should include a very simple set for owners of lesser SF. Whether this is different for ESJ communities is a good question.	We agree with this comment. Our strategic interventions, including the retrofit playbook tool, will aim to recommend fewer, higher-value tools for simplicity.
19	MTAB (Fred Gordon, Evaluation Professional)	Page 26, MR 1a: In past initiatives, CREs were found to vary a lot in their staff turnover and length of time that they held buildings, and this deeply influenced their ability to take on energy efficiency as an asset or profit enhancer. This can influence their ability to engage, and also whether they focus mostly on annual savings or also on asset enhancement. It's really important going in to distinguish the proportion of CREs that can fairly readily consider the offerings of this	CalMTA agrees with this statement. We intend market research to identify the gaps between stated investment strategy, best practice, and actual practice (which would be affected by the factors described in this comment, among others). In situations where actual practices for a given investment strategy do not align with best practices, we will engage market actors to explore

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		initiative, and those that may need a more hit and run approach.	the most appropriate intervention, which may be guiding the market toward best practice or what the commenter describes as a "hit and run approach."
20	MTAB (Fred Gordon, Evaluation Professional)	Page 27, MR 1c: What type of buildings, ownership and measures do existing programs succeed with. Don't? e. What financial or other screening criteria do ESCOs use to consider projects? It's my experience that where there are not pretty big utility or government subsidies, ESCOs have difficulty paying for projects without high ROI because of their overhead-intensive business structure, combining EE analysis, procurement, installation, financial analysis, lending, performance measurement, and complex contracting.	CalMTA's approach to answering research questions will factor in this insight.
21	MTAB (Fred Gordon, Evaluation Professional)	Page 28, g2: Energy usage (add) or cost.	Based on CalMTA's understanding of this comment, we believe this is already addressed. In the current version of the Advancement Plan, the question reads: What share of buildings and building decision-makers (by market segment and by ESJ/non-ESJ geography) track energy usage and cost at a building level?
22	MTAB (Fred Gordon, Evaluation Professional)	Page 28, g4: EUI or cost metrics. Good to understand both. Given breadth of initiative including owners with limited floorspace.	CalMTA agrees with this recommendation. The cost component is addressed in G2 and is being actively monitored by our team.
23	MTAB (Fred Gordon, Evaluation Professional)	Page 28, h: History of success of local government influence on other similar programs and initiatives.	CalMTA appreciates this recommendation. We will strive to understand the influence of local governments as part of our interviews with building decision-makers. We will also seek to understand the degree of success local (government) programs and initiatives have had when we review relevant ones. Rather than focusing on a comprehensive review of local

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			government influence that has been successful, we will use market research interviews with market actors to listen for the influence of local governments on building decisions and explore the connection between local government's role and efforts, the building decision-making, and the MTI. This clarification did not result in any change to the Advancement Plan as the overarching research questions have not changed, but we will be mindful of government and all third-party influence that could be leveraged by the MTI as part of the exploration of the main research questions.
24	MTAB (Fred Gordon, Evaluation Professional)	Page 28, MR 2: What situations and circumstances (financial, market, organizational, building) trigger major investments? Operational changes?	CalMTA appreciates this feedback. We have clarified in the market research section of the Advancement Plan that understanding what does (and what should) trigger considerations of energy-related investments is part of the research intent. We will explore these questions in research involving building decision-makers.
25	MTAB (Fred Gordon, Evaluation Professional)	Page 29, MR 3a: Who pays utility bills? What organizational/financial factors and structures are barriers to efficiency investment?	We agree that these are relevant and useful items for us to track. We will be addressing the question of who pays utility bills as an analytical variable by which we analyze responses rather than adding it to the Advancement Plan as a research question that becomes its own line of inquiry for its own sake. We have incorporated recognition of organizational, structural, and financial factors that are barriers to efficiency investments more directly in the Advancement Plan. We have done this within the context of leveraging decision-makers

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			financial motivators and stated financial strategies as drivers rather than attempting to conduct a full-scale assessment of the full range of factors that stand in the way of efficiency investments. This approach will help us understand what stands in the way of the MTI intervention achieving its desired impact and ensuring that results are informative and actionable.
26	MTAB (Fred Gordon, Evaluation Professional)	Page 29, MR 4c: What are the enforcement mechanisms? Do they seem likely to be adequate and effective?	CalMTA agrees that this is an important question. We also believe it is important to understand how much influence enforcement and penalties have on decision-making. The relevance and importance of this question is conditional on the path the CEC takes concerning any potential statewide building performance standards. The MTI team has already investigated BPS enforcement approaches and mechanisms in other jurisdictions as part of its initial investigations. We believe it would be best to defer more detailed follow-ups on these topics until there is more clarity on the direction California takes with any potential BPS efforts.
27	MTAB (Fred Gordon, Evaluation Professional)	Page 30, MR 8: Item a. Add: What are future prospects? What regulatory changes are underway to make conversion to multifamily more feasible? How are they faring? These questions come from my observations based on very limited data that this is moving forward slowly, and cities are exploring incentives and streamlining to help, but its taking a while. And the share of the office building stock where this is feasible based on structure and infrastructure is modest.	Our initial research also shows that conversions are very limited and slow. For now, promoting and supporting conversions of building space from one use to another is not a primary part of the MTI strategy; it is a market dynamic of which the MTI team intends to stay aware and informed. As such, we have not made any adjustments or expanded the scope of our work on building conversions in the current Advancement Plan.

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28	MTAB (Fred Gordon, Evaluation Professional)	Page 34, Table 5: Cost in first column is missing a zero. Secondary research is very important, but is the cost still high? Are other things bundled in here?	CalMTA has fixed this typo and adjusted and calibrated research budgets.
29	MTAB (Fred Gordon, Evaluation Professional)	Page 37: As noted elsewhere, there is no assessment of the extent of dependence on Federal funding. Also of California's special status for codes and standards surviving the current Federal challenge. Another risk is the impact of the current crash in downtown real estate occupancy and values (especially offices) on property investments. It may be that this is mitigated by the target markets, but worth saying if so.	In response to federal funding, see response to comment # 6. The current real estate downturn is a risk (along with any future, more general downturns) that we acknowledge in Table 7. Allowing for phased improvements that make financial sense for the building owners can help mitigate this risk, along with focusing on the long-term opportunities.
30	MTAB (Fred Gordon, Evaluation Professional)	Page 41: Probably for the next iteration. I think availability of Federally funded initiatives would be a major uncertainty that would benefit from scenario analysis, unless that's all clear by the next iteration. For this stage-gate we need at least a qualitative assessment. Could also use an assessment of the likelihood of California's special status with codes and standards going away, which would have a catastrophic impact.	Please see response to Comment #6.
31	MTAB (Fred Gordon, Evaluation Professional)	Page 41: For some CREs turnover in staff and property holdings have been significant barriers to long term energy efficiency investment, and to structuring more sophisticated analysis to incorporate energy efficiency. It may be worth considering the impact of "investment horizon investment" as compared to life cycle. Increased asset value may be appealing, but only if there is enough organizational continuity.	We agree that holding period should be part of the tool.
32	MTAB (Fred Gordon, Evaluation Professional)	Page 41, A1: May want to add "and accelerate investment where a BPS is not in place"	CalMTA agrees and has added this language to A1.

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33	MTAB (Fred Gordon, Evaluation Professional)	Page 43: Affected building square footage. It is interesting that a 25,000 square foot threshold is used here, and 20,000 in the body. As previously noted I am not sure that smaller buildings not owned by investors with many buildings are a great fit.	Appendix A analysis was completed 1.5 years ago and the threshold set by the MTI team has since been updated. We will update all calculations based on the revised initiative parameters during Phase II.
34	MTAB (Fred Gordon, Evaluation Professional)	Page 44, below Table A2: Curious why multifamily housing proportions were used as a proxy. Data availability?	Yes. CalMTA used multifamily housing proportions as a proxy for the C&I sector due to lack of data availability.
35	MTAB (Fred Gordon, Evaluation Professional)	Page 45 and on. Note "error reference source not found"	This has been corrected.
36	MTAB (Fred Gordon, Evaluation Professional)	Page 47: Unit Energy Impacts. Would be useful to say why EUIs from 5-10,000 SF buildings were used; text says why it's maybe ok, but was data less available on relevant sizes?	CalMTA used the data set for smaller buildings because we believe it better reflects older, lower-performing mid-size offices under roughly 75,000 sq. ft., the primary target of the MTI. These offices typically use single-zone rooftop units and have higher surface area to floor area ratios than larger buildings, both key drivers of EUI.
37	MTAB (Fred Gordon, Evaluation Professional)	Page 49: Initiate measure cost. Is 1% annual reduction cost real or nominal? My very long term observation is that some costs go down and some go up. E.G., heat pump costs have skyrocketed with demand. I think a flat real cost is a more neutral assumption.	This assumption is real, but incremental measure costs are discounted over time as well as a function of NPV. CalMTA declined prices marginally given the similar trends in strict technology costs and efficiency seen in product categories, like batteries and LEDs.
38	MTAB (Fred Gordon, Evaluation Professional)	Page 50: TSB and Cost-effectiveness Forecast. Incremental adoption begins in 2025. Initiative schedule suggests this might be a couple of years premature. Since costs are front-end loaded this might be significant.	CalMTA agrees with this statement. Appendix A documents the analysis conducted for Stage 2 scoring, which was completed in October 2023. The forecast will be updated as part of Phase II activities and will better reflect the likely timing of incremental adoption.

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39	MTAB (Jennifer Green, MCE)	My comments come from the perspective of transforming the market for multifamily properties, which are inherently hard-to-reach and routinely serving low- and moderate-income customers. My comments may not apply for all scenarios, but focus on instituting feasible strategies that can be leveraged by building professionals to encourage efficiency and electrification in the MF space.	CalMTA agrees with this statement. We are deeply committed to ensuring that MTI interventions, especially the financial analysis tool and trainings that go along with it, are pragmatic for all market actors and take into account the unique requirements for multifamily buildings (especially affordable housing).
40	MTAB (Jennifer Green, MCE)	Page 8: "SB 48 is poised to elevate the value proposition for building owners" It'd be great if the team is not already doing so to engage with the CEC on how the strategy mentioned in SB 48 can also be optimized to prepare energy professionals to quickly and easily talk with building owners to and effectively develop building life cycle plans that are sought after and followed long-term.	CalMTA is actively engaged with the CEC Building Performance Standards Technical Advisory Working Group and CalBPS meetings hosted by USGBC CA. These engagements allow us to share our perspective on opportunities to make SB 48 strategies market-friendly and equitable.
41	MTAB (Jennifer Green, MCE)	Page 10: "If energy professionals include more holistic, long-term...building owners are more likely to take action." Does this plan assume that most buildings have an assigned energy professional? Chances are, for several property types, there is not, so I'd recommended really digging into the SEM design for many scenarios, including but not limited to MF properties. Identifying an energy champion will be key here, and will require mid-to-long term commitments to develop and maintain action plans.	CalMTA agrees that not all segments of the market will have energy professionals currently working for them and that these buildings may need more support. We expect to collaborate with existing utility programs, like SEM, but do not anticipate that SEM work will be directly incorporated into the CBEA MTI. We also hope to identify tools, funding, and/or other factors that can assist building owners who lack the resources to hire an energy professional.
42	MTAB (Jennifer Green, MCE)	Page 10: "...many building owners will need to implement these more impactful measures" How will you entice building professionals to develop compelling efficiency plans? Could they receive incentives based on savings? Will they receive sales training, and training on how to build the most compelling plan for the building owners and tenants alike?	As part of developing qualified energy professionals, we plan to provide these market actors with the framework (playbook) and analysis tools that will compel building owners by developing a pragmatic business case. In addition, our hypothesis is that banks will start

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			asking for these analyses and providing better financing terms when the plans are implemented.
43	MTAB (Jennifer Green, MCE)	Page 13: "Collaborate with existing commercial utility programs" and "increase awareness of financing opportunities" Both of these items have been researched extensively. Lessons learned within the research, as well as those learned from interviews and feedback from professionals in these financial and energy fields, will be invaluable.	CalMTA has added another question to TA 7 that will ensure we review this information.
44	MTAB (Jennifer Green, MCE)	Page 16: "The MTI aims to collaborate w/ community colleges, apprenticeship process, and local and regional workforce organizations." To be an effective energy analyst, a key strategy should be to quickly yet effectively train the workforce, and continuing education should be a part of the training. Similar to HERS raters, energy analysts are skilled professionals that can complete short-term training, allowing them to get qualified and operational quickly, with the appropriate skillset and access to consults and continuing education through trade schools, colleges, unions, utility and other resources.	During Phase II, CalMTA will investigate existing training efforts to identify gaps in available curriculum. Based on our findings, we will identify partners and market actors who can help fill those gaps to quickly upskill the current workforce. We will also seek to understand how to effectively recruit, train, and retain building energy managers and analysts.
45	MTAB (Jennifer Green, MCE)	Page 16: Referring to energy professionals, I think it will be useful to define very specifically what training/education will be needed, and which existing resources can be leveraged to operationalize this quickly. Who will be the main players to build this infrastructure, who will test it, and who will maintain it are important questions to solve in this plan.	CalMTA agrees that it will be useful to identify the types of trainings, existing resources, and opportunities for leverage to build and test this infrastructure. These necessary identifications will provide the energy management and financial tools needed to demonstrate the value proposition and support subsequent implementation of energy efficiency upgrades. Phase II research and stakeholder engagement will focus on answering these concerns and questions.

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46	MTAB (Jennifer Green, MCE)	Page 16: YES! Agree wholeheartedly that we need planning and benchmarking software to be integrated, adapted, and improved. Great ideas!	CalMTA appreciates this statement of support. Our goals are for this work to help inform WE&T priorities and align them with future market demand while supporting communication between the workforce and building owners and our iterative understanding of current market resources and gaps.
47	MTAB (Jennifer Green, MCE)	Page 16: In addition to the ESJ community impact goals, are there EUI and site CO2 reductions goals for market-rate communities?	The 30% reduction in both EUI and CO2 emissions goal applies to all buildings including both affordable housing and market-rate multifamily buildings. Our intent is that rent or other costs do not rise for any tenants or owners, and we will seek to apply specific strategies to mitigate impacts to buildings in ESJ communities.
48	MTAB (Jennifer Green, MCE)	Page 16: I believe that 6.1 bullet 2 "if decarbonization is financially incentivized, building owners will see a more immediate impact to their life cycle planning" is critical. We have to incentivize making buildings efficient, so the property owner makes short-, mid-, and long-term decisions that have a positive impact on energy consumption and associated GHGs.	We agree that financial incentives (or meaningful regulatory requirements on buildings) tied to building-related carbon metrics will be critical for promoting reductions alongside increasing energy efficiency. We have added a preliminary market research activity that includes investigation into what carbon incentives currently exist for buildings and how (widely) they are used.
49	MTAB (Jennifer Green, MCE)	Page 27: Contains a key question "How does decision-making for building upgrades and equipment replacements work by type of ownership structure? Who decides what? What does the process look like? What outside influencers have input". These questions must be answered and addressed throughout the plan.	We agree that this is an important research question on which intervention strategies will depend. To add to this, we have incorporated a new line of inquiry into the market research plan to identify the various building investment strategies in use, which seeks to answer the question: who makes building decisions and what strategy guides their decision-making?

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50	MTAB (Jennifer Green, MCE)	Page 34: Typo in estimated cost value for "secondary research/sales data analysis"	This typo has been corrected.
51	MTAB (Jennifer Green, MCE)	Page 36: Please add CCAs , especially in the box "Whole building mF optimization programs like the IOUS' MF Energy Savings Program". MCE has run a successful multifamily program for 10 years called "Multifamily Energy Savings" or MFES	The programs named in that section of the Advancement Plan are intended to be representative rather than inclusive of all potential external programs working in a similar market; a comprehensive matrix of external programs will be developed as part of Phase II activities. However, we have added mentions of CCA/REN programs to more clearly illustrate the range of external program engagement and alignment.
52	CLEAResult (Pavel V. Tumakov, MBA)	<p>Opportunity to Validate Market Barriers Through Research</p> <p>The advancement plan identifies several potential market barriers, which align with many challenges we have observed in the field. However, the plan does not give any supporting evidence that the barrier identified is the reason that more efficiency hasn't been completed. We appreciate that the plan includes comprehensive market research activities in Section 8.2, including market actor interviews, stakeholder interviews, and baseline practice surveys. However, we are concerned about the sequencing and approach of this research. We suggest conducting comprehensive market validation research early in Phase II to ensure the proposed interventions precisely target the most significant actual barriers. The document seems to propose solutions prior to understanding the barriers which may skew the results of the market research.</p> <p>We suggest resequencing Phase II to conduct barrier validation research as the first priority, before finalizing intervention strategies.</p>	<p>We intend to approach research from an unbiased perspective and will revise barriers, opportunities, and interventions as we learn more. This Advancement Plan is meant as a first theory on the logic model and strategy, but we have found in other initiatives that all aspects of the proposed initiative will shift and adjust as we discover new information through research and analysis.</p>

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		<p>Specifically:</p> <ul style="list-style-type: none"> • Front-load the market research (currently planned for weeks 1-32) to weeks 1-16 • Design research questions to be exploratory rather than confirmatory • Use findings to refine or potentially redesign the proposed interventions in Section 4.4 • Survey building owners across different ownership structures to understand their actual decision making processes • Interview energy professionals about current practices and challenges • Analyze participation patterns in existing efficiency programs to identify gaps <p>This evidence-based foundation would strengthen the program design and help ensure the proposed solutions effectively address the most critical market needs.</p>	
53	CLEAResult (Pavel V. Tumakov, MBA)	<p>Market Complexity as a Fundamental Barrier California's energy efficiency ecosystem may be the most complex in the nation, with overlapping jurisdictions, funding sources, and program administrators creating a landscape that challenges even industry professionals to navigate effectively. While the advancement plan identifies several market barriers in Section 4.3, it does not adequately address the fundamental complexity of California's efficiency landscape as a core barrier to participation.</p> <p>Scale of California's Efficiency Landscape: The complexity is staggering, with multiple investor-owned utilities each</p>	<p>We appreciate these insights and believe resource acquisition programs will be an important point of alignment and leverage, with the potential to help lower the cost of upgrades for building owners and support other MT strategies such as awareness-building. Formal collaboration with external programs will align our efforts for better outcomes and to mitigate market confusion. We anticipate beginning these planning sessions in Phase II and solidifying coordination agreements prior to market deployment.</p>

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		<p>offering numerous local and state-wide programs, Regional Energy Networks serving different geographic areas, Community Choice Aggregators developing local initiatives, municipal programs, state level grants, CEC incentives, third-party implementers, and federal grants. As professionals working in this industry, we struggle to keep track of all available programs, their eligibility requirements, and coordination protocols. If industry professionals find this landscape complex, building owners face an even more challenging navigation task.</p> <p>Specific Complexity Challenges:</p> <ul style="list-style-type: none"> • Multiple funding sources with different requirements and timelines • Overlapping geographic territories with different program options • Varying eligibility criteria across similar programs from different entities • Coordination challenges between municipal, utility, and state-level initiatives • Different application processes and technical requirements across programs <p>Market Impact: Through our experience, building owners consistently underutilize available programs not due to lack of quality or incentives, but due to confusion about which programs are available, skepticism about legitimacy, and uncertainty about how different programs coordinate or conflict with each other. This complexity may itself be a significant market barrier that limits participation regardless of program quality.</p>	

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54	CLEAResult (Pavel V. Tumakov, MBA)	<p>Marketing and Customer Navigation as Infrastructure Investment</p> <p>California has an extraordinary abundance of energy efficiency resources, yet building owners consistently underutilize these programs due to awareness and navigation challenges. Given the complexity described above, we suggest CalMTA consider professional marketing and customer education as critical infrastructure investments that could deliver higher returns than developing additional program infrastructure.</p> <p>Current Marketing Challenges:</p> <ul style="list-style-type: none"> • Building owners express confusion about which programs are available and appropriate for their facilities • Significant skepticism about program benefits and legitimacy • Limited awareness of comprehensive, long-term engagement programs • Difficulty understanding relationships between different funding sources • Uncertainty about program coordination and conflicts <p>Recommended Marketing Infrastructure Investment:</p> <ul style="list-style-type: none"> • Comprehensive program database: Develop a searchable database allowing building owners to enter their address and building type to identify all available programs and incentives for their specific location • Professional marketing strategy: Invest in marketing expertise to simplify rather than add to the complexity of the efficiency landscape • Unified customer education: Create standardized materials 	<p>As part of the retrofit playbook and financial planning tool, we envision that an information hub could include information that would make accessing utility incentives easier and more utilized. Collaboration with external utility/energy programs in Phase II will inform the tool and hub, with research question MR.1.c specifically designed to investigate programs and their success. We recognize the need for outreach and market engagement plans, but it would be premature to create those before the intervention is developed more fully based on market and technical research.</p>

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		<p>that explain the overall landscape comprehensively</p> <ul style="list-style-type: none"> • Customer navigation services: Provide services that help building owners identify appropriate programs across all available sources • Coordination protocols: Establish clear coordination between different program entities and develop consistent messaging <p>Strategic Value: Enhanced marketing and coordination could be among the most cost-effective interventions CalMTA could pursue. A coordinated, professional marketing strategy that simplifies the efficiency landscape could significantly increase participation in existing programs while preparing the market for new initiatives, potentially delivering higher returns than developing additional program infrastructure</p>	
55	CLEAResult (Pavel V. Tumakov, MBA)	<p>Recommended Phase II Enhancements</p> <p>While the plan includes valuable market research activities in Section 8.2, we recommend the following Phase II enhancements to strengthen the foundation for effective market transformation:</p> <ul style="list-style-type: none"> • Market Barrier Validation: Prioritize comprehensive research to validate assumed barriers and identify whether program complexity itself is a primary barrier. • Comprehensive Program Landscape Analysis: Conduct thorough mapping of ALL California efficiency programs across utilities, municipalities, Regional Energy Networks, Community Choice Aggregators, and other entities to understand the full scope of available services and coordination challenges. 	<p>Several recommendations, if pursued comprehensively, would serve as standalone studies rather than integrated components of the MTI. CalMTA has incorporated aspects of some of these recommendations, as described below, while recognizing that MTIs evolve and respond to insights gained and changing conditions even after launch:</p> <ul style="list-style-type: none"> • Market Barrier Validation: Rather than research barriers to validate all assumed barriers and study issues with program complexity, we are instead seeking to understand drivers and tools that would naturally appeal to building decision-makers based on the factors that already value. We have built on this part of the Advancement

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		<ul style="list-style-type: none"> • Marketing and Navigation Strategy Development: Develop professional marketing and customer navigation strategies as core components of the market transformation approach. • Multi-Entity Stakeholder Engagement: Engage extensively with the full range of program administrators and implementers across California's complex efficiency landscape to understand coordination opportunities and challenges 	<p>Plan by incorporating into the market research and the technical research a coordinated effort to understand the financial strategies building decision-makers pursue and approaches to leveraging that driver.</p> <ul style="list-style-type: none"> • Comprehensive Program Landscape Analysis: Our Advancement Plan includes market research into the range of programs available for commercial building retrofits and other initiatives that seek to promote or facilitate efficiency and sustainability upgrades. Those activities are captured under MR 1's various sub-questions. We will examine the full range of programs, but prioritize those that include financial decision-making tools. • Marketing and Navigation Strategy Development: We recognize the need for outreach and market engagement plans, but it would be premature to create those before the interventions are confirmed and developed more fully based on market and technical research. CalMTA will develop these components of the future MTI Plan after market and technical research is completed, with the expectation that an awareness campaign will be needed in the market deployment phase. As a market transformation initiative, market awareness-building and engagement tactics are often different than the marketing efforts deployed by resource acquisition programs. • Multi-Entity Stakeholder Engagement: We agree

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			that it will be important to engage program administrators and other stakeholders with overlapping and complementary aims. Just as with marketing, we believe the most appropriate timing for those activities to occur is after the completion of the market and technical research and after interventions are more fully developed.
56	MTAB (Peter Miller, Environmental Advocate)	To what degree does it make sense to focus on the smaller number of highly energy intensive buildings vs focusing on impacting the broader market of buildings? There are potential reasons to choose either option. Or should the MTI broadly include both aspects in order to maximize impact?	CalMTA will explore this as part of Phase II, beginning with research into segmentation (by ownership type and building type) that will inform development of any targeted strategies for the segmented market. Multiple scenarios are possible: it may be most beneficial to focus on the broader market or high EUI buildings but could also make sense to adjust focus by segmentation. Language added to Section 4.2 of the Advancement Plan clarifies that while high EUI buildings will likely benefit the most, all owners who are interested in reducing EUI or GHG emissions will benefit from CBEA.
57	MTAB (Peter Miller, Environmental Advocate)	Will the MTI potentially include transportation electrification measures that may increase overall demand?	The MTI does not currently focus on any particular technologies, but installation of measures like EV chargers will feed into the financial analysis tool. In any tracking of EUIs, we will want to note EV chargers and the increase in energy use that they would create.
58	MTAB (Peter Miller, Environmental Advocate)	Many downtown areas and office buildings in particular are facing very high vacancy rates and potential teardowns/rebuilding. What are the implications for this MTI? Is there an opportunity to facilitate efficient transformation?	The CBEA MTI focuses on lower-performing buildings that exhibit high potential for efficiency upgrades. In many cases, they will require upgrades to comply with mandatory performance standards, but the MTI focuses on buildings that

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			are not otherwise planned to undergo major alterations. Buildings that are transformed through adaptive reuse or demolition and rebuilding are not the focus of the MTI, because substantial renovations would trigger current building codes that bring these buildings into a higher-performing tier.
59	MTAB (Stephen Miller, SEI)	<p>In this section of the plan, the following is highlighted:</p> <p>“A locally trained, community-based workforce will be critical to supporting small, rural, and under resourced building owners in navigating retrofit processes, avoiding financial risk, and implementing meaningful energy improvements aligned with California’s decarbonization goals.”</p> <p>SEI's Comment:</p> <p>Through the SEI team’s experience supporting an emerging workforce to enable broad-scale building energy retrofits and compliance with building performance standards, we applaud Cal MTA’s consideration of equipping a geographically dispersed workforce to cover all areas of the state, including urban, suburban, and rural. Additionally, SEI encourages the MTA to consider outreach and support of individually owned/managed buildings, along with building managers representing a small portfolio. ESJ and rural communities often have a majority of single or small-portfolio managed building types, and reaching these facility owners and managers requires intentional recruitment, training, and oversight of a geographically and culturally diverse building professional workforce.</p>	<p>We agree with the need to understand the distinctions between individually owned/managed buildings and those with smaller owned/managed portfolios. Additionally, we are pursuing research in Phase II that will help to provide a contextual understanding across the many culturally and geographically diverse communities in the state in order to better communicate, collaboratively iterate on training needs, and bolster trust in the value propositions that resonate with these communities.</p>

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60	NEEA (Debbie Driscoll)	How will you target the highest energy users? Are there common characteristics that can be targeted? How will you identify and reach these owners/decision makers in particular? Will your market research plan allow you to sufficiently identify how to target this segment?	California's current benchmarking data identifies building addresses, providing us with a very direct, simple way to identify the highest energy users.
61	NEEA (Debbie Driscoll)	As described, it seems like this could be a very expensive initiative, since it involves a lot of awareness building with multiple, large audiences, and training of workforce. How the interventions will diffuse and ultimately be owned by the market is unclear. It seems like it will be important in Phase II research to understand which market actors could be partners and ultimately owns the information delivery and training channels, and what structural/lasting market changes could result.	We expect that the different market actors will all benefit in the type of longer-term financial planning proposed by this initiative. Energy professionals will get more projects implemented, building owners and investors will see increased asset value and higher profits, and banks will appreciate the lower risk (due to increased asset value and higher profits). When all of these market actors come to rely on these benefits and their new revenue streams, we believe long-term planning will become the de facto way of doing business.
62	NEEA (Debbie Driscoll)	I noticed that the initiative seeks to build awareness of existing incentives and financing, but doesn't seek to create new pathways to funding, such as revolving funds; state incentives; preferential CPACE rates; enhancing carbon or DR incentives via utilities, state or municipalities; or getting more on-bill financing available. As funding is a significant, if not the biggest barrier to pursuing upgrades, creating additional funding or funding mechanism may be something to consider.	Our preliminary research indicates that funding is crucial for certain segments (such as the MUSH market), but less crucial for others (such as investment properties). Popular solutions like IOU on-bill financing offer one pathway, but if research indicates that current financing offerings do not meet the market need, we will explore opportunities to influence new financing mechanisms. Market research question MR 5 will characterize available funding.
63	NEEA (Debbie Driscoll)	I appreciate that collaboration, including with NEEA, is called out as a strategy. We will go further together.	CalMTA appreciates this validation. Each state/region is unique, but building on shared research, findings, and external market connections will support the success of all efforts.

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64	NEEA (Debbie Driscoll)	Speaking of collaboration, NEEA is conducting market and building stock research, assessment of existing BPSs, and a technology landscape assessment that may also be informative for California. We haven't yet started the technology assessment - this may be an especially good opportunity to coordinate so we don't do the same work twice. NEEA is very interested in CalMTA's planned Phase II research. Hopefully we can connect during planning to identify information NEEA can contribute and inform outstanding data needs.	CalMTA looks forward to meeting with NEEA to learn more about this work and opportunities for collaboration.