



September 8, 2023

**Market Transformation
Advisory Board (MTAB)
Meeting**

Agenda



Time	Agenda Item	Presenter
11:00 a.m.	1. Welcome & Agenda	
11:05 a.m.	2. Introductions & Ice breaker	All
11:20 a.m.	3. Review June Meeting Notes	Margie Gardner
11:25 a.m.	4. MTI Development Process & MTAB COI Reminder	Margie Gardner
11:55 a.m.	5. MT Idea Submission Update	Jeff Mitchell
12:15 p.m.	6. MTI Criteria Weighting	Jennifer Barnes
12:35 p.m.	Break (20 min)	
12:55 p.m.	7. MTI Evaluation Framework	Karen Horkitz

Time	Agenda Item	Presenter
2:25 p.m.	8. MT Policy Manual Overview	Nils Strindberg
2:40 p.m.	9. Public comment	All
2:55 p.m.	10. Next Meeting & Next Steps	Margie Gardner
3:00 p.m.	Adjourn	

Phone participants can raise their hand during the public comment period and will be unmuted.

Ice Breaker



Name a book you really like.



June 30 MTAB

Meeting Notes

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



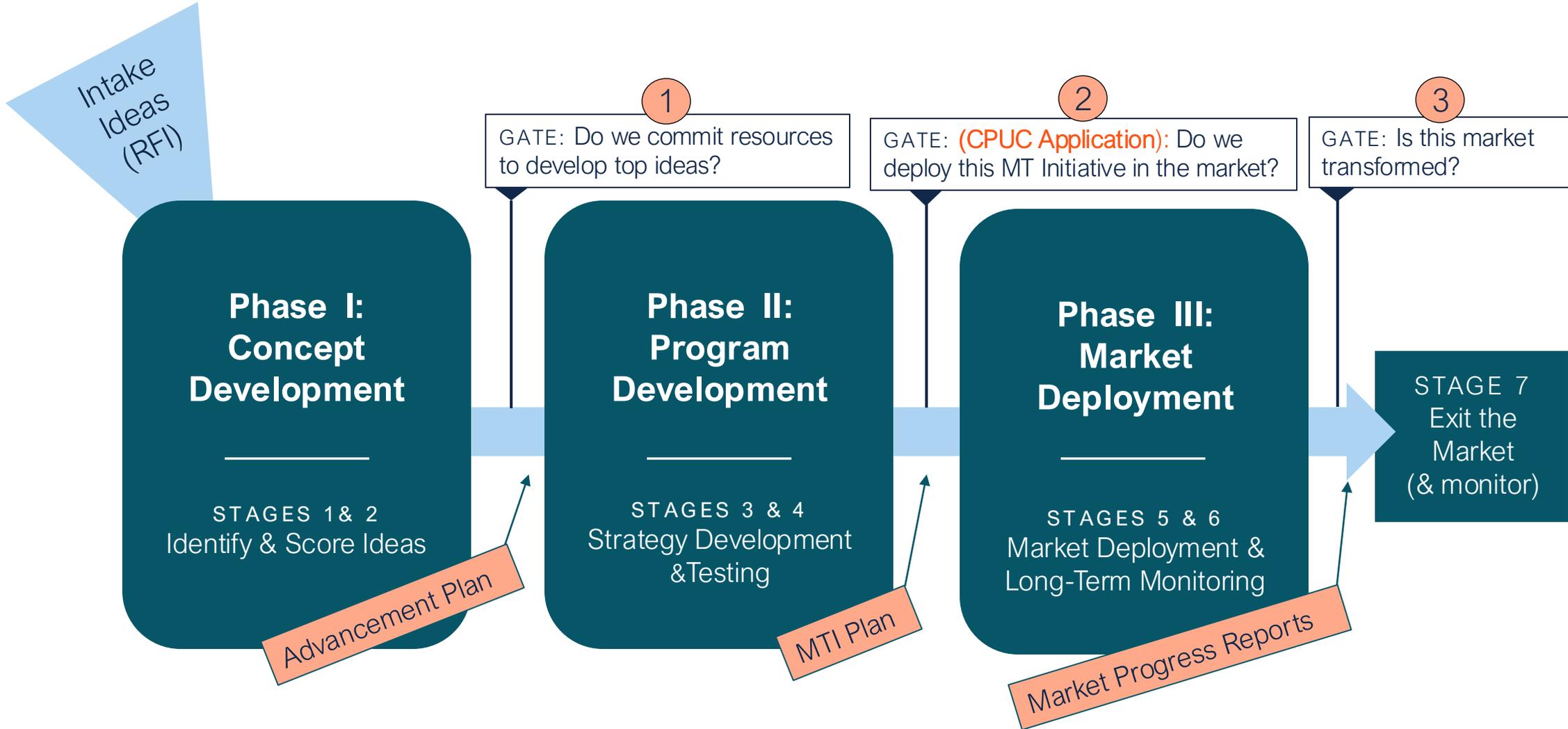
#4 MTI Development Process & MTAB COI Reminder

Margie Gardner

Vice President, Market
Transformation



CalMTA MTI Development Process



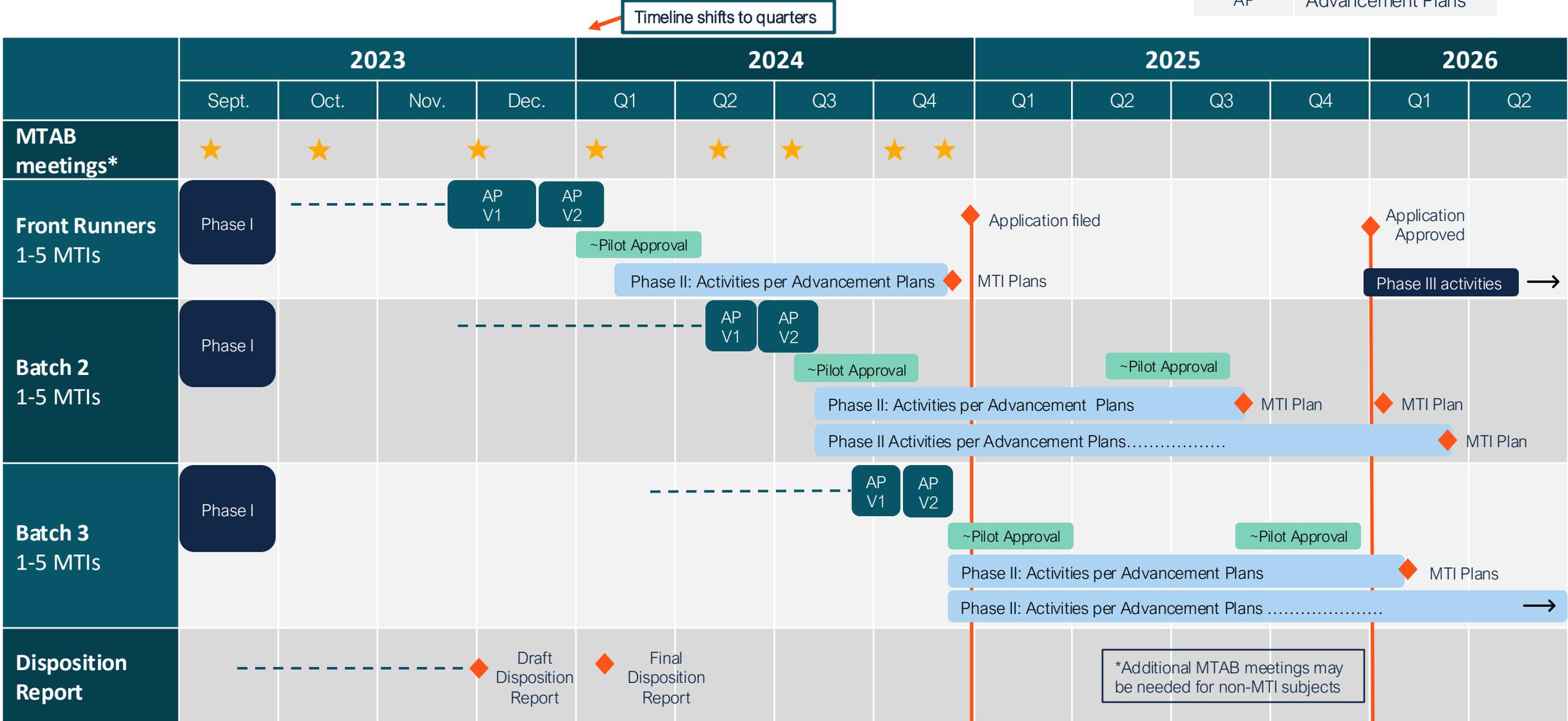
"Front Runner" Timeline

	MTAB meeting
	Milestone
	Public comment ends
	Staff activity
AP	Advancement Plans



Batch Approach to MTI Plan Development (Draft)

★	MTAB meeting
◆	Milestone
- - -	Staff activity
AP	Advancement Plans



MTAB COI Policy Reminder



- Eligibility
 - Can't receive funding from CalMTA or be in pursuit of funding
- Recusal Requirements
 - Can't bid on RFP/RFQ if give input on MT idea after Concept Development Phase I
 - Can recuse from that MT idea discussion, but must leave MTAB if respond to RFP
 - If have competitive interest in an MTI or strategic prioritization, recuse from that discussion
 - Agree to not influence remaining MTAB
 - Interpretation if needed done by CPUC staff
- Disclosure
 - Complete publicly posted Disclosure Form with information about relationships
- Transparency
 - Public meetings & process where COI concerns can be raised by the public

Meeting Norms (from 8/19/2022 meeting)



- MTAB meetings are public
- Packet materials are sent a week in advance and should be reviewed before the meeting
- Member should attend at least 80% of the time
 - If Member can't make a meeting, notify CalMTA in advance and someone else from the organization can attend as proxy
- **Recommendations should be constructive**
- **Silence means agreement**

#5
MT Idea
Submission &
Scoring Update

Jeff Mitchell

Principal, MTI Deployment
& Development



RFI Metrics



117

MTI Submissions

63

Unique Submitters

32

Outreach Presentations

118

Webinar Registrations

21

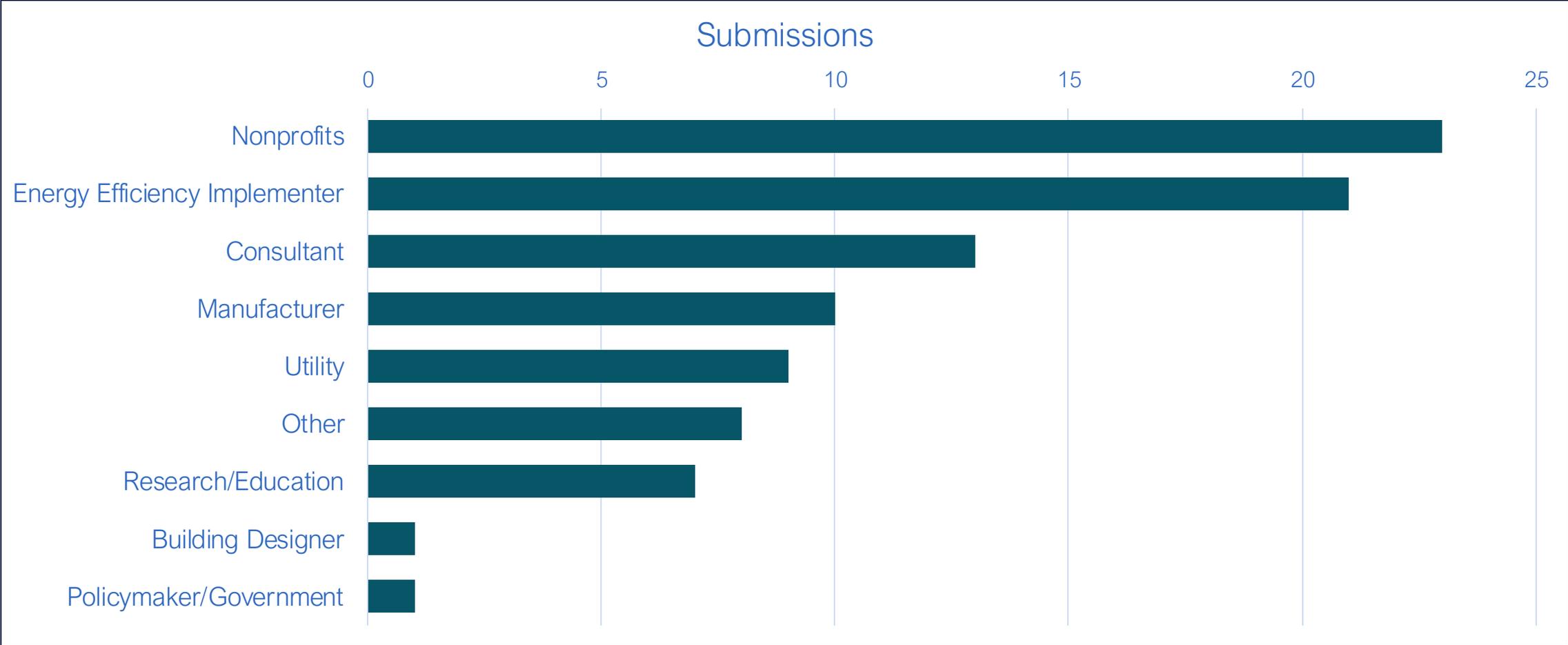
Office Hour Meetings

14

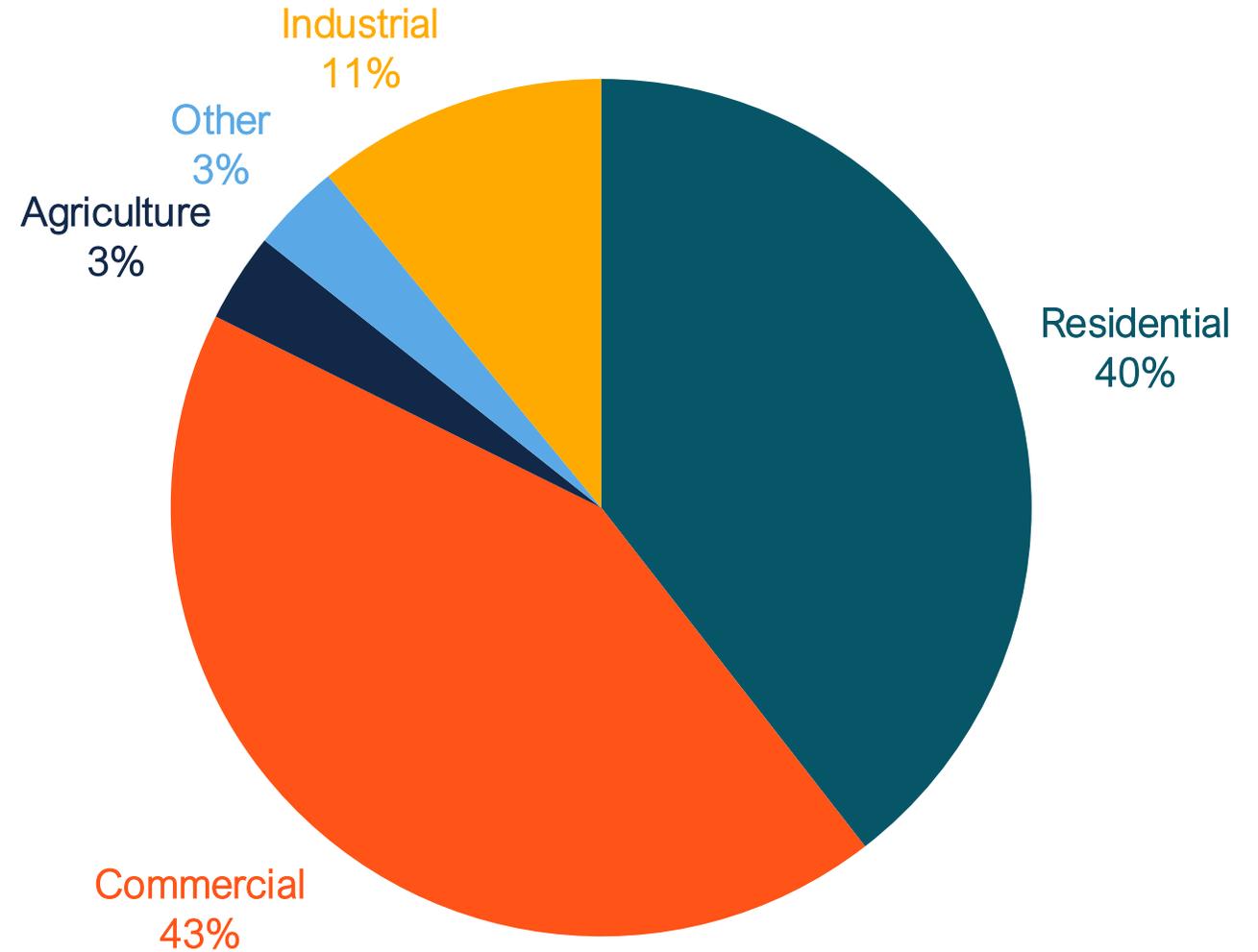
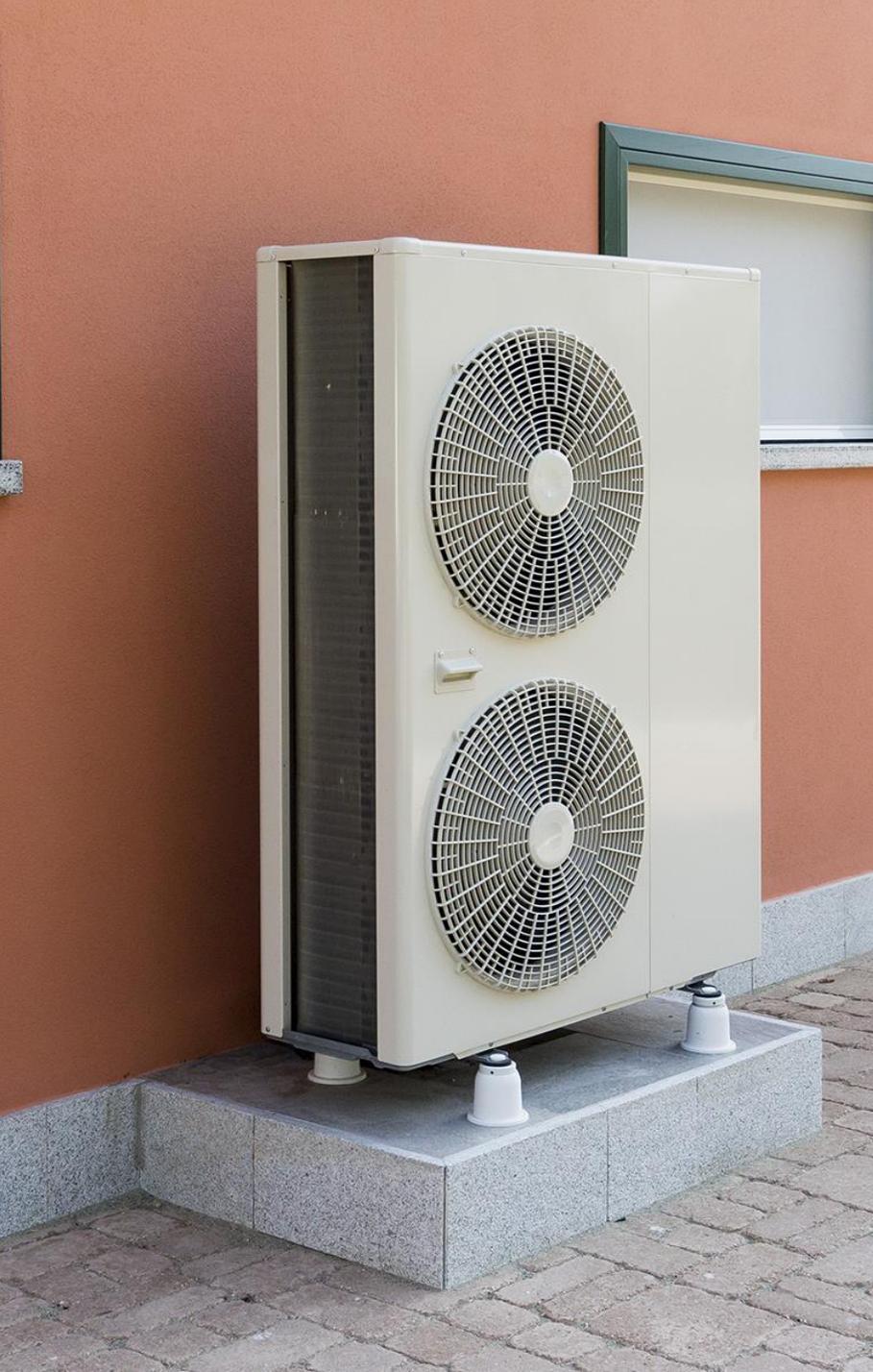
Q&A Board Posts

Submitter Industry Roles

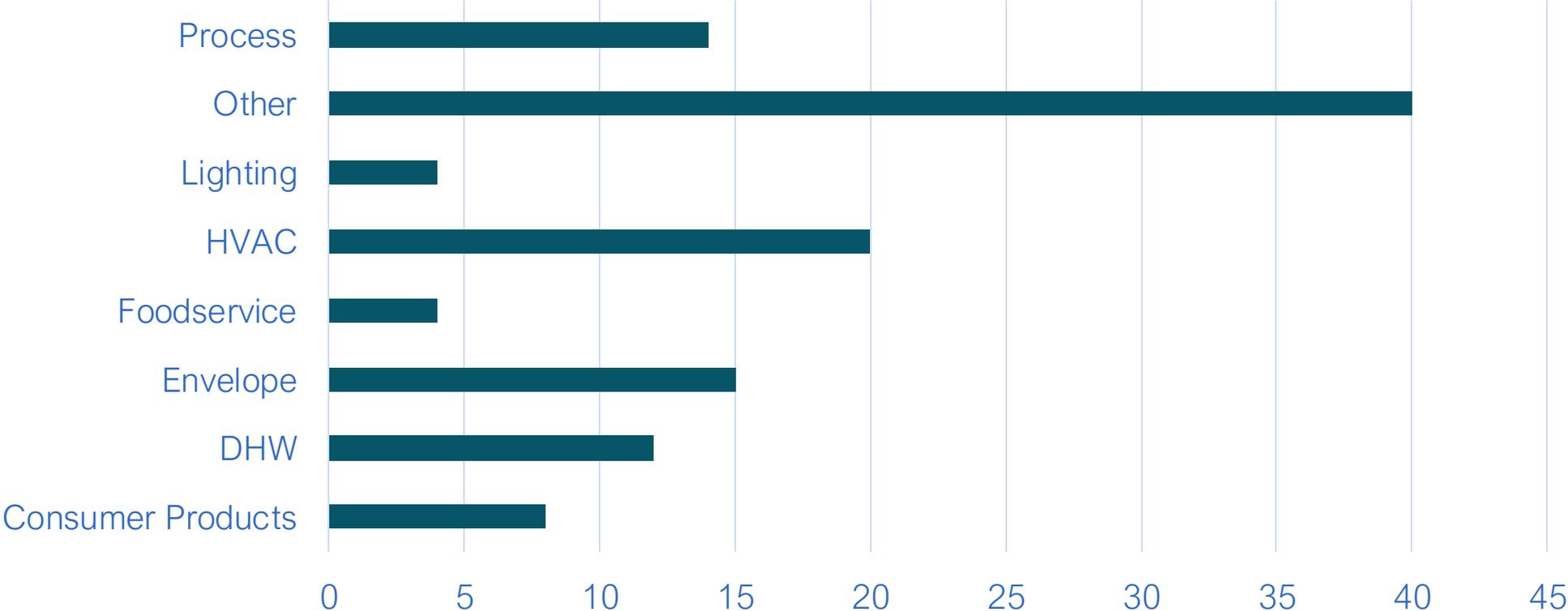
(Self reported; Excludes internally developed ideas)



RFI Submissions: Target Sector



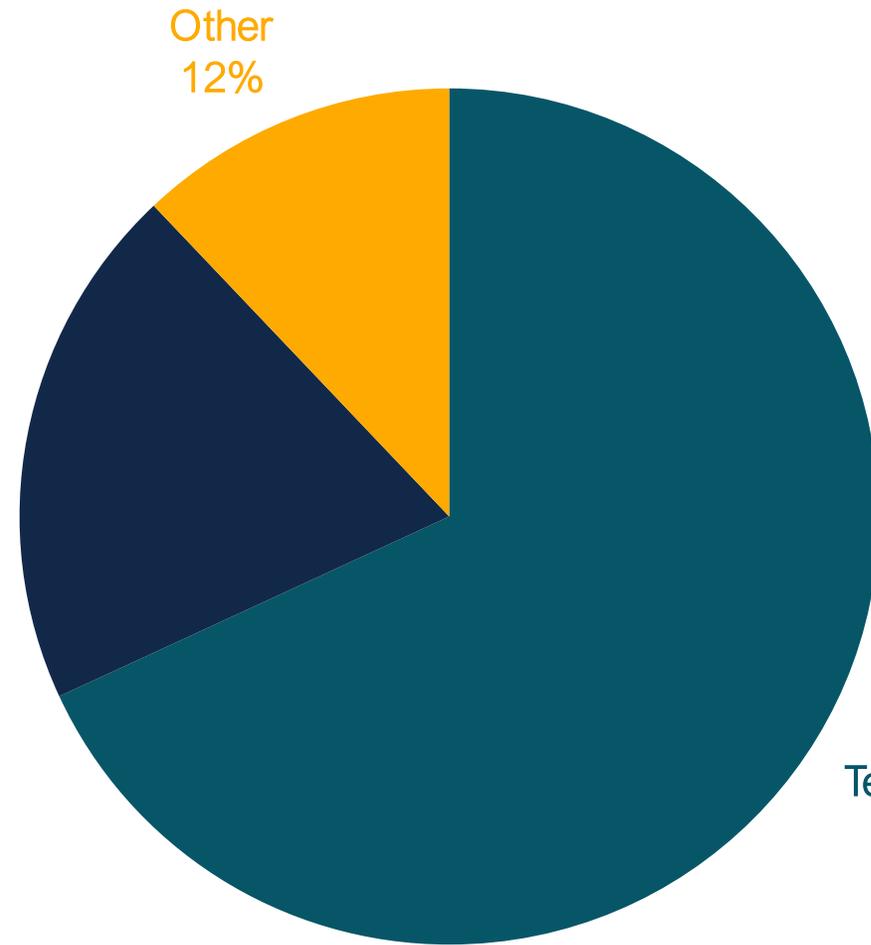
RFI Submissions: Load Type



RFI Submissions: Product



Practice/Service
20%



Technology/Product
68%

Scoring Process Overview



Threshold Review

Does it save energy?
Is it commercially available?
Enough information to be scored?

Stage 1

Reviews based on expertise and easily accessible information

Stage 2

Scores based on calculated values for TSB & TRC/PAC

MTI Scoring Process: Teams & Threshold



- Two scoring teams balanced with the following team members:
 - Teams discuss each project to ensure cross team calibration
- All Ideas in Salesforce (SF) and tracked through each stage and by each reviewers



Stage 1 Scoring Process



Team leads first define idea's target characteristics:

1. Market sector
2. Consumer purchase decision type (new construction, retrofit, or add on)
3. Baselines for product cost and energy savings

Then each team member reviews submission and supplemental information. Conducts limited secondary research, if needed

Each criteria has at least two scorers:

- 2050 & RI score all criteria
- Cadmus scores Non-Energy Impacts and reasonableness of participant cost estimates
- Ortiz scores ESJ community impacts and CBO partnership opportunities.
- Scoring meetings to review all ideas & align on a final Stage 1 score

Top scoring ideas move into Stage 2 scoring 

Stage 2 Scoring Process

Team meets to revisit/realign on key characteristics that drive MT theory, savings and costs

- Includes target market, baseline and decision type

Teams develop more detailed estimates/analysis to support Stage 2 scores:

- RI develops MTI cost estimates
- 2050 develops UEI & load shapes
- Cadmus develops market adoption model & runs Cost-Effectiveness Tool (to produce TRC/PAC)

Front Runners

- Have a well-defined product definition, MT theory, program logic and leverage points
- Required research and pilots can be completed in a short timeframe
- Clear role for CalMTA
- High likelihood of an MTI Plan being finalized by 12/24
 - MTI Plans needed by 12/2024 based on Decision timeline
 - Need CPUC approved Application before 12/2025 to access budget 1/2026 (approval may take up to 1 year)
 - Start up money stops 12/2025



#6 MTI Criteria Weighting

Jennifer Barnes

2050 Partners



Scoring Criteria



- Weighting is critical to scoring
 - Shifts in weighting can change selections
- Process
 - Develop scoring criteria weightings
 - Develop sub-category weightings
 - Calculate/review overall weightings (sanity check)
 - Run scenario analysis (stress test)

Category	Criteria
Total System Benefit	<ul style="list-style-type: none"> • Energy savings • Grid benefits • GHG impacts
Readiness	<ul style="list-style-type: none"> • Commercial readiness
MTI Cost & Cost-effectiveness	<ul style="list-style-type: none"> • Initiative cost • Cost-effectiveness
ESJ Impacts (Equity)	<ul style="list-style-type: none"> • Beneficial impacts to ESJ communities • Partnership opportunities with ESJ communities
Non-energy Impacts	<ul style="list-style-type: none"> • NEIs that may impact MTI success
MT Alignment	<ul style="list-style-type: none"> • Innovation characteristics • Market leverage points • Sustained benefits

Scoring Criteria Weighting



Category	Category Weighting
Total System Benefit (TSB)	25%
Product Readiness	10%
MTI Cost & Cost-effectiveness	10%
ESJ Impacts (Equity)	15%
Non-energy Impact	10%
MT Alignment	30%
Total	100%

- MT Alignment was weighted most heavily
 - Top ideas need to be good MT opportunity
- TSB includes GHG & grid impacts in addition to energy savings
- Not all ideas will include a strong equity element
 - But wanted to give meaningful boost to those that do

Sub-criteria Weighting



- Stage 1 & 2 Sub-criteria are the same except for cost-effectiveness (C-E)
 - Stage 1 C-E assesses ‘reasonableness’ of participant costs
- TSB: GHG emissions reductions weighted most heavily
- MT Alignment subcategories were weighted by importance to MTI success:
 - Innovation Characteristics is a measure of how likely the market is to respond
 - Leverage is available in the market
 - Sustained benefit for savings to be locked-in
- Benefits to ESJ communities gets most emphasis within equity

Category	Category Weighting	Criteria	Stage I Criteria Weighting	Stage II Criteria Weighting
Total System Benefit	25%	Energy Savings	30%	30%
		Grid Benefits and Reliability	30%	30%
		GHG Impacts	40%	40%
Product Readiness	10%	Readiness	100%	100%
MTI Cost & Cost-effectiveness	10%	Participant Cost	100%	
		Cost-effectiveness: TRC		50%
		Cost-effectiveness: PAC		50%
ESJ Impacts (Equity)	15%	Beneficial Impacts to ESJ Communities	65%	65%
		Partnership Opportunities with ESJ Communities	35%	35%
Non-energy Impact	10%	Non-energy Impacts	100%	100%
MT Alignment	30%	Innovation Characteristics	20%	20%
		Leverage Points	50%	50%
		Sustained Benefits	30%	30%
Total	100%			

Category	Category Weighting	Criteria	Stage I Criteria Weighting	Stage II Criteria Weighting
Total System Benefit	25%	Energy Savings	30%	30%
		Grid Benefits and Reliability	30%	30%
		GHG Impacts	40%	40%
Product Readiness	10%	Readiness	100%	100%
MTI Cost & Cost-effectiveness	10%	Participant Cost	100%	
		Cost-effectiveness: TRC		50%
		Cost-effectiveness: PAC		50%
ESJ Impacts (Equity)	15%	Beneficial Impacts to ESJ Communities	65%	65%
		Partnership Opportunities with ESJ Communities	35%	35%
Non-energy Impact	10%	Non-energy Impacts	100%	100%
MT Alignment	30%	Innovation Characteristics	20%	20%
		Leverage Points	50%	50%
		Sustained Benefits	30%	30%
Total	100%			

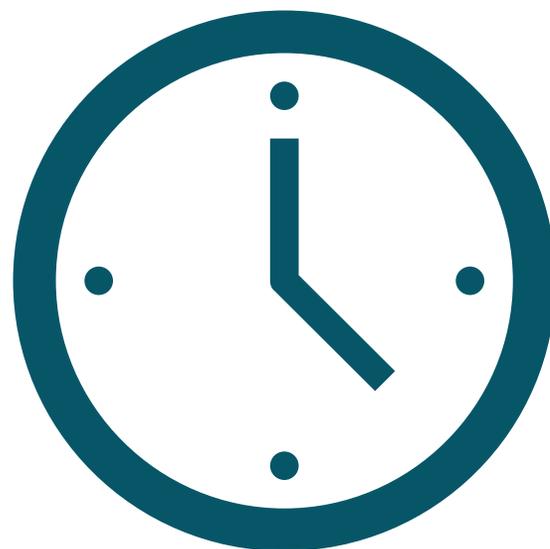
Overall Weightings

Overall weightings were calculated & reflect the intended priorities



Category	Category Weighting	Criteria	Stage I Criteria Weighting	Stage I Overall	Stage II Criteria Weighting	Stage II Overall
TSB	25%	Energy Savings	30%	8%	30%	8%
		Grid Benefits and Reliability	30%	8%	30%	8%
		GHG Impacts	40%	10%	40%	10%
Readiness	10%	Readiness	100%	10%	100%	10%
MTI Cost & C/E	10%	Participant Cost	100%	10%		
		Cost-effectiveness: TRC			50%	5%
		Cost-effectiveness: PAC			50%	5%
Equity	15%	Beneficial Impacts to ESJ Communities	65%	10%	65%	10%
		Partnership Opportunities with ESJ Communities	35%	5%	35%	5%
Non-energy Impact	10%	Non-energy Impacts	100%	10%	100%	10%
MT Alignment	30%	Innovation Characteristics	20%	6%	20%	6%
		Leverage Points	50%	15%	50%	15%
		Sustained Benefits	30%	9%	30%	9%
Total	100%			100%		100%

20 min break
We will be back soon.



#7 MTI Evaluation Framework

Karen Horkitz

Senior Advisor, Market
Transformation





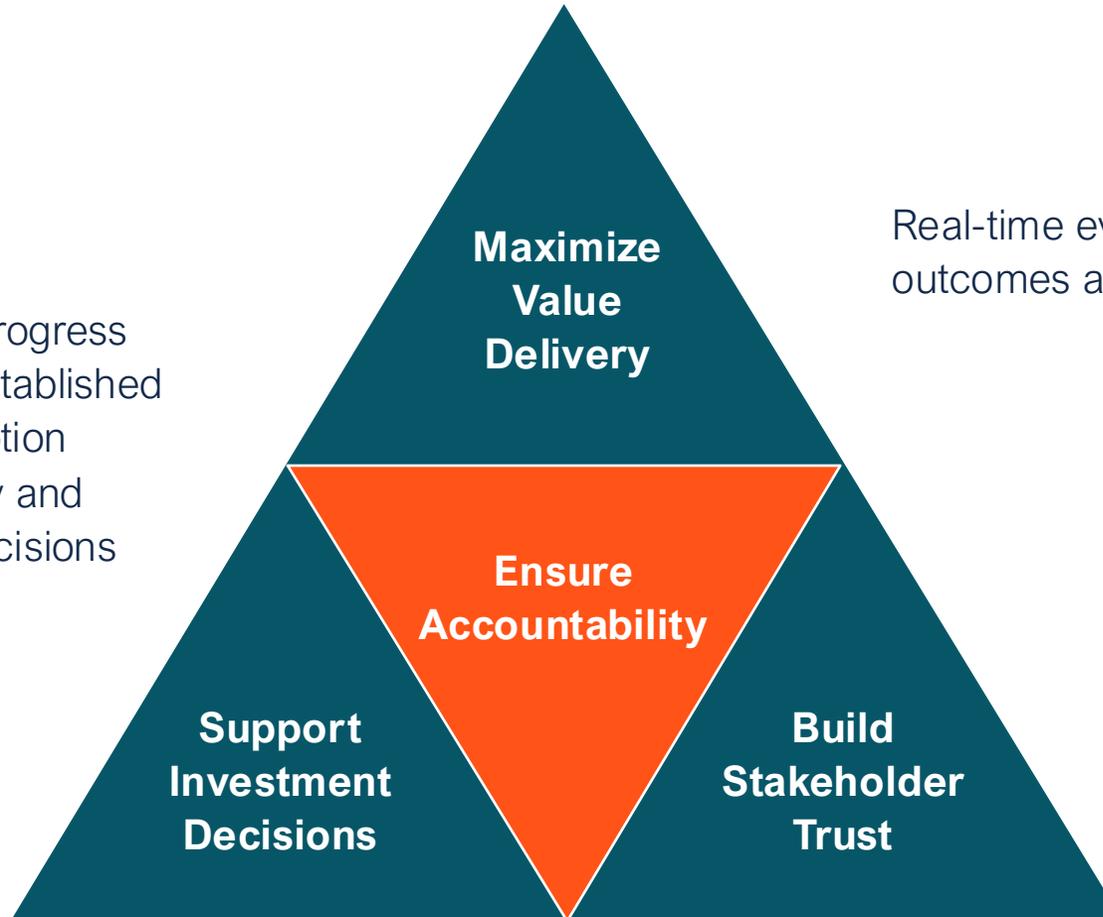
Agenda

- Introduction and Foundational Principles
- Evaluation Process Overview and Key Elements
 - Market Characterization and Baseline Forecast
 - Theory-Based Evaluation
- Incremental Impact Assessment and Attribution
- Roles: CalMTA and Third-Party Evaluators

Evaluation is instrumental to success



Performance against progress indicators and goals established at the time of MTI adoption supports accountability and ongoing investment decisions



Real-time evaluation improves outcomes and return on investment

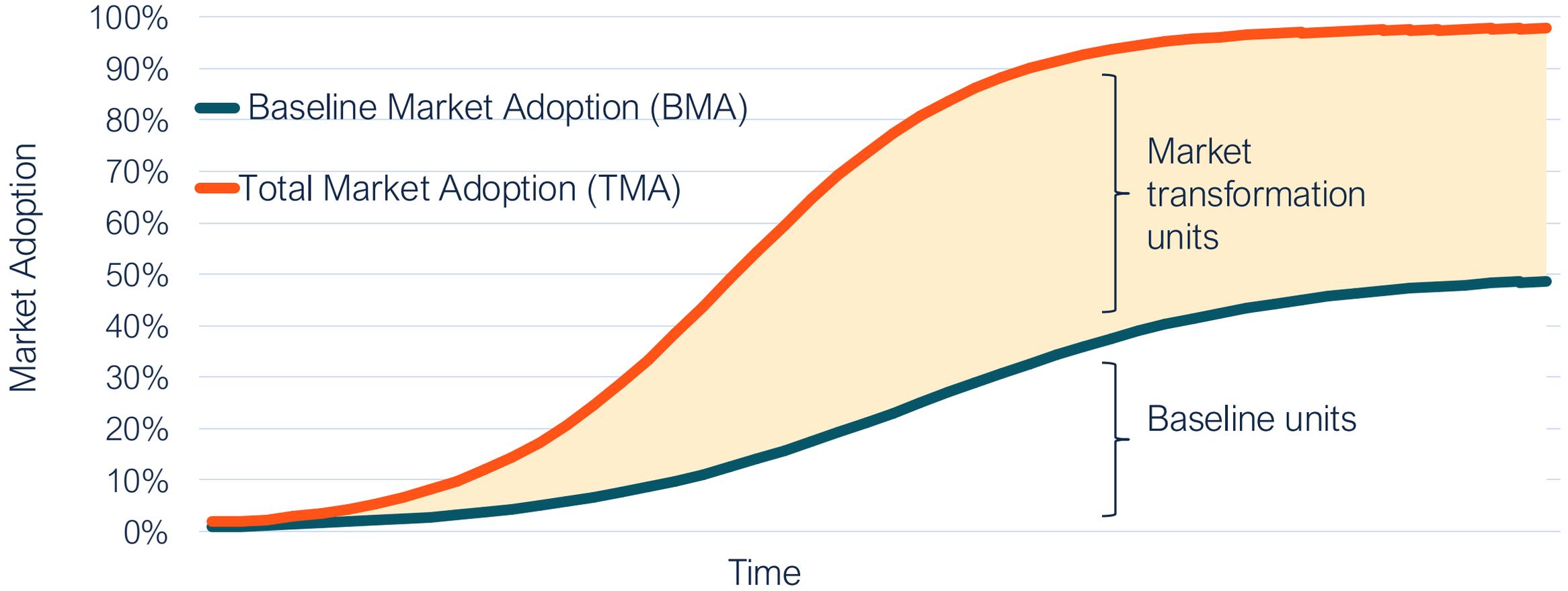
Stakeholder trust is critical to CalMTA success

MT evaluation is different than RA evaluation



	Resource Acquisition	Market Transformation
Program Approach	Save energy via customer participation/uptake	Save energy by mobilizing sustained widespread market adoption
End-User Characteristics	Participants known and recruited directly	Adopters are not known
Savings Estimation	<ul style="list-style-type: none"> • Unit energy savings from DEER or workpaper and extrapolated to participating customers • Savings based on program participation • Incremental impacts based on number of participants, free-ridership, and spillover 	<ul style="list-style-type: none"> • Unit energy savings from DEER or workpaper and extrapolated to market • Savings based on total vs. naturally occurring market adoption • Incremental impacts based on difference between the two and causality assessment
Implications	<ul style="list-style-type: none"> • Success of program judged on short-term results, and easily determined. • Logic model not required for evaluation 	<ul style="list-style-type: none"> • Success of initiative based on interim market progress indicators (MPIs) and long-term outcomes • Program theory/logic model with specific MPIs required to evaluate progress and impact
Timeframe	Annual or multi-year planning/reporting cycle	10- to 20-year timeframe typical

Market transformation savings opportunity



Evaluation approach is grounded in best practices



Unambiguous MTI progress and impact goals and metrics

established at time of adoption, along with data collection plan that substantiates MTI evaluability



Theory-based evaluation (TBE)

clear program theory, logic models, and associated market progress indicators as the foundation upon which to establish market influence, progress, and causal impact of MTI interventions



Data-driven, transparent analysis methods

to estimate market diffusion, cost-effectiveness, and incremental impact



Use of widely accepted best practices

to develop and refine baseline market adoption forecast



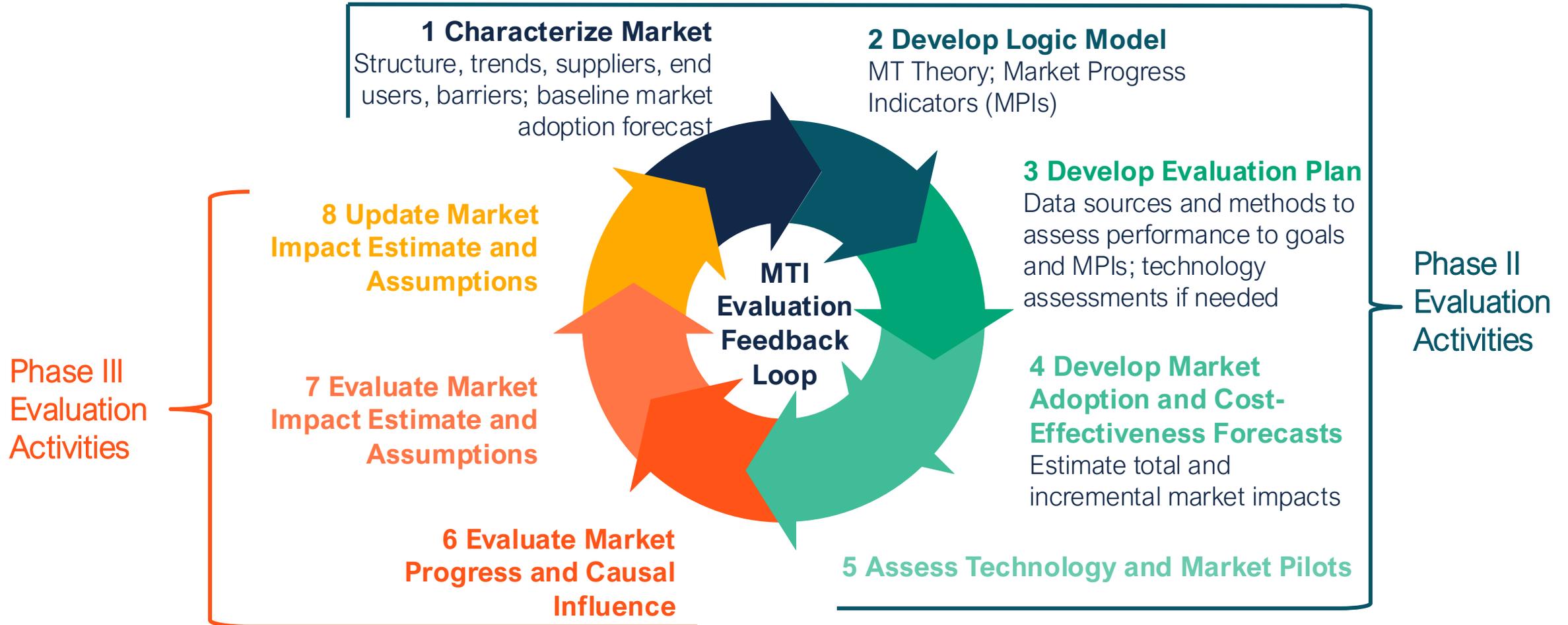
Agreed upon methodology to determine MTI incremental impact

that supports California's policy goals, statewide collaboration, and decisions about future market transformation investments

Evaluation Process and Key Elements



Evaluation process begins in Phase II



Market characterization is critical to MTI development and evaluability



Supply Chain Characterization

Supply chain mapping

Market size and channel volume

Pricing, industry trends

Opportunities, points of leverage

Perceptions & Attitudes Research

Barriers to adoption

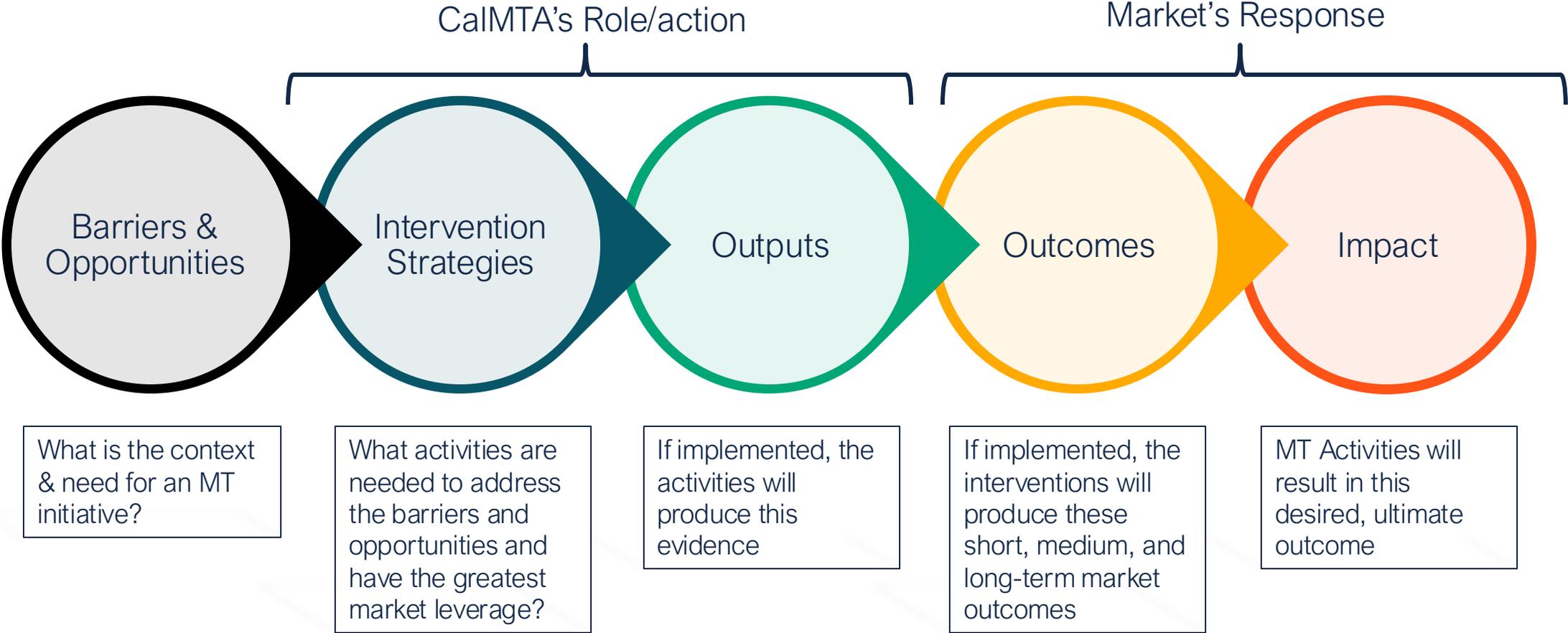
Motivations, preferences, value proposition

Baseline Market Conditions

Current and forecast market adoption

Baseline market progress indicators

A logic model is the MT theory blueprint



Theory Based Evaluation (TBE) Focus



Market Progress Assessment

- ⇒ Are the outcomes specified in the logic model observable?
- ⇒ What progress has been achieved?

Causality Assessment

- ⇒ Did the MTI market interventions cause the observed outcomes?
- ⇒ What is the evidence of that causality?

Evaluation plan maps expected outcomes and MT theory to MPIs and data sources



Outcome	Timeframe	MPI	Data Sources (MPI tracking)	MT Theory Linkages	Data Sources (Causality)
1 Manufacturers agree to partner	Short-term	Number of participating manufacturers	Signed contracts	MTI outreach	<ul style="list-style-type: none"> • Manufacturer interviews • Documented communications
2 Share of installers offering technology increases	Short-term	% of installers that have installed product in past year	Installer survey	Installer outreach and training	<ul style="list-style-type: none"> • Installer survey, in-depth interviews • Training registration data
3 Consumer Awareness increases	Medium-term	Consumer awareness	Consumer survey	MTI marketing toolkits, campaigns	<ul style="list-style-type: none"> • Consumer and installer surveys
4 Sales increase	Medium/long-term	Sales (units, market share)	Shipment data	Multiple	<ul style="list-style-type: none"> • Market actor interviews
5 Technology standard adopted	Long-term	Specific standard adopted	Legislative record	Multiple	<ul style="list-style-type: none"> • Interviews with policy influencers and officials • Documented communications/proceedings

Incremental Impact/Attribution



Evaluating incremental impact: MTIs and resource programs



Use this Metric/Approach	For this Purpose
Quantify “combined impacts” (MTI together with all coordinated/collaborative program efforts)	<ul style="list-style-type: none">➤ Savings goals, performance to goals➤ Cost-Effectiveness calculations
Quantify market progress via rigorous TBE	Market progress goals (MPGs), performance to goals
Assess causality via rigorous TBE	Validate incremental benefit
Subtract claimed resource program savings from combined impacts	Avoid double-counting

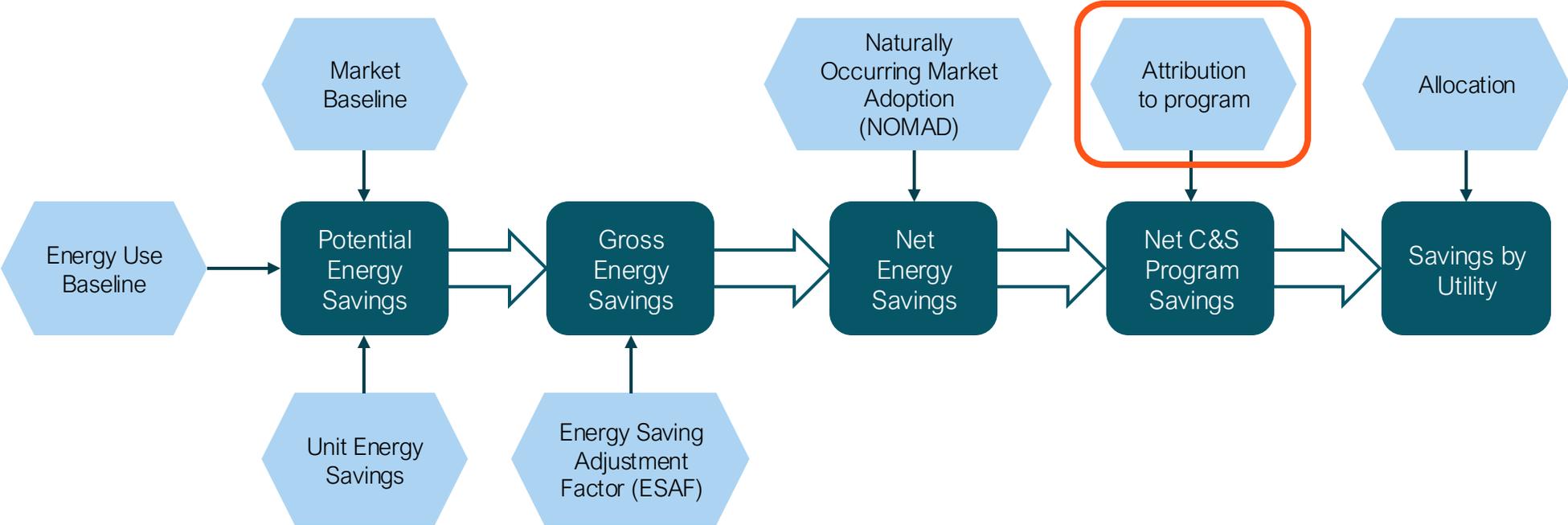
Evaluating incremental impact: MTIs and Codes & Standards



When this is true	Use this Attribution Approach
MTI does NOT overlap with CA Statewide Codes & Standards portfolio	Incorporate baseline codes or standards expectations into BMA forecast*
MTI does overlap with CA Statewide Codes & Standards portfolio	Collaborative forecasting per MTWG Phase II Report recommendation; to be trued up as part of the C&S program evaluation*

***Recommended approach differs from Decision, which states:** *MTI shall count annual savings 3X the level in the year prior to C/S adoption*

Codes and Standards evaluation approach includes attribution assessment



Wrap-Up



Third-party evaluators assess market progress and incremental impact



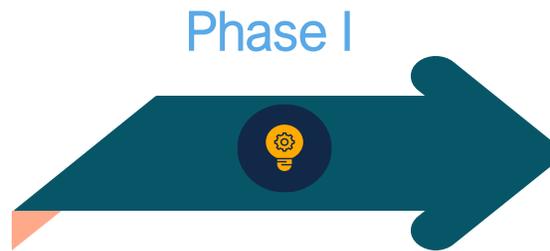
	Phase I. Concept Development/Assessment	Phase II. Strategy Development	Phase III. Market Development
EM&V Activities	<ul style="list-style-type: none"> Review and clarify MTI documentation Identify research/measurement gaps Develop preliminary logic model 	<ul style="list-style-type: none"> Ensure stakeholder alignment with MTI goals and MPIs Develop market adoption and cost-effectiveness forecast Characterize baseline market conditions Develop workpapers; conduct technology assessment studies (as needed) Refine logic model Develop evaluation plan Evaluate market pilots (as needed) 	<ul style="list-style-type: none"> Collect and compile market data from market partners Refine evaluation plan Evaluate market progress and causal influence Review cost-effectiveness model assumptions Update model and refine forecasts and estimated impacts
Deliverables	<ul style="list-style-type: none"> Preliminary research plan 	<ul style="list-style-type: none"> Baseline market adoption forecast Impact and cost-effectiveness forecast Market characterization study report Technology Assessment workpapers/reports 	<ul style="list-style-type: none"> Market Progress Evaluation Reports MTI impact reporting

Grey denotes CalMTA activities

Blue denotes independent third-party evaluator activities

Orange denotes shared CalMTA and third-party evaluator activities

Evaluation activities support investment decisions at each MTI Lifecycle Phase



Advance MTI from Phase I to Phase II?

- ✓ Appropriate MTI prioritization
- ✓ Cogent program theory and advancement plan
- ✓ Appropriate Phase II investment



Advance MTI from Phase II to Phase III?

- ✓ Clear logic model and MPIs
- ✓ Solid evaluation and data collection plan
- ✓ Combined impacts and C/E estimates



Continue Funding MTI?

- ✓ Market progress evaluation (MPER)
 - Market progress, per established MPIs
 - Causality Assessment
 - Process evaluation
- ✓ MPER response plan
- ✓ Updated incremental impact and C/E Estimates

Evaluation Framework Finalization Timeline

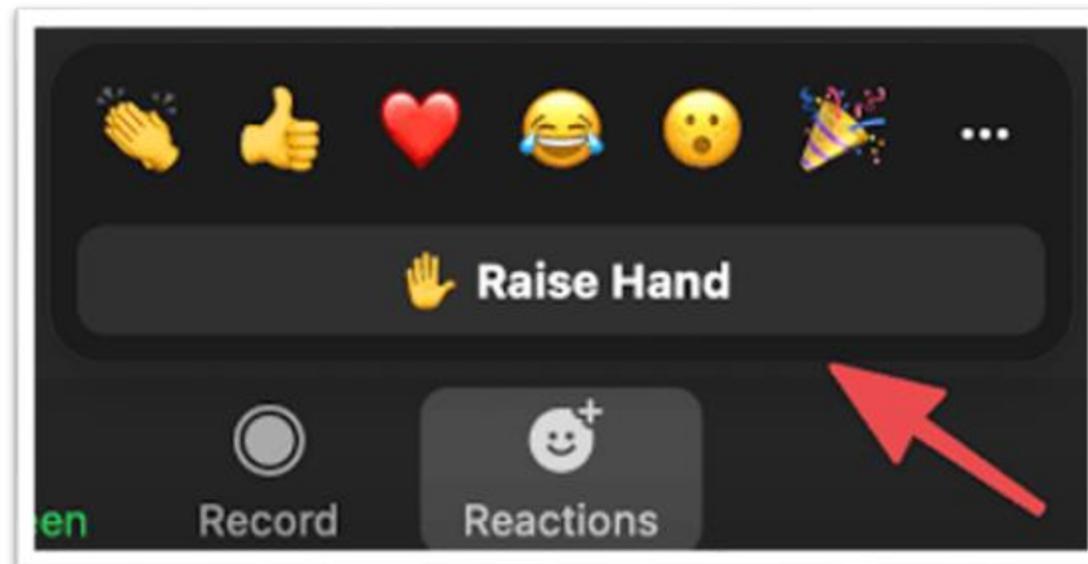
	MTAB Meeting
	Milestone

	2023			
	Sept.	Oct.	Nov.	Dec.
MTAB meetings				
Evaluation Framework	 Draft Evaluation Framework: MTAB Discussion  Stakeholder Outreach  Public Comment			 Final Draft Evaluation Framework: MTAB Discussion  Final Evaluation Framework

Public Comment



Raise your hand using the “Reactions” feature and we will allow you to unmute yourself.





#10 Next Meeting & Next Steps

Margie Gardner

Vice President,
Market Transformation

Upcoming MTAB Meetings



Meeting Date	Format	Key Topics
Friday, Oct. 13 9 am – 4 pm	In-person at NRDC SF	Discuss possible “Front Runner” MTIs Advancement Plan & Disposition Report templates
Thursday, Nov. 30 Noon-5 pm & Friday, Dec. 1 9 am - 3 pm	In-person at NRDC SF	<ul style="list-style-type: none"> • Draft RFI Disposition Report • Draft Advancement plans for 2-5 Front Runners • Final Evaluation Framework
Thursday, January 25 9 am – 5 pm	In-person at NRDC SF	<ul style="list-style-type: none"> • Final RFI Disposition Report • 2-5 Final Advancement Plans for Front Runners • 2024 Operations Plan • MTAB term renewals and selection process



Thank you for attending!
See upcoming meetings & events at
calmta.org/meetings-events/