CalMTA

May 6, 2026

Market Transformation Advisory Board (MTAB) Meeting

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

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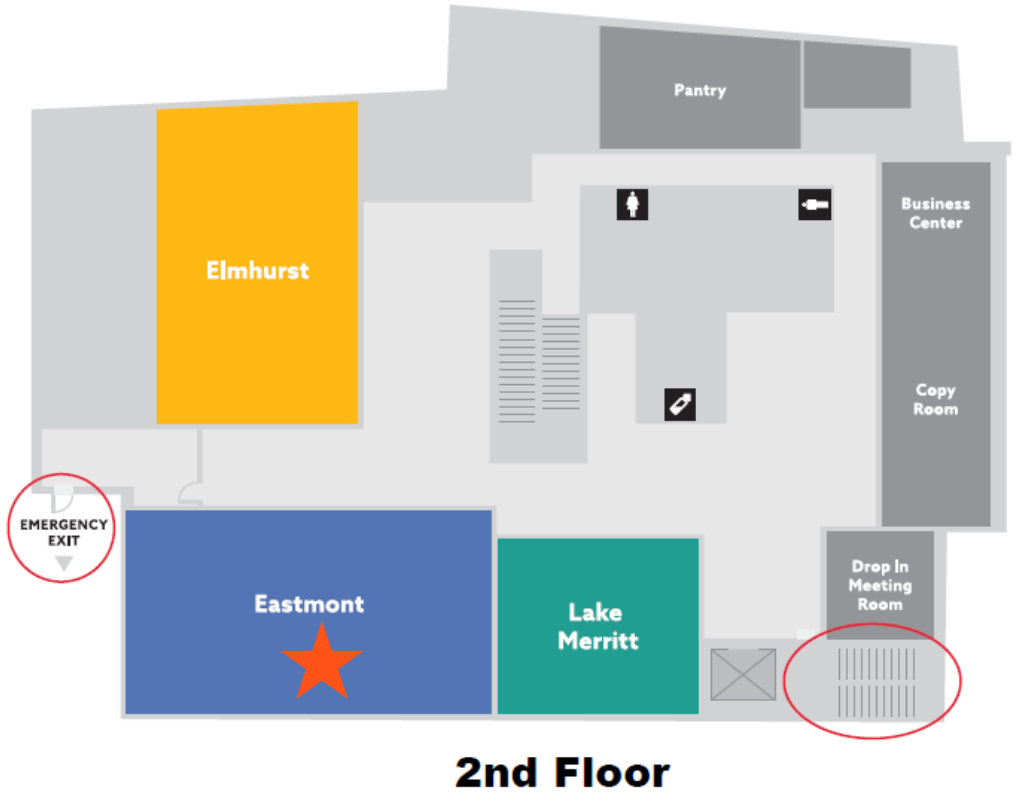
Agenda

Time	Agenda Item	Presenter
9:00 a.m.	**1. Welcome and Agenda**	Stacey Hobart
9:05 a.m.	**2. Safety Minute**	Stacey Hobart
9:10 a.m.	**3. Introductions and Ice Breaker**	Stacey Hobart
9:25 a.m.	**4. Review Draft Notes from March 25 MTAB Meeting**	Stacey Hobart
9:30 a.m.	**5. Commercial Replacement and Attachment Window Solutions (CRAWS) Market Transformation Initiative (MTI) Plan Overview**	Nick Fiore & Rick Dunn
10:30 a.m.	*Break (15 min.)*	
10:45 a.m.	**6. CRAWS: Market Adoption Forecast**	Isaac Schultz
11:45 a.m.	**7. Public Comment #1**	
11:55 p.m.	**8. Meet & Greet with Equity Sounding Board Member**	Alicia Bohigian
12:25 p.m.	*Lunch (50 min.)*	

Agenda (continued)

Time	Agenda Item	Presenter
1:15 p.m.	**9. CRAWS: Total System Benefit (TSB) and Cost-Effectiveness**	Isaac Schultz
2:15 p.m.	**10. CRAWS: Appendix F: Evaluation Plan**	Jun Suzuki
2:45 p.m.	*Break (15 min.)*	
3:00 p.m.	**11. Application Update**	Smita Gupta
3:10 p.m.	**12. Public Comment #2**	
3:20 p.m.	**13. Annual Conflict of Interest Training**	Stacey Hobart
3:30 p.m.	**14. Next Meeting and Next Steps**	Stacey Hobart
3:35 p.m.	*Adjourn*	

2. Safety minute



3. Introductions and Ice Breaker

Happy Anniversary!

Celebrating three years of MTAB

4. MTAB meeting notes

Draft MTAB meeting notes

March 25, 2026

Idea to Initiative: CRAWS Part 3

Part 1

- Market Characterization
- Logic Model
- Market Transformation Theory

November 12 & 13, 2025

Part 2

- Market Progress Indicators & Milestones
- Product Assessment

January 29, 2026

Part 3

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

May 6, 2026

MTI Plan aspects to be discussed today

A: Logic Model Packet

B: Market Forecasting & CE Modeling Approach

C: Product Assessment Report

D: Market Characterization Report

E: External Program Alignment & Coordination

F: Evaluation Plan

G: Risk Mitigation Plan

H: MTI Lifecycle Cost Estimate

I: MTAB Feedback

Market Transformation Initiative Plan

5. CRAWS MTI Plan Overview

Nick Fiore, Program Manager

Rick Dunn, Senior Manager, Emerging Technology

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CRAWS MTI overview

Building windows are responsible for HVAC losses of ~40% – roughly 12% of a typical building's overall energy use.

This MTI promotes **adoption of high-performance window retrofit solutions as an alternative to full window replacement in commercial buildings with single-pane and double pane clear windows,** enabling a cost-effective "envelope-first" approach to building decarbonization.

Market opportunities

- Significant TSB and cost-effectiveness potential
- Enables grid flexibility or permanent load-shifting; enhances building resiliency during extreme weather and demand response events
- Fuel-agnostic MTI delivering gas and electric bill savings
- Strong workforce development opportunities
- Supports California's building decarbonization and BPS goals
- Strong non-ratepayer-funded collaboration (e.g., DOE labs)
- Non-energy benefits (NEBs) are significant and are valued by the market, particularly in ESJ communities

Market impact of non-energy benefits

Building owners

NEBs that **eliminate a pain point** (e.g., thermal comfort, noise, IAQ) and/or enhance ambient environment

Impact: Increases tenant retention + property value; improves business case; **overcomes do-nothing decision**

Financial institutes
(Banks, ESCOs, insurance)

NEBs that increase **cash flow** or **asset value** and/or **reduce risk** (e.g., fire-hardening, resiliency, loss of life)

Impact: Reduces cost of capital; improves loan terms, insurance rates, etc.

Market challenges

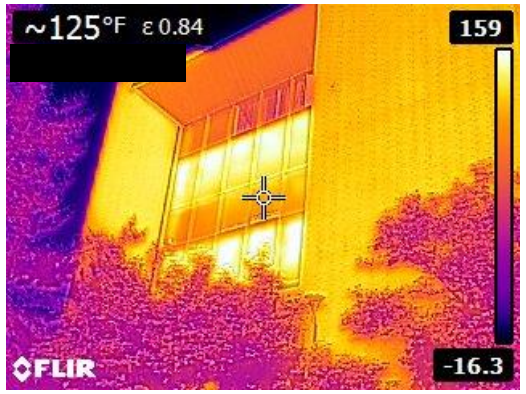
- Low market awareness of windows' impact on building energy performance
- Low awareness of retrofit technologies
- Though less expensive than replacement, upfront costs are still high compared to "do-nothing" behavior
- NEBs are a key driver of adoption, but are not well-quantified
- Some benefits are not modeled effectively with standard tools or default assumptions

Do windows matter in mild coastal climates?

Vancouver, WA
9/2/20 @ 8:00 am

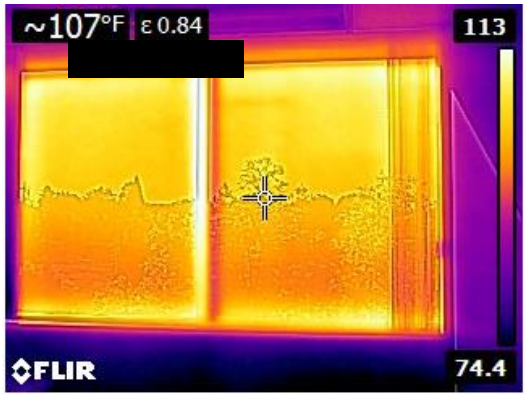
Outside ambient temperature: 63° F

Exterior



Exterior window surface temp.: 125° F (+ 62° F)

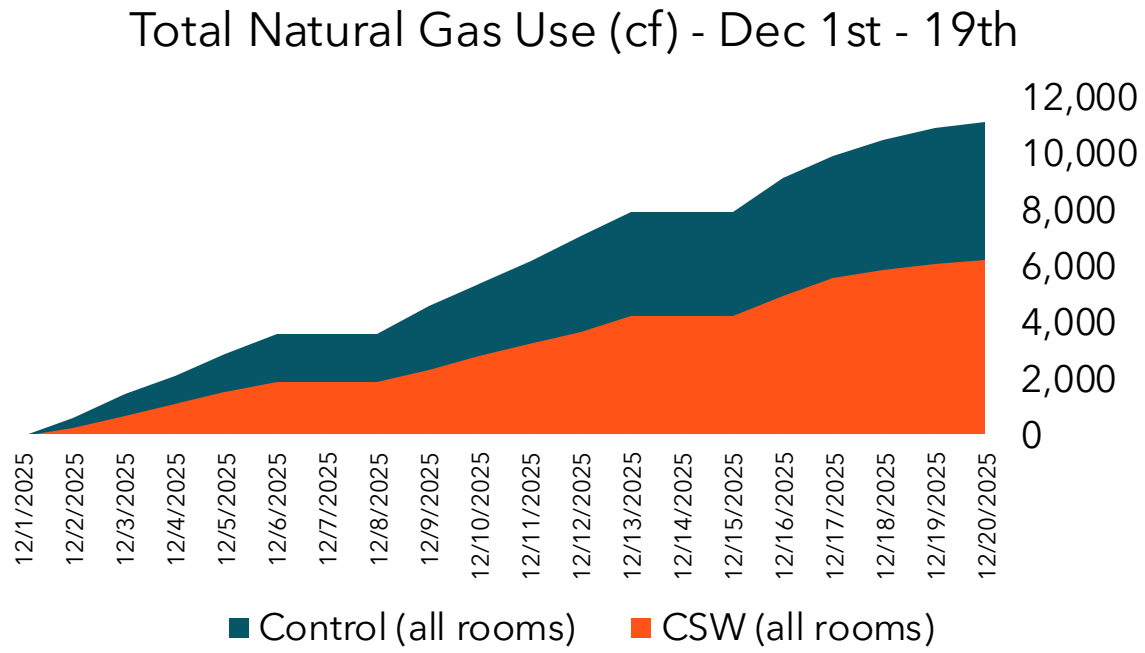
Interior



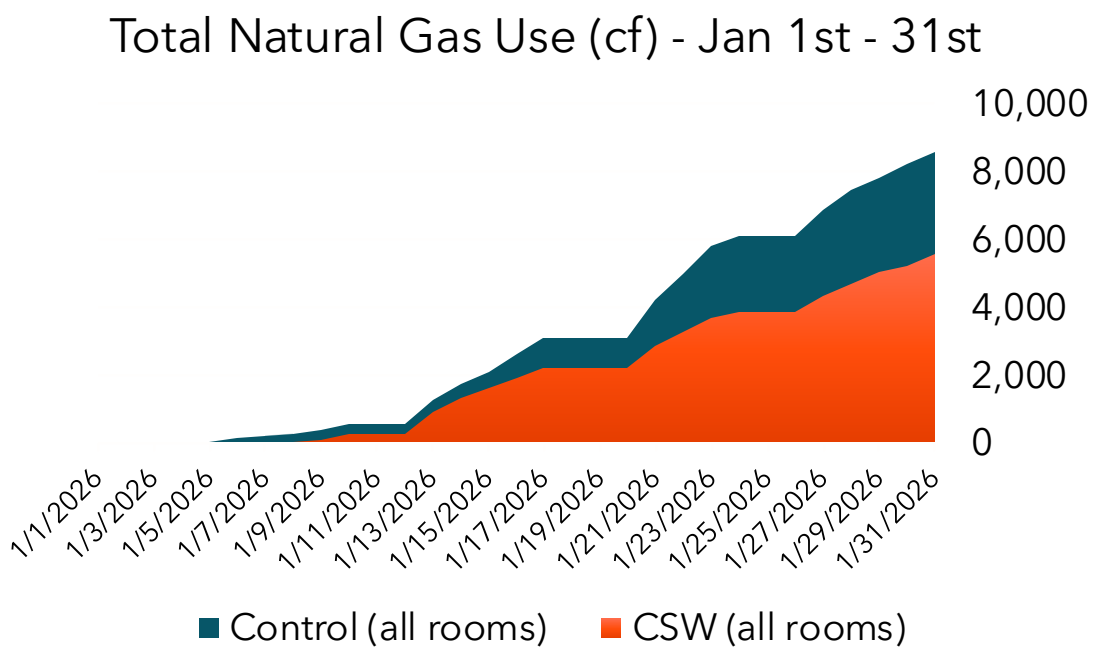
Interior window surface temp.: 107° F (+ 44° F)

Do windows offer heating savings in California?

Madison Elementary Field Study – Natural Gas Consumption



Total NG for Treated Rooms	6,268	
Total NG for Untreated Rooms	11,141	
Savings	4,873	43.74%



Total NG for Treated Rooms	5,580	
Total NG for Untreated Rooms	8,574	
Savings	2,994	34.92%

Product definition

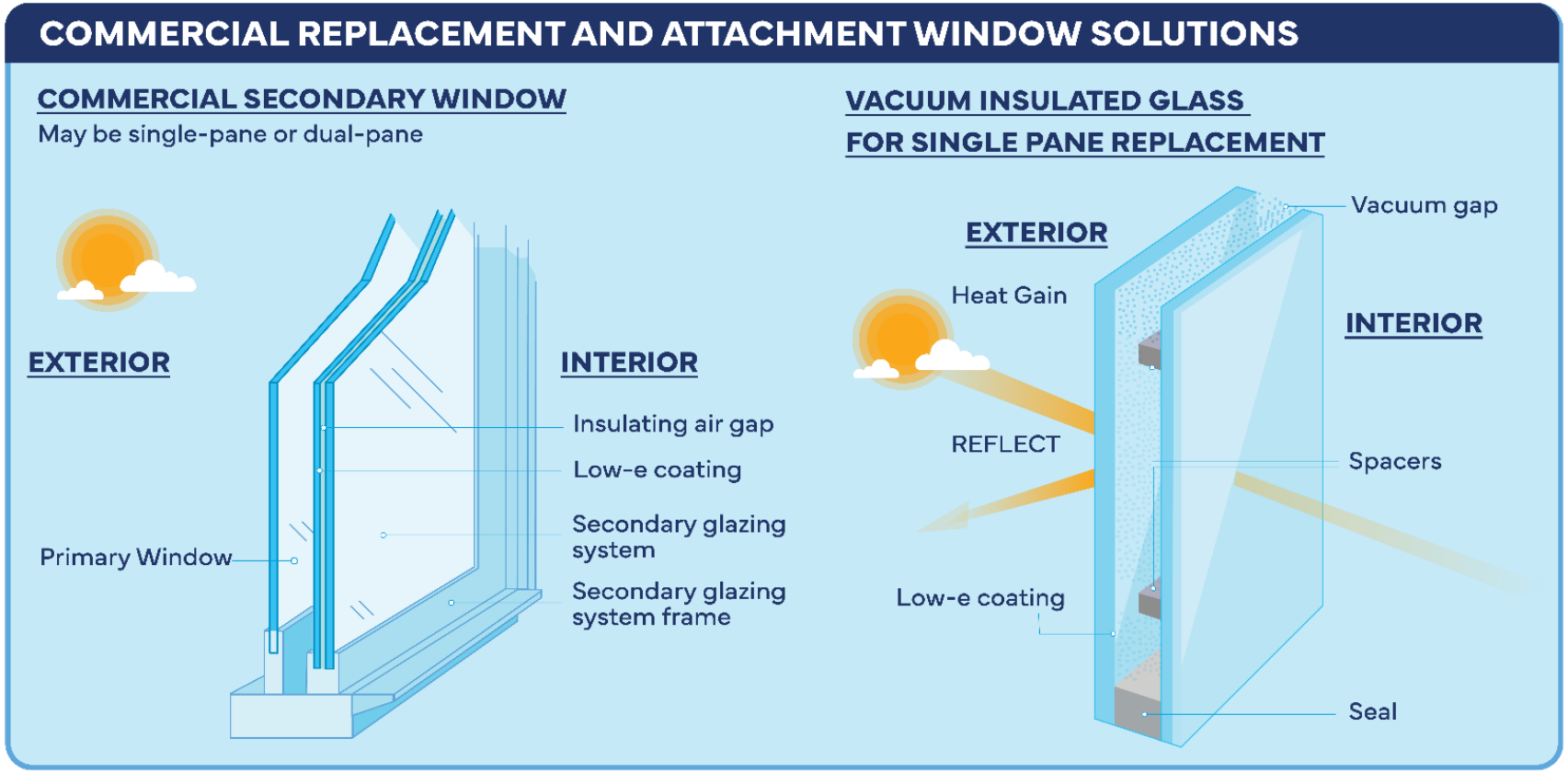
Commercial Secondary Windows (CSW) attach to interior or exterior of an existing window, creating an insulating air pocket between the new and existing panes:

- Can have one or more panes and low-e coatings; multiple panes can have insulating gases or a vacuum between the two CSW panes, creating additional insulating value
- Creates double- or triple-pane window without replacing existing window

Vacuum-Insulated Glass (VIG) units replace existing single pane glass while retaining use of the existing frame:

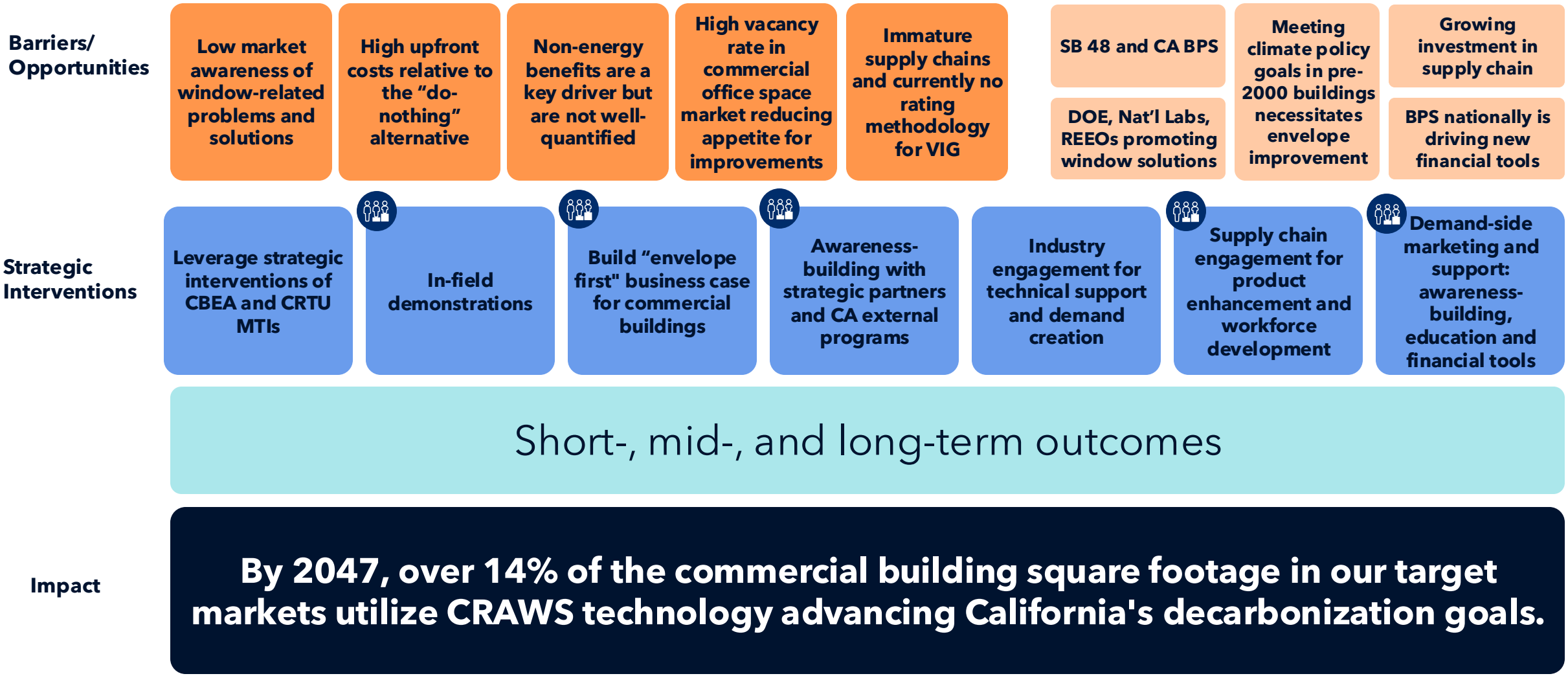
- Comprised of two glass panes separated by spacers and hermetically sealed around the edges
- Vacuum drawn on the void space between glass panes results in R-10 to R-15 insulating value of the glass unit (R-5 to R-10 for complete installed assembly)

Product definition



Both products can be installed without disrupting occupants, with VIG ~50% lower cost and CSW 75-90% lower cost than a full window replacement

Snapshot of CRAWS logic model



Logic model interventions

Leverage strategic interventions of CBEA and CRTU MTIs

In-field demonstrations

Build “envelope first" business case for commercial buildings

Industry engagement for technical support and demand creation

Awareness-building with strategic partners and CA external programs (SEM, commercial utility programs, etc.)

Supply chain engagement for product enhancement and workforce development

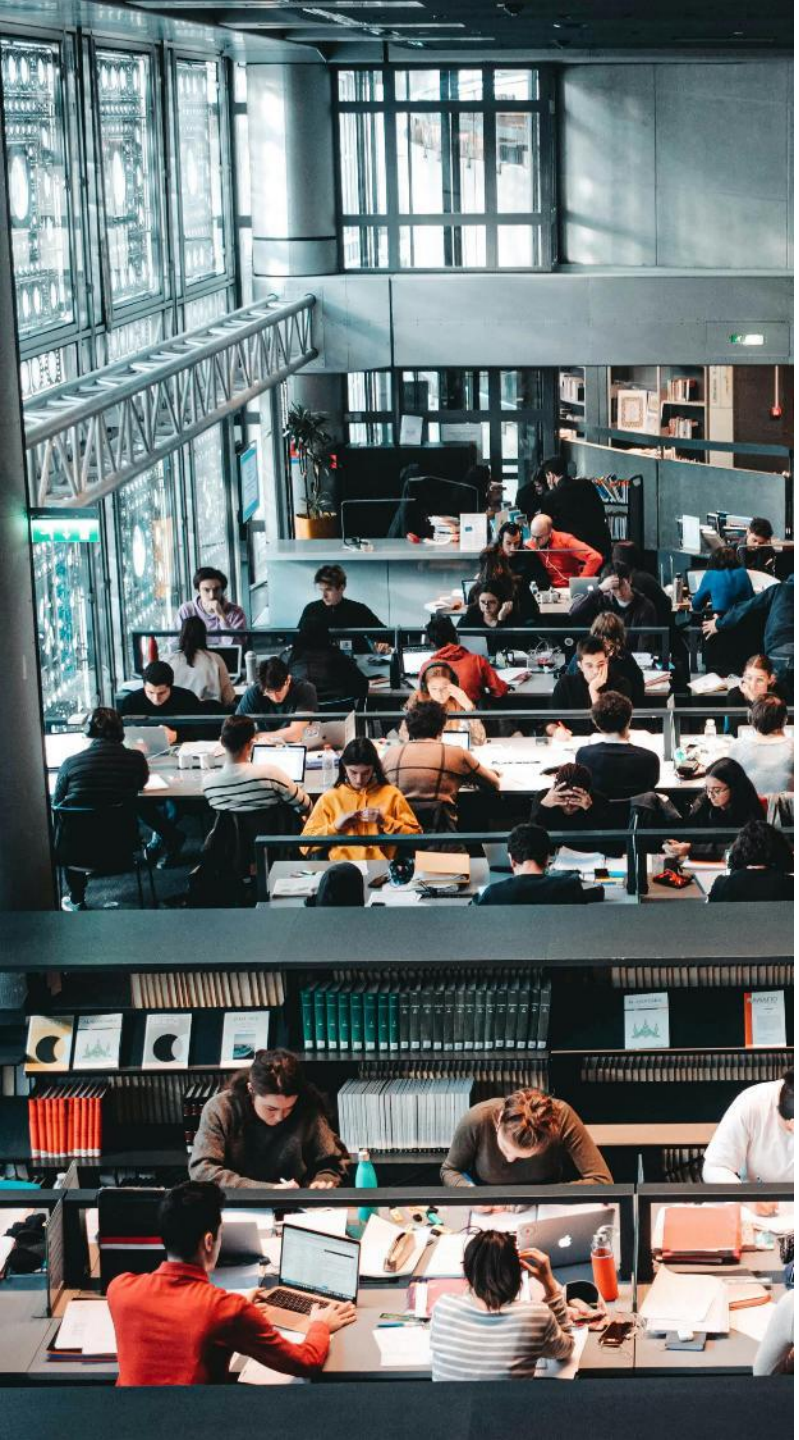
Demand-side marketing and support: awareness-building, education, and financial tools

Key

- Technology
- Market
- Financial

Vision for the future

- Envelope assessments are required as part of BPS prescriptive and performance-based pathways.
- Utilities help promote envelope assessments and CRAWS technologies as an envelope-first approach to securing grid-flex benefits.
- Building owners and operators utilize CRAWS technology as a means to achieve energy and non-energy benefits, improve building resilience, and position buildings to be grid assets.



MTI impact

By 2047, **14% (930 million sq. ft.)** of the commercial building square footage in our target markets utilize CRAWS technology

Break (15 min.)
We will be back soon.

6. CRAWS: Market Adoption Forecast

Isaac Schultz, Engineering Manager

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

What we'll cover

1. Adoption model overview
2. Sizing the addressable stock
3. Calculating maximum market potential
4. Adoption model parameters
5. Results

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Adoption Model Overview

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

Model overview

Forecasting CSW installations over 20-year Phase III period

Two scenarios

- BMA - Baseline Market Adoption
- TMA - Total Market Adoption

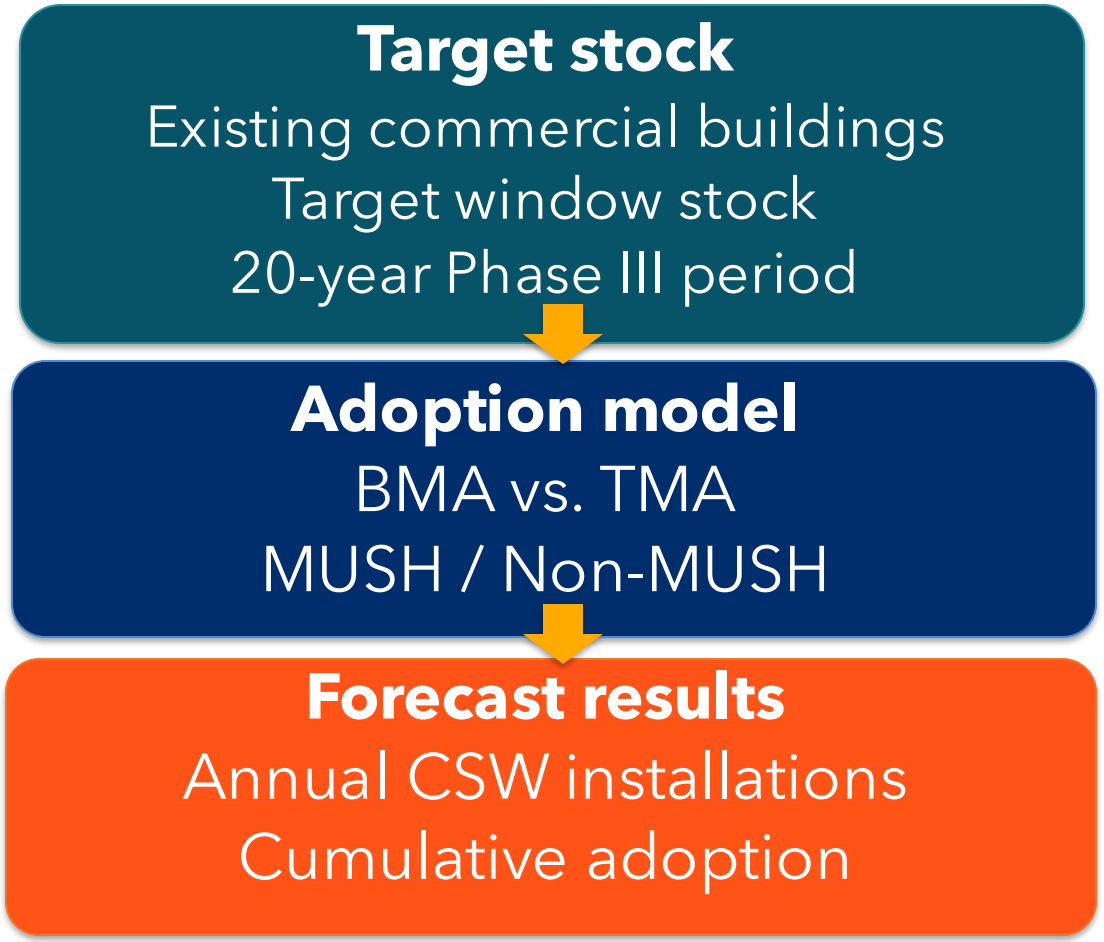
Target

- Existing commercial buildings with single- or double-pane clear glass, no low-E coating

Two market segments

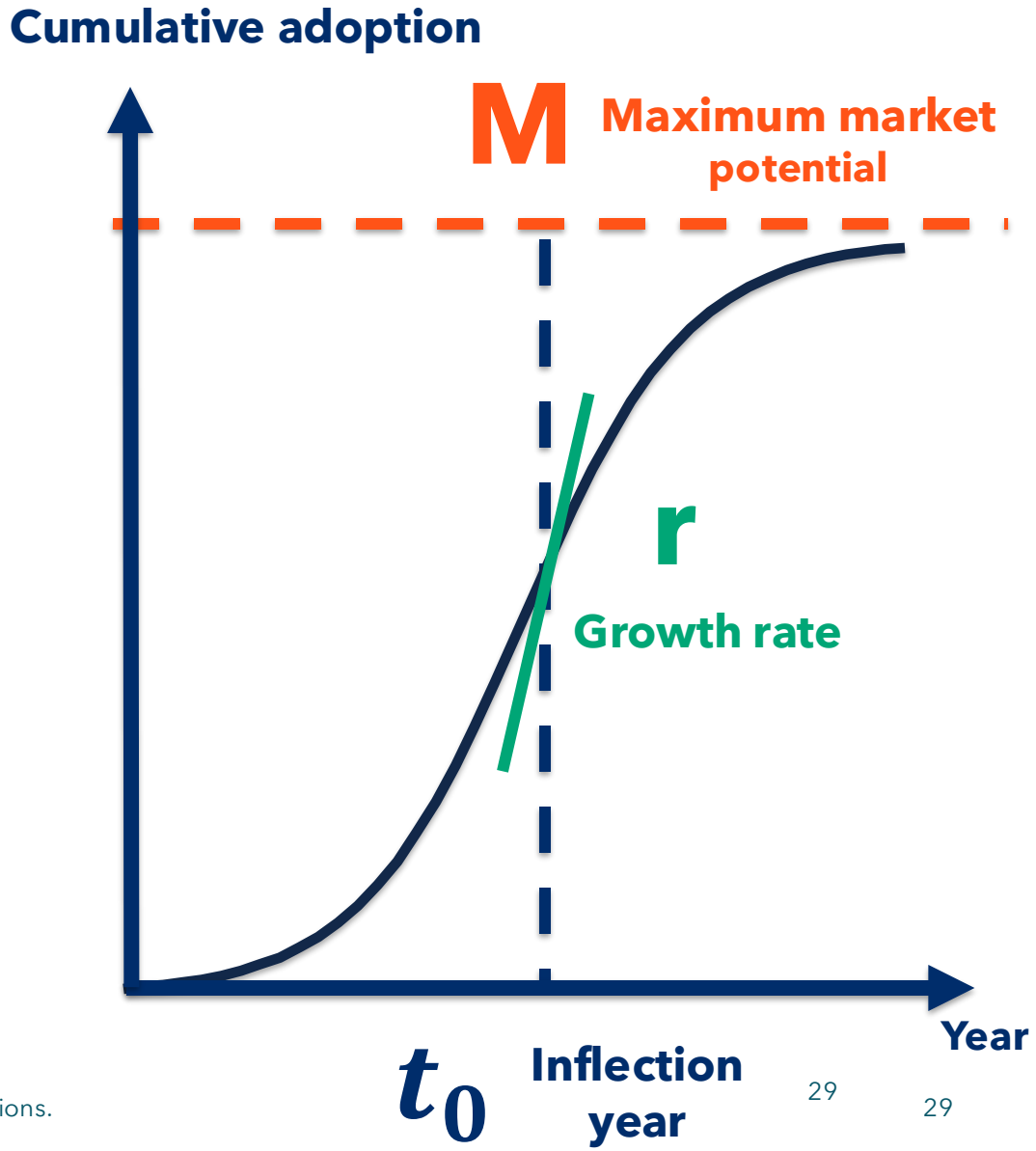
- MUSH - Municipal, University, School, Hospital
- Non-MUSH - all other commercial buildings

Forecast Framework



Adoption model summary

- Using a Gompertz S-curve with three key parameters:
  - Maximum ceiling for adoption (M)
  - Inflection year (t_0)
  - Growth rate (r)
- Adoption is constrained by the awareness of the value proposition (AVP)
- Model output: **CSW installations in sq. ft.**



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Sizing the Addressable Stock

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Commercial floor space

- The 2022 California Commercial End-Use Survey (CEUS) is the starting point
- **Why use CEUS?**
  - CA-specific, designed to support energy demand forecasting
  - Includes granular floor space data – by building type, IOU territory, and vintage

Excluded floor area:

All warehouses and 50% of miscellaneous

CEUS Category	Total (sq. ft.)
College	384,440
Food Stores	241,676
Health Care	479,989
Lodging	471,706
Miscellaneous	1,704,294
Office, Large	1,321,787
Office, Small	771,154
Refrigerated Warehouse	145,619
Restaurant	223,831
Retail	1,126,373
School	686,285
Warehouse	1,252,308
TOTAL	8,809,462

Total commercial floor space (CEUS 2022)

Mapping CEUS categories to DEER prototypes

- DEER prototypes are the basis for all downstream calculations
  - Using DEER for stock allocation keeps the savings, costs, and stock all on one consistent geometric basis
- How the mapping works:
  - Each CEUS category maps to one or more DEER prototypes
    - NAICS codes in CEUS confirm which DEER prototypes belong in each CEUS category
    - DEER floor weights used to split area across the prototypes

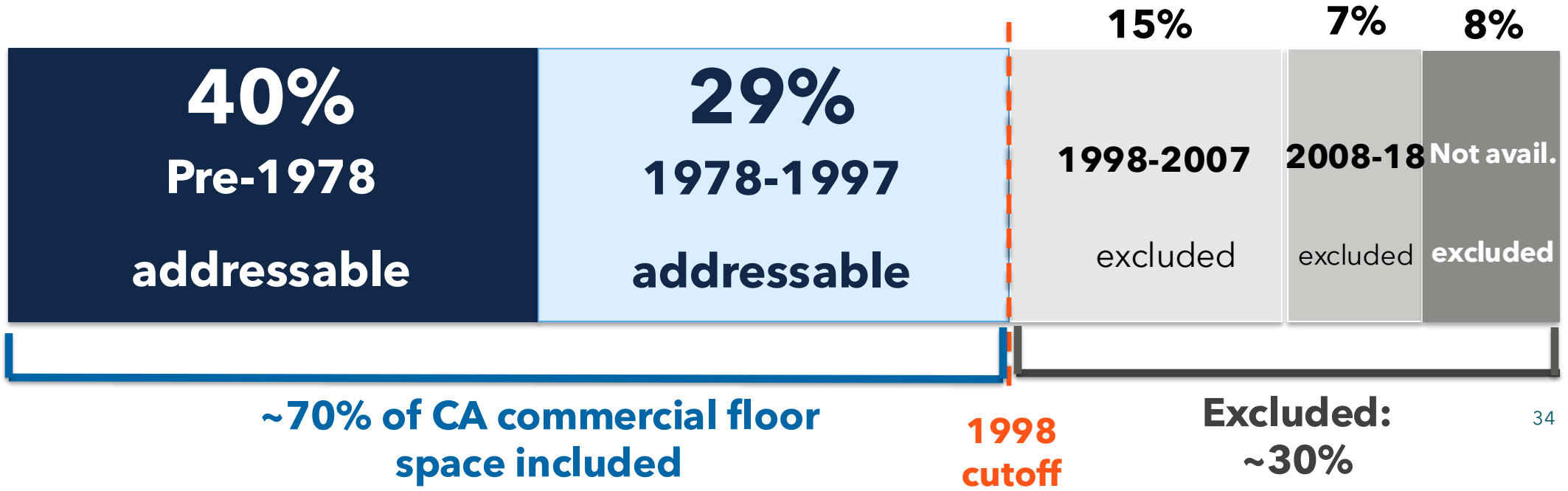
DEER Prototypes in MUSH:
Education (all), Hospital, Nursing Home, Assembly, Library

Mapping CEUS categories to DEER prototypes (continued)

CEUS Category		DEER Prototypes
College	→	Education, Community College; Education, University
Food Stores	→	Grocery
Health Care	→	Hospital; Nursing Home
Lodging	→	Hotel; Motel
Miscellaneous*	→	Assembly; Library
Office, Large	→	Office, Large; Assembly
Office, Small	→	Office, Small; Assembly
Restaurant	→	Restaurant, Fast Food; Restaurant, Sit Down
Retail	→	Retail, Big Box; Retail, Large; Retail, Small
School	→	Education, Primary School; Education, Secondary School

Filtering to addressable floor area

- Addressable windows: Single or double-pane clear glass (no low-E coating)
- CEUS does not include window data – use building vintage as a proxy
- Utilized CEUS building vintage data to filter to addressable window area



Calculating window area from floor area

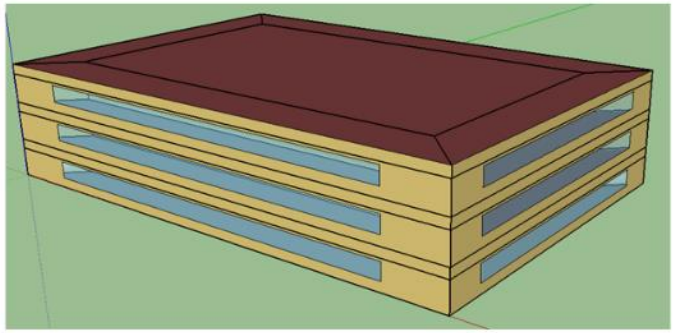
- Each DEER prototype has its own window-to-floor ratio

  Window area = CEUS floor area x DEER prototype window-to-floor ratio

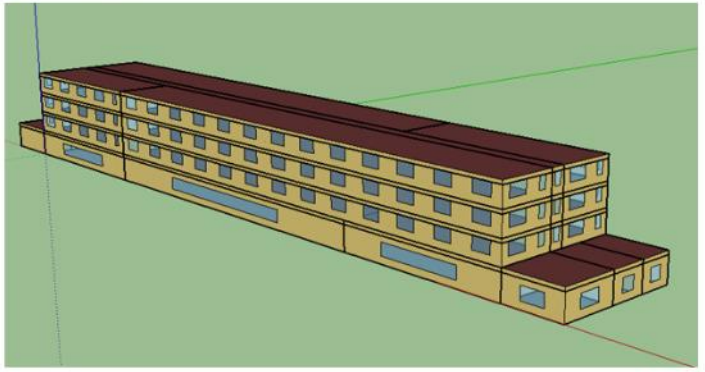
- The per-square-foot energy savings are used twice downstream:
  - **Market potential:** Bill savings → Net present value (NPV), payback filters
  - **TSB/cost-effectiveness:** kWh and therms × avoided costs
- Using a single per-sq.-ft. window basis throughout the model means the savings, costs, and stock all reconcile

Calculated addressable window area: **448M ft²**

Office - Large (OfL)



Lodging - Hotel (Htl)



Example DEER prototype geometries

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Calculating Market Potential

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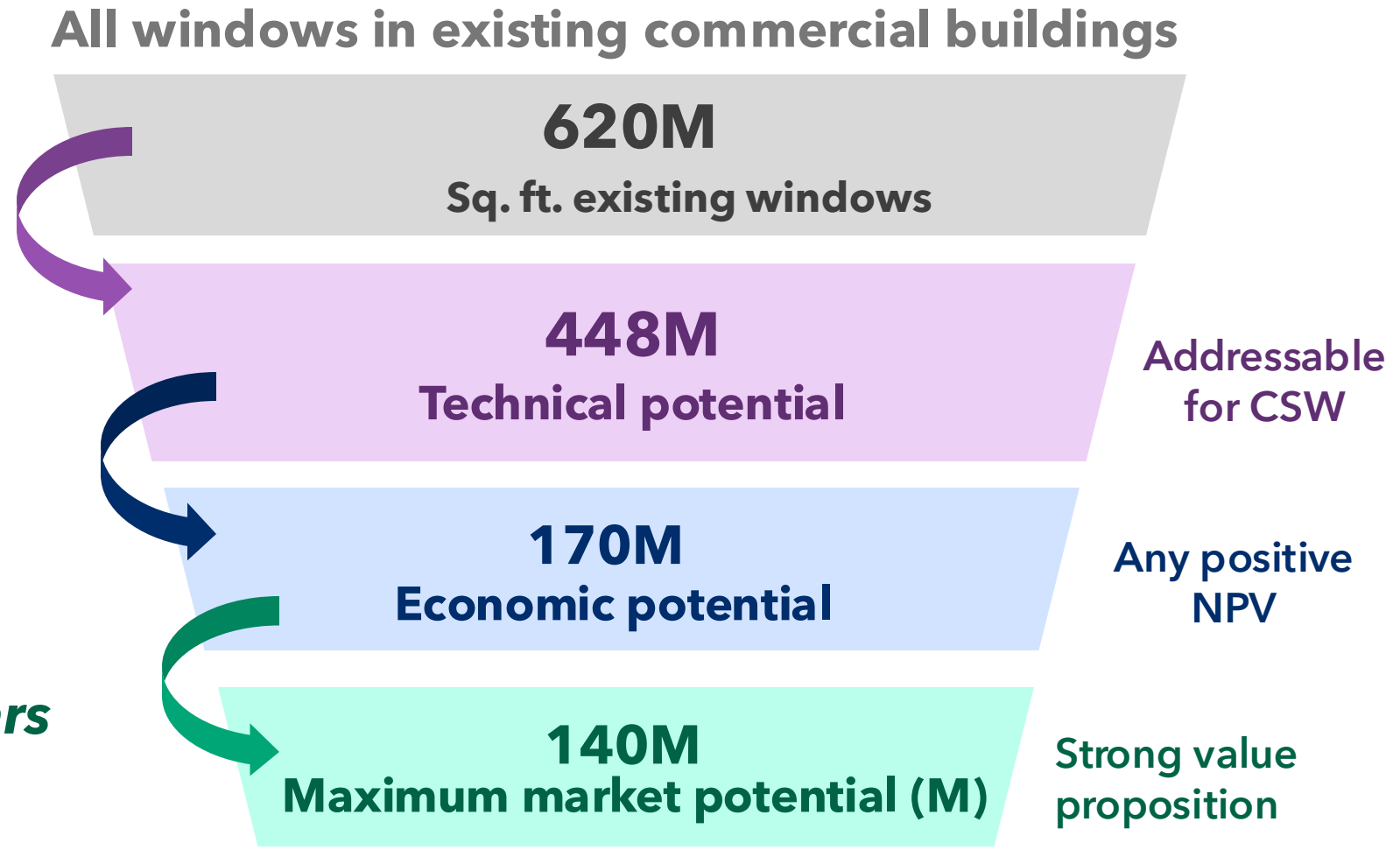
Calculating market potential – window area

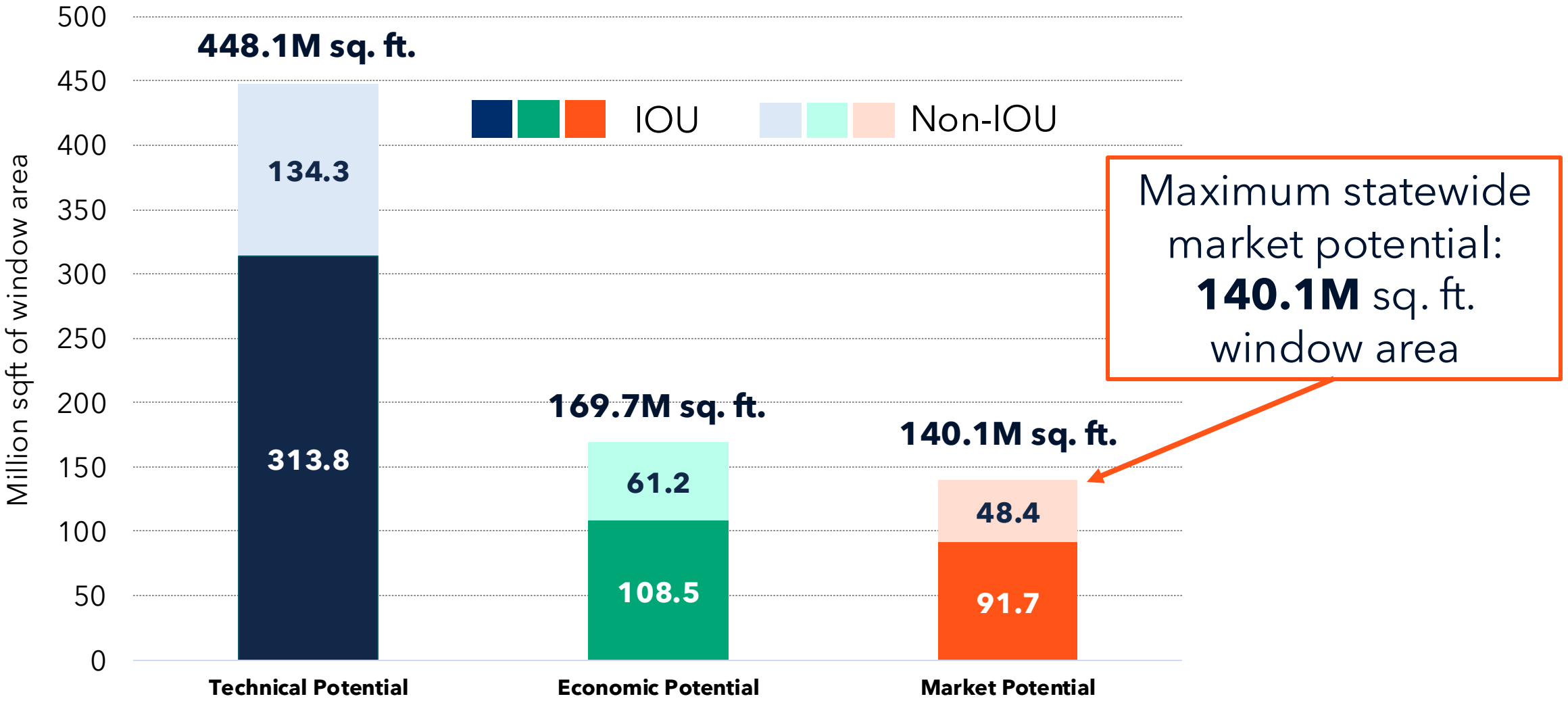
Window area in the filtered CEUS floor area

*Filter to windows with positive NPV at **10% customer discount rate***

*Filter to windows with simple **payback <= 8 years***



Market potential summary – window area



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Adoption Model Parameters

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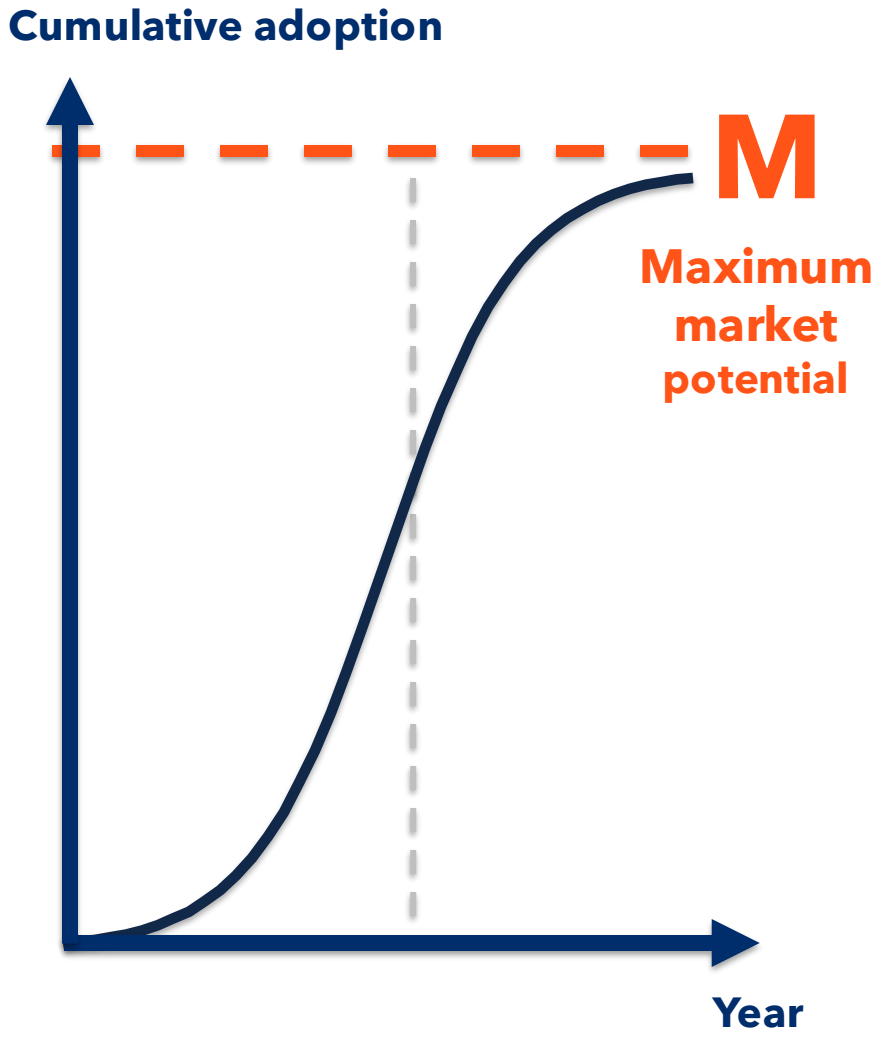
Market Potential (M)

- **Maximum market potential (M)** is the ceiling for the adoption model
  - Represents the end point that the Gompertz curve will approach given enough time
- **<u>Equal in both scenarios</u>**
  - CSW adoption is approaching the same maximum in both the BMA and TMA



Growth rate (r)

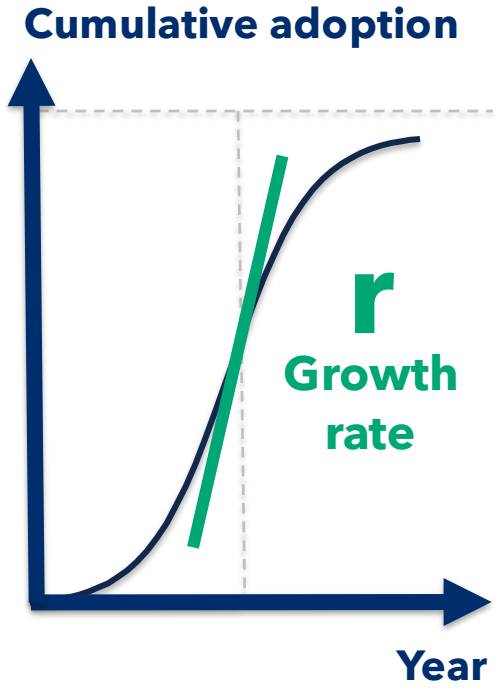
The growth rate defines the steepness of the adoption curve.

TMA

- Reflects accelerated diffusion from MTI activities, with faster growth in MUSH due to stronger ESCO and institutional procurement channels
- Adoption approaches the maximum faster in the TMA scenario

BMA

- Lower rate is typical for "niche" technologies
- The status quo remains a "do-nothing" approach



Growth rate (r)	Scenario	Non-MUSH	MUSH
	BMA	0.07	
	TMA	0.18	0.22

TMA values in the range of observed commercial retrofit measures

Inflection year (t_o)

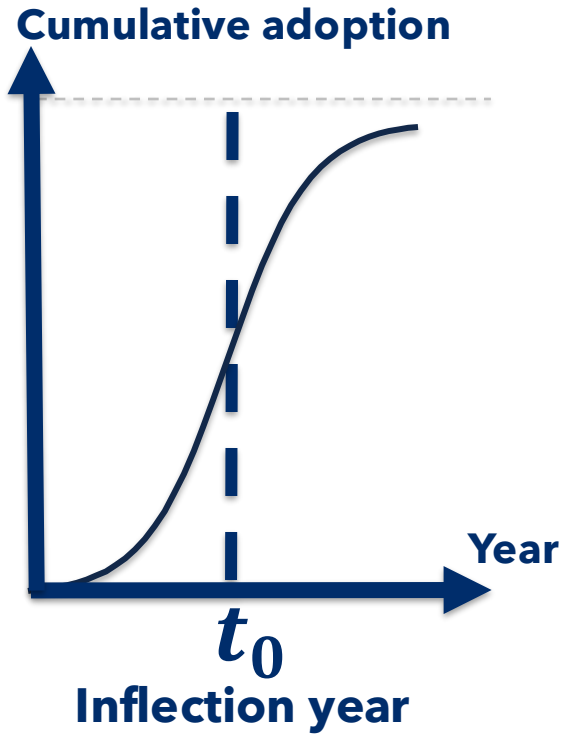
Year when the rate of CSW adoption reaches its peak – transition from accelerating to decelerating adoption

TMA

- MTI interventions accelerate CSW adoption, with an estimated inflection point ~10 years after phase III activities begin

BMA

- Without the MTI, the CSW market lacks a natural inflection point
- The "do-nothing" approach remains the norm in the BMA scenario



Inflection year (t_0)	Scenario	Non-MUSH	MUSH
	BMA	2050	
	TMA	2038	2036

Literature shows that deep-retrofit measures typically hit their inflection ~10–12 years after initial market entry

Key drivers of adoption

Accelerated growth rate and earlier inflection year

- The MTI will accelerate the rate of adoption of CSW, meaning adoption approaches its maximum value faster and earlier in the TMA scenario

Increased Awareness of the Value Proposition (AVP)

- Barriers to adoption are removed faster in the TMA
- The strategic interventions will increase customers awareness of the benefits (including non-energy benefits) associated with CSW

MTI activities increase AVP

Short-term (0-2 years)

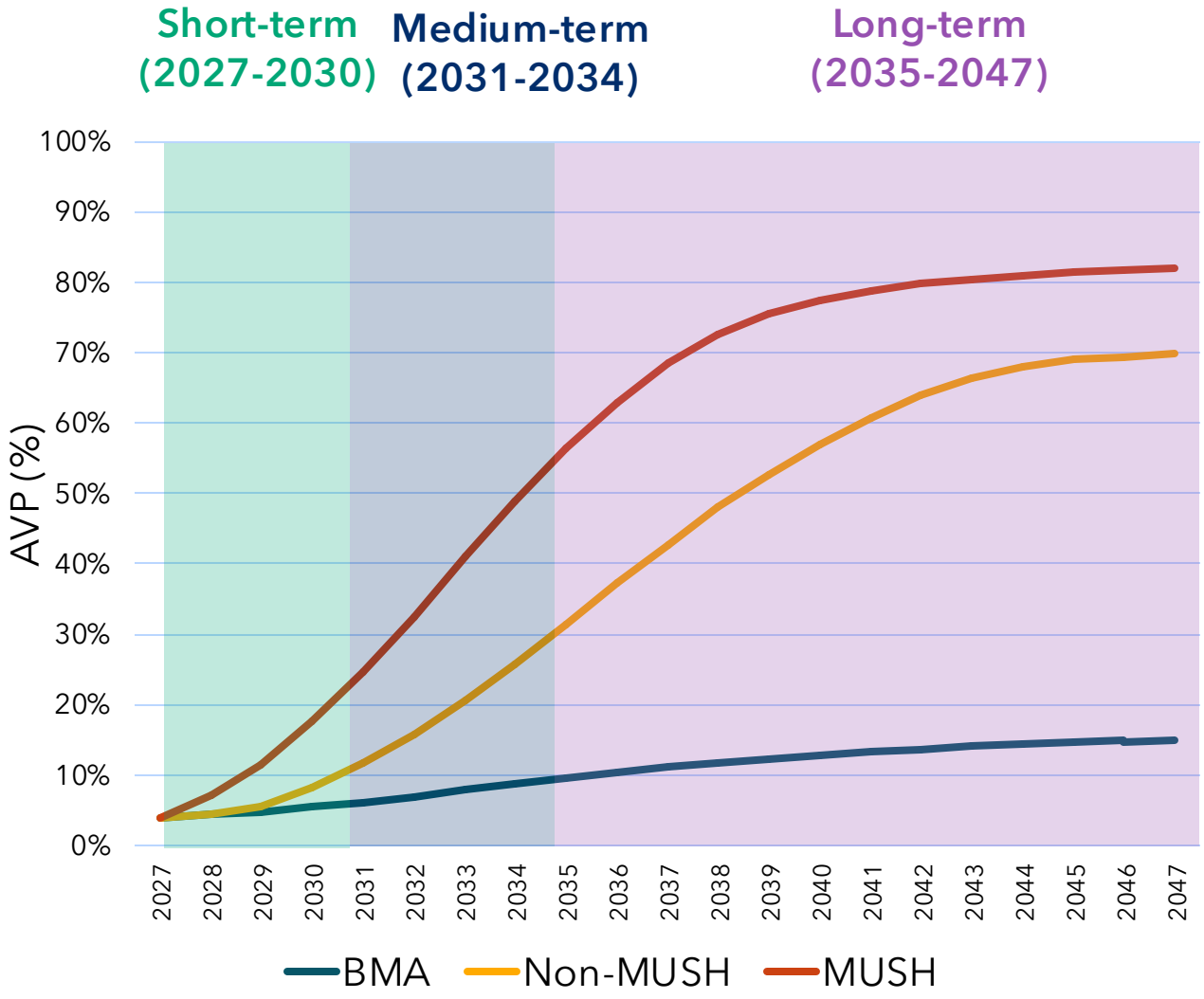
- MUSH market actor awareness of business case grows
- ESCO market actor awareness grows

Medium-term (3-5 years)

- CSW increasingly recommended by architects, HVAC installers, etc.
- MUSH buildings begin to include CSW as a solution to building improvements

Long-term (6-10+ years)

- Increasing number of municipalities include CSW as part of energy and climate action plans



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Results

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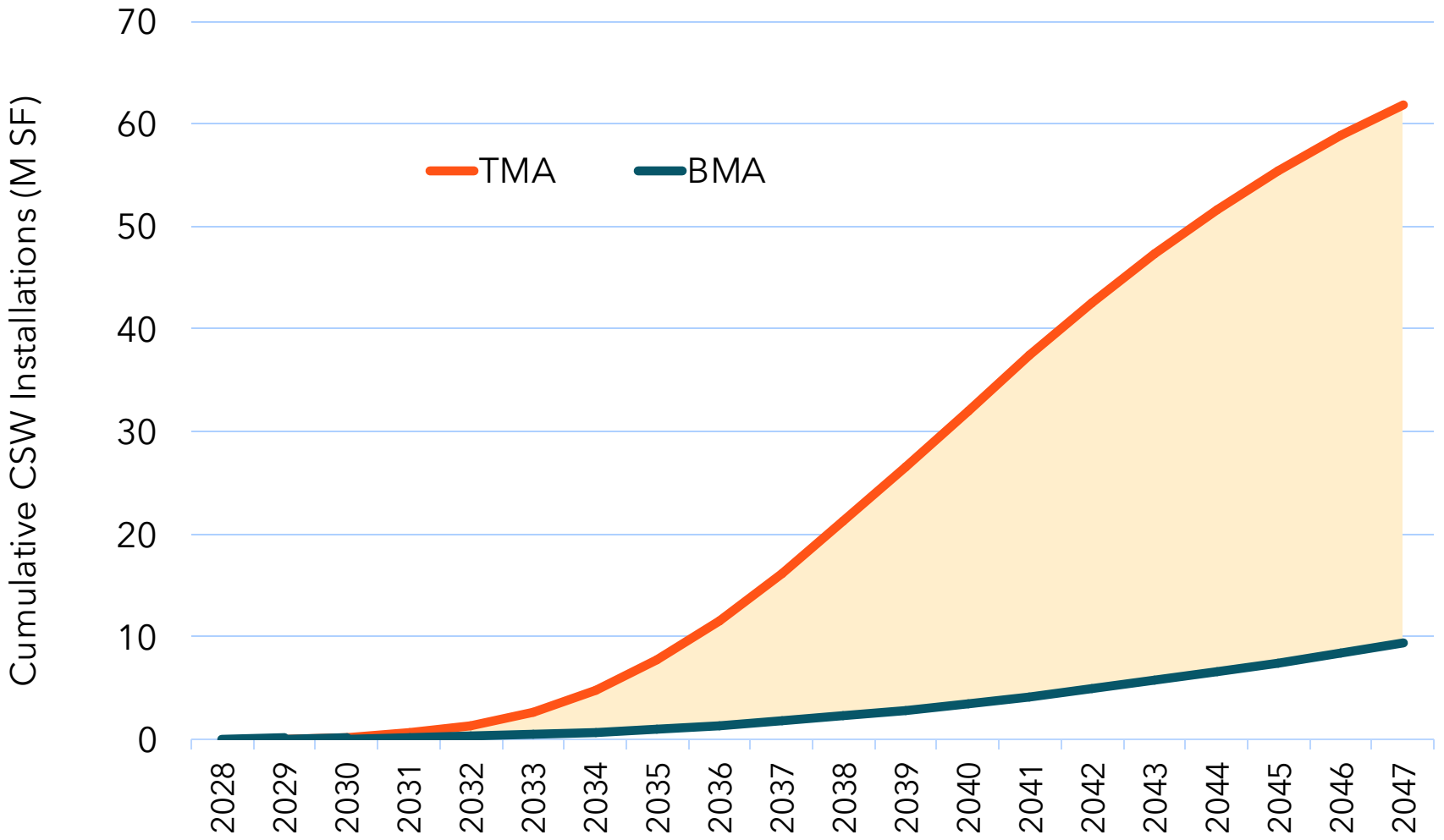
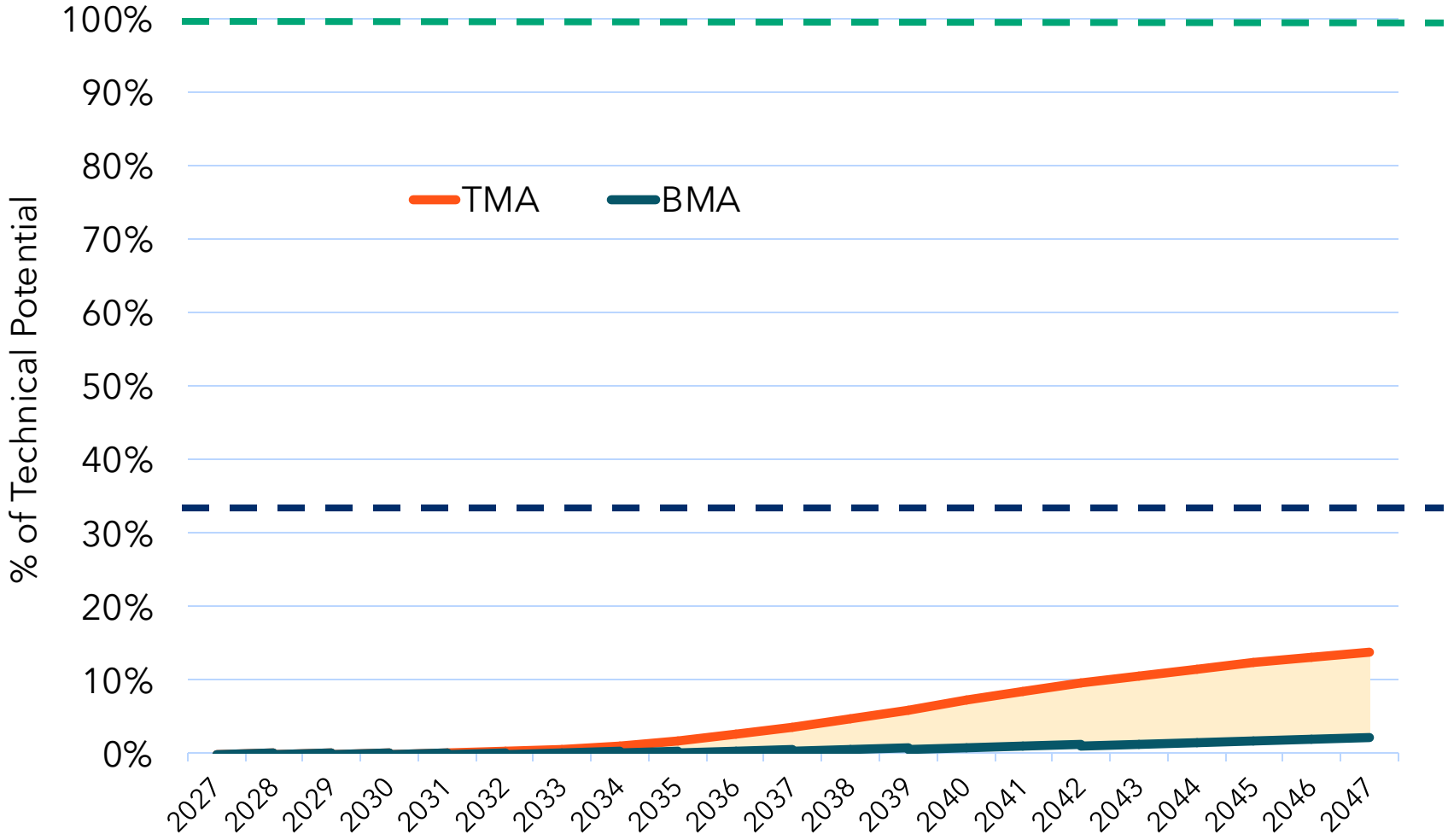
Total Market Adoption (M sf)



Cumulative adoption in TMA ~62 M ft²

Cumulative adoption in BMA ~9 M ft²

Adoption - technical and market potential



Technical potential

TMA ~14%

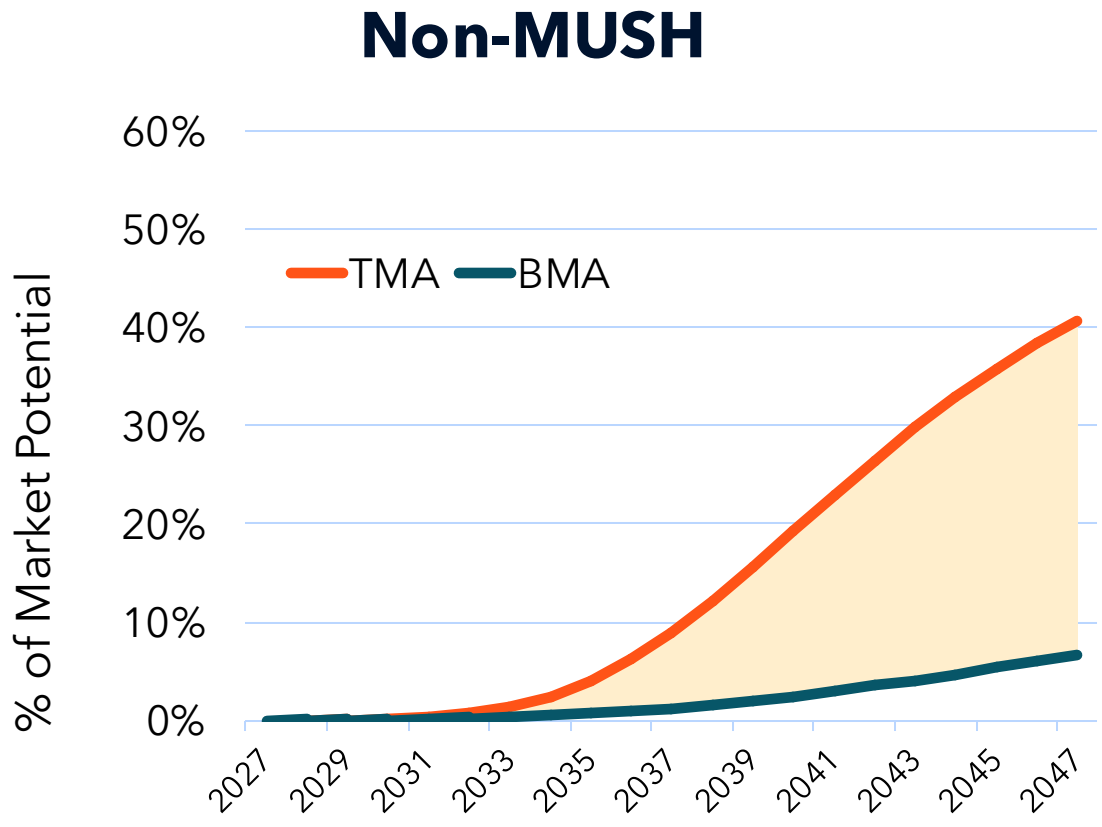
Market potential

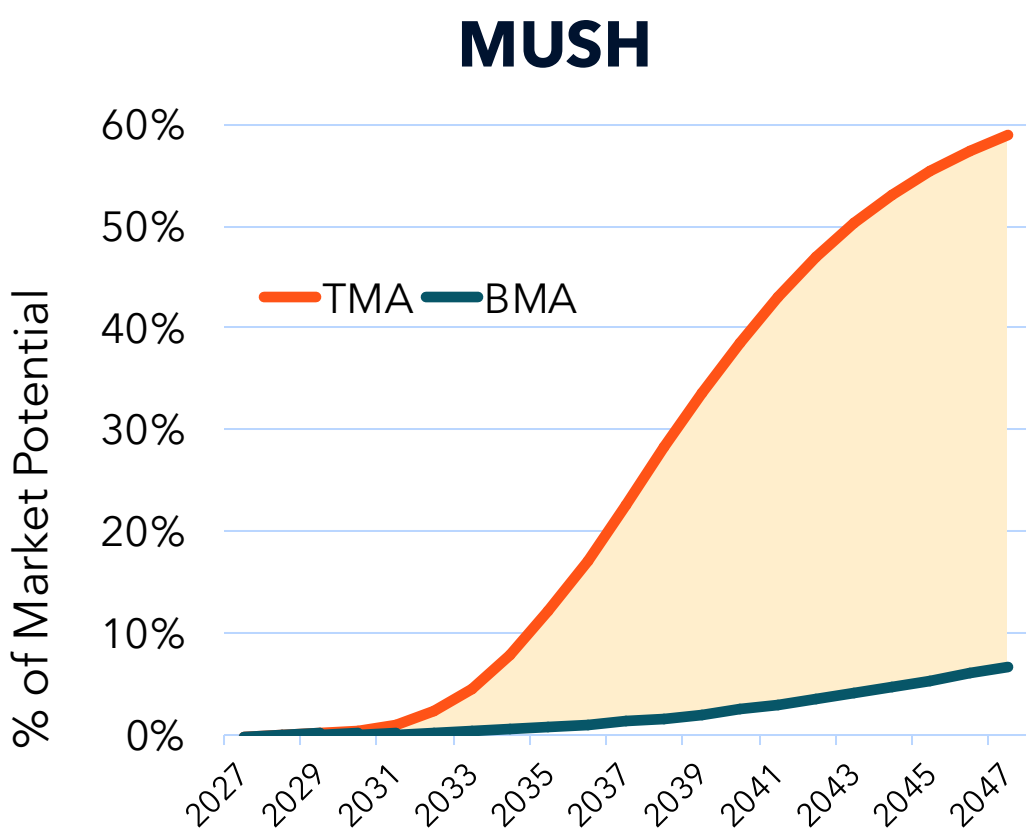
TMA ~46%

Incremental adoption

Model Segment	Incremental Adoption MUSH (M SF)	Incremental Adoption Non-MUSH (M SF)	Total (M SF)
IOU Territory	6.9	27.6	34.4
Non-IOU Territory	3.4	14.7	18.1
Statewide	**10.3**	**42.2**	**52.5**

MUSH vs. non-MUSH market adoption

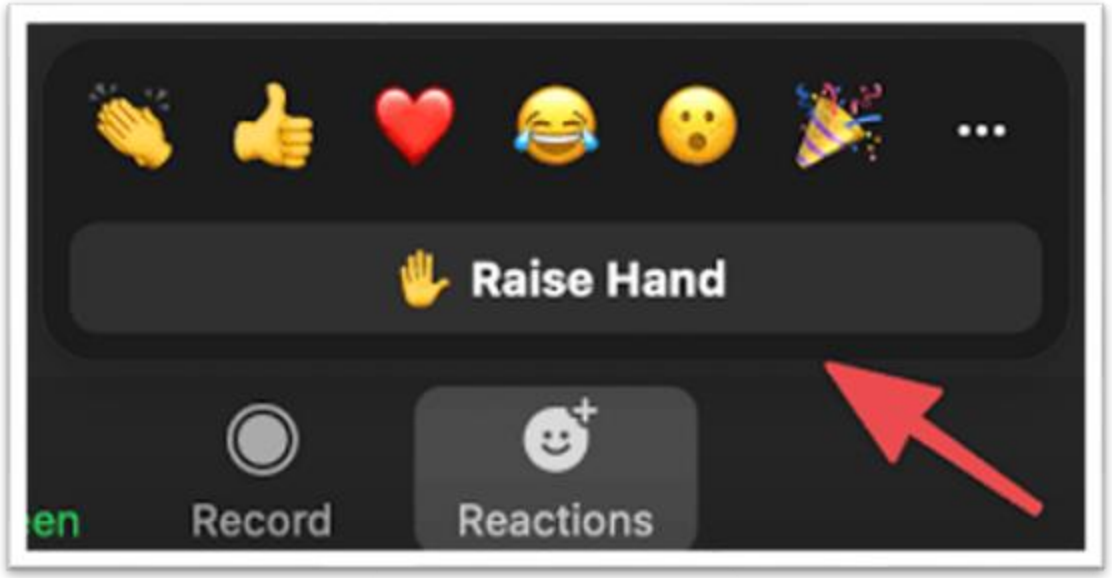




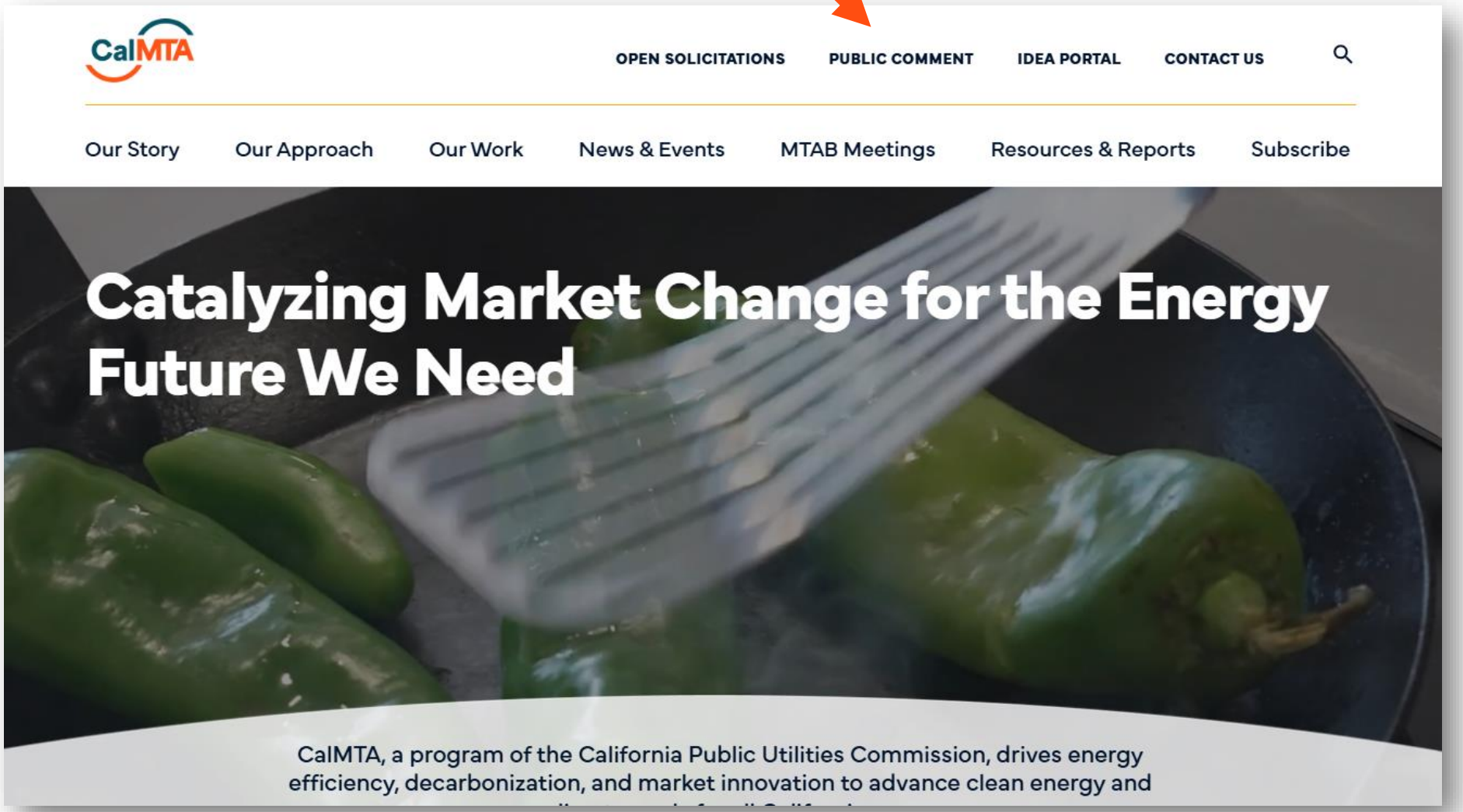
The target MUSH segment gets closer to its ceiling (market potential) than the non-MUSH segment

7. Public Comment

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



Public Comment



8. Meet & Greet with Equity Sounding Board Member

Alicia Bohigian, CalMTA Equity Sounding Board member and Assistant Program Director, Self-Help Enterprises

Introduction

Alicia Bohigian

Assistant Program Director, Self-Help Enterprises

Self-Help Enterprises

Equity Sounding Board members

Adriana Ayala, Ph.D. | Executive Director, Chicana Latina Foundation

Alicia Bohigian | Assistant Program Director, Self-Help Enterprises

Dr. Federico Castillo | Project Scientist and Lecturer, University of California, Berkeley

Maria Dahlin | Tribe Council Member, N'de Apache Tribe

Michelle Engel-Silva | CEO, Proteus, Inc.

Elisa Gallegos Jackson | Nurse, Retired Public Health Nurse, Community Health Educator and Independent Consultant

Joaquin Narvaez | Owner, West Coast Green Builders LLC

Johng Ho Song | Executive Director, Koreatown Youth and Community Center

Purpose and impact

Guide CalMTA's market transformation

Incorporate ESJ community expertise

Insight and feedback

Expand access

Protection and impact prevention

Why this matters

- Equity
- Community voices
- Trust
- Accountability
- Feedback
- ***"Equity isn't an outcome; it's a process guided by those most impacted."***

Thank you

Questions?

Lunch (50 min.)
We will be back soon.

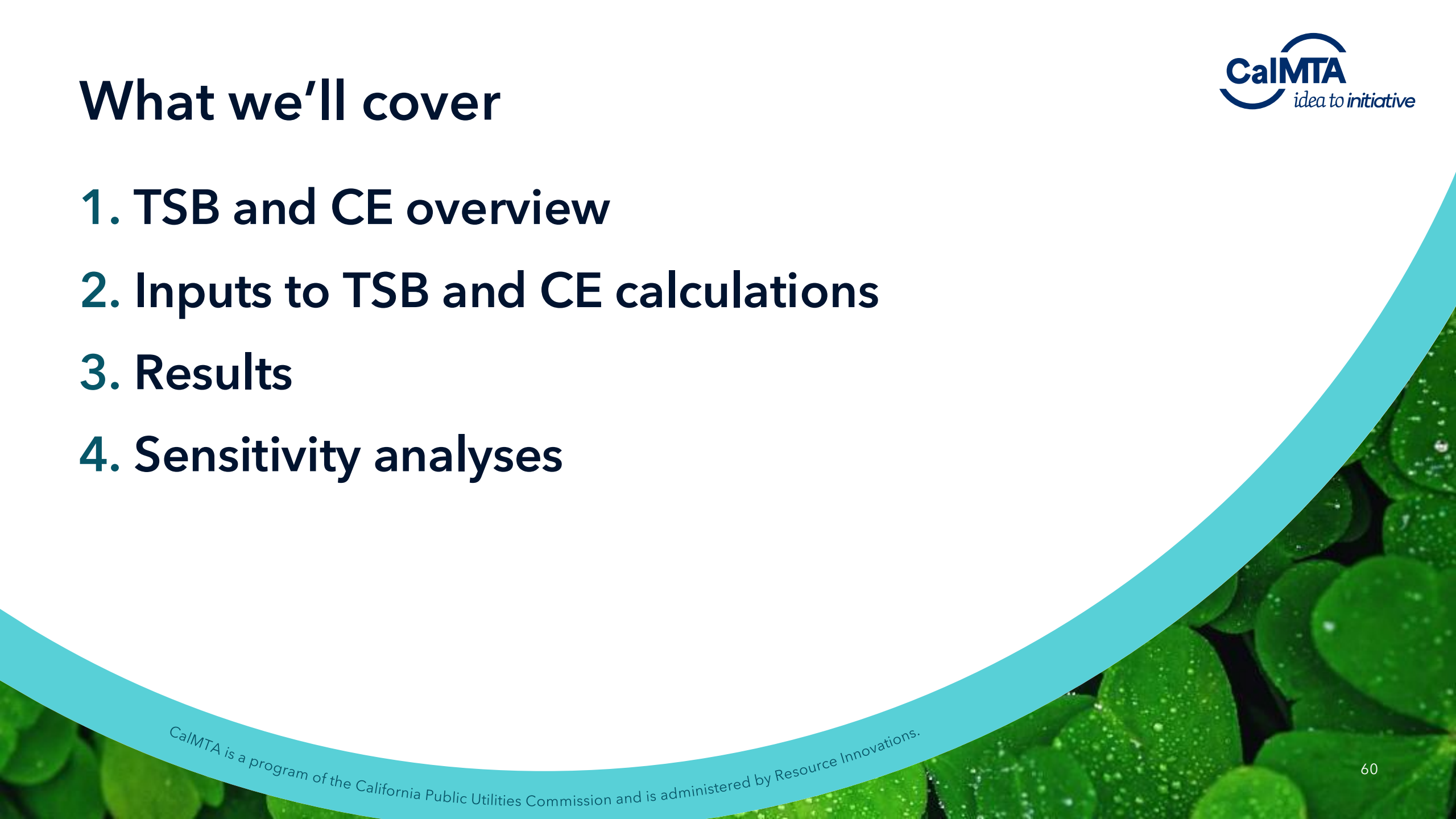
9. CRAWS: TSB and Cost-Effectiveness

Isaac Schultz, Engineering Manager

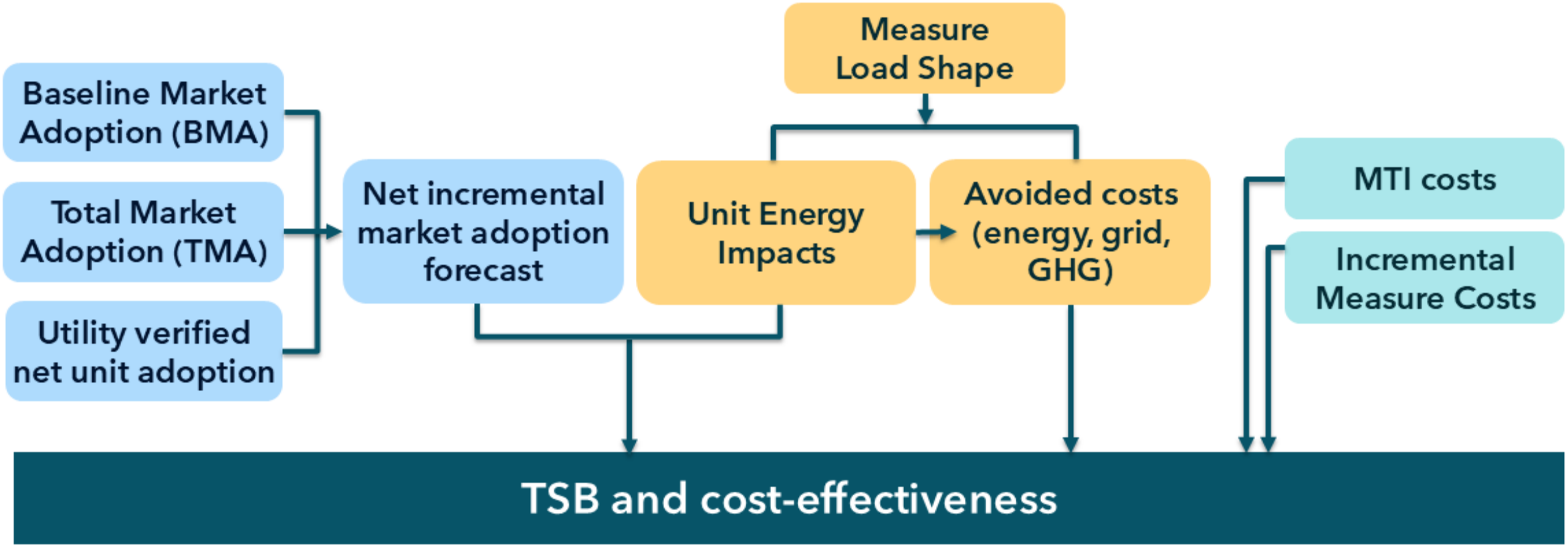
CalMTA is a program of the California Public Utilities Commission and is administered by Resource Innovations.

What we'll cover

1. TSB and CE overview
2. Inputs to TSB and CE calculations
3. Results
4. Sensitivity analyses



TSB and cost-effectiveness model process overview



TSB and cost-effectiveness inputs

Input	Value *(source)*
CSW EUL	20 years *(eTRM)*
Avoided Costs	2024 ACC Workbook for Gas and Electric Avoided Costs *(CPUC)*
Discount Rates for TSB/CE	7.2% for TRC, 5.1% for SCT *(CPUC)*
MTI Lifetime	20 years *(CalMTA estimate)*
MTI Costs	*~$45M (CalMTA estimate)*
Incremental Unit Costs	$34/square foot of CSW *(eTRM)*
Stock outside IOU Territory	28% *(CEUS)*
PA-verified units	Varies by year *(MTI estimate)*

Program Administrator (PA) verified units

- PA-verified units represent the share of incremental adoption expected to be claimed though PA programs
- CSW programs are expected to increase in the early and medium stages of the MTI
- PA-verified units forecasted to taper off in the later part of the forecast period

MTI program years	PA-verified portion of CSW installations (%)	Notes
2027 – 2030 (short-term)	10%	No PA programs currently incentivize CSWs, measure expected to be added to eTRM
2030 – 2035 (medium-term)	40%	By 2030, programs including CSW forecasted to be more widely available
2035 – 2047 (late-term)	Declining to 0% by 2047	As the technology matures, assumed reduction in installations via programs

Net Incremental Adoption

$$Net\ Incremental\ Adoption = Y^{TMA} - Y^{BMA} - Y^{PA}$$

Where Y represents cumulative adoption of CSW sqft over the forecast period of 2028 to 2047. TMA, BMA, and PA represent net incremental adoption attributed to the TMA, BMA, and PA-verified savings respectively

Model Segment	CSW Installations (M SF)
Statewide Incremental Adoption	52.5
IOU Territory Incremental Adoption	34.4
Net incremental adoption	**27.6**

TSB and cost-effectiveness results

Cost Test	TSB – Energy ($M)	TSB – Grid ($M)	TSB – GHG ($M)	TSB – Total ($M)
TRC	72.6	46.4	223.0	**342.0**
SCT Base	166.6	122.9	430.7	**631.9**

TRC Ratio	PAC Ratio	SCT Base
1.04	12.90	1.40

CalMTA
idea to initiative

Sensitivity Analysis

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

Sensitivity analysis - summary

Sensitivity Analysis	TRC	TSB ($M)	Net incremental installations
Base Model	**1.04**	**342.0**	**27.6**
#1 – 30-year EUL	1.26	413.3	27.6
#2 – Higher CSW Costs	0.94	293.3	22.3
#3 – Lower CSW Costs	1.04	443.6	41.4
#4 – Building Performance Standard	1.05	383.4	30.8
#5 – Lower AVP in TMA	1.03	307.6	24.7
#6 – Slower Growth Rate in TMA	1.03	315.1	25.5
#7 – Faster Growth Rate in TMA	1.05	375.4	30.1

Sensitivity Analysis #1 – 30-year EUL

- A longer expected useful life leads to **higher TSB benefits** per installation
- Base model EUL: 20 years

Sensitivity Case	TRC Ratio	TSB ($ M)	Net Incremental Adoption (M SF)
Base Model	1.04	342.0	27.6
30-year EUL	**1.26**	**413.25**	**27.56**

Sensitivity Analysis #2 and #3 – CSW costs

CSW cost impacts both adoption and cost-effectiveness results

- Base model cost: $34.1/sf
- Higher cost: **$40/sf**
- Lower cost: **$30/sf**

Sensitivity Case	TRC Ratio	TSB ($ M)	Net Incremental Adoption (M SF)
Base Model	1.04	342.0	27.6
Higher Cost	**0.94**	**293.30**	**22.35**
Lower Cost	**1.04**	**443.57**	**41.45**

Sensitivity Analysis #4 – Building Performance Standards (BPS)

If BPS is adopted in California:

- AVP expected to increase earlier and faster in both BMA and TMA scenarios
  - Impact will be greater in TMA due to the MTI's promotion of an "envelope-first" approach in commercial buildings
- Growth rate and inflection points also improve due to BPS

Sensitivity Case	TRC Ratio	TSB ($ M)	Net Incremental Adoption (M SF)
Base Model	1.04	342.0	27.6
Building Performance Standards	**1.05**	**383.39**	**30.79**

Sensitivity Analysis #5 – Lower AVP in TMA

Lower AVP:

- Barriers to adoption are removed at a slower rate in the TMA than expected
- This represents a scenario where the MTI is *less effective* at increasing awareness of CSW

Sensitivity Case	TRC Ratio	TSB ($ M)	Net Incremental Adoption (M SF)
Base Model	1.04	342.0	27.6
Lower AVP	**1.03**	**307.57**	**24.73**

Sensitivity Analysis #6 and #7 – Growth rates

Growth rate (r)	MUSH	Non-MUSH
Basel Model	0.22	0.18
High Growth Rate	0.24	0.20
Low Growth Rate	0.20	0.16

Sensitivity Case	TRC Ratio	TSB ($ M)	Net Incremental Adoption (M SF)
Base Model	1.04	342.0	27.6
Slower Growth	**1.03**	**315.12**	**25.45**
Faster Growth	**1.05**	**375.42**	**30.13**

4. CRAWS: Appendix F – Evaluation Plan

Jun Suzuki | CalMTA
CRAWS Evaluation Lead

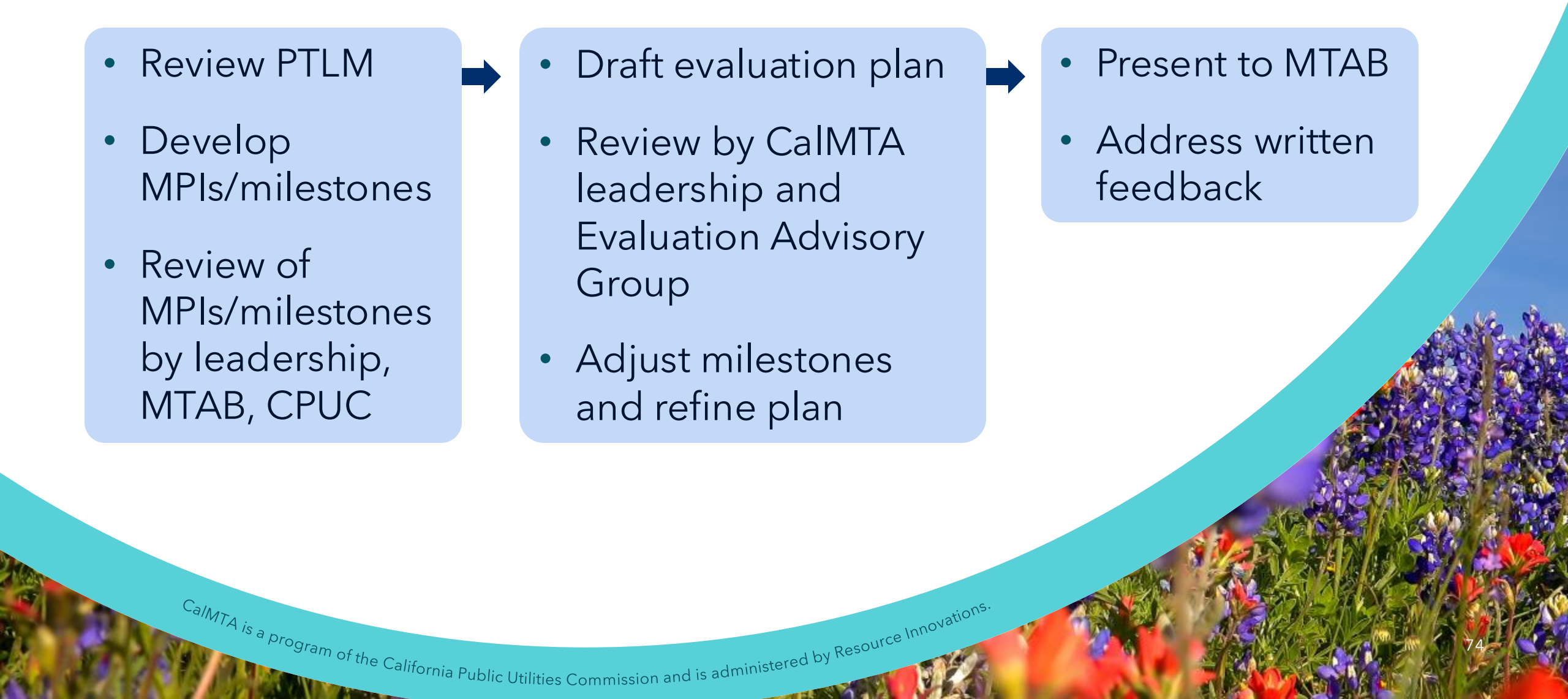
CalMTA is a program of the California Public Utilities Commission and is administered by Resource Innovations.

Evaluation Plan development

- Review PTLM
- Develop MPIs/milestones
- Review of MPIs/milestones by leadership, MTAB, CPUC

- Draft evaluation plan
- Review by CalMTA leadership and Evaluation Advisory Group
- Adjust milestones and refine plan

- Present to MTAB
- Address written feedback



Evaluation objectives

1. Review and assess the MTI program theory and logic model (PTLM)
2. Monitor market dynamics and characteristics; assess market developments
3. Measure market progress and equity in accordance with the market progress indicators (MPIs) and milestones
4. Assess equity outcomes and equity research questions

Evaluation objectives (continued)

5. Assess MTI causality using evidence-based assessments and a "preponderance of evidence" approach

6. Assess MTI implementation effectiveness

7. Review BMA and TMA, unit energy savings, incremental and co-created MTI impacts, and cost-effectiveness model inputs and assumptions

Key data sources

SECONDARY

Program documentation

Salesforce records

Literature review

SALES & PROGRAM

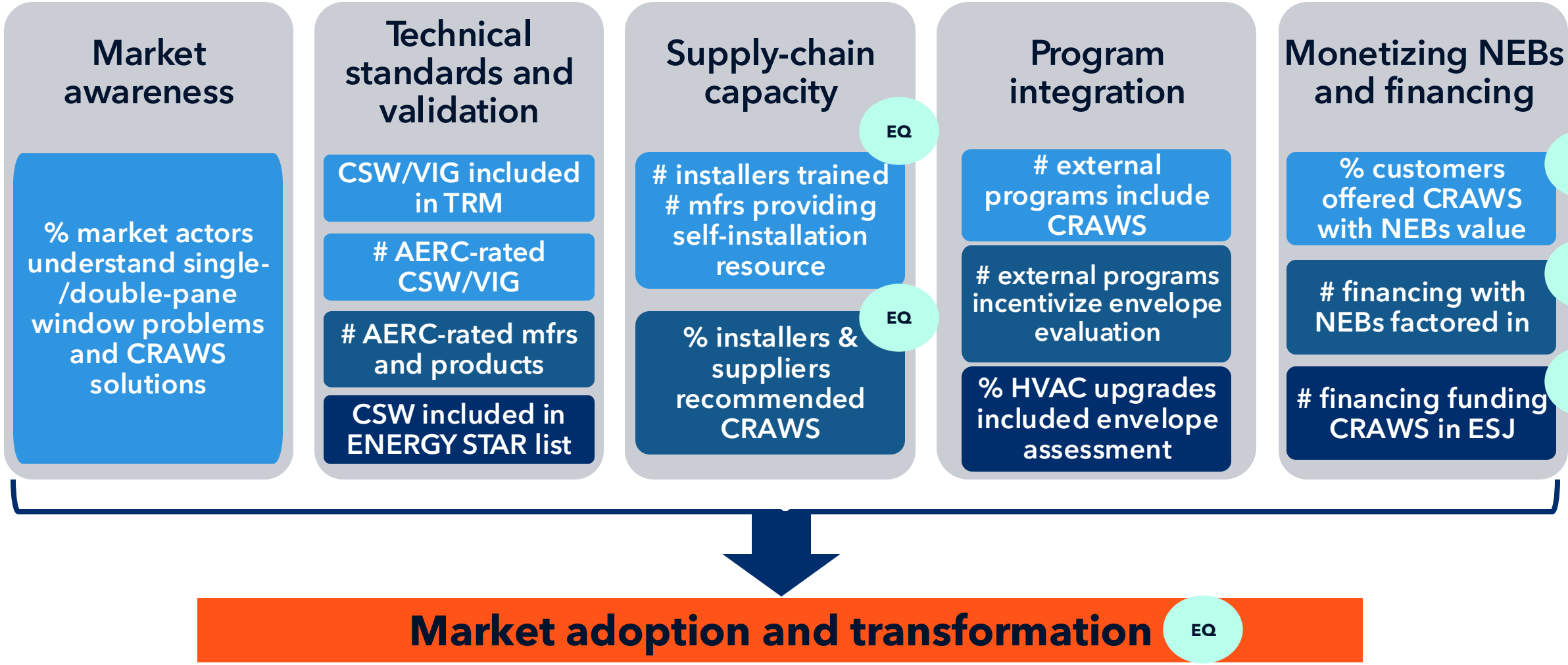
Mfr sales/shipment data

PA program data

PRIMARY

Interviews & surveys with: Building professionals, building owners/ operators, mfr/supply chain, financing, PAs, industry SMEs

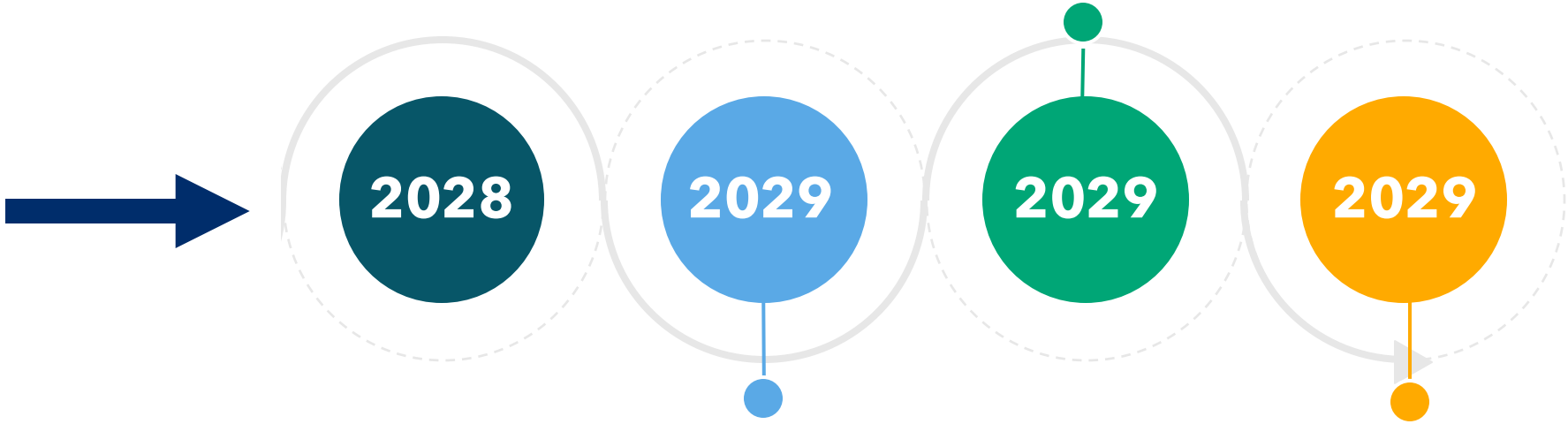
Measure market progress - Key MPIs



Short-term milestones

Installer training:
2+ mfrs have launched installer training programs, published self-installation resources per product line

Increasing awareness among targeted market actors



TRM inclusion:
Field study data collected; draft CSW/VIG measure developed for TRM consideration

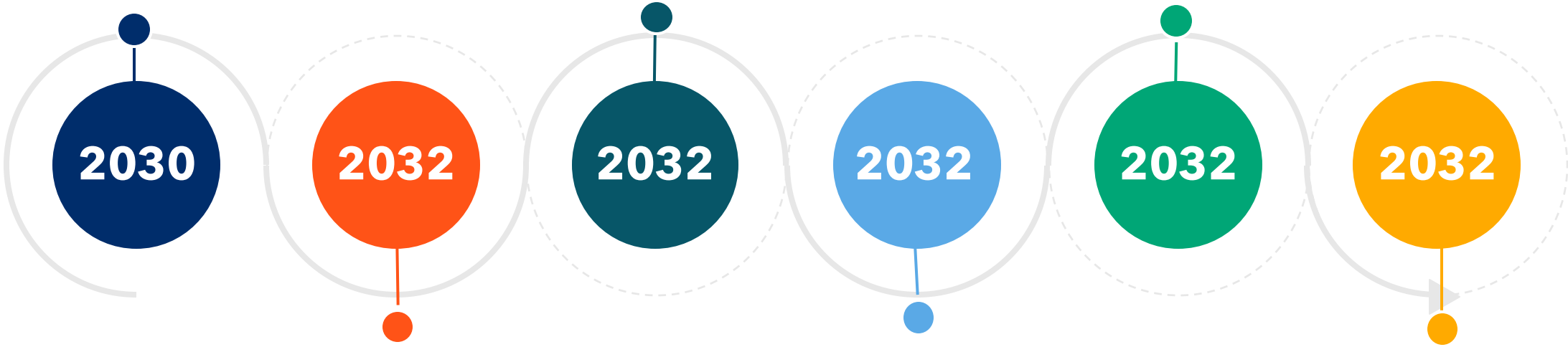
NEBs value proposition:
30%+ of customers offered CRAWS receive offerings that incorporate NEBs in the value proposition

Medium-term milestones

AERC ratings: VIG rating method published by AERC; 5 major CSW mfrs have rated products

Market actor recommendations: 30%+ market actors (specifiers, ESCOs, architects) recommend CRAWS

Supply chain depth: CRAWS available through 5+ suppliers; 5+ regional installation companies trained



Municipal policy integration: 30%+ municipalities with climate action/building decarb strategies include CRAWS

VIG mfr ratings: Two major VIG mfrs have rated products

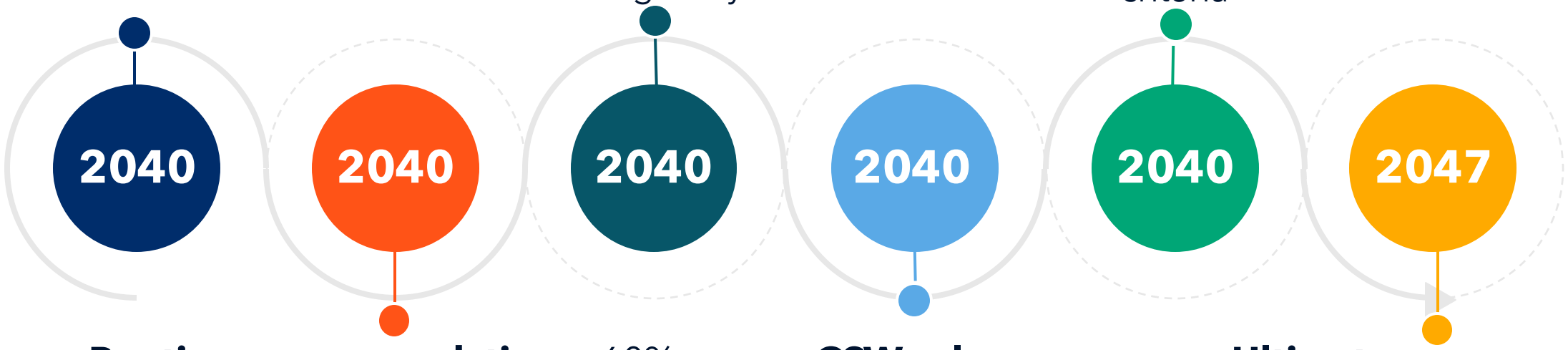
CSW sales: 1.3M sq. ft. of CSW sales

Long-term milestones

Municipal policy integration: 60%+ municipalities with climate action/building decarb strategies include CRAWS

Envelope-HVAC integration: 25% of planned HVAC upgrades include envelope assessment using CRAWS performance specs as part of sizing analysis

Growth in the number of pathways with explicit ESJ criteria



Routine recommendations: 60%+ installers, architects, engineering firms, specifiers routinely recommend CRAWS during building envelope assessments or HVAC consultations

CSW sales: 32M sq. ft. of CSW sales

Ultimate program goal: 14% of existing CA comm. building sq. ft. with single-pane and double-pane clear windows adopts CRAWS

Market adoption tracking

How we measure adoption

1) Compile confirmed sales data
2) Fill gaps with primary research
3) Estimate total market adoption

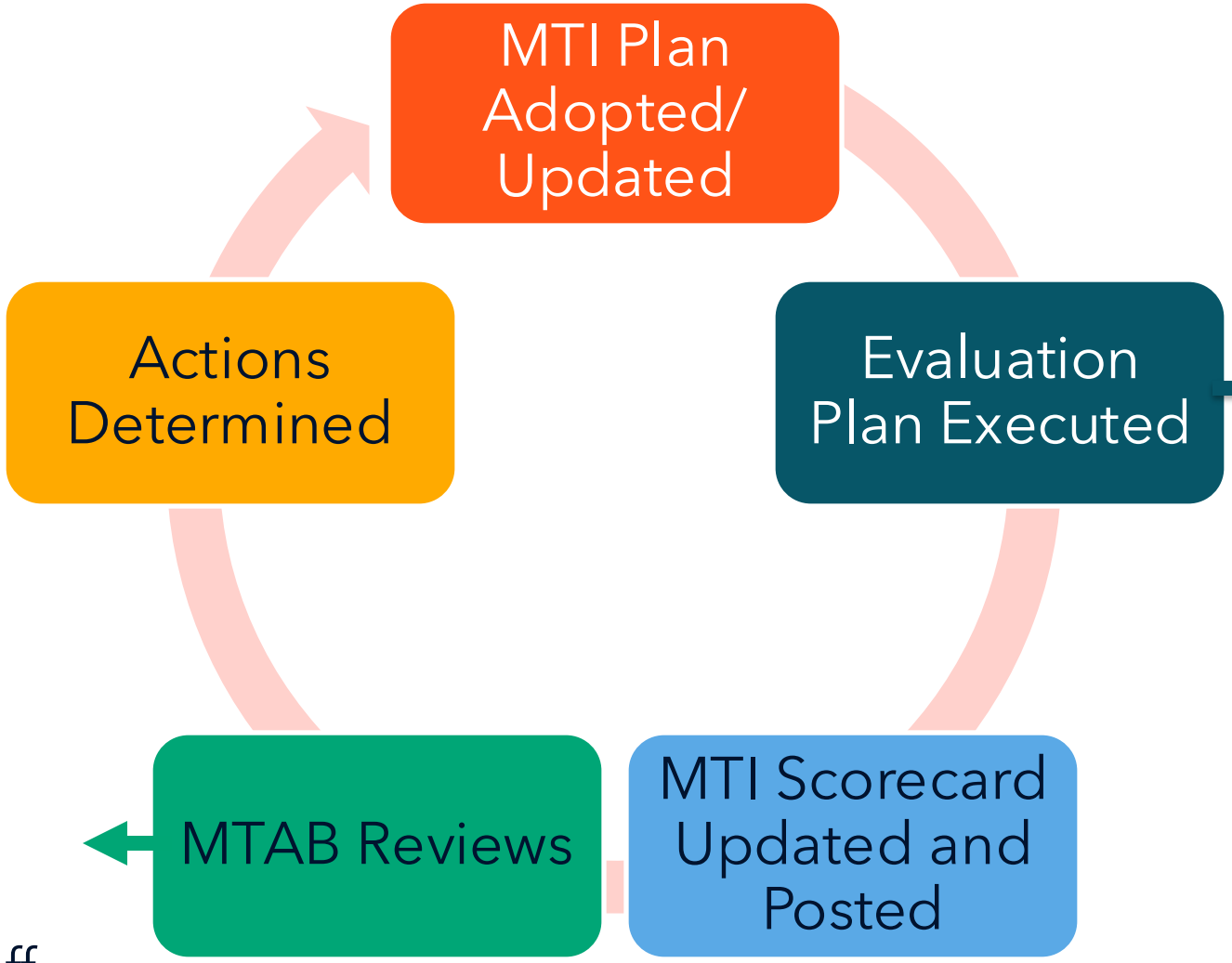
What we track beyond volume

- Building characteristics
- Geography and equity
- Installation triggers
- Product specifications
- Financing
- Market channel

Evaluate equity

- Assess ESJ MPIs
- Assess customer experience
- Assess other aspects of equity, for example:
  - Is the MTI reaching its target audiences in ESJ as well as non-ESJ communities?
  - Are CBO partnerships delivering training, job creation, and pay equity?
  - How is the MTI managing cultural preservation concerns, tenant rent impact, split incentive, language diversity?
- Recommend strategy improvements to help ensure comparable MTI effectiveness in ESJ and non-ESJ communities.

Monitoring, reporting, and review



MTI market progress and evaluated incremental impacts reported publicly

At least annually; underperforming MTIs prioritized on agenda with recommendations from evaluators/staff

Questions & Discussion

Break (15 min.)
We will be back soon.

11.
Second Tranche Application Update

Smita Gupta, Principal of Policy

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

D.25-11-023: Second Application set-up

- **Second tranche MTIs must come through another Application**
- Application may be filed any time
- Early 2026 or early 2030 alignment with EE portfolio filings is preferred
- Year six was added to align CalMTA funding with EE portfolio cycles through 2031
- New MTI proposals should summarize non-ratepayer funding pursued
- Sensitivity analysis should be included where warranted

CalMTA portfolio progress

FIRST TRANCHE

Room Heat Pumps
2025
Approved for market deployment

Induction Cooking
2026
Revised IC Plan awaiting ED disposition for approval

UPCOMING – SECOND TRANCHE

Residential Heat Pump Water Heating

Commercial Rooftop Units

Commercial Replacement & Attachment Window Solutions

IN DEVELOPMENT

Foodservice Water Heating Systems

Commercial Building Efficiency Accelerator

120V plug-in ready

Fuel Substitution

Residential | **Commercial**

Existing Buildings

[PRELIMINARY]
Portfolio TSB and cost-effectiveness

Market Transformation Initiatives	TSB Total	TSB components			TRC
		TSB -Energy	TSB - Grid	TSB - GHG	
Room Heat Pumps	**$480M**	$143M	$28M	$309M	**5.03**
Induction Cooking (Revised Plan)	**$495M**	$25M	($131M)	$601M	**1.05**
Residential Heat Pump Water Heating	**$501M**	$57M	$8M	$436M	**1.67**
Commercial Rooftop Units (Heat pumps w/connected controls)	**$595M**	$148M	$147M	$300M	**2.65**
Commercial Replacement & Attachment Window Solutions	**$342M**	$73M	$46M	$223M	**1.04**
Portfolio Combined	**$2.4B**	$445.7M	$98.6M	$1.9B	~1.70

Application proceeding estimated timeline

~10-12 months from Application filing → Decision

Note: Dates after filing are illustrative and subject to the Scoping Memo and assigned ALJ schedule.

Filing + party responses

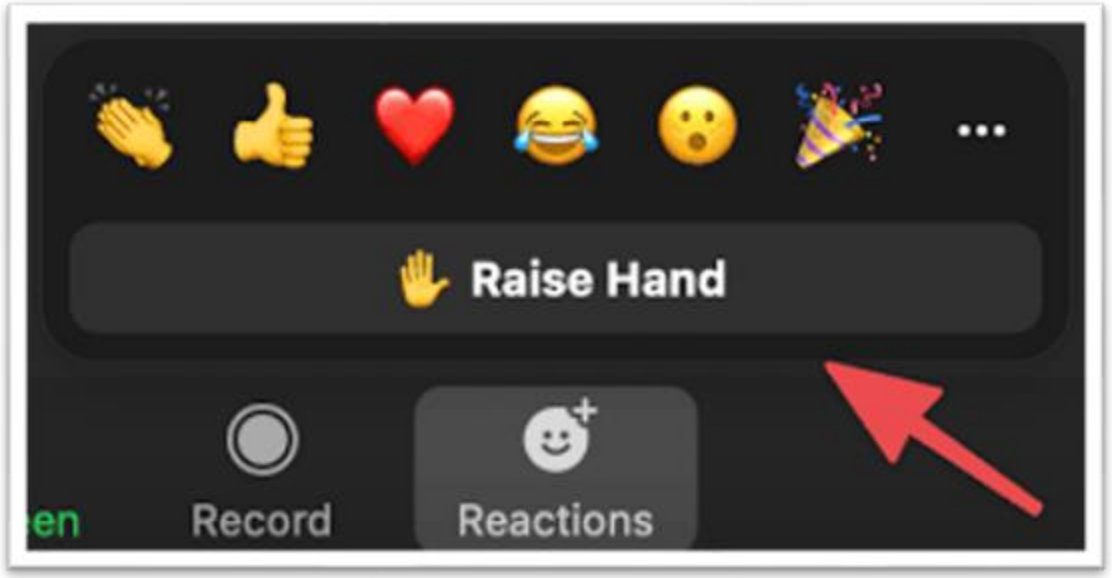
Scoping + evidence record

Briefing

PD + final vote

12. Public Comment

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



13. Annual Conflict of Interest Training

Stacey Hobart, Principal of Engagement and Communications

MTAB Member Requirements

Charter: Roles and responsibilities

The MTAB is a non-authoritative body, making non-binding recommendations.

Understand/are dedicated to supporting CalMTA goals

Attend all meetings and come fully prepared

Participate constructively in meetings, helping to create reasonable solutions

Serve as educators of market transformation efforts

Charter: Other aspects

Terms

- Two-year terms starting April 22, 2026 through April 2028

Stipends for eligible members

- Representatives from energy efficiency Program Administrators and government agencies are not eligible for stipends.
- MTAB members are volunteers and not employees
- Eligible MTAB members will be provided stipends for meeting attendance, document review, and travel expenses will be reimbursed

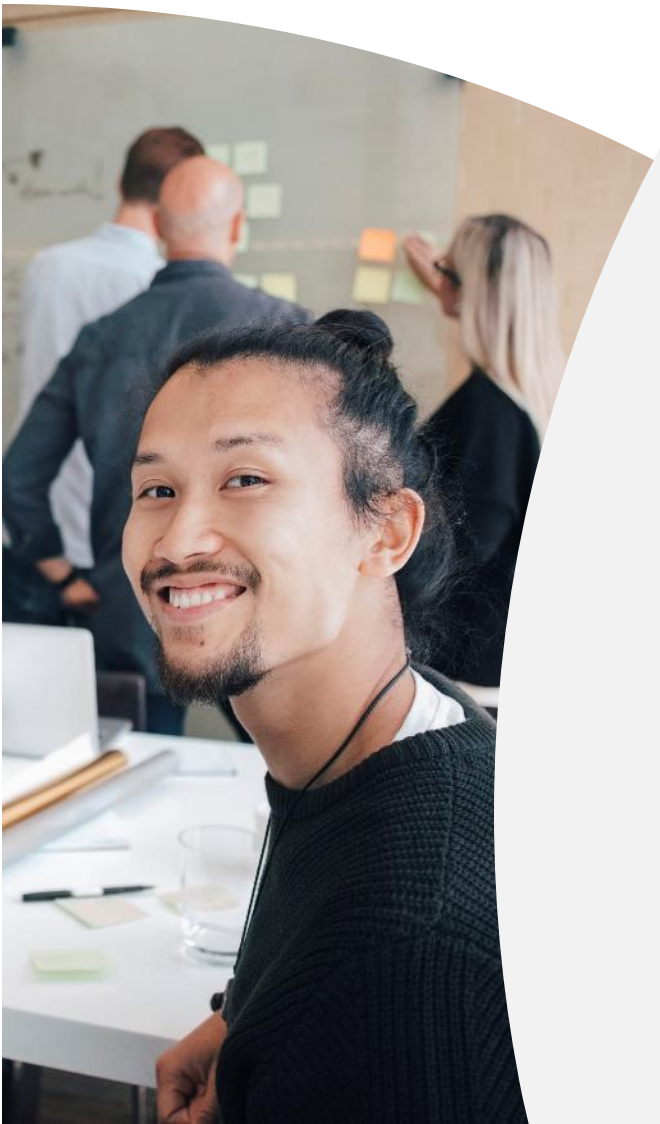
Meeting notices and public comments

- Public meetings announced at least four business days prior
- Members of the public can comment at meetings and online at https://calmta.org/mtab-comments/

Meeting notes

- MTAB meeting notes will summarize discussion and recommendations
- Notes serve as the record of MTAB recommendations
- Each MTAB meeting will ask for acceptance or edits of the prior meeting notes
- Any member may choose to write a summary of their own view, which will be appended to the meeting notes

MTAB member expectations



- Member should attend at least 80% of the meetings
- If a 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

Conflict of Interest Rules

Conflict of interest definition

A conflict of interest shall mean any financial interest or contractual relationship that may impair the ability of an MTAB member to be impartial and unbiased in fulfilling the MTAB member's duties identified in the MTAB charter.

MTAB declaration of COI

MTAB eligibility

- Can't receive funding from CalMTA or be in pursuit of funding

Recusal requirements

- Can't bid on RFP/RFQ if giving input after Phase I
  - Most ideas under development are now in Phase II or III
- Those with competitive interest can recuse from discussion, but must leave MTAB if responding to RFP
- Agree not to influence remaining MTAB members
- Interpretation, if needed, done by CPUC staff

MTAB Charter with Conflict of Interest

Transparency

- Public meetings & process where COI concerns can be raised by the public

CalMTA COI policies

- The CalMTA program has robust COI policies to ensure decision-making is transparent, impartial, and unbiased.
- The Resource Innovations team that administers CalMTA has deep experience implementing market transformation and other energy efficiency programs in California and throughout North America.
- Resource Innovations employees and subcontractors who function in decision-making roles for CalMTA are firewalled from any ongoing work with California utilities or other covered entities and sign COI certifications.
- CalMTA seeks CPUC approval when there is a need to draw on specialized expertise from subject matter experts who also support work with covered entities.

MTAB COI public disclosure form

MTAB public disclosure form will be sent for electronic signature:

- Prior to joining MTAB, annually, and at conclusion of service
- Or if we become aware of COI not previously reported

Questions:

1. Do you (et al) provide services to CalMTA?
2. Do you (et al) have, or are planning to have, a financial relationship with RI, West Monroe (formerly 2050 Partners), Brio, Unrooz Solutions, or Ortiz Group?
3. Are you aware of other circumstances that could be an actual or perceived conflict of interest?

Disclosure forms will be posted on CalMTA website once signed.

Signed COI MTAB Disclosure Forms

14. Next Meeting and Next Steps

Stacey Hobart, Principal of Engagement and Communications

MTAB activities

May

- Residential HPWH MTI MTAB review and public comment period extended to Friday, May 8
- CRAWS MTI MTAB review and public comment period May 14- June 1

June

- Organizational Review Report meeting: Monday, June 1, 1:30-3:00 p.m.

July

- 2nd Quarter Activity Report Webinar: Tuesday, July 28, 10:00 a.m.-12:00 p.m.
- Doodle poll to determine fall MTAB meeting dates

Transformative Energy Solutions

for the public good

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

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

Questions? Email **info@calmta.org**

Follow us on LinkedIn:

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