



# Commercial Rooftop Units Market Transformation Initiative

## Appendix H: Phase III Cost Estimate

December 10, 2025

Prepared by:  
Jeffrey Mitchell, Principal of Market Transformation

Resource Innovations  
719 Main Street, Suite A  
Half Moon Bay, CA, 94019  
(888) 217-0217  
[info@calmta.org](mailto:info@calmta.org)

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

# 1 Introduction

The cost estimates contained in this appendix include only the estimated costs for Phase III: Market Deployment and do not include Phase II: Program Development costs. Market Transformation Initiative (MTI)-specific Phase II costs for conducting research, completing strategy pilots, and developing the MTI Plan were included in CalMTA's authorized start-up budget and reflected in the 2025 and 2026 Annual Budget Advice Letters. Phase II costs are included in the total MTI lifecycle costs that were modeled to determine cost effectiveness, as described in Appendix B: Market Forecasting and Cost-Effectiveness Modeling Approach.

This estimate is based on the MTI logic model and program strategy and was further informed by the experience of CalMTA team members who have delivered market transformation programs in other states. The estimate will be further refined as Phase III activities are launched and as the program strategy evolves over the life of CalMTA's market development activities. CalMTA's activities will focus on filling gaps not currently addressed by other programs; therefore, cost estimates may also change based on ongoing and future collaboration. Annual cost estimates will be refined in consultation with California Public Utilities Commission (CPUC) staff and the Market Transformation Advisory Board (MTAB) as part of the annual operations planning process, which may include fund shifting between and among activities, MTIs, and program years.

## 1.1 Budget activity definitions

The following definitions describe the types of actions included in the Phase III cost estimate. Detailed descriptions of proposed market interventions for the Commercial Rooftop Units MTI Plan are included in Section 2: Market Transformation Theory & Opportunity.

- **MTI oversight, strategy, and management:** Activities required to manage MTI core deliverables such as subcontractor identification, onboarding and management, strategy development, stakeholder outreach, and metric reporting.
- **Awareness building:** Awareness-building activities associated with the MTI strategy, including campaign strategy design and production, and campaign advertisements as required to build demand.
- **Policy development/support:** Activities required to support and influence relevant policies and standards as called out in the MTI strategy, such as federal and voluntary appliance standards (i.e., data sharing, expert participation, and commenting on draft regulations or standards.)
- **Supply chain engagement:** Activities along the full supply chain as defined in the MTI strategy, including workforce education and training (e.g., workforce outreach and recruitment, training material development, and implementation), manufacturer outreach



### Appendix H: Phase III Cost Estimate for Commercial Rooftop Units

*CalMTA is a program of the California Public Utilities Commission (CPUC)  
and is administered by Resource Innovations*

and engagement to support the development of products to better reflect the needs of California consumers, and retailer engagement on stocking practices, messaging, and program participation.

- **Market research:** Market research, as needed, to provide market insights that inform ongoing MTI strategy refinement and MTI effectiveness.
- **Data collection:** Continued collection of data over the course of the MTI to monitor the success of interventions as they progress and for future long-term monitoring and tracking.
- **Mid- or upstream incentives:** CalMTA will design incentives that encourage the development and sale of RTU products for the emergency replacement market that include CalMTA's targeted features. The incentives will be contractually required to lower the cost for the end user, but may be offered to the manufacturer, distributor, or contractor, depending on feedback from all parties.<sup>1</sup>
- **Downstream incentives:** Consumer-facing incentives to encourage purchasing and adoption and create a meaningful market pull.
- **Evaluation:** Activities performed by the third-party evaluator as described in Appendix F: Evaluation Plan, including review of market adoption forecasts and cost effectiveness, market progress evaluations, and long-term monitoring.

---

<sup>1</sup> For more details related to CalMTA's planned incentives, please reference the CRTU MTI Plan, Section 2.4.1: Engage with manufacturers.

Table 1 contains annual cost estimates by major program activity for the first five years of implementation, representing costs incurred over the initial CalMTA funding period allocated in CPUC D.12-21-021. A more detailed breakdown of these costs by CalMTA labor, CalMTA non-labor, third-party contracted labor, and incentives is included in the Application five-year budget.

**Table 1. Year 1-5 cost estimate**

<b>Activity</b>	<b>Year 1 cost estimate</b>	<b>Year 2 cost estimate</b>	<b>Year 3 cost estimate</b>	<b>Year 4 cost estimate</b>	<b>Year 5 cost estimate</b>	<b>Five-year total</b>
<b>Program implementation</b>						
MTI oversight, strategy, and management	\$1,037,000	\$1,010,000	\$1,082,000	\$1,027,000	\$1,016,000	\$5,172,000
Awareness-building/training	\$150,000	\$500,000	\$750,000	\$750,000	\$750,000	\$2,900,000
Policy development/support	\$50,000	\$50,000	\$100,000	\$50,000	\$30,000	\$280,000
Demonstration project	\$1,600,000	\$400,000	\$400,000	-	-	\$2,400,000
<b>Market research</b>						
Market research	\$200,000	\$200,000	\$200,000	\$200,000	\$200,000	\$1,000,000
Data collection	\$100,000	\$103,000	\$106,000	\$109,000	\$113,000	\$531,000
<b>Incentives</b>						
Mid- or upstream incentives	-	\$435,000	\$1,709,000	\$2,972,000	\$4,129,000	\$9,244,000
Downstream incentives	-	-	-	-	-	-
<b>Evaluation</b>						
Program evaluation	\$328,000	\$229,000	\$326,000	\$166,000	\$299,000	\$1,349,000
<b>Total</b>	<b>\$3,465,000</b>	<b>\$2,927,000</b>	<b>\$4,673,000</b>	<b>\$5,274,000</b>	<b>\$6,536,000</b>	<b>\$22,876,000</b>

#### **Appendix H: Phase III Cost Estimate for Commercial Rooftop Units**

*CalMTA is a program of the California Public Utilities Commission (CPUC)  
and is administered by Resource Innovations*

Table 2 contains annual cost estimates by major program activity for the full 20-year program period, representing all Phase III costs required to achieve full market transformation and to validate all impacts.

**Table 2. Phase III cost estimate\***

<b>Activity</b>	<b>Years 1-5 cost estimate</b>	<b>Years 6-10 cost estimate</b>	<b>Years 11-15 cost estimate</b>	<b>Years 16-20 cost estimate</b>	<b>Total Phase III cost estimate</b>
<b>Program implementation</b>					
MTI oversight, strategy, and management	\$5,172,000	\$4,831,000	\$2,219,000	\$282,000	\$12,503,000
Awareness-building/training	\$2,900,000	\$800,000	-	-	\$3,700,000
Policy development/support	\$280,000	\$180,000	-	-	\$460,000
Demonstration project	\$2,400,000	-	-	-	\$2,400,000
<b>Market research</b>					
Market research	\$1,000,000	\$560,000	\$192,000	-	\$1,752,000
Data collection	\$531,000	\$615,000	\$466,000	\$141,000	\$1,753,000
<b>Incentives</b>					
Mid- or upstream incentives	\$9,244,000	\$4,206,000	-	-	\$13,450,000
Downstream incentives	-	-	-	-	-
<b>Evaluation</b>					
Program evaluation	\$1,349,000	\$1,016,000	\$540,000	-	\$2,905,000
<b>Total</b>	<b>\$22,876,000</b>	<b>\$12,209,000</b>	<b>\$3,417,000</b>	<b>\$422,000</b>	<b>\$38,924,000</b>

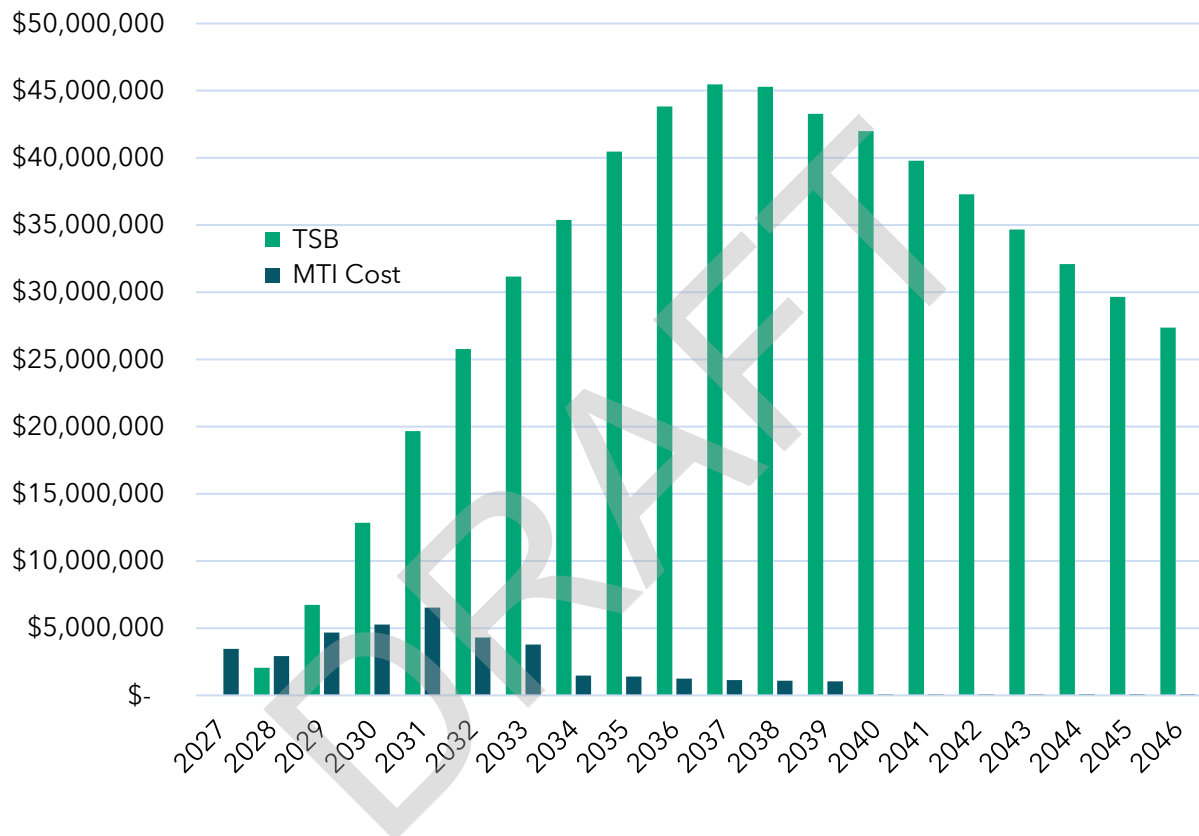
\*Cost estimates in Appendix B and used in all cost-effectiveness calculations include costs incurred during Phase II: Program Development. Total investments for Phase II and Phase III are estimated to total \$42,754,000.

#### **Appendix H: Phase III Cost Estimate for Commercial Rooftop Units**

*CalMTA is a program of the California Public Utilities Commission (CPUC)  
and is administered by Resource Innovations*

Figure 1 contains Phase III cost estimates by year and estimated annual total system benefit (TSB). This illustrates the estimated spend over time, showing a slight ramp-up over the first five years of market development activities followed by a taper-down of program spend over an estimated eight years. This highlights the long-term impacts of market transformation initiatives, with significant long-term impacts occurring after program activities have ramped down. The total cost associated with the remaining seven years includes only data acquisition and program administration costs.

**Figure 1. Phase III cost estimate and market impact by year**



#### Appendix H: Phase III Cost Estimate for Commercial Rooftop Units

*CalMTA is a program of the California Public Utilities Commission (CPUC)  
and is administered by Resource Innovations*

