

Commercial Rooftop Unit - Logic Model [Draft 08.13.2025]

Barriers / Opportunities

High costs (equipment/ installation/ operation)

Limited supply chain and customer experience with technology package and benefits

Product availability & readiness

Divergent product development requests to manufacturers

DOE Heat Pump Accelerator

State & federal codes/standards/ test procedures

Advanced Heat Pump Coalition

CA adoption of heat pump RTUs

Corporate sustainability goals

Strategic Interventions

Interventions with a focus on equity considerations

Manufacturer engagement & demonstration project

Distributor & supply chain engagement

Energy efficiency program coordination (e.g., CEE, DOE, NEEA)

Improve installer training materials

California program coordination (CalNEXT, CASE, Code Readiness, Comfortably CA)

Outputs

Demonstration project implementation plan, Manufacturers refine products

Coordinated product tiers/ specification, aligning energy efficiency industry

Installer training materials

Manufacturer and supply chain agreements, incentive tracking and data sharing

Measure Packet Plan(s) and ERTM savings number. Marketing materials

California CRTU Roadmap

Outcomes

Short-Term (1-3 yrs)

Demonstration project

Shared industry tiers/specification incorporate California needs

Manufacturers see value in partnership and engage on product refinement

Multiple manufacturers incorporate CCC

Easy to use customer and contractor interfaces

Education & training materials developed and incorporated into industry trainings/education; inclusive of ESJ communities

Applicable California programs supporting RTUs align with CalMTA product definition

Upstream incentives address incremental cost barrier for CRTUs

Manufacturers experience unified California specs

Med-Term (4-8 yrs)

Distribution and standard supply chain channels stock sell and promote CalMTA CRTU product

HVAC installers and workforce embrace and market benefits of CCC

Customers understand and see value in CCC

Decreased costs through competition

HVAC installers and workforce are trained, trusted and available for installations across the state without cost-premiums in ESJ communities

CalMTA CRTU program efforts provide data and support partnering programs in reaching goals per Roadmap

Long-Term (8-10+ yrs)

Customers prefer product offering CCC

HVAC installers and workforce leverage fault detection and controls

Market share of RTUs with CCC increases and equipment costs are on par with competing product

Market share of product incorporating variable speed, controls and IVEC+20% grows

California energy efficiency infrastructure leverages data from CRTU

Title 24 incorporates relevant elements of CalMTA CRTU product definition

IMPACT

RTUs installed meet manufacturer installation best practice. Previously undetected faults and inefficiencies are identified and resolved, increasing the operational efficiency and overall performance of RTUs.

Majority of RTUs installed include variable speed heat pumps and diagnostics and controls and perform 20% above IVEC minimums.
RTUs installed are capable of two-way grid communication.

Key for Market Progress Indicators (MPIs) included in each market outcome

A: Awareness
B: Builders
L: Regulatory
M: Manufacturers
P: Program
R: Retail
S: Code/Standard
U: Units