

Application: A.26-03-
Exhibit No.: _____
Date: March 16, 2026
Witness(es): Shelby Bush

PENINSULA CLEAN ENERGY
TESTIMONY REGARDING ITS
2028-2031 EE PORTFOLIO PLAN AND 2028-2035 BUSINESS PLAN
EXHIBIT 2
PROGRAM CARDS

PENINSULA CLEAN ENERGY
 TESTIMONY REGARDING ITS
 2028-2031 EE PORTFOLIO PLAN AND 2028-2035 BUSINESS PLAN

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EXHIBIT 2: PROGRAM CARDS

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Exhibit 2: Program Cards

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Resource Acquisition Segment

Resource Acquisition Commercial Sector

Program Card for Commercial Direct Install

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| Program Name: Commercial Direct Install | | |
| Program ID: PCE-02-COM-DI New / Existing: New Expected Program Duration: 2028 - onwards | | |
| Portfolio Segment: Resource Acquisition | Program Implementer Type: CCA | Third-Party Program Implementer (applicable to IOUs only): N/A |
| Applicable Sector: Commercial | Customer Group(s): Small and medium businesses | |
| Sector Challenges: <ul style="list-style-type: none">• Lack of awareness of energy usage and efficiency program offerings• Misperception or lack of understanding of the value of EE• Lack of capacity to navigate the complex program landscape and initiate upgrades• Up-front costs | Sector Opportunities (Expected Outcome(s)): <ul style="list-style-type: none">• Reach commercial customers at scale with easy-to-install, low-and no-cost energy efficiency measures delivered through a streamlined, turnkey direct install model• Introduce participants to energy efficiency concepts, increasing awareness of bill savings opportunities and literacy among customers who may not otherwise engage in energy programs• Reduce participation barriers by providing a single point of contact that coordinates site assessments and contractor mobilization• Leverage trusted community voices through CBOs to engage harder-to-reach customer segments• Provide site and energy assessments to identify bill savings opportunities. | |

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| <p>Brief Program Description:</p> <p>The Commercial Direct Install (DI) Program provides a turnkey, no-cost solution for commercial customers, delivering onsite energy and electrification readiness assessments and direct installation of energy-saving measures. Using a single-point-of-contact model, PCE provides technical assistance, project coordination, and contractor mobilization to streamline participation and generate immediate savings. The program integrates energy efficiency with load flexibility and electrification readiness, enabling participants to identify follow-on projects or referrals to SEM and FlexMarket programs. Over time, the Commercial DI program cultivates a network of informed, efficiency-minded businesses that reduce energy costs, emissions, and operational risks while strengthening the local clean energy economy.</p> | |
| <p>Known Equity Concerns in the Selected Markets (if applicable):</p> <ul style="list-style-type: none"> • Lack of awareness of energy usage and efficiency program offerings • Misperception or lack of understanding of the value of EE • Lack of capacity to navigate the complex program landscape and initiate upgrades • Up-front costs • Small and medium businesses in underserved areas may have limited access to qualified contractors | <p>Proposed Solutions to Equity Concerns (if applicable):</p> <ul style="list-style-type: none"> • Provide an assessment and turnkey installation model that simplifies participation and reduces administrative burden for all customers • Offer tailored technical assistance to ease program participation • Maintain partnerships with local outreach partners and trade allies to ensure awareness and access among smaller or underserved SMBs within the broader commercial market |
| <p>Intervention Strategy:</p> <ul style="list-style-type: none"> • Direct Install • Technical assistance • Education and information • Site assessment • Referrals | <p>Delivery Type:</p> <p>Downstream Direct Install</p> |
| <p>Measurement and Verification Methods:</p> <p>Deemed</p> | <p>Program Total System Benefit (TSB) for 2028-2031:</p> <p>\$6,208,895</p> |
| <p>Annual Budgets for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$615,600 • 2029: \$820,800 • 2030: \$923,400 • 2031: \$1,060,200 | <p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031:</p> <ul style="list-style-type: none"> • TRC: 1.58 • PAC: 1.58 |

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| <p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>PCE will continue to maintain the program at its steady state beyond 2031. For the years 2032-2035, budgets will increase at a moderate 3% annually to address inflation and to meet increasing customer demand.</p> | <p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • Third party implementer • Commercial customers • Community-based organizations and trade allies |
| <p>High-level description of delivery workforce including necessary scale and its risks:</p> <ul style="list-style-type: none"> • Third-party implementers manage turnkey delivery, contractor oversight, and QA/QC. Scale: sufficient staffing to complete an estimated 300 assessments and installations per year. Risks: participant recruitment and engagement • Qualified trade allies and local contractors conduct installations and verifications. Scale: 5-10 qualified contractors. Risks: uneven coverage or skilled labor shortages • CBO partners support outreach and enrollment for small business customers. Scale 1-3 CBO partners. Risks: limited bandwidth and lack of EE expertise | |
| <p>Near-term Program Output(s) (1-4 years):</p> <ul style="list-style-type: none"> • Deliver 419,675 net first year kWh and \$6.2M in TSB • Complete 300 onsite assessments and direct installations by 2031 • Deliver turnkey EE installations and technical assistance to commercial customers • Refer participants to additional EE/IDSM program opportunities | |
| <p>Long Term Outcome (5-10 years):</p> <ul style="list-style-type: none"> • Commercial customers routinely access turnkey efficiency upgrades, reducing energy intensity and operational costs • Collective savings contribute to grid stability, affordability, and GHG reduction across PCE’s territory | |
| <p>Does this program interact with other programs in this PA portfolio? If so, describe:</p> <p>Yes, receive referrals from the SEM Non-Res, FlexMarket, and IDSM programs.</p> | |
| <p>Program Metrics and Indicators (KPIs):</p> <ul style="list-style-type: none"> • First year annual kWh net • First year annual kW net • First year annual Therm net • Lifecycle ex-ante kWh net • Lifecycle ex-ante Therm net • CO2-equivalent of net annual kWh savings • Count of equity target participants in resource acquisition segment, by sector | |

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| <p>Does this program utilize Integrated Demand Side Management (IDSM)?</p> <p>Other: The program helps customers identify potential load flexibility opportunities through electrification readiness assessments and offers referrals to applicable IDSM programs.</p> | <p>Link to Existing Implementation Plan, if existing:</p> <p>Implementation Plans for all PCE programs will be developed after CPUC approval of PCE's application and before implementation.</p> |
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Program Card for Non-Residential Strategic Energy Management

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| Program Name: Non-Residential Strategic Energy Management | | |
| Program ID: PCE-03-COM-SEM | | |
| New / Existing: New | | |
| Expected Program Duration: 2028 - onwards | | |
| Portfolio Segment: Resource Acquisition | Program Implementer Type: CCA | Third-Party Program Implementer (applicable to IOUs only): N/A |
| Applicable Sector: Commercial | | Customer Group(s): <ul style="list-style-type: none"> • Commercial customers • Public sector customers • Industrial customers • Agricultural customers |
| Sector Challenges: <ul style="list-style-type: none"> • Lack of understanding on how best to evaluate and implement cost-effective EE improvements due to limited bandwidth and/or hesitation to adopt new technologies • Competing priorities for resources create challenges to draw attention from key decision-makers to develop and implement proactive energy strategies • Diverse business types and load profiles make it challenging to deliver universally relevant content | | Sector Opportunities (Expected Outcome(s)): <ul style="list-style-type: none"> • Embed continuous energy management practices within participating organizations, enabling sustained operational savings and long-term efficiency improvements • Engage facility decision-makers through coaching and cohort-based learning to integrate energy management into business operations • Identify operational efficiency improvements and load management strategies that support grid reliability and customer savings • Use data dashboards and benchmarking to motivate engagement and track performance • Introduce participants to additional clean energy and bill savings opportunities, e.g., DR, solar + storage, project financing |

Brief Program Description: (Including customer target, program strategies employed, expected program outcome):

The Non-Residential Strategic Energy Management (SEM) Program engages commercial, agricultural, public sector and industrial customers through a dedicated energy coaching model that builds capacity for sustained energy awareness and ongoing operational and behavioral energy management. In alignment with the California SEM Design Guide Version 2.1, the program offers a six-year curriculum divided into three two-year cycles.

The program will also include deemed and custom pathways for savings that are influenced by the SEM process but not attributable to operational and behavioral energy management. SEM guidelines will be followed, as appropriate to remove savings from the site-NMEC analysis. An SEM Coach guides participants through educational modules and site-specific activities, including energy mapping and site energy use selection activities, treasure hunts, and action plan development. Participants gain access to real-time energy dashboards, cohort-based learning opportunities, and technical assistance to uncover low- and no-cost savings opportunities and improve load flexibility. Beyond energy efficiency, Energy Coaches work directly with energy teams and the executive sponsor to identify electrification readiness and IDSM opportunities.

The program provides performance-based incentives following approved energy savings calculation methodologies outlined in the California SEM M&V Guide Version 4.0. By integrating SEM practices with decarbonization pathways, the program supports large energy users in embedding continuous improvement processes that persist beyond the incentive period. Over time, participants achieve sustained operational savings and reduced GHG emissions, helping PCE advance load management and statewide decarbonization goals.

Known Equity Concerns in the Selected Markets (if applicable):

- Lack of understanding on how best to evaluate and implement cost-effective EE improvements due to limited bandwidth and/or hesitation to adopt new technologies
- Competing priorities for resources create challenges to draw attention from key decision-makers to develop and implement proactive energy strategies
- Diverse facility sizes and capabilities make it harder for smaller businesses to access traditional SEM offerings

Proposed Solutions to Equity Concerns (if applicable):

- Through energy treasure hunts, cohort-based educational activities, and action plan support, customers identify actionable, low- and no-cost strategies to reduce energy use
- Address capacity constraints by providing dedicated energy coaching, hands-on technical assistance, and ongoing support to help customers sustain improvements over time
- Maintain Opportunity Registers and deliver action plan support to simplify participation for customers with fewer internal resources
- Provide stable and transparent incentive structures to encourage continued engagement and multi-year investment in efficiency and load management practices

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| | <ul style="list-style-type: none"> • Offer tailored educational opportunity participation pathways (e.g. online vs in-person; one-on-one vs cohort) to best serve each sector or business type. |
| Intervention Strategy: <ul style="list-style-type: none"> • SEM • Deemed • Custom • Incentive • Technical Assistance • Training • Education and engagement • Referrals | Delivery Type: Downstream |
| Measurement and Verification Methods: SEM M&V, Deemed, Custom | Program Total System Benefit (TSB) for 2028-2031: \$10,234,441 |
| Annual Budgets for 2028-2031: <ul style="list-style-type: none"> • 2028: \$988,000 • 2029: \$1,976,000 • 2030: \$2,204,000 • 2031: \$2,432,000 | Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031: <ul style="list-style-type: none"> • TRC: 1.35 • PAC: 1.35 |
| Anticipated directional and scale changes in budget for years 2032-2035: PCE will continue to maintain the program at its steady state beyond 2031. For the years 2032-2035, budgets will increase at a moderate 3% annually to address inflation and to meet increasing customer demand. | Market Actors necessary for success: <ul style="list-style-type: none"> • Third party implementer • Commercial, public, agricultural, and industrial participants • Business owner & facility staff • Local contractors and technical service providers |
| High-level description of delivery workforce including necessary scale and its risks: <ul style="list-style-type: none"> • Third-party implementers manage cohort engagement, SEM coaching, educational activity facilitation, real-time energy data access platform, and incentive delivery. Scale: requires a small team of energy coaches and analysts serving 40–60 commercial, public, agricultural, or industrial sites annually. Risks: participant recruitment and retention by implementer; data access. • Qualified local contractors perform capital upgrades and retrofits identified through SEM coaching, supporting deeper energy savings. Scale: 10-15 qualified contractors. Risks: limited trained contractors. | |

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| <p>Near-term Program Output(s) (1-4 years):</p> <ul style="list-style-type: none"> • Deliver 19.6 million net first year kWh and \$10.2M in TSB • Engage 40–60 commercial, public, agricultural, and industrial participants in multi-year SEM cohorts by 2031 • Conduct energy treasure hunts and develop Opportunity Registers uncover operational and behavioral savings • Provide real-time energy dashboards and benchmarking tools to all participating facilities • Facilitate peer learning workshops to share best practices and promote continuous improvement • Complete electrification readiness assessments and identify IDSM opportunities for participating sites • Refer participants to complementary programs (e.g., demand response, solar+storage, or financing) to support deeper efficiency and decarbonization goals | |
| <p>Long Term Outcome (5-10 years):</p> <ul style="list-style-type: none"> • Participants adopt continuous energy management and load-flexibility practices as business-as-usual • Electrification readiness and IDSM measures identified through SEM cohorts are implemented, driving deep decarbonization, grid benefits, and operational savings • Participants achieve measurable GHG reductions and lower operating costs, strengthening resilience and competitiveness | |
| <p>Does this program interact with other programs in this PA portfolio? If so, describe:</p> <p>Yes, receive referrals from the IDSM Program and refer customers who want a lighter touch EE engagement to the Commercial DI program (and vice versa)</p> | |
| <p>Program Metrics and Indicators (KPIs):</p> <ul style="list-style-type: none"> • First year annual kWh net • First year annual kW net • First year annual Therm net • CO2-equivalent of net annual kWh savings • Percent of total projects utilizing Normalized Metered Energy Consumption (NMEC) to estimate savings • Percent of total savings (gross kWh and therm) derived from NMEC analysis • Count of equity target participants in resource acquisition segment, by sector | |
| <p>Does this program utilize Integrated Demand Side Management (IDSM)?</p> <p>Other. Supports IDSM by helping participants identify and implement operational energy management practices that improve efficiency and reduce peak demand. Energy coaches also help facilities identify load flexibility opportunities and refer participants to relevant programs.</p> | <p>Link to Existing Implementation Plan, if existing:</p> <p>Implementation Plans for all PCE programs will be developed after CPUC approval of PCE’s application and before implementation.</p> |

Program Card for FlexMarket

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| Program Name: FLEXMarket | | |
| Program ID: PCE-01-COM-FM | | |
| New / Existing: New | | |
| Expected Program Duration: 2028 - onwards | | |
| Portfolio Segment: Resource Acquisition | Program Implementer Type: CCA | Third-Party Program Implementer (applicable to IOUs only): N/A |
| Applicable Sector: <ul style="list-style-type: none"> • Commercial • Residential | | Customer Group(s): <ul style="list-style-type: none"> • Commercial facility owners • Single-family homeowners |
| Sector Challenges: <ul style="list-style-type: none"> • Technical and administrative barriers in traditional EE programs create high transaction costs that inhibit broad contractor participation. • Rigid program designs and fixed technology incentives can limit savings potential and participation flexibility • Smaller contractors and customers often lack capacity to navigate complex program application processes. • Limited staff capacity for facilities management, especially in smaller organizations | | Sector Opportunities (Expected Outcome(s)): <ul style="list-style-type: none"> • Enable aggregators and contractors to deliver verified energy savings at scale through a flexible, performance-based NMEC market structure. • Expand participation by reducing burdensome technical and administrative barriers associated with traditional deemed, custom, and site-specific NMEC projects through the streamlined Population-Level NMEC approach • Provision of tools and resources to acquire customers and calculate savings • Address “stranded” savings opportunities through inclusion of to-code savings opportunities |
| Brief Program Description: (Including customer target, program strategies employed, expected program outcome): | | |
| <p>The program offers a flexible, performance-based pathway for aggregators of commercial and residential customers to deliver verified energy savings and grid benefits through a Population Normalized Metered Energy Consumption (Pop NMEC) design. This streamlined approach reduces administrative and technical barriers associated with traditional deemed or custom programs, broadening participation for qualified aggregators and contractors. Aggregators receive pay-for-performance (P4P) incentives based on measured savings, encouraging innovation and delivery of optimized load shapes that maximize system benefits. The program integrates IDSMS and electrification-ready technologies and leverages automated measurement and verification (M&V) to</p> | | |

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| <p>verify performance with reduced overhead. Customers benefit from simplified participation, turnkey support, and incentives that promote both cost savings and load flexibility.</p> | |
| <p>Known Equity Concerns in the Selected Markets (if applicable):</p> <ul style="list-style-type: none"> • Technical and administrative barriers associated with traditional EE programs such as high transaction costs, inhibit broad contractor participation • Typical EE program offerings have rigid program designs and fixed technology incentives that can limit savings and participation • Barriers to entry for qualified aggregators • Limited staff capacity for facilities management, especially in smaller organizations • Small or minority-owned contractors and aggregators may face capital and qualification hurdles, resulting in underrepresentation during early market phases | <p>Proposed Solutions to Equity Concerns (if applicable):</p> <ul style="list-style-type: none"> • Relieve administrative burdens and technical barriers for contractors by using a POP NMEC approach that streamlines savings calculation and measurement requirements, allowing implementers to aggregate projects and verify performance at the portfolio level rather than through individual project implementation • Simplify participation for customers by enabling aggregators to manage project delivery, savings verification, and incentive collection on their behalf, reducing technical complexity and paperwork • Address “stranded” savings opportunities through inclusion of to-code savings • Maintain transparent and simple enrollment criteria so that small or emerging aggregators can engage effectively |
| <p>Intervention Strategy:</p> <ul style="list-style-type: none"> • MAP • Incentive • Training aggregators • Referrals | <p>Delivery Type:</p> <p>Downstream</p> |
| <p>Measurement and Verification Methods:</p> <p>NMEC - Population</p> | <p>Program Total System Benefit (TSB) for 2028-2031:</p> <p>\$13,376,648</p> |
| <p>Annual Budgets for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$1,368,000 • 2029: \$1,425,000 • 2030: \$1,425,000 • 2031: \$1,482,000 | <p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031:</p> <ul style="list-style-type: none"> • TRC: 0.97 • PAC: 2.33 |

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| <p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>PCE will continue to maintain the program at its steady state beyond 2031. For the years 2032-2035, budgets will increase at a moderate 3% annually to address inflation and to meet increasing customer demand.</p> | <p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • Aggregators of commercial & residential customers • Commercial & residential customers • Property managers • POP NMEC M&V provider |
| <p>High-level description of delivery workforce including necessary scale and its risks:</p> <ul style="list-style-type: none"> • Third-party manages the overall FlexMarket platform, participant enrollment systems, and M&V framework. Scale: requires technical staff and data analysts to support over 100 active participants across commercial and residential sectors. Risks: data verification delays or platform performance issues. • Aggregators recruit customers, coordinate participating contractors, and deliver verified savings through Pop-NMEC. Scale: 10–20 qualified aggregators across PCE’s service territory ensure portfolio diversity and competition. Risks: aggregators assume performance risk under the pay-for-performance structure, meaning revenues depend on verified savings outcomes. This uncertainty may deter participation or limit the willingness of some aggregators to engage without sufficient portfolio scale or financing. • Participating contractors perform installation and operational upgrades under aggregator partnerships. Risks: uneven coverage or skill variation. | |
| <p>Near-term Program Output(s) (1-4 years):</p> <ul style="list-style-type: none"> • Deliver 7.8 million in first year net kWh and 13.4M in TSB • Onboard aggregator(s) to deliver commercial and residential savings • Enroll 140 commercial/residential facilities by 2031 • Launch automated M&V portal and aggregator reporting tools • Optimize energy usage for commercial and residential customers by expanding flexible load participation | |
| <p>Long Term Outcome (5-10 years):</p> <ul style="list-style-type: none"> • Aggregators and customers routinely deliver verified savings • Population-level NMEC and automated M&V approaches become standard, reducing administrative burden and increasing market participation • Commercial and residential customers actively manage flexible loads, contributing to peak-demand reduction and grid reliability • Program innovation demonstrates scalable, cost-effective EE and IDSM integration, aligning with PCE’s innovation and affordability goals • Ratepayer investments achieve higher value per dollar saved, advancing statewide GHG reduction and cost-effectiveness targets | |
| <p>Does this program interact with other programs in this PA portfolio? If so, describe:</p> <p>Yes, provide referrals for projects that do not meet modeling requirements to both Residential and Commercial DI</p> | |

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| <p>Program Metrics and Indicators (KPIs):</p> <ul style="list-style-type: none"> • First year annual kWh net • First year annual kW net • First year annual Therm net • CO2-equivalent of net annual kWh savings • Percent of total projects utilizing Normalized Metered Energy Consumption (NMEC) to estimate savings • Percent of total savings (gross kWh and therm) derived from NMEC analysis • Percent Improvement in trade ally satisfaction • Count of equity target participants in resource acquisition segment, by sector | |
| <p>Does this program utilize Integrated Demand Side Management (IDSMS)?</p> <p>Other. Uses a performance-based Population NMEC design that rewards aggregators for delivering verified energy savings through energy efficiency measures, including technologies that provide energy savings and peak-period value without relying on traditional demand response.</p> | <p>Link to Existing Implementation Plan, if existing:</p> <p>Implementation Plans for all PCE programs will be developed after CPUC approval of PCE’s application and before implementation.</p> |

Resource Acquisition Residential Sector

Program Card for Multifamily Strategic Energy Management

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| Program Name: Multifamily Strategic Energy Management | | |
| Program ID: PCE-01-RES-MFSEM New / Existing: New Expected Program Duration: 2028 - onwards | | |
| Portfolio Segment: Resource Acquisition | Program Implementer Type: CCA | Third-Party Program Implementer (applicable to IOUs only): N/A |
| Applicable Sector: Residential | | Customer Group(s): Multifamily property owners |
| Sector Challenges: <ul style="list-style-type: none"> • Split incentives between property owners and tenants • Awareness of operational energy savings opportunities • Engaging property owners and managers to invest in energy upgrades • Technology adoption barriers, especially among less tech-savvy property owners and managers | | Sector Opportunities (Expected Outcome(s)): <ul style="list-style-type: none"> • Enable multifamily properties to achieve sustained operational energy savings and improved building performance through continuous energy management practices • Address funding and capacity constraints by offering incentives and hands-on energy coaching to support implementation of operational improvements and longer-term energy efficiency upgrades • Overcome the split incentive barrier by engaging both property managers and tenants in educational campaigns • Build buy-in with property owners and managers to facilitate energy and cost savings opportunities for common areas and tenant units • Identify load shifting opportunities to meet grid reliability needs • Highlight health, safety and comfort co-benefits to motivate broader participation |

Brief Program Description:

The Multifamily Strategic Energy Management (SEM) Program engages multifamily property owners and managers through a dedicated energy coaching model that builds capacity for sustained energy awareness and ongoing operational and behavioral energy management. In alignment with the California SEM Design Guide Version 2.1, the program offers a six-year SEM curriculum divided into three two-year cycles. The program will also include deemed and custom pathways for savings that are influenced by the SEM process but not attributable to operational and behavioral energy management. SEM guidelines will be followed, as appropriate to remove savings from the site-NMEC analysis.

With the support of an SEM Coach, participants engage in energy mapping and site energy use selection activities, treasure hunts, action plan development, and educational modules. The program provides access to real-time energy dashboards that identify operational savings and long-term efficiency improvements. The program facilitates peer learning workshops and tenant education sessions to uncover low- and no-cost opportunities that improve comfort and reduce energy bills. SEM coaches provide ongoing technical assistance, flag electrification readiness, and identify Integrated Demand Side Management (IDSM) opportunities aligned with PCE’s broader decarbonization and load flexibility goals.

Performance-based incentives are provided following approved energy savings calculation methodologies outlined in the California SEM M&V Guide Version 4.0. The program will engage and educate the energy team (comprised of property owners and managers) to embed energy management practices that persist beyond the incentive period. By empowering both building decision-makers and residents, the program supports energy savings, lower utility costs, and GHG reductions while supporting ancillary benefits such as load reductions and housing cost stability.

Known Equity Concerns in the Selected Markets (if applicable):

- About a third of low- or moderate-income (LMI) California households live in multifamily buildings, and over 90 % of those households rent rather than own
- Renters, and particularly those in multifamily properties, face high energy burdens
- Because of split incentive challenges, opportunities to improve the efficiency, health, safety and comfort of multifamily buildings are often ignored
- Smaller or independently owned multifamily properties may lack access to capital or technical resources to engage in strategic energy management practices, leading to inequitable uptake across building types

Proposed Solutions to Equity Concerns (if applicable):

- Address the split incentive barrier by engaging both property owners and tenants through outreach and education that highlight shared cost, comfort, safety and health benefits
- Provide dedicated energy coaching and technical assistance for property owners and managers to reduce capacity and knowledge barriers
- Offer flexible engagement options such as virtual coaching (supplementing in-person kickoff meetings and treasure hunts) and multilingual materials to reach smaller, independently-owned, or equity-serving properties

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| <p>Intervention Strategy:</p> <ul style="list-style-type: none"> • SEM • Deemed • Custom • Incentive • Technical Assistance • Training • Education and engagement • Referrals | <p>Delivery Type:</p> <p>Downstream</p> |
| <p>Measurement and Verification Methods:</p> <p>SEM M&V, Deemed, Custom</p> | <p>Program Total System Benefit (TSB) for 2028-2031:</p> <p>\$4,840,656</p> |
| <p>Annual Budgets for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$345,800 • 2029: \$691,600 • 2030: \$771,400 • 2031: \$851,200 | <p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031:</p> <ul style="list-style-type: none"> • TRC: 0.94 • PAC: 1.81 |
| <p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>PCE will continue to maintain the program at its steady state beyond 2031. For the years 2032-2035, budgets will increase at a moderate 3% annually to address inflation and meet increasing customer demand.</p> | <p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • Third-party implementer • Property owners • Property management companies overseeing MF buildings • Local contractors • Tenants |
| <p>High-level description of delivery workforce including necessary scale and its risks:</p> <ul style="list-style-type: none"> • Requires a third party implementer with a small team (2–5) SEM coaches to serve approximately 60-75 multifamily buildings per portfolio period. Risks: maintaining participant engagement through the SEM cycle. • Qualified local contractors perform capital upgrades and retrofits identified through SEM coaching, supporting lighting, HVAC, and system improvements. Scale: 5-10 contractors. Risks: include capacity limits and inconsistent quality control for participating contractors. | |
| <p>Near-term Program Output(s) (1-4 years):</p> <ul style="list-style-type: none"> • Deliver 1.5 million first year net kWh and \$4.8 million TSB • Engage 60-75 multifamily buildings in multi-year SEM cohorts by 2031. • Conduct energy treasure hunts and develop Opportunity Registers to identify operational and behavioral savings opportunities. • Provide real-time energy dashboards and benchmarking tools to all participating buildings. • Facilitate peer learning workshops and tenant engagement sessions to share energy management best practices and build stakeholder awareness. | |

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| <ul style="list-style-type: none"> • Complete electrification readiness assessments and identify IDSM opportunities for participating sites. • Refer participants to complementary PCE and statewide programs supporting deeper energy savings, demand flexibility, and decarbonization. | |
| <p>Long Term Outcome (5-10 years):</p> <ul style="list-style-type: none"> • Building owners and residents will benefit from healthier, more efficient, and resilient buildings, achieving lower energy costs and improved health, safety and comfort • MF buildings achieved sustained operational savings and load flexibility • Building owners, facility staff, and residents are equipped with the knowledge to embed continuous energy management practices as a standard practice • Support PCE's goal of broad adoption of building decarbonization | |
| <p>Does this program interact with other programs in this PA portfolio? If so, describe:</p> <p>Yes, provide referrals to the Renters Marketplace program</p> | |
| <p>Program Metrics and Indicators (KPIs):</p> <ul style="list-style-type: none"> • First year annual kWh net • First year annual kW net • First year annual Therm net • First year annual kWh net - Common Area • First year annual Therm net - Common Area • First year annual kWh net - In Unit • First year annual Therm net - In Unit • CO2-equivalent of net annual kWh savings • Count of equity target participants in resource acquisition segment, by sector | |
| <p>Does this program utilize Integrated Demand Side Management (IDSM)?</p> <p>Other. Supports IDSM through operational energy management practices that improve building efficiency and reduce peak energy use in multifamily properties. Energy coaches work with property managers and facility staff to identify load flexibility and electrification opportunities and connect participants to programs that deliver active demand flexibility solutions.</p> | <p>Link to Existing Implementation Plan, if existing:</p> <p>Implementation Plans for all PCE programs will be developed after CPUC approval of PCE's application and before implementation.</p> |

Resource Acquisition Cross-Cutting Sector

Program Card for IDSM Program

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| Program Name: IDSM Program | | |
| Program ID: PCE-01-IDSM New / Existing: New Expected Program Duration: 2028 - onwards | | |
| Portfolio Segment: Resource Acquisition | Program Implementer Type: CCA | Third-Party Program Implementer (applicable to IOUs only): N/A |
| Applicable Sector: Cross-cutting | Customer Group(s): <ul style="list-style-type: none"> Residential customers Public sector customers | |
| Sector Challenges: <ul style="list-style-type: none"> Accurately measuring permanent load shifting from battery energy storage systems (BESS) requires advanced analytics and transparent methodologies Participants may hesitate to allow automated control or data sharing without clear value propositions Ensuring EE-funded incentives remain compliant while aligning with other DER and resilience funding sources adds administrative complexity | Sector Opportunities (Expected Outcome(s)): <ul style="list-style-type: none"> Demonstrate a replicable multi-DER integration model Advance grid reliability by aligning customer-sited batteries with grid needs Use the data from PCE’s distributed energy resource management software (DERMS) to inform future EE, electrification, and load flexibility program design Strengthen relationships with municipal and residential participants, illustrating measurable local value from grid services Cross-program coordination and collaboration to increase participation across PCE’s program portfolio | |
| Brief Program Description: <p>The Multi-DER Integrated Demand Side Management (IDSM) Program incentivizes ongoing, permanent load shifting through coordinated control of behind-the-meter (BTM) battery systems enrolled in PCE’s Distributed Energy Resource Management System (DERMS) platform. The program builds on PCE’s existing solar + storage programs for residential and municipal customers to create a unified framework for distributed energy management. Participants ranging from residential customers to municipal facilities receive performance-based incentives for managed battery discharge during peak hours, reducing grid stress and advancing local resilience. Automated M&V through the DERMS platform verifies energy shifted from on-peak to off-peak periods, enabling transparent performance tracking. The program also provides energy efficiency education</p> | | |

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| <p>and technical assistance alongside information on battery optimization strategies, helping customers maximize value from their systems. By demonstrating a replicable, multi-DER integration model, the program establishes a scalable template for permanent load shifting that supports affordability, local reliability, and PCE’s 100% renewable energy vision.</p> | |
| <p>Known Equity Concerns in the Selected Markets (if applicable):</p> <ul style="list-style-type: none"> • Customer trust and engagement: Participants may hesitate to allow automated control or data sharing without clear value propositions • Limited familiarity with managed battery systems may reduce participation among moderate-income customers and smaller municipalities | <p>Proposed Solutions to Equity Concerns (if applicable):</p> <ul style="list-style-type: none"> • Ensure transparent communication of participation terms, data use, and compensation to build customer trust in managed dispatch and performance tracking • Provide simplified onboarding materials and technical assistance to support customers unfamiliar with automated control or battery operation |
| <p>Intervention Strategy:</p> <ul style="list-style-type: none"> • IDSM • Incentive • Education • Technical Assistance | <p>Delivery Type:</p> <p>Downstream</p> |
| <p>Measurement and Verification Methods:</p> <p>Other: PCE’s DERMS platform provides automated data collection and meter-based performance calculations</p> | <p>Program Total System Benefit (TSB) for 2028-2031:</p> <p>\$3,917,488</p> |
| <p>Annual Budgets for 2028-2031:</p> <p>2028: \$912,000 2029: \$950,000 2030: \$950,000 2031: \$988,000</p> | <p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031:</p> <ul style="list-style-type: none"> • TRC: 1.03 • PAC: 1.03 |
| <p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>PCE will continue to maintain the program at its steady state beyond 2031. For the years 2032-2035, budgets will increase at a moderate 3% annually to address inflation and to meet increasing customer demand.</p> | <p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • Municipal and residential customers • DERMS platform and technology providers • Original equipment manufacturers (OEMs) of BESS |

High-level description of delivery workforce including necessary scale and its risks:

- PCE will serve as the primary program implementer, leveraging its existing DERMS platform to monitor and dispatch batteries across participants. This technology-enabled management will be essential to optimize grid responsiveness and customer value. Scale: requires technical staff to manage hundreds of connected battery systems. Risks: customer’s hesitance to allow for PCE control.
- Technology providers maintain system interoperability, dispatch automation, and performance tracking. Risks include evolving platform standards or vendor dependencies, as well as potential dispatch limitations established by battery OEMs.

Near-term Program Output(s) (1-4 years):

- Deliver \$3.9 million TSB
- Enroll 522 customers (496 residential, 26 municipal) with battery systems by 2031
- Deliver optimized battery operation for customer and grid benefit
- Integrate distributed storage into a single dispatch and incentive framework
- Align with CPUC D.23-06-055 by demonstrating how EE funding can support sustained demand reduction and multi-DER coordination without duplicating demand response incentives or capital subsidies
- Provides a pathway to include HPWHs, HVAC smart controls, and EVSE in future iterations under a unified incentive and dispatch model
- Advance grid reliability by aligning customer-sited batteries with grid reliability goals
- Use the DERMS data to inform future EE, electrification, and load flexibility program design

Long Term Outcome (5-10 years):

- A permanent fleet of customer-sited batteries delivers measurable daily load shifting and grid support through PCE’s DERMS platform.
- Residential customers and municipalities benefit from enhanced resilience and cost savings, strengthening community energy security.
- The multi-DER incentive model becomes replicable, integrating EE, DR, and electrification technologies under one framework.
- Load shifting reduces system costs and supports 24/7 carbon-free operations, advancing PCE’s clean energy vision.

Does this program interact with other programs in this PA portfolio? If so, describe:

Yes, referrals to and coordination with RES DI, Commercial DI, Non-RES SEM, and Renters Marketplace programs

Program Metrics and Indicators (KPIs):*

- Sum of all TSB for all equity target participants
- Median of equity target participants’ expected first-year bill savings by sector
- Count of equity target participants in resource acquisition segment, by sector
- Percent of disadvantaged community customer participants in portfolio, by residential single-family / multi-family and commercial sector
- Percent of hard-to-reach customer participants in portfolio, by residential single family / multi-family and commercial sector

**Note: Given that IDSM is a novel program design, metrics outlined below may not specifically align with common, Equity, Market Support metrics.*

Does this program utilize Integrated Demand Side Management (IDSM)?

Multi-DER IDSM: Uses DERMS platform to permanently load shift from BESS

Link to Existing Implementation Plan, if existing:

Implementation Plans for all PCE programs will be developed after CPUC approval of PCE's application and before implementation.

Equity Segment

Equity Segment Residential Sector

Program Card for Renters Marketplace

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| Program Name: Renters Marketplace | | |
| Program ID: PCE-02-RES-MP | | |
| New / Existing: New | | |
| Expected Program Duration: 2028 - onwards | | |
| Portfolio Segment: Equity | Program Implementer Type: CCA | Third-Party Program Implementer (applicable to IOUs only): n/a |
| Applicable Sector: Residential | | Customer Group(s): <ul style="list-style-type: none"> Single family homeowners Renters Small businesses |
| Sector Challenges: <ul style="list-style-type: none"> Renters and small businesses often face limited authority to install larger or permanent equipment upgrades Digital marketplaces may exclude customers with limited internet access or low digital literacy Navigating multiple incentive programs and eligibility requirements can be confusing to customers Language and trust barriers can reduce participation among underserved customer groups | | Sector Opportunities (Expected Outcome(s)): <ul style="list-style-type: none"> Enable renters, small businesses, and other underserved customers to access affordable clean energy technologies that are traditionally difficult for them to adopt Simplify customer decision-making through curated product offerings and concierge services simplify Increase affordability by stacking incentives across local, state, and federal programs Partnerships with CBOs expand reach to renters, underserved communities, and small businesses Provide portable, renter friendly clean energy technologies (e.g., plug-in induction stoves, window/portable heat pumps) that allow participation without landlord approval |

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| <p>Brief Program Description:</p> <p>The Renters Marketplace provides Equity customers, renters, and small and micro businesses with streamlined access to discounted, energy-efficient and clean energy equipment through an online marketplace platform that simplifies purchasing and incentive navigation. Participants receive curated product recommendations, multilingual support, and hands-on concierge guidance that reduce confusion and increase trust among underserved and hard-to-reach communities. By integrating local, state, and federal incentive stacking functionality, the platform enhances affordability and accelerates adoption of portable, renter-friendly, and small-business-suitable technologies such as plug-in induction stoves, window heat pumps, and efficient appliances. Partnerships with trusted CBOs expand reach to low-income and linguistically diverse customers, ensuring equitable participation and consumer confidence. Over time, the Renters Marketplace aims to normalize equitable, digital access to energy upgrades, reduce participation friction, and contribute to long-term affordability and GHG reduction goals within PCE’s service territory.</p> | |
| <p>Known Equity Concerns in the Selected Markets (if applicable):</p> <ul style="list-style-type: none"> • Split incentive challenges and limited authority for renters and small businesses in leased spaces can restrict their ability to install larger or permanent energy upgrades. • Digital marketplaces may exclude customers with limited internet access or low digital literacy • Navigating multiple incentive programs and eligibility requirements can be confusing to customers • Language and trust barriers can reduce participation among underserved customer groups • Upfront equipment costs can remain a barrier even with incentives, especially for equity and HTR customers | <p>Proposed Solutions to Equity Concerns (if applicable):</p> <ul style="list-style-type: none"> • Simplify customer experience through a curated product list, incentive stacking, and concierge assistance to reduce confusion • Partner with trusted CBOs to build awareness, provide multilingual support, and expand reach among underserved and HTR customers • Offer renter-friendly, portable products (e.g., plug-in induction stoves, window heat pumps) to bypass landlord approval and split incentive barriers |
| <p>Intervention Strategy:</p> <ul style="list-style-type: none"> • Marketplace • Rebate • Concierge support • Outreach and information | <p>Delivery Type:</p> <p>Downstream</p> |
| <p>Measurement and Verification Methods:</p> <p>Deemed</p> | <p>Program Total System Benefit (TSB) for 2028-2031:</p> <p>\$4,628,863</p> |

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| <p>Annual Budgets for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$889,200 • 2029: \$1,185,600 • 2030: \$1,333,800 • 2031: \$1,531,400 | <p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031:</p> <ul style="list-style-type: none"> • TRC: 0.58 • PAC: 0.94 |
| <p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>PCE will continue to maintain the program at its steady state beyond 2031. For the years 2032-2035, budgets will increase at a moderate 3% annually to address inflation and to meet increasing customer demand.</p> | <p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • Multifamily tenant • Single-family renter • HTR and underserved customers • Business owner in leased space • Trusted Community-Based Organizations (CBOs) • Marketplace platform provider and technical maintenance partner |
| <p>High-level description of delivery workforce including necessary scale and its risks:</p> <ul style="list-style-type: none"> • Marketplace provider manages platform functionality and product listings. Scale: platform operations must accommodate hundreds of customer transactions annually. Risks: rising technical maintenance costs or limited system scalability. • Concierge service staff provide direct customer assistance navigating the marketplace, including product selection guidance, incentive eligibility support, and help completing purchases or enrollments. Scale: a small team capable of supporting several hundred customer interactions annually through phone, online, or partner-assisted channels. Risks: fluctuating demand for customer support, staffing limitations during peak periods, and the need for multilingual capacity to serve diverse customer groups. • CBO partners conduct outreach, multilingual support, and support services for customers. Scale: a network of partners required to provide sufficient coverage across PCE’s territory. Risks: staffing limitations, bandwidth constraints and coordination complexity. | |
| <p>Near-term Program Output(s) (1-4 years):</p> <ul style="list-style-type: none"> • Deliver 2.9 million first year net kWh and \$4.6 million TSB • Reach an estimated 2,600 unique equity customer purchases through the marketplace by 2031 • Launch an online marketplace platform featuring vetted, incentive-eligible clean energy products • Provide portable clean energy options (e.g., plug-in induction stoves, window/portable heat pumps) to renters and small businesses • Deploy concierge support and product education for customers purchasing • Partner with CBOs to support multilingual outreach and customer support services • Stack incentives from PCE-funded and other publicly funded programs (local, state, federal) | |

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| <p>Long Term Outcome (5-10 years):</p> <ul style="list-style-type: none"> • Renters, small businesses, and other underserved and HTR customers gain sustained access to affordable clean energy technologies through an established marketplace platform • Reduce energy bills, improve comfort, health, and safety of customer homes and businesses • Stacked incentive delivery across multiple funding sources becomes a normalized customer pathway, reducing friction and improving affordability • Portable and renter-friendly equipment options become mainstream, helping decarbonize previously underserved market segments • CBO partnerships continue to drive trust, multilingual access, and local workforce participation in clean energy adoption • Marketplace operations evolve into a replicable, community-based model supporting equitable decarbonization aligned with PCE’s mission and California’s affordability goals | |
| <p>Does this program interact with other programs in this PA portfolio? If so, describe: Yes, receive referrals from the Residential Direct Install, Commercial Direct Install, and IDSM Program</p> | |
| <p>Program Metrics and Indicators (KPIs):</p> <ul style="list-style-type: none"> • Sum of all equity segment participants’ kilowatt hour (kWh) savings in equity segment - lifecycle gross • Sum of all equity segment participants’ therm savings in equity segment - lifecycle gross • Sum of all equity segment participants’ TSB in equity segment • Count of equity target participants in equity targeted segment, by sector • Sum of equity target participants’ expected first-year bill savings in equity segment, by sector • Percent of hard-to-reach customer participants in portfolio, by residential single family / multi-family and commercial sector • Percent of disadvantaged community customer participants in portfolio, by residential single-family / multi-family and commercial sector • Sum of all equity segment participants’ greenhouse gas reductions (in tons of carbon dioxide equivalent) in equity segment - lifecycle gross | |
| <p>Does this program utilize Integrated Demand Side Management (IDSM)? No</p> | <p>Link to Existing Implementation Plan, if existing: Implementation Plans for all PCE programs will be developed after CPUC approval of PCE’s application and before implementation.</p> |

Program Card for Residential Direct Install

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| Program Name: Residential Direct Install | | |
| <p>Program ID: PCE-03-RES-DI New / Existing: New Expected Program Duration: 2028 - onwards</p> | | |
| <p>Portfolio Segment: Equity</p> | <p>Program Implementer Type: CCA</p> | <p>Third-Party Program Implementer (applicable to IOUs only): N/A</p> |
| <p>Applicable Sector: Residential</p> | | <p>Customer Group(s): Single family homeowners</p> |
| <p>Sector Challenges:</p> <ul style="list-style-type: none"> • Many residential customers are unaware of EE benefits or eligible offerings, particularly in underserved or hard-to-reach communities • A fragmented program landscape, causing confusion between ESA, EE, DR, and other local programs, can deter customer action | | <p>Sector Opportunities (Expected Outcome(s)):</p> <ul style="list-style-type: none"> • Reach underserved and HTR households at scale through no-cost assessments and direct installation of simple energy savings measures • Introduce participants to energy efficiency concepts and build energy literacy, helping households better understand their energy use and savings opportunities • Create a pathway to deeper energy upgrades over time by identifying electrification and load flexibility opportunities and referring interested participants to complementary programs such as ESA, demand flexibility initiatives, and other PCE offerings • Leverage a trusted CBO or Energy Advisor to provide education, coordinate resources to maximize customer benefits, and increase engagement in underserved and HTR communities • Engage with contractors trained through PCE's WE&T program |
| <p>Brief Program Description: The Residential Direct Install (DI) Program provides no-cost in-home assessments and direct installation of energy efficiency measures that improve health, comfort and safety for residents. It also introduces participants to the concepts of whole-home electrification and load flexibility. Trained Energy Advisors or trusted CBO Navigators conduct personalized visits to develop</p> | | |

customized decarbonization and load shifting roadmaps. Participants receive no-cost energy efficiency installations along with tailored education and enrollment assistance for complementary programs like ESA and load flexibility programs. The program targets underserved or hard-to-reach customers, leveraging trusted community partnerships to build confidence and engagement. By coordinating with PCE’s WE&T Refrigerant DI strengthens the pipeline for workforce participation. Over time, the program builds lasting energy literacy, reduces household energy burdens, and opens the door for engagement in deeper energy efficiency programs at a later date, thereby contributing to equitable decarbonization and affordability across PCE’s service area.

Known Equity Concerns in the Selected Markets (if applicable):

- Upfront cost of EE measures, especially for Equity customers
- Onerous technical and administrative burdens inhibit the ability to receive energy-saving devices or educational resources that can help provide no-cost or low-cost energy-saving measures
- Language and trust barriers can deter participation among underserved customers

Proposed Solutions to Equity Concerns (if applicable):

- Participants receive low-cost or no-cost energy-saving measures, easing upfront cost challenges that are a significant barrier to EE adoption
- Provide educational resources and support to introduce customers to EE concepts
- Enroll eligible customers in complementary programs as available
- Leverage trusted CBOs to support engagement with equity customers
- The DI approach reduces project complexity and paperwork as Energy Navigators and CBO partners support customers with the application process
- Offer multilingual outreach and education through Energy Advisors and CBO Navigators to strengthen participation among hard-to-reach customers

Intervention Strategy:

- Direct Install
- Technical assistance
- Education and information
- Site assessment
- Referrals

Delivery Type:
Downstream

Measurement and Verification Methods:
Deemed

Program Total System Benefit (TSB) for 2028-2031:
\$1,122,712

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| <p>Annual Budgets for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$540,000 • 2029: \$720,000 • 2030: \$810,000 • 2031: \$930,000 | <p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031:</p> <ul style="list-style-type: none"> • TRC: 0.40 • PAC: 0.40 |
| <p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>PCE will continue to maintain the program at its steady state beyond 2031. For the years 2032-2035, budgets will increase at a moderate 3% annually to address inflation and to meet increasing customer demand.</p> | <p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • Third party implementer, including Energy Advisors • Single-family homeowners • Trade professionals & local contractors • CBOs and community outreach partners |
| <p>High-level description of delivery workforce including necessary scale and its risks:</p> <ul style="list-style-type: none"> • Third-party implementer manages scheduling, delivery, and quality control for direct install services. Scale: requires sufficient staffing to serve an estimated 2,000 homes by 2031. Risks: participant engagement and deemed workpaper adjustments. • Local contractors perform direct installs and in-home assessments. Scale: 5-10 Risks: limited qualified labor or uneven workmanship. • CBOs provide education and navigation for co-enrollment opportunities. Scale: 1-3 CBOs engaged. Risks: limited bandwidth and lack of EE expertise. | |
| <p>Near-term Program Output(s) (1-4 years):</p> <ul style="list-style-type: none"> • Deliver 18,658 first year net kWh and \$1.1 million TSB • Complete 2,000 in-home assessments and direct installs of EE measures by 2031 • Deploy Energy Advisors or CBO Navigators to guide participants and coordinate co-enrollments. • Establish referral pathways with PCE-funded programs, as well as other public programs such as ESA • Increase EE adoption and literacy in underserved and hard-to-reach participants • Deliver customer education on load shifting, electrification, and refrigerant management | |
| <p>Long Term Outcome (5-10 years):</p> <ul style="list-style-type: none"> • Underserved and hard-to-reach households achieve sustained reductions in energy burden and improved comfort through installed measures • CBO partnerships and Energy Advisors become trusted local delivery mechanisms, fostering long-term engagement and equity outcomes • Residential customers transition toward whole-home electrification and flexible load management, supporting PCE’s building decarbonization goals • Collective savings contribute to grid stability, affordability, and GHG reduction across PCE’s territory | |

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| <p>Does this program interact with other programs in this PA portfolio? If so, describe:</p> <p>Yes, receive referrals from the Renters Marketplace, IDSM and FLEXmarket programs</p> | |
| <p>Program Metrics and Indicators (KPIs):</p> <ul style="list-style-type: none"> • Sum of all equity segment participants' kilowatt hour (kWh) savings in equity segment - lifecycle gross • Sum of all equity segment participants' therm savings in equity segment - lifecycle gross • Sum of all equity segment participants' TSB in equity segment • Count of equity target participants in equity targeted segment, by sector • Sum of equity target participants' expected first-year bill savings in equity segment, by sector • Sum of all equity segment participants' greenhouse gas reductions (in tons of carbon dioxide equivalent) in equity segment - lifecycle gross • Percent of equity target participants in equity segment, by sector | |
| <p>Does this program utilize Integrated Demand Side Management (IDSM)?</p> <p>Other. The program helps participants identify potential load flexibility opportunities through electrification readiness assessments and offers referrals to applicable IDSM programs.</p> | <p>Link to Existing Implementation Plan, if existing:</p> <p>Implementation Plans for all PCE programs will be developed after CPUC approval of PCE's application and before implementation.</p> |

Market Support Segment

Market Support Segment Cross-Cutting Sector

Program Card for Refrigerant Workforce, Education, and Training (WE&T)

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| Program Name: Refrigerant Workforce, Education, and Training (WE&T) | | |
| Program ID: PCE-01-WE&T-REF | | |
| New / Existing: New | | |
| Expected Program Duration: 2028 - onwards | | |
| Portfolio Segment: Market Support | Program Implementer Type: CCA | Third-Party Program Implementer (applicable to IOUs only): N/A |
| Applicable Sector: Cross-cutting | | Customer Group(s): Contractors and technicians |
| Sector Challenges: <ul style="list-style-type: none"> • Small, independent contractors are underrepresented in refrigerant recovery and recycling efforts • These contractors lack access to refrigerant-related technical training, recovery equipment, and awareness of compliance, incentives, and business opportunities. • Many contractors face capital and administrative barriers to entering the refrigerant recovery and recycling market • Eligible contractors need help navigating the resale ecosystem | | Sector Opportunities (Expected Outcome(s)): <ul style="list-style-type: none"> • Build a qualified local workforce capable of performing refrigerant recovery, recycling, and low-GWP refrigerant management • Reduce entry barriers for small and independent contractors through training and starter equipment • Build awareness of compliance, incentive, and resale opportunities through education and partnerships • Establish collaborations with workforce boards and community colleges to deliver micro-certifications, building long-term technical capacity |
| Brief Program Description: <p>The Refrigerant Workforce, Education, and Training (WE&T) Program builds local contractor and technician capacity to support California’s climate-aligned refrigerant recovery, recycling, and low-GWP transition goals. Targeting small and independent HVAC contractors and technicians, the program offers no-cost, hands-on training on refrigerant handling, leak detection, compliance, and market access. Participants receive equipment starter kits (e.g., recovery tanks, scales, and recovery machines), guidance on EPA Section 608 certification, and connections to refrigerant buyback and resale pathways that create new small-business revenue streams. By reducing entry barriers and</p> | | |

offering credentialing support, the program helps diversify the HVAC workforce and promotes equitable participation among small and underrepresented contractors. Partnerships with workforce boards, community colleges, and CBOs extend access to training and micro-certification opportunities. In the long term, this program enables compliance with SB 1013, expands the qualified local contractor base for refrigerant management, and contributes to statewide hydrofluorocarbon (HFC) emissions reduction and economic resilience.

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| <p>Known Equity Concerns in the Selected Markets (if applicable):</p> <ul style="list-style-type: none"> • Small and independent contractors are underrepresented in refrigerant recovery and recycling efforts • These contractors lack access to refrigerant-related technical training, recovery equipment, and awareness of compliance, incentives, and business opportunities • Contractors need help navigating the resale ecosystem • Start-up costs and certification requirements can exclude small or minority-owned HVAC firms from participating in the refrigerant recycling and recovery market | <p>Proposed Solutions to Equity Concerns (if applicable):</p> <ul style="list-style-type: none"> • Offer no-cost training on refrigerant handling, leak detection, compliance, and market access. • Participants receive hands-on instruction, help navigating EPA Section 608 certification, and guidance on reclaim credit opportunities and resale pathways, creating new revenue streams for participants. • Starter kits or tool subsidies to reduce capital barriers • Entry point to other PCE programs |
| <p>Intervention Strategy:</p> <ul style="list-style-type: none"> • Training • Technical assistance • Toolkits | <p>Delivery Type:</p> <p>N/A</p> |
| <p>Measurement and Verification Methods:</p> <p>Other - Participant Surveys</p> | <p>Program Total System Benefit (TSB) for 2028-2031:</p> <p>N/A</p> |
| <p>Annual Budgets for 2028-2031:</p> <ul style="list-style-type: none"> • 2028: \$360,000 • 2029: \$480,000 • 2030: \$540,000 • 2031: \$620,000 | <p>Cost Effectiveness (TRC and PAC Test Ratios) for 2028-2031:</p> <ul style="list-style-type: none"> • TRC: N/A • PAC: N/A |

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| <p>Anticipated directional and scale changes in budget for years 2032-2035:</p> <p>PCE will continue to maintain the program at its steady state beyond 2031. For the years 2032-2035, budgets will increase at a moderate 3% annually to address inflation and to meet increasing customer demand.</p> | <p>Market Actors necessary for success:</p> <ul style="list-style-type: none"> • Third party implementer • Small, local, diverse independent contractors • Local workforce entities and boards • CBOs and trade associations • Community colleges |
| <p>High-level description of delivery workforce including necessary scale and its risks:</p> <ul style="list-style-type: none"> • Small and independent contractors perform refrigerant recovery, leak detection, and recycling activities in the field. Scale: Recruit 75+ local, small and independent contractors. Risks: competing business priorities, time required to participate in training • Third-party implementer manages overall program delivery, contractor recruitment, development of tools and resources, training materials, and reporting. Risks: participant recruitment. • Community colleges and workforce boards provide training and certifications, expanding the skilled labor pool. Risks: low enrollment and outdated curricula • A small group of CBOs and trade associations assist with recruitment and outreach to underrepresented contractors. Risks: coordination or funding constraints | |
| <p>Near-term Program Output(s) (1-4 years):</p> <ul style="list-style-type: none"> • Train and certify 75+ HVAC contractors in refrigerant recovery, recycling and resale practices • Provide starter kits (recovery tanks, scales, recovery machines) to participants • Provide guidance and resources connecting contractors to certified refrigerant reclaimers and buyback programs that purchase recovered refrigerants • Partnerships with workforce boards & community college districts to offer micro certifications | |
| <p>Long Term Outcome (5-10 years):</p> <ul style="list-style-type: none"> • A qualified local contractor workforce routinely performs refrigerant recovery, leak detection, and recycling, ensuring compliance with SB 1013 • Small and independent HVAC businesses gain lasting revenue streams from low-GWP refrigerant management, strengthening local economies • Low-GWP refrigerant use becomes standard practice, reducing high-impact emissions in the HVAC sector • Workforce partnerships with colleges and CBOs sustain ongoing certification and career pathways, diversifying and expanding the local labor pool • The program contributes to statewide reductions in HFC emissions, advancing PCE’s climate and equity goals | |
| <p>Does this program interact with other programs in this PA portfolio? If so, describe:</p> <p>Yes, introduce and refer participating contractors to RES DI, Comm DI, and FlexMarket programs.</p> | |

Program Metrics and Indicators (KPIs):

- Number of training activities (classes, webinars) held, number of market actors participants by segment (e.g. building officials, builders, architects, etc.) and the total size (number of the target audience) by sector. (M) Number of training activities
- Number of training activities (classes, webinars) held, number of market actors participants by segment (e.g. building officials, builders, architects, etc.) and the total size (number of the target audience) by sector. (M) Number of participants
- Number of partners by type and purposes
- Percent of total WE&T program participants that meet the definition of disadvantaged worker
- Number of unique participants by sector that complete training
- Number of contractors (that serve in the portfolio administrator service areas) with knowledge and trained by relevant market support programs to provide quality installations that optimize energy efficiency
- Assessed value of the partnership by partners

Does this program utilize Integrated Demand Side Management (IDSMS)?

No

Link to Existing Implementation Plan, if existing:

Implementation Plans for all PCE programs will be developed after CPUC approval of PCE's application and before implementation.