

Program Overview

Program Budget and Savings

1. PROGRAM NAME

Multifamily Energy Savings Program (MESP)

2. PROGRAM ID NUMBER

PGE_Res_003

3. PROGRAM BUDGET TABLE

Category Description	2020 Program Budget (\$)	2021 Program Budget (\$)	2022 Program Budget (\$)	2023 Program Budget (\$)	2024 Program Budget (\$)	2025 Program Budget (\$)	Total Program Budget (\$)
Administrative Costs	\$37,500	\$242,264	\$ 271,608	\$294,082	\$36,177	-	\$881,631
Marketing & Outreach Costs	\$40,000	\$124,490	\$136,246	\$147,040	-	-	\$447,776
Direct Implementation: Incentives & Rebate Costs	-	\$2,105,675	\$2,358,356	\$2,554,886	-	-	\$7,018,917
Direct Implementation: Non-Incentive (DINI) Costs	\$180,630	\$518,300	\$574,200	\$626,513	\$28,677	-	\$1,928,320
Total Implementation Budget	\$258,130	\$2,990,730	\$3,340,411	\$3,622,522	\$64,853	-	\$10,276,646
DINI: SGAP, CEPP, KIPP, and upside	\$0.00	\$445,476	\$499,995	\$541,750			\$1,487,221
TOTAL BUDGET with SGAP, CEPP, KPIP, and upside	\$258,130	\$3,436,206	\$3,840,406	\$4,164,272	\$64,853	-	\$11,763,866

IDSM Program Budget

Category Description	2020 Program Budget (\$)	2021 Program Budget (\$)	2022 Program Budget (\$)	2023 Program Budget (\$)	2024 Program Budget (\$)	2025 Program Budget (\$)	Total Program Budget (\$)
Administrative Costs	-	\$7,428	\$5,500	\$5,500	-	-	\$18,428
Marketing & Outreach Costs	-	\$4,500	\$3,500	\$3,500	-	-	\$11,500
Direct Implementation: Incentives & Rebate Costs	-	-	-	-	-	-	-
Direct Implementation: Non-Incentive (DINI) Costs	-	\$35,179	\$33,149	\$24,552	-	-	\$92,880
Total Implementation Budget	-	\$47,107	\$42,149	\$33,552	-	-	\$122,808

Total Budget for Support Services

Category Description	2020 Program Budget (\$)	2021 Program Budget (\$)	2022 Program Budget (\$)	2023 Program Budget (\$)	2024 Program Budget (\$)	2025 Program Budget (\$)	Total Program Budget (\$)
TOTAL NOT-TO-EXCEED BUDGET	\$258,130	\$3,483,313	\$3,882,555	\$4,197,824	\$64,853	-	\$11,886,674

4. PROGRAM GROSS IMPACTS TABLE

MESP Goals	2021	2022	2023	Total
Gross Electric Savings (kWh)	3,594,777	4,034,728	4,371,674	12,001,179
Gross Demand Reduction (kW)	241	271	294	806
Gross Gas Savings (therms)	407,947	457,874	496,112	1,361,933

5. PROGRAM COST-EFFECTIVENESS (TRC): NO ADMIN – 1.99

6. PROGRAM COST-EFFECTIVENESS (PAC): 1.38

7. TYPE OF PROGRAM IMPLEMENTER

Third-Party Delivered

8. MARKET SECTOR(S)

Multifamily (5 units or greater)

9. PROGRAM TYPE

Resource

10. MARKET CHANNEL(S) AND INTERVENTION STRATEGIES:

Downstream, Direct Install, Incentive, Finance, Audit, Technical Assistance

Program Launch Readiness and RampUp will occur from October 23, 2020 to approximately April 2021. Steady State will occur from approximately May 2021 to May 2023. Ramp Down/Transition will occur from approximately June 2023 to December 31, 2023.

Implementation Plan Narrative

1. PROGRAM DESCRIPTION

The Multifamily Energy Savings Program (“MESP” or “Program”) provides end-to-end program implementation services, including marketing, outreach, engineering, operations, customer service, and data management and reporting, to multifamily buildings of 5 units or greater throughout Pacific Gas and Electric’s (PG&E’s) service territory. The primary customer for the Program will be property managers, owners, and/or operators of multifamily buildings (“Multifamily Customer(s)” or “Customer(s)"). All Program services, including the direct installation of Program-sponsored in-unit energy savings measures, as well as deemed and custom measure identification and incentives, will be directed to these Customers. The Program will leverage the TRC (“Implementer”) outreach staff, team of subcontractors, and network of trade professionals to provide Multifamily Customers with a single program that addresses their electric and gas energy efficiency needs.

PROGRAM RATIONALE

The Program is tailored to serve Multifamily Customers dispersed throughout the PG&E territory inclusive of smaller properties and underserved regions that will most benefit from property upgrades. The program aims to create new energy efficiency opportunities by targeting underserved property stakeholders, while at the same time providing scalability to achieve deeper retrofit opportunities with larger and more modern properties.

This program will be a critical part of PG&E's efforts to achieve energy savings goals established by the California Long-Term Energy Efficiency Strategic Plan. The program also contributes to PG&E's efforts to comply with the requirements of the California Public Utility Commission's (CPUC) Decision 16-08-019, which directed program administrators to transition to a majority of third-party designed and implemented programs.

PROGRAM OBJECTIVES

MESP was designed to facilitate the achievement of PG&E's Business Plan objectives and fulfill the CPUC's chief objective of encouraging innovation and producing program delivery cost savings. Specific objectives include:

- Delivering cost-effective and persistent energy savings in multifamily properties throughout the PG&E service territory
- Successfully identifying and engaging underserved properties through data analysis of PG&E's existing market
- Increasing savings and encouraging program participation by equipping trade professionals with the tools and training needed to promote effective program delivery and ensure customer satisfaction
- Collaborating with stakeholders to maximize savings and efficiency by executing new approaches that provide customers with a comprehensive energy solution

2. PROGRAM DELIVERY AND CUSTOMER SERVICES

Energy savings will be delivered through strategic communication and direct customer outreach of targeted offerings. Multifamily customers, defined as property managers, owners, and/or operators of multifamily buildings, will participate in the Program through one or more of the following incentive tracks:

- **Direct Install** – The Direct Install (“DI”) component of the MESP will provide Program-sponsored installation of low-cost/no-cost measures in Multifamily Customer common areas or living units. The DI offering will initially focus on traditionally underserved customers that meet the definition of Hard to Reach (HTR). In 2021, the Program will focus DI outreach and installations in the Central Valley (Bakersfield to Fresno), with future areas of focus TBD. Participation in the DI track may (1) serve as a springboard to a property participating in a Deemed or Custom project or (2) may be the Program's only interaction with the property.
- **Deemed** – Offers incentives for the installation of select measures based on approved workpapers.

- **Custom/Custom Express** – Offers customers with unique needs access to incentives that do not align with the Deemed offering. A description of Custom Express can be found in Section 4.4.

Energy savings will be delivered through targeted offerings and strategic communication, direct Multifamily Customer outreach, and leveraging relationships with trade professionals and other market influencers to increase the number of projects with current participants and to develop new business with non-participants. The Program will help customers reduce controllable energy costs by facilitating the customer’s current energy-efficiency plans and helping customers without plans to incorporate a road map of energy-efficiency solutions.

The following strategies will support the implementer in reaching program goals:

- Provide customers with a subject matter expert to streamline program access to deliver energy-efficiency expertise, market knowledge, and responsive customer service.
- Engage with stakeholder organizations like the California Apartment Association to help support program objectives. Energy Advisors will partner with these organizations to connect with decision-makers and, in turn, increase participation by raising awareness of available services and leveraging existing relationships.
- Utilize direct installation to realize immediate and cost-effective savings. Potential direct install measures may include Smart Thermostats, Low Flow Faucet Aerators, and Low Flow Showerheads. A list of potential measures is included in the Program Manual Attachment and based on approved workpapers.
- Customized targeted offerings include but are not limited to Chiller Controls, Boiler Controls, Installation of Variable Frequency Drives, and HVAC Equipment Retrofits
- Offer program support resources throughout the customer’s energy efficiency journey.
- Educate financial stakeholders on financing options provided through the Program.

The program will utilize a multi-pronged marketing approach for reaching customers:

- **Mass Market** – A broad mass-market approach will drive general awareness of the program to eligible commercial customers in the service territory.
- **Trade Professionals** – A leveraged marketing approach will be aimed at recruiting and equipping trade professionals with program information, to help them promote the program to their customer base.
- **Hard to Reach Customers/Disadvantaged Communities (HTR/DAC)**– Demographic analytics will help target and develop outreach strategies for hard to reach customers (HTR) and disadvantaged communities (DAC) within the PG&E service territory. Tactics to engage HTR and DAC sectors will include (1) the development and use of multilingual Program collateral and (2) the interface with market influencers, (i.e. California Apartment Association). Targeted geographic areas may include, but not limited to, communities in the Central Valley counties of Fresno, Kings and Kern as well as the Bay Area counties of Alameda and San Joaquin.

Direct and indirect outreach efforts include cold calls, email blasts, leveraging local trade professionals’ relationships, community events, and digital content.

In addition to delivering energy savings through qualifying measures, the Implementer will offer the following tools and services to PG&E’s multifamily customers:

- **Customized Outreach & Technical Services** – the MESP Implementer will support customers to make informed decisions and overcome any technical barriers. Support includes: analyzing benchmarking output, identifying energy efficiency opportunities, and assisting with program applications and project development to improve the customer’s access to energy offerings and eliminate confusion. Once the project is approved for implementation, Implementer will provide additional services as required (i.e. vendor selection support assistance) to overcome any additional technical, time, or financial barriers that may exist.
- **Web Portal** – Interested parties, including Multifamily Customers, trade professionals, and others, will receive instant access to program literature and program rules through the Implementer managed MESP website. The MESP site will also have a live link on the current PG&E Multifamily Single Point of Contact portal at pagemultifamily.com. Several additional features will be available to support energy education such as links to benchmarking and online energy assessment tools.
- **Network of Managed Trade Professionals** – The program will offer a network of trade professionals trained on program offerings and requirements and meeting certain qualification requirements. This provides a network of knowledgeable trades to support customers with their energy efficiency projects.
- **Financing Options** – The program will leverage On-Bill Financing and the California Hub for Energy Efficiency Financing (CHEEF) to help address customer capital concerns.

3. PROGRAM DESIGN AND BEST PRACTICES

The streamlined program design offers multiple entry points, innovative and effective auditing tools, multiple financing options, and incorporating analytics to maximize program effectiveness will help overcome these barriers.

Barriers	Strategies
Tenant/landlord Split Incentives	<ul style="list-style-type: none"> • Educating property owners/developers of California Utility Allowance Calculator (CUAC) to offset costs of capital investments that reduce tenant-paid utility costs • Marketing strategies and tactics that focus on tenant- and landlord-specific value propositions • Promote non-energy benefits such as reduced maintenance costs, turnover/maintain occupancy, asset value, increased safety
Multiple Decision Makers	<ul style="list-style-type: none"> • Development of beneficial relationships across ownership and stakeholder groups • Sharing of actionable information across decision makers and influencers through program tools and reports • Tapping existing relationships and network of known decision makers
Energy Efficiency is not a priority	<ul style="list-style-type: none"> • Focus on what energy efficiency does and how it supports larger property-wide efforts

Program Complexities	<ul style="list-style-type: none"> • Program Staff as single point of contact • Streamlined processes • Multiple savings tracks • Simple incentive calculations • Thorough understanding of CPUC requirements and PG&E objectives • Whole project lifecycle analysis to streamline market actor’s understanding and interactions
Diversity in building and ownership types	<ul style="list-style-type: none"> • Utility bill analysis to identify multifamily targets for select measures or whole building rehab. • Tailored engagement strategies and messaging to address challenges
Lack of Technical Expertise	<ul style="list-style-type: none"> • Program staff will serve as the technical experts and provide streamlined program solution to the customer • Our energy advisors will be cross-trained on all program elements and will serve as a single point of contact • Energy advisors and engineers will provide project- and site-level technical expertise and create clear and holistic reports on efficiency opportunities
Funding Challenges	<ul style="list-style-type: none"> • Promote appropriate financing options, such as on-bill repayment and on-bill financing • Provide support for California Utility Allowance Calculator for low-income property owners • Educate that investing in energy efficiency is a method to free up money, not just a way to spend money
COVID-19	<ul style="list-style-type: none"> • Follow all guidance from the CDC, WHO, and state and local government guidelines • Complete the COVID-19 Questionnaire for Onsite Workers prior to starting work. • Perform virtual audits and installation verification where possible as outlined in Section 6 of the MESP Program Manual

Through involvement with several IOU’s across the country, as well as continued support of PG&E’s energy efficiency portfolio, the Implementer has refined the program approach to incorporate lessons learned over multiple decades to streamline project development and maintain a cost-effective program. One such best practice that has been developed is the Implementer’s proprietary software, which provides one of the most powerful reporting modules in the industry and is customized to meet the needs of PG&E and the program. The Implementer’s tracking software can compare and display any number of program milestones and performance metrics down to the individual measure level. This system will also be combined with the Implementer’s proprietary app-based auditing system that empowers field engineers to perform comprehensive audits in a system that enables rapid report

development, efficient calculations, and overall cost-effective program deliverables. The tools prioritize data security, housing all project information in a secure, cloud-based environment.

The implementer will work closely with PG&E to coordinate with other Program Administrators (PAs) administering multifamily and/or other related energy efficiency programs within PG&E's service territory. These PAs include the Association of Bay Area Governments (BayREN), Marin Clean Energy, and Tri-County Regional Energy Network (3C-REN). TRC will work with PG&E, BayREN, and MCE to coordinate on program design and customer referral to minimize program duplication, reduce customer confusion, and optimize the customer experience and ratepayer resources.

Best Practices

While the multifamily market presents various challenges and barriers, the recommended solutions outlined above are designed to address each barrier holistically and from a customer perspective in order to effectively achieve energy savings. With nearly twenty years of experience in effectively managing and delivering multifamily energy efficiency programs across the nation, the Implementer has a deep understanding of multifamily customer limitations and motivations. Customer motivators include:

- Replacing aging, obsolete or costly equipment
- Market and/or tenant demand
- Appealing utility, tax and government incentives
- Environmental responsibility
- Peer pressure

Our understanding and involvement with numerous energy efficiency programs across the country, including the nationally recognized Energy Trust of Oregon Multifamily Program, serve as evidence that these strategies, combined with our continual focus on program improvement leads, to increased customer participation and energy savings. While innovation and creativity are keys to adapting to an ever-changing energy landscape, demonstrated success and well-thought-out strategies and methodologies are just as important to building foundational success for growth. In our experience with the Energy Trust of Oregon Multifamily program over the last eight years, we have evolved our strategies, tactics, and program design to continually deliver a successful, cost-effective program. The Energy Trust of Oregon Multifamily program began primarily as a direct install offering and grew to include a lighting savings program that included deemed and calculated measures. The program that was driven by effective relationship development, streamlined program design, data-driven engagement, and a continuous focus on improvement and growth.

Ongoing cost-effectiveness has been a problem that has plagued many multifamily energy efficiency programs across the country. MESP seeks to overcome the cost-effectiveness challenge through the following tactics:

- Implementer compensation is heavily pay-for-performance oriented, meaning compensation is directly tied to the delivery of energy savings

- The MESP primary customer is property managers, owners, and/or operators of multifamily properties, with heavy focus on building measures that deliver property-wide impacts
- High-value measures that deliver robust Total Resource Cost (“TRC”) values will be identified and promoted more heavily; this promotion may include increased marketing support, trade professional engagement, or more favorable incentive levels
- Direct Install (“DI”) measures, while valuable to engage new participants, often deliver low TRC values, and therefore will be closely monitored to limit the proportion of savings from DI measures within the overall MESP portfolio of savings
- Financing vehicles (i.e. On-Bill Financing) will be utilized to reduce MESP incentive spend

4. INNOVATION

MESP is designed with these key needs in mind: enhanced customer experience, increased attainment of cost-effective energy efficiency savings, and integration of additional demand-side technologies. To this end, the MESP incorporates several delivery strategy innovations to address observed customer challenges while promoting cost-efficient savings attainment. These innovative delivery strategies not only enhance the customer experience but also deliver real cost-efficiencies that are realized through increased participation or improved cost-effectiveness over traditional approaches:

4.1 FLEX INCENTIVES

A flexible incentive structure customizes offerings to meet customers’ required investment criteria and guarantees receipt of the approved incentive upon project completion. This approach balances customer financial needs within regulatory constraints while enhancing customer experience and enabling participation. Tailoring incentive offers to customers based on need rather than fixed rates allows the program to distribute incentive funds to affect higher levels of participation.

4.2 DATA-DRIVEN TARGETING

Our targeted outreach and marketing activities will eliminate customer confusion through tailored program messaging. By examining available customer and territory data, we will identify high-potential sectors, measure-specific applications, and stranded opportunities to ultimately reduce customer acquisition costs and improve customer engagement. This innovation is universally applicable across all customer classes to encourage participation and to drive deeper energy savings. Particularly for the multifamily sector, marketing targeted to non-Bay Area customers will ensure broader program reach and increased participation in this traditionally underserved segment.

4.3 DATA-DRIVEN PROGRAM MANAGEMENT

Effective program management requires instant access to real-time, accurate information. By integrating Captures, our program management, tracking, and reporting system, into our program delivery model, we are providing an engine that will enable a suite of features such as continuous flex incentive budget management and data mining for targeted marketing initiatives.

4.4 MEASURE GRADUATION

To accommodate projects with expedited schedules, the program will introduce simplified custom applications, along with approved calculation tools, defined influence documentation, and clear measurement and verification requirements that accelerate the approval process. The “Custom Express” approach will be utilized to cost-effectively expand the proliferation of traditional custom measures beyond large customers, enable data collection for full workpaper development, and ultimately, graduate the measure to the deemed platform. This innovation applies to all sectors and segments but will be applied only to select measures with typical operating profiles and system configurations.

5. METRICS

The implementer will record all project data in their project and customer tracking system and track program performance by capturing the following Key Performance Indicators (KPIs):

- Program Performance
 - NET Energy Savings to Goal (kWh, kW, therms)
 - TRC Ratio
 - Passed Inspections
- Financials/Savings
 - Budget Spent
 - Savings/Budget Alignment
- Customer Satisfaction
 - Customer Satisfaction Survey Scores
 - Complaints Received
- Compliance
 - Reporting Accuracy
 - Engineering Quality
 - HTR/DAC Penetration

The implementer’s tracking system will be able to track and report on most metrics in near-real time. Other metrics will be tracked and reported on within the monthly report or on a quarterly basis, as required. The Implementer will proactively identify any under-performing metrics and develop remediation plans to address. Remediation plans will be shared with PG&E and reported on for efficacy and effectiveness in program review meetings or as part of weekly/monthly/quarterly reporting.

6. FOR PROGRAMS CLAIMING TO-CODE SAVINGS

The program may claim to-code savings. Any to-code savings claim will include applicable program influence and acceptable Measure Application Types for the measure. Captures will allow for tracking of the CPUC requested parameters including where to-code savings reside with specification on the equipment types, building types, geographical locations, and customer segments with promise for cost effective to-code savings potential. Discussions within those sectors will solidify the barriers that are preventing code-compliant replacement and why natural turnover is not occurring or delayed. TRC will work with PG&E’s Custom Implementation and Workpaper teams to create the appropriate workpaper and/or to provide other documentation as required to document the appropriate inputs, calculation approach, and M&V requirements for new measures including to-code measures.

7. PILOTS

Pilot projects are not part of the program at this time.

8. WORKFORCE EDUCATION AND TRAINING

The program will engage PG&E's Workforce Education & Training (WE&T) program where possible to help promote the creation of a valued, skilled workforce. The program team will encourage customers and Trade Professionals to consider providing job access to Disadvantaged Workers through the application process. The program team regularly works with local associations, training organizations, and colleges to support recruitment and training of a diverse industry workforce. Additionally, workforce education and training requirements will be incorporated into any program subcontract agreements.

9. WORKFORCE STANDARDS

HVAC

The availability of trained hourly craft personnel possessing the requisite knowledge, skills, and abilities to perform the installation, modification, and maintenance of HVAC measures will support improved program outcomes over time as well as increase the number of qualified and appropriately trained trade professionals. Accurate installation, appropriate maintenance, and operational training ensure energy savings are realized.

Workforce standards incorporated into the program include ensuring HVAC installation technicians obtain one or more of the following: Completed an accredited HVAC apprenticeship; are enrolled in an accredited HVAC apprenticeship; have completed at least five years of work experience at the journey level as defined by the California Department of Industrial Relations (Title 8, Section 205 of the California Code of Regulations), passed a practical and written HVAC system installation competency test, and received credentialed training specific to the installation of the technology being installed; or hold a C-20 HVAC contractor license from the California State Contractor's Licensing Board (CSLB).

These requirements apply to all the individuals that perform the installation, modification, and maintenance work on all HVAC projects, regardless of incentive value. Notification and communication of this requirement will be incorporated into regular marketing and outreach efforts to customers, Trade Professionals, and other program partners. To ensure compliance, this requirement will also be incorporated into all project application Terms & Conditions.

Lighting

The availability of trained hourly craft personnel possessing the requisite knowledge, skills, and abilities to install advanced lighting control measures will support improved program outcomes over time as well as increase the number of qualified and appropriately trained trade professionals. Accurate installation, appropriate maintenance, and operational training ensure energy savings are realized.

Workforce standards incorporated into the program include ensuring lighting installation technicians possess certification from the California Advanced Lighting Controls Training Program (CALCTP) as either CALCTP Technical Installer or CALCTP Acceptance Test Technician.

These requirements apply to all the individuals that perform the lighting controls installation work, regardless of incentive value. Notification and communication of this lighting controls requirement will

be incorporated into regular marketing and outreach efforts to customers, Trade Professionals, and other program partners. To ensure compliance, this requirement will also be incorporated into all project application Terms & Conditions.

10. DISADVANTAGED WORKER PLAN

D.18-10-008 defines Disadvantaged workers as: a worker that (1) has a referral from a collaborating community-based organization (CBO), state agency, or workforce investment board; or (2) lives in a ZIP code that is in the top 25% in one or more of the five socioeconomic indicators as defined in the California Office of Environmental Health Hazard Assessment's CalEnviroScreen Tool. These socioeconomic indicators are educational attainment, housing burden, linguistic isolation, poverty, and unemployment.

The Program will track disadvantaged worker participation where appropriate. Periodic surveys of participating Trade Professionals will ask for self-reporting of disadvantaged workers' participation in specific projects. Customers performing their installations will also be asked to self-report Disadvantaged Worker details through project applications and surveys. All information will be recorded in the program's tracking system and masked to remove any potential personal identifiable information. Participation data can be reported on in an ad-hoc manner or be provided as part of our regular reporting cycle.

The program will advise Trade Professionals and subcontractors to post job openings in zip codes with high unemployment per the CalEnviroScreen tool.

11. ADDITIONAL INFORMATION

SINGLE POINT OF CONTACT (SPOC). TRC will coordinate with PG&E's single point of contact (SPOC), to evaluate if a project can achieve greater energy savings and obtain additional resources by leveraging and participating with in other energy saving programs.

NATURAL GAS APPLIANCE TESTING (NGAT). TRC or its subcontractors will be responsible for performing NGAT in all instances where measures installed in a tenants or multifamily property impact airflow/ventilation within an apartment unit or property.

Attached Supporting Documents

- 1. PROGRAM MANUALS AND PROGRAM RULES**
- 2. PROGRAM THEORY AND PROGRAM LOGIC MODEL**
- 3. PROCESS FLOW CHART**
- 4. INCENTIVE TABLES, WORKPAPERS, SOFTWARE TOOLS**
- 5. QUANTITATIVE PROGRAM TARGETS**
- 6. DIAGRAM OF PROGRAM**
- 7. EVALUATION, MEASUREMENT & VERIFICATION (EM&V)**
- 8. NORMALIZED METERED ENERGY CONSUMPTION (NMEC)**