

PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



Pacific Gas & Electric Company
ELC (Corp ID 39)
Status of Advice Letter 4450G/6223E
As of July 26, 2021

Subject: PG&E and MCE's 2022 Joint Cooperation Memo in Compliance with Decision 18-05-041,
Ordering Paragraph 38

Division Assigned: Energy

Date Filed: 06-15-2021

Date to Calendar: 06-18-2021

Authorizing Documents: D1805041

Disposition:	Accepted
Effective Date:	07-15-2021

Resolution Required: No

Resolution Number: None

Commission Meeting Date: None

CPUC Contact Information:

edtariffunit@cpuc.ca.gov

AL Certificate Contact Information:

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PUBLIC UTILITIES COMMISSION
505 Van Ness Avenue
San Francisco CA 94102-3298



To: Energy Company Filing Advice Letter
From: Energy Division PAL Coordinator
Subject: Your Advice Letter Filing

The Energy Division of the California Public Utilities Commission has processed your recent Advice Letter (AL) filing and is returning an AL status certificate for your records.

The AL status certificate indicates:

- Advice Letter Number
- Name of Filer
- CPUC Corporate ID number of Filer
- Subject of Filing
- Date Filed
- Disposition of Filing (Accepted, Rejected, Withdrawn, etc.)
- Effective Date of Filing
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Energy Division's Tariff Unit by e-mail to
edtariffunit@cpuc.ca.gov



Sidney Bob Dietz II
Director
Regulatory Relations

Pacific Gas and Electric Company
77 Beale St., Mail Code B13U
P.O. Box 770000
San Francisco, CA 94177

Fax: 415-973-3582

June 15, 2021

Advice 4450-G/6223-E

(Pacific Gas and Electric Company U 39 M)

Advice 52-E

(MCE ID #U39 M)

Public Utilities Commission of the State of California

Subject: PG&E and MCE's 2022 Joint Cooperation Memo in Compliance with Decision 18-05-041, Ordering Paragraph 38

Pursuant to Decision ("D.") 18-05-041, *Decision Addressing Energy Efficiency Business Plans*¹, Pacific Gas and Electric Company (PG&E) hereby submits the annual Joint Cooperation Memorandum ("JCM") between MCE and PG&E for energy efficiency ("EE") programs for the program year 2022 (see Attachment A).

In granting approval of the Program Administrators' ("PAs") Business Plans, the Commission emphasized the potential for PG&E and MCE program overlap. The Commission also noted the difficulty in identifying program overlap, as the Business Plans appropriately focus on sector-level strategies, not specific programmatic activities.² Therefore, to identify areas of program overlap, the Commission directed all Program Administrators ("PAs") with overlapping service territories to develop an annual JCM to "summar[ize] the areas of potential overlap in their portfolios and the manner in which they will coordinate and collaborate during the business plan period."³ Submission and approval of an annual JCM is a prerequisite for consideration of PG&E's and MCE's Annual Budget Advice Letters ("ABALs").⁴

The JCM describes the EE programs that PG&E and MCE anticipate offering in their shared service area in program year 2022, pursuant to their approved Business Plans. The JCM provides a summary of PG&E's programs and, if MCE offers a similar program, describes program coordination, double dipping prevention, and data sharing procedures. PG&E and MCE respectfully submit the JCM in compliance with OP 38 of D.18-05-041, and request Commission approval of the same.

¹ D.18-05-041, OP 38 at p. 190.

² D.18-05-041, at p.111.

³ Ibid.

⁴ D.18-05-041, OP 39 at p.191.

Protests

Anyone wishing to protest this filing may do so by letter sent via U.S. mail, facsimile or E-mail, no later than **July 6, 2021**, which is 21⁵ days after the date of this filing. Protests must be submitted to:

CPUC Energy Division
ED Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, California 94102

Facsimile: (415) 703-2200
E-mail: EDTariffUnit@cpuc.ca.gov

Copies of protests also should be mailed to the attention of the Director, Energy Division, Room 4004, at the address shown above.

The protest shall also be sent to via both E-mail or U.S. mail (and by facsimile, if possible) at the address shown below on the same date it is mailed or delivered to the Commission:

For PG&E:

Sidney Bob Dietz II
Director, Regulatory Relations
c/o Megan Lawson
Pacific Gas and Electric Company
77 Beale Street, Mail Code B13U
P.O. Box 770000
San Francisco, California 94177

Facsimile: (415) 973-3582
E-mail: PGETariffs@pge.com

For MCE:

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⁵ The 20-day protest period concludes on a holiday; therefore, PG&E is moving this date to the following business day.

Any person (including individuals, groups, or organizations) may protest or respond to an advice letter (General Order 96-B, Section 7.4). The protest shall contain the following information: specification of the advice letter protested; grounds for the protest; supporting factual information or legal argument; name, telephone number, postal address, and (where appropriate) e-mail address of the protestant; and statement that the protest was sent to the utility no later than the day on which the protest was submitted to the reviewing Industry Division (General Order 96-B, Section 3.11).

Effective Date

PG&E requests that this Tier 2 advice letter become effective on regular notice, **July 15, 2021**, which is 30 calendar days after the date of filing.

Notice

In accordance with General Order 96-B, Section IV, a copy of this advice letter is being sent electronically and via U.S. mail to parties shown on the attached list and the parties on the service lists for **A.17-01-013 (et al.) and R.13-11-005**. Address changes to the General Order 96-B service list should be directed to PG&E at email address PGETariffs@pge.com. For changes to any other service list, please contact the Commission's Process Office at (415) 703-2021 or at Process_Office@cpuc.ca.gov. Send all electronic approvals to PGETariffs@pge.com. Advice letter filings can also be accessed electronically at: <http://www.pge.com/tariffs/>.

/S/

Sidney Bob Dietz II
Director, Regulatory Relations

Attachments

cc: Service List A.17-01-013 and R.13-11-005



ADVICE LETTER SUMMARY

ENERGY UTILITY



MUST BE COMPLETED BY UTILITY (Attach additional pages as needed)

Company name/CPUC Utility No.: Pacific Gas and Electric Company (U 39 M)

Utility type:

- | | | |
|---|---|--------------------------------|
| <input checked="" type="checkbox"/> ELC | <input checked="" type="checkbox"/> GAS | <input type="checkbox"/> WATER |
| <input type="checkbox"/> PLC | <input type="checkbox"/> HEAT | |

Contact Person: Stuart Rubio

Phone #: (415) 973-4587

E-mail: PGETariffs@pge.com

E-mail Disposition Notice to: SHR8@pge.com

EXPLANATION OF UTILITY TYPE

ELC = Electric
PLC = Pipeline

GAS = Gas
HEAT = Heat

WATER = Water

(Date Submitted / Received Stamp by CPUC)

Advice Letter (AL) #: 4450-G/6223-E

Tier Designation: 2

Subject of AL: PG&E and MCE's 2022 Joint Cooperation Memo in Compliance with Decision 18-05-041, Ordering Paragraph 38

Keywords (choose from CPUC listing): Compliance

AL Type: Monthly Quarterly Annual One-Time Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: D.18-05-041

Does AL replace a withdrawn or rejected AL? If so, identify the prior AL: No

Summarize differences between the AL and the prior withdrawn or rejected AL: N/A

Confidential treatment requested? Yes No

If yes, specification of confidential information:

Confidential information will be made available to appropriate parties who execute a nondisclosure agreement. Name and contact information to request nondisclosure agreement/access to confidential information:

Resolution required? Yes No

Requested effective date: 7/15/21 No. of tariff sheets: 0

Estimated system annual revenue effect (%): N/A

Estimated system average rate effect (%): N/A

When rates are affected by AL, include attachment in AL showing average rate effects on customer classes (residential, small commercial, large C/I, agricultural, lighting).

Tariff schedules affected: N/A

Service affected and changes proposed¹: N/A

Pending advice letters that revise the same tariff sheets: N/A

¹Discuss in AL if more space is needed.

Protests and all other correspondence regarding this AL are due no later than 20 days after the date of this submittal, unless otherwise authorized by the Commission, and shall be sent to:

CPUC, Energy Division
Attention: Tariff Unit
505 Van Ness Avenue
San Francisco, CA 94102
Email: EDTariffUnit@cpuc.ca.gov

Name: Sidney Bob Dietz II, c/o Megan Lawson
Title: Director, Regulatory Relations
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Name:
Title:
Utility Name:
Address:
City:
State: District of Columbia Zip:
Telephone (xxx) xxx-xxxx:
Facsimile (xxx) xxx-xxxx:
Email:

Attachment A



MCE and PG&E Joint Cooperation

Memorandum for Program Year 2022

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June 15, 2021

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INTRODUCTION

Per Decision (D.)18-05-041, energy efficiency (EE) Program Administrators (PAs) are required to submit annual joint cooperation memoranda as a prerequisite to the PAs' Annual Budget Advice Letters (ABALs). The MCE and PG&E Joint Cooperation Memorandum for the Program Year 2022 (2022 JCM) demonstrates how PG&E and MCE intend to minimize duplication of efforts for programs that address common sectors.

2021 is a year of transition for the PG&E portfolio. Following successful third-party program solicitations throughout 2019 and 2020, PG&E ramped down and closed many programs, and has begun launching a broad range of new third-party implemented programs across the entire portfolio. Solicitations for both statewide and local programs are expected to continue throughout 2021. PG&E is committed to communicating with MCE to provide regular updates on program decisions whenever feasible to (1) mitigate overlap and (2) enhance the customer journey.

In preparation of the 2022 JCM, PG&E and MCE held a meeting in March 2021 to discuss coordination between overlapping programs. Additionally, program managers from both PAs talked over the phone several times regarding information included within this memo.

Information herein describes coordination for programs currently being implemented. PG&E is also fielding bids for future programs to launch in 2022 and will continue collaboration once programs are designed. Collaboration details on these potential future programs are not included in this 2022 JCM because details are not yet determined. However, PG&E provides a summary of Statewide programs that are expected to launch in 2021 and 2022, and outlines plans for continued coordination with MCE across upcoming Statewide programs where PG&E is the lead Investor-Owned Utility (IOU). MCE is currently not expecting to launch any new programs in 2022.

This document contains seven main sections:

1. General Program Coordination
2. Non-Residential Sector Coordination
3. Residential Sector Coordination
4. Cross-Cutting Sector Coordination
5. Workpaper Ex-Ante Coordination
6. Statewide Program Coordination
7. Programs Expected to Launch in 2022

GENERAL PROGRAM COORDINATION

Both MCE and PG&E serve as customer-facing PAs for their respective EE programs. MCE uses a single point of contact (SPOC) model to support customers interested in MCE's program offerings. Under the SPOC model, MCE provides the customer information about the full suite of program opportunities and resources available when a customer approaches MCE about any of MCE's program offerings. To facilitate customer participation in all eligible programs, MCE informs customers about:

- programs offered by other PAs for which MCE does not have a comparable offering;

- programs focusing on other clean energy and resource conservation activities such as solar and/or storage programs, water conservation, or waste reduction; and
- programs focusing on health and safety improvements.

MCE and PG&E coordinate across four large areas to update each other on program developments, and discuss duplication and double-dipping instances among their general market EE program offerings:

- **Customer Choice:** Customers have a choice between PG&E and MCE programs. To ensure that customers understand this, both PAs will take steps to ensure the information on all programs is known by those staffers engaging with customers. Specifically, PG&E will designate staff within PG&E that MCE can call for any questions regarding program options. Similarly, MCE program staff is available for questions from PG&E staff. Furthermore, PG&E and MCE have access to program documentation available on California Energy Data and Reporting System (CEDARS) and use it as reference when communicating program options to customers. PG&E and MCE will keep program documents up-to-date in CEDARS and communicate program updates in their planned meetings as needed.
- **Marketing:** To avoid customer confusion, MCE and PG&E will coordinate marketing activities by providing an overview of upcoming campaigns including scheduled timelines and targeted customer segments.
- **Policy:** MCE and PG&E are aware that program policies change over time and can affect the need for coordination. Staff will use the regular coordination calls to check in on policy changes and how to coordinate on any relevant changes.
- **Double dipping prevention:** PG&E and MCE understand the potential of customers seeking to obtain incentives for the same measures from both organizations (double-dipping) and have established protocols to prevent such behavior. These protocols are discussed in more detail for each sector later in this document.

Sector-based coordination occurs in monthly check-ins through in-person or audio or video teleconferences, as well as email communications. Meetings address new and ongoing coordination issues related to all relevant programs as discussed in detail below. PG&E and MCE have the following standing coordination meetings:

- Residential Programs and WE&T (occurs monthly)
- Commercial Program (occurs monthly)
- Multifamily Programs (ad hoc, may move to monthly cadence depending on need)

NON-RESIDENTIAL SECTOR COORDINATION

The following sections describes coordination efforts between MCE and PG&E regarding existing non-residential EE programs for program year (PY) 2022.

TABLES OF COMPARABLE MCE AND IOU PROGRAMS

The non-residential programs that are currently designed and offered to customers by MCE and PG&E are presented in the tables below. IOU programs include both PG&E programs, as well as statewide programs.

In addition to programs included in the table, PG&E may launch non-residential programs in 2021 that are not included in this 2022 JCM due to solicitations being still in progress. There is insufficient detail of possible programs resulting from those solicitations, and therefore coordination on future programs are not included at the time this memo is filed. Non-residential programs expected to launch in the program year 2022 are listed in the last section of this document.

Table 1: Commercial Sector

Program ID	Program Name	Sector	Budget ¹	Resource / Non-Resource	Measures										
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls	Whole Building	Water Heaters	Other
MCE															
MCE02	Commercial Upgrade Program	Commercial	\$3,010,541	Resource	X	X	X	X	X	X	X	X	X	X	X
IOU (comparable programs)															
PGE21011	Commercial Calculated Incentives	Commercial	\$6,547,962	Resource	X	X	X		X	X	X	X	X	X	X
PGE21012	Commercial Deemed Incentives	Commercial	\$ 4,144,664	Resource	X	X	X	X	X			X		X	X
PGE_Com_001	CoolSave Grocery RCX Program	Commercial	\$919,475	Resource	X		X	X			X	X	X		X
PGE_Com_002	SmartLabs Program	Commercial	\$732,473	Resource	X		X	X			X	X	X		X
PGE_Com_003	NetOne Comprehensive Commercial Program	Commercial	\$ 5,429,126	Resource	X		X	X	X	X	X	X	X	X	X
PGE_Com_004	Advanced Energy Program for HiTech & BioTech	Commercial	\$ 1,905,196	Resource	X		X	X	X	X	X	X	X	X	X

¹ PG&E's and MCE's budgets are based on 2021 program budgets, with the exception of PG&E_Com_003, PG&E_Com_004, and PG&E_Com_005, which were launched in early 2021 and have set contract budgets for 2022, included in the table above. These budgets are subject to change once the 2022 ABAL is finalized. PG&E budgets are from Advice 4303-G-A / 5936-E-A, PG&E's Supplemental 2021 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2021 Annual Budget Advice Letter Advice 45-E.

Program ID	Program Name	Sector	Budget ¹	Resource / Non-Resource	Measures										
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls	Whole Building	Water Heaters	Other
PGE_Com_005	Healthcare Energy Fitness Initiative RAPIDS	Commercial	\$ 2,130,303	Resource	X		X	X	X	X	X	X	X	X	X
PGE_Pub_010	Wastewater Program	Public	\$630,065	Resource						X					X
PGE_Pub_009	Government & K-12 Program	Public	\$3,231,803	Resource	X	X	X	X	X	X	X	X	X	X	X

Table 2: Agricultural Sector

Program ID	Program Name	Sector	Budget ²	Resource / Non-Resource	Measures										
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC	Whole Building	Water Heaters	Other
MCE															
MCE11	MCE Agricultural and Industrial Resource Program	Agriculture	\$468,195	Resource	X	X	X	X	X	X	X	X	X	X	X
IOU (comparable programs)															
PGE21031	Agricultural Calculated Incentives	Agriculture	\$5,332,820	Resource	X	X	X	X	X	X	X	X	X	X	
PGE21032	Agricultural Deemed Incentives	Agriculture	\$2,505,449	Resource	X	X	X	X	X			X		X	
PGE_Ag_001	Agriculture Energy Savings Action Plan (AESAP)	Agriculture	\$5,747,864	Resource	X	X	X		X	X	X	X	X	X	

² PG&E's and MCE's budgets are based on 2021 program budgets. These budgets are subject to change once the 2022 ABAL is finalized. PG&E budgets are from Advice 4303-G-A / 5936-E-A, PG&E's Supplemental 2021 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2021 Annual Budget Advice Letter Advice 45-E.

Table 3: Industrial Sector

Program ID	Program Name	Sector	Budget ³	Resource / Non- Resource	Measures									
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls	Whole Building	Water Heaters
MCE														
MCE10	MCE Agricultural and Industrial Resource Program	Industrial	\$871,077	Resource	X	X	X	X	X	X	X	X	X	X
IOU (comparable programs)														
PGE21021	Industrial Calculated Incentives	Industrial	\$ 6,905,837	Resource	X	X	X	X	X	X	X	X	X	X
PGE21022	Industrial Deemed Incentives	Industrial	\$ 249,264	Resource	X	X	X	X	X			X	X	X
PGE210212	Compressed Air and Vacuum Optimization Program	Industrial	\$ 786,909	Resource						X				X
PGE_Ind_001a	Industrial Strategic Energy Management – Food Processing	Industrial	\$3,904,795	Resource							X			X
PGE_Ind_001b	Industrial Strategic Energy Management – Manufacturing	Industrial	\$4,729,376	Resource							X			X
PGE_Ind_002	Business Energy Performance	Industrial	\$5,935,884	Resource							X			X
PGE_Ind_003	Industrial Systems Optimization Program	Industrial	\$4,715,582	Resource							X			X

³ PG&E's and MCE's budgets are based on 2021 program budgets. These budgets are subject to change once the 2022 ABAL is finalized. PG&E budgets are from Advice 4303-G-A / 5936-E-A, PG&E's Supplemental 2021 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2021 Annual Budget Advice Letter Advice 45-E.

Table 4 : Financing Sector

Program ID	Program Name	Sector	Budget ⁴	Resource / Non-Resource	Measures							
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls
MCE ⁵												
IOU (comparable programs)												
PGE21091	On-Bill Financing (excludes Loan Pool)	Financing	\$ 1,163,933	Resource	X	X	X		X	X	X	X
PGE210911	On-Bill Financing Alternative Pathway	Financing	\$ 3,922,177	Resource	X	X	X	X	X	X	X	X

⁴ PG&E's and MCE's budgets are based on 2021 program budgets. These budgets are subject to change once the 2022 ABAL is finalized. PG&E budgets are from Advice 4303-G-A / 5936-E-A, PG&E's Supplemental 2021 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2021 Annual Budget Advice Letter Advice 45-E.

⁵ While MCE does not provide a comparable financing program, PG&E's on-bill financing program will be available to MCE program participants.

DESCRIPTION OF PROGRAMS

MCE02: Commercial Upgrade Program

The Commercial Upgrade Program targets commercial customers in MCE's service area. Its primary objectives are to facilitate the uptake of high-quality EE projects, and to improve the technical capability, pricing and program experience of both customers and the local contractor community.

The program aims to achieve these objectives by supporting customers and contractors in the development of their projects – including equipment specification, incentives and technical assessments – but also by providing a number of participation pathways that streamline the program experience and maximize customer benefit. The program is not restricted to a deemed measure list, or program-mandated business size or load requirements. Instead, the program is open to nearly any non-residential customer and provides varied participation pathways which include deemed, custom, Normalized-Metered Energy Consumption (NMEC) and Strategic Energy Management (SEM). The program contracts with multiple implementation partners in the delivery of this program. Common measures include interior and exterior LED luminaires and lamps, networked lighting controls, connected thermostats, HVAC equipment, advanced rooftop controllers, ductless heat pumps, heat pump water heaters and other measures which may apply to customers in retail, office, and other non-residential building types.

The Commercial Upgrade Program has added a sub-program, the Commercial Energy Efficiency Market – which aims to scale up investment in energy efficiency projects by paying participating vendors for the metered impact of project portfolios on an hourly basis, grounded in the avoided cost value of the savings delivered. The marketplace model is relatively open-ended, and MCE does not contract individually with participating aggregators. Similar to a midstream or upstream program design, the program does not mandate pre-determined customer rebates or cost-share mechanisms. Cost-sharing is instead squarely on participating aggregators, who can forecast the avoided cost value of a specific project, and then work with their customers to determine optimal strategies for incentivizing project uptake. The marketplace was initially allocated with ~45% of the total Commercial Program budget in 2021, but as of April 2021, funding was already fully reserved. Hence, MCE requested additional funding for the Commercial Energy Efficiency Market sub-program which was granted by the California Public Utilities Commission (Commission or CPUC) on June 2, 2021. MCE expects continued expansion of the Commercial Energy Efficiency Market, as it is positioned squarely as a resource program aimed at delivering cost-effective savings at scale.

MCE10 and MCE11: MCE Agricultural and Industrial Resource Program

The MCE Agricultural and Industrial Resource (MCE AIR) Program is designed to provide individualized services to agricultural and industrial customers to identify EE opportunities, and to develop and evaluate implementation options and financial incentives. With a single customer-facing program for both industrial and agricultural customers, the program is able to leverage the same platform and simplify program administration, the customer offer and customer experience. The program provides comprehensive analyses based on customer needs, and much like MCE's

Commercial Upgrade Program, MCE AIR provides multiple participation pathways, including prescriptive, custom, SEM and NMEC savings claims. The Program will act as a SPOC for these customer segments, connecting and leveraging available resources and funding sources pertaining to EE, renewable energy, and sustainability goals and needs.

PGE21011: Commercial Calculated Program

PG&E implements the Commercial Calculated program for customers in its territory. The program provides financial incentives for non-residential customers to install new equipment or systems that exceed applicable code and/or industry standards in existing buildings. PG&E's Calculated program includes both customized incentives (formerly "Customized Retrofit") and Retro-commissioning (RCx) offerings. RCx represents an important element of PG&E's EE toolkit by reducing energy usage and optimizing the efficiency of mechanical equipment, lighting, and control systems to current standards in existing facilities. To these ends, PG&E offers financial and technical assistance for customers to undertake RCx projects and implement measures that improve facility operations.

PGE21012: Commercial Deemed Incentives Program

PG&E implements the Commercial Deemed Incentives (Deemed) program for customers in its territory. The program offers prescriptive rebates directly to customers, vendors, or distributors for the installation or sale of energy-efficient equipment. The program offers a broad array of measures across technology segments including lighting, HVAC, food service, refrigeration, and water heating. This program is offered to all customer segments and sizes.

PGE_Com_001: CoolSave Grocery Retrofit and Commissioning Program

CoolSave targets medium to large size grocery and retail chains with grocery segments with a primary focus on improving refrigeration and refrigeration controls using a site specific NMEC approach. HVAC and lighting controls and capital projects are also considered on a limited basis.

PGE_Com_002: SmartLabs Program

The SmartLabs program focuses on medium to large commercial and institutional laboratories with an emphasis on advanced control of ventilation and HVAC systems. This program focuses on an NMEC approach but will consider capital projects on a limited basis for lighting and refrigeration measures. This program is very focused on medium laboratory spaces and a specific technology strategy.

PGE_Com_003: NetOne Commercial Comprehensive Program

The NetOne commercial program is designed to serve customers of all sizes with all technologies in the commercial real estate market and retail. Utilizing all project submission channels, this program offers lighting, HVAC, and refrigeration measures. This program will offer comprehensive EE options for customers not served by other sector specific programs. Due to the comprehensive nature of this program and its diverse customer targeting, there is a potential for program overlap. MCE and PG&E will use monthly check-ins to discuss program pipelines to check for overlap early in the project development process.

PGE_Com_004: Advanced Energy Program for High Tech & Bio Tech

The Advanced Energy Program targets medium to large high tech and bio tech facilities but will consider smaller facilities in these customers' portfolios. This is a building controls centric program with HVAC systems as its primary technology focus. This program primarily uses the Custom Platform.

PGE_Com_005: Healthcare Energy Fitness Initiative Program

Fitness Initiative program targets medical facilities primarily for medium and large customers, but considers smaller facilities in these customers' portfolios. This is a building controls centric program which seeks to optimize all building systems but also considers product-based capital projects in lighting, HVAC, and refrigeration. This program primarily uses the Custom Platform.

PGE_Pub_009: Government and K-12 Schools

The Government and K-12 Schools program is a comprehensive program which serves customers of all sizes with all EE technology paths. Targeted measures include HVAC and controls upgrades, lighting and controls improvements, refrigeration strategies, and food service measures. The GK12 program targets all sizes of customers in its government and publicly funded educational focus with numerous technology options. This program has the potential to overlap with MCE and will be addressed in monthly check-ins where program opportunities will be reviewed to look for overlap before project reach the development stage.

PGE_Pub_010: RAPIDS Wastewater Program

The RAPIDS wastewater program targets medium to large public and private sector wastewater treatment and collection system utilizing the Custom Platform. The program focuses on system control strategies as well as pump and water heating optimization. This program will target a small number of customers during its contract with primarily controls and operational strategies.

PGE21091: On-Bill Financing; PGE210911 On-Bill Financing Alternative Pathway

PG&E offers Energy Efficiency Financing through the On-Bill Financing program for a wide variety of energy efficient projects. The On-Bill Financing (OBF) loan program uses ratepayer funds to provide 0% interest financing to qualified non-residential customers towards the purchase and installation of new energy efficiency measures or equipment at the customer's premise. The loan terms are set to provide simple payback from energy savings during the maximum allowed term, and are calculated by dividing the loan amount by the estimated monthly energy cost savings resulting from the energy efficiency project.

PGE21031: Agricultural Calculated

PG&E implements the Agricultural Calculated program for customers in its territory. The program provides financial incentives for non-residential customers to install new equipment or systems that exceed applicable code and/or industry standards in existing buildings. PG&E's Calculated program uses the Custom Platform.

PGE21032: Agricultural Deemed Incentives

PG&E implements the Agricultural Deemed Incentives (Deemed) program for customers in its territory. The program offers prescriptive rebates directly to customers, vendors, or distributors for

the installation or sale of energy-efficient equipment. The program offers a broad array of measures across technology segments including lighting, HVAC, food service, refrigeration, and water heating. This program is offered to all customer segments and sizes.

PGE210212: Compressed Air and Vacuum Optimization Program

PG&E implements the Compressed Air and Vacuum Optimization Program in its territory. The Industrial Compressed Air System Efficiency (ICASE) program is a third-party energy efficiency program. ICASE focuses on industrial facilities with installed compressed air systems above 100 horsepower. This comprehensive turnkey program pays up to 50% of the project cost for eligible measures including air compressor replacement and compressed air system optimization.

PGE_Ind_001a: Industrial Strategic Energy Management – Food Processing

PGE_Ind_001b: Industrial Strategic Energy Management – Manufacturing

PG&E implements the Industrial Strategic Energy Management Program (SEM) in its territory. SEM is a holistic approach to establish a set of energy use principles and practices emphasizing continuous improvements in energy management and energy efficiency in industrial and agricultural facilities. The approach of SEM is defined by the SEM Design and M&V Guide, which was created in collaboration with IOUs, the California Public Utilities Commission (Commission) and SEM experts. PG&E has two distinct SEM programs serving the Manufacturing and Food Processing segments.

PGE_Ind_002: Business Energy Performance Program

The Business Energy Performance (BEP) Program provides energy efficiency services, technical assistance, and incentives to the industrial sector within PG&E's service territory. BEP targets the Petroleum, Chemical, and Minerals subsegments using a downstream market approach and by leveraging the Deemed and Custom savings platforms to deliver cost-effective energy savings. BEP also promotes and leverages on-bill financing (OBF) as a tool to off-set the barrier of capital to fund projects.

PGE_Ind_003: Industrial Systems Optimization Program

The Industrial Systems Optimization Program (ISOP) targets the industrial manufacturing and food processing market segments throughout PG&E's territory, focusing on training, retro-commissioning, and capital projects with systems-level optimization. ISOP offers technical support to identify and implement projects, energy management coaching, energy management and collaboration software, and ongoing energy coach support to drive projects. ISOP will use the Deemed, Custom, and NMEC platforms (where applicable) to achieve savings, and supports all relevant measure types, with a focus on complex mechanical systems such as refrigeration, compressed air, pumping, fans, blowers, boiler and steam systems, and the industrial processes they serve.

PGE_Ag_001: Agricultural Energy Savings Action Plan

The Agricultural Energy Savings Action Plan (AESAP) Program will support PG&E's vision for the Agricultural Segment to maximize yield while reducing energy consumption using data, technical assistance, analytics, energy efficiency measures, and marketing to reduce demand, increase operational efficiency, and broaden customer participation while leveraging the Custom,

Deemed, and NMEC savings platforms. AESAP also promotes and leverages on-bill financing (OBF) and other private options as a tool to off-set the barrier of capital to fund projects.

DATA SHARING PROTOCOL & DOUBLE DIP PREVENTION PROTOCOL

Data sharing is integral for effective coordination between MCE and PG&E programs and to ensure proper reporting and claims of project savings. Due to the sensitive nature of sharing customer data, PG&E requires that MCE complete an annual renewal of its Third-Party Security Review (TSR) and have applicable Non-Disclosure Agreements in place.

It is MCE and PG&E's priority that participants in ratepayer funded programs do not receive multiple incentives for the same installed measure. PG&E and MCE propose the following procedures to prevent "double dipping" from incentive, rebates, or other program funding available from PG&E and MCE non-residential programs. The primary steps to prevent double-dipping include:

1. Identify all programs which have measure or customer overlap within MCE's service area;
2. Managers of non-residential programs will meet on a monthly basis to review general updates to programs that may impact coordination and program overlap and check on data sharing needs. The intent of the meetings is to improve upon the process outlined in the JCM;
3. Implementers or contractors serving MCE and PG&E programs are not allowed to "split" applications or scopes of work between the PAs. This will be communicated explicitly to program vendors;
4. Project enrollment forms require a field identifying the last utility incentive received, and the scope of work covered by the project;
5. MCE's programs will provide support and incentives for some measures covered by statewide programs, including Upstream and Midstream programs. When a product is known to be included in an Upstream/Midstream offer, MCE Program Managers will notify PG&E Program Managers of any projects which plan to install measures also covered by Upstream/Midstream programs. PG&E will lead coordination with the relevant Upstream/Midstream program to ensure that incentives are only paid once.
6. MCE will disclose to PG&E all identified instances where its customers participate in an MCE program and obtain a PG&E OBF loan so that the project can be excluded from the PG&E claim, mitigating the risk of double-counting;
7. The contractor process to avoid double dipping is as follows:
 - a. Participating contractors in MCE and PG&E programs will be notified of policies pertaining to double-dipping;

- b. Multiple violations of double-dipping policies may disqualify a contractor from program participation.

In Q2 2021, PG&E began providing MCE energy efficiency claims data for customers who reside in MCE's territory. The data provides insight into non-residential customer participation in energy efficiency programs in a five-year span period. MCE receives this non-residential data set on a quarterly basis. The data provides PG&E and MCE a pathway toward identifying instances of double dipping and sharing insights into shared customers.

- MCE will share program participation double dip findings. Any discovery of potential overlap will then be evaluated further at the measure level to assess if this is a trend or one-off occurrence. If a trend in double dipping is identified, PG&E and MCE will work together toward program modifications. In the event that both PG&E and MCE have claimed the same project measures, PG&E and MCE will come to a determination about how the project will be claimed, and review cost-recovery options with the program partner or entity that has received funding twice.
- PG&E provides on-bill financing (OBF) to participants in MCE's non-residential energy efficiency programs. When projects enrolled in an MCE program utilize PG&E OBF, MCE program managers coordinate directly with OBF program managers to ensure customer and project eligibility requirements are met and provide the project detail required by the OBF program to fund the loan.

RESIDENTIAL SECTOR COORDINATION

The following section describes coordination efforts between MCE and PG&E regarding existing residential EE programs for PY 2022.

TABLES OF COMPARABLE MCE AND IOU PROGRAMS

The residential programs currently designed and offered to customers by MCE and PG&E are presented in tables below. In addition to the programs included in the table, PG&E may launch new residential programs in this 2021 and 2022 JCM due to solicitations still in progress. There is insufficient detail on possible programs resulting from those solicitations, and therefore coordination on future programs is not included at the time this memo is filed. Residential programs expected to launch in the program year 2022 by PG&E are listed in the last section of this document.

While MCE is not currently planning to introduce new residential programs in 2022, should MCE issue a program solicitation and/or begin a new program, staff will coordinate with PG&E on all of the issues addressed within this JCM.

Table 5: Multi-Family Programs

Program ID MCE	Program Name	Sector	Budget ⁶	Resource / Non- Resource	Measures										
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls	Whole Building	Water Heaters	Other
MCE01	Multifamily Comprehensive Program	Residential	\$468,305	Resource	X	X	X	X	X	X	X	X	X	X	X
IOU (comparable programs)															
PGE21003	Multifamily Energy Savings Program (MESP)	Residential	\$3,882,555	Resource	X	X	X	X	X	X		X		X	

⁶ PG&E's and MCE's budgets are based on 2021 program budgets. These budgets are subject to change once the 2022 ABAL is finalized. PG&E budgets are from Advice 4303-G-A / 5936-E-A, PG&E's Supplemental 2021 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2021 Annual Budget Advice Letter Advice 45-E.

Table 6: Single-Family Programs

Program ID	Program Name	Sector	Budget ⁷	Resource / Non-Resource	Measures									
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls	Whole Building	Water Heaters
MCE														
MCE07	Single Family Comprehensive Program	Residential	\$687,099	Resource	X	X	X	X	X	X	X	X	X	X
MCE08	Single Family Direct Install Stand Alone	Residential	\$1,577,832	Resource	X	X	X					X	X	X
IOU (comparable programs)														
PGE_Res_002a	Residential Energy Advisor - Home Energy Checkups	Residential	\$2,166,035	Resource										X
PGE_Res_002c	Residential Energy Advisor - Home Energy Reports	Residential	\$8,459,626	Resource										X
PGE_Res_001b	Pay for Performance – HomeIntel	Residential	\$665,053	Resource	X		X	X				X		X
PGE_Res_001c	Pay for Performance – Home Energy Rewards	Residential	\$ 756,158	Resource	X		X	X				X		X
PGE21002	Residential Energy Efficiency	Residential	\$954,279	Resource		X						X		X

⁷PG&E's and MCE's budgets are based on 2021 program budgets. These budgets are subject to change once the 2022 ABAL is finalized. PG&E budgets are from Advice 4303-G-A / 5936-E-A, PG&E's Supplemental 2021 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2021 Annual Budget Advice Letter Advice 45-E.

DESCRIPTION OF PROGRAMS

MCE01: MCE Multifamily Comprehensive Program

MCE's Multifamily Comprehensive Program (MCE01) provides:

- Technical assistance;
- Rebates;
- Free direct install service for light-touch efficiency measures;
- Access to other resource conservation programs.

The program's primary objectives are to focus on customer engagement and minimize barriers that often occur during the initial phases of multifamily projects by providing personalized attention and solutions to meet participant needs and readiness.

The program also implements the Single Point of Contact (SPOC) model to offer technical assistance and guide property owners to help them understand the energy and resource conservation options that are a good fit for their property. The SPOC model allows MCE to provide program participants with a uniform and integrated presentation of opportunities across demand-side management strategies. The program measures include, among others, interior and exterior LED lighting, Energy Star appliances, HVAC equipment, networked lighting controls, and water heaters. The program is available to affordable and market-rate properties with four or more units in MCE's service area.

MCE08: Single-Family Direct Install (Stand Alone)

MCE's Single-Family Direct Install program (MCE08), or Home Energy Savings Program (HES), provides no-cost EE measures to eligible homeowners and tenants in single-family homes and dwellings in MCE's service area. This program targets moderate-income customers located in Disadvantaged Communities (DACs) whose household income falls between 200% and 400% of the Federal Poverty Guidelines (FPG). The target group's income exceeds the limit to receive services through programs like PG&E's Energy Savings Assistance (ESA) program and MCE's Low-Income Families and Tenants (LIFT) Program, yet who are still too income constrained (lower middle-income) to participate in market rate programs.

While there is no income cap to participate in the program, the program targets homeowners and renters in particular neighborhoods to ensure that lower middle-income customers are reached. MCE will refer customers who fall outside of the moderate-income threshold to available low-income and market rate programs. The goal is to fill the service gap and introduce this market sector to the concepts of energy efficiency, provide upgrades that reduce household energy consumption, and encourage a pathway toward deeper energy retrofits offered through existing and emerging market rate programs and technologies. EE measures include energy and water savings kits, energy advisor provided home assessments and envelope, HVAC and electrification home upgrade measures, low-flow showerheads (with and without thermostatic shut off valve), kitchen and bath faucet aerators, LEDs 11W screw-in bulbs, smart power strips, and smart thermostats. The program also offers a limited number of electric heat pump replacement for electric water heaters.

MCE07: Single-Family Comprehensive Program

In May 2020, MCE launched a downstream program for selected eligible customers to receive Home Energy Reports (HERs) at regular intervals to encourage energy- and money-saving behavioral changes. The program's treatment group receives a monthly HERs via email, as well as a regular digital energy budget report and alerts and access to a web portal where they can learn about additional savings potential through energy efficiency options like adding insulation, replacing pool pumps, changing out an HVAC system, etc.

In 2021, MCE will add additional participants to the program using PG&E's HER program move-outs (see more information below), as well as identify additional eligible MCE customers. MCE also plans to expand the online web portal to include information about relevant opportunities for energy savings by listing relevant vendors to help with energy upgrade decisions, e.g., local appliance and energy measure retailers and energy contractors.

The program will monitor participant eligibility on an ongoing basis, removing participants who no longer wish to participate or otherwise become ineligible to participate.

PGE_Res_003 Multifamily Energy Savings Program (MESP)

PG&E's Multifamily Energy Savings Program (MESP) is a third-party implemented program by TRC Solutions to serve multifamily properties with five or more units within PG&E's service territory. The program is designed to encourage installations by offsetting the incremental cost of higher-efficiency equipment. MESP is a measure-based program that offers energy efficiency upgrades to multifamily buildings through deemed and custom projects as well as a direct install delivery channel. The program offers multifamily properties low-cost/no-cost measures. Participation in the direct install track may serve as a springboard to a property participating in deemed or custom upgrade projects. MESP aims to serve multifamily customers, inclusive of smaller properties and underserved regions that will most benefit from property upgrades. MESP refers customers to single point of contact (SPOC) services for properties that either income-qualify for Energy Savings Assistance (ESA) multifamily programs or other programs such as MCE's multifamily program or BayREN's BAMBE program. The SPOC approach removes the customer burden of navigating programs on their own and determining the eligibility of various programs.

PGE_Res_002a: Residential Energy Advisor – Home Energy Checkup

The Home Energy Checkup (HEC) subprogram is an online self-guided assessment that helps customers understand where they use energy in their homes. It provides no- and low-cost energy-saving tips and suggestions based on the customer's responses to the assessment. A simple checklist plan is generated and saved on the customer's PG&E Your Account website, which allows the customer to track progress as checklist items get completed.

PGE_Res_002a: Residential Energy Advisor – Home Energy Reports

The Home Energy Reports (HER) subprogram offers customers customized tips and ideas to help maximize their energy savings. The key to the reports is the “neighbor comparison” where each customer's energy usage is compared to that of “similar neighbors.” Some reports may also show customers their personal energy data seasonally, by fuel type, by time of use, and by end-use, such

as heating, cooling, or EV charging. This feedback evokes a complex combination of both conscious and unconscious reactions that result in behavioral responses that vary widely in the customer base. In essence, many customers do a variety of small actions and make small purchases that add up to substantial savings in the aggregate. By making changes to settings on appliances, such as hot water heaters, HVAC systems, timers, and pool pumps; by turning off unnecessary appliances; by being more mindful about the use of hot water; or by making greener selections of lighting, customers receiving HERs save on electric and gas usage.

Within Home Energy Reports, the Bill Forecast Alert (BFA) subprogram allows customers to set a high bill threshold and to receive alerts via their preferred communication channel (email, voice, or text) when their bill is on pace to exceed their personalized threshold amount. This tool helps customers better manage their monthly energy bill. It provides fuel-based insights, personalized tips, and direct links to energy management web tools, giving our customers the resources to manage their energy usage before their next statement arrives.

The new Customer Energy Feedback Program (CEFP)⁸ is expected to launch in Q3 2021 and will replace the current HER program. The CEFP builds and expands upon Oracle's existing Home Energy Reports (HERs) program with PG&E by layering three behavioral energy efficiency products (HERs, Bill Forecast Alerts, and Time of Use Coach) and behavioral science strategies to engage, educate, and motivate customers to reduce and shift energy usage by providing actionable insights.

The CEFP approach balances engagement with customers via their preferred communication channels – paper, digital, video, short message service (SMS), and interactive voice response (IVR) – to reach as many as 2.9 million residential customers. CEFP includes up to weekly and monthly personalized analyses of hourly energy usage patterns that are delivered to TOU customers by default. These emails deliver insights to customers that educate them about their peak energy usage and encourage them to shift their use to off-peak hours to help them reduce their peak spending and lower their monthly energy bills.

PGE_Res_001b: Pay for Performance – HomeIntel

PGE_Res_001c: Pay for Performance – Home Energy Rewards

PG&E began offering the Pay for Performance (P4P) Pilot subprogram to customers in 2017. The P4P model enables measurement of energy savings at the meter and aims to achieve persistent savings through an ongoing relationship between customers and their contractors. The subprogram uses CalTRACK Methods to track the time and locational demand impacts of EE. By leveraging these methods, the subprogram is operationalizing feedback to drive continuous improvement in program performance. The P4P Program approach limits risk to ratepayers by primarily paying incentives when energy savings are realized at the meter. Using energy meter data, the subprogram opens new possibilities to integrate demand flexibility into resource planning and to transform EE into a reliable grid resource.

⁸ PG&E Advice Letter 4410-G/6136-E, which requested Commission approval of the CEFP contract, was approved by the CPUC on April 28, 2021.

The P4P subprogram comprises four offerings, two of which operate in areas overlapping with MCE:

- HomeIntel, offered by Home Energy Analytics: In-depth analysis of a home's energy use, customized recommendations, and energy coaches to help reduce energy usage. Includes monthly energy efficiency progress report.
- Home Energy Rewards, offered by Franklin Energy: In-depth analysis of a home's energy use, customized recommendations and free energy savings kit (LEDs, water saving devices), and discounted energy efficient products.

PGE21002 – Residential Energy Efficiency

The Residential Energy Efficiency Program (REEP), previously known as Plug Load and Appliances (PLA), aimed to transform the market to achieve sustainable adoption of energy efficient REEP products so that ongoing intervention would no longer be required. PG&E offers rebates to customers who purchased and installed qualified smart thermostats and electric heat pump water heaters. For the short- to mid-term timeframe where EE REEP products were still not the market's default choices, PG&E used incentives and industry collaboration to increase availability, awareness, and adoption of energy-efficient products. The subprogram's long-term strategy sought to create on-going demand for energy-efficient products thus motivating the industry to produce and sell highly energy-efficient REEP products as the market's standard offering.

The Statewide Plug Load and Appliance Program is expected to launch in by Q4 2021. This program is led by SDG&E and may require an additional layer of coordination. PG&E will share details with MCE as soon as they are available and will adjust its program as needed. MCE and PG&E's Residential Program Managers will conduct regularly scheduled monthly check-in calls to cover Statewide program coordination.

In addition to the programs discussed above, PG&E intends to launch a new heat pump water heater (HPWH) midstream incentive in 2021. This program will leverage newly adopted fuel substitution workpapers and offer incentives when contractors and distributors sell and install qualified HPWHs to PG&E gas or electric customers.

DATA SHARING PROTOCOL & DOUBLE DIP PREVENTION PROTOCOL

Data sharing is integral for effective coordination between MCE and PG&E programs and to ensure proper reporting and claims of project savings. MCE and PG&E will continue to share data related to programs for which measure and associated savings attributions need to be addressed. It is MCE and PG&E's priority that participants in ratepayer-funded programs do not receive multiple incentives for the same installed measure. PG&E and MCE propose the following procedures to prevent "double dipping" from incentive or rebate funding available from PG&E and MCE residential programs.

The general protocol for data sharing and double dip prevention is to:

1. Identify all programs which have or may have measure or customer overlap within MCE's service area; and
2. Collaborate to ensure that customers have access to all program offerings within their service areas, regardless of the entity that generated or sourced the project lead.

For MCE's Single Family Comprehensive Program, PG&E and MCE worked together to ensure that no double dipping occurred. In 2020, PG&E shared HER program participant data with MCE, and MCE subsequently removed those customers from consideration for inclusion in the MCE Single Family Comprehensive Program. Thus, no double dipping between the PG&E and MCE HER programs is possible. Furthermore, PG&E and MCE are actively engaging in discussions via monthly phone calls and email to better understand which MCE customers are already participating in PG&E's HER program, and to remove them from the potential pool of customers targeted for MCE's Single-Family Comprehensive Program. Finally, in 2021, PG&E shared previous HER program participants who no longer participate in their program because they have moved from the service address. MCE will vet those customers to determine which of them are in MCE's territory; MCE will then determine if they are eligible to participate in the MCE program, and if appropriate add them to the program.

In 2021, MCE and PG&E identified overlap in measure offerings and program approach between MCE and PG&E's multifamily programs, which prompted a need for dedicated calls between MCE, PG&E, and their multifamily program implementers to address areas where overlap occurs. PG&E and MCE will continue to coordinate on PG&E's Residential Energy Efficiency program in cases where this could inform opportunities in MCE's programs.

In Q2 2021, PG&E began providing MCE with energy efficiency claims data for customers who reside in MCE's territory. The data provides insight into residential customer participation in energy efficiency programs in a five-year span period. MCE receives this data set on a quarterly basis. The data provides PG&E and MCE a pathway toward identifying instances of double dipping and sharing insights into shared customers. PG&E will work toward a solution to provide MCE access to PG&E bundled customers' gas consumption data. Since MCE's programs serve all residential customers (including MCE and PG&E customers), it is important that a pathway for sharing this data be identified.

MCE and PG&E will coordinate further data sharing needs, methods and cadence during monthly check-ins for both the Single-Family Comprehensive Program and the Direct Install Stand Alone programs.

CROSS-CUTTING SECTOR COORDINATION

The following sections describes coordination efforts between MCE and PG&E regarding existing EE programs that cut across sectors and customer types for PY 2022.

TABLES OF COMPARABLE MCE AND IOU PROGRAMS

The programs that cut across sectors that are currently designed and offered to customers by MCE and PG&E are presented in the tables below.

Table 7: Cross-Cutting Programs

Program ID	Program Name	Sector	Budget ⁹	Resource / Non-Resource	Measures							
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting	HVAC
MCE												
MCE16	Workforce, Education and Training	Cross-Cutting	\$361,481	Non-Resource								
IOU (comparable programs)												
PGE21071	Integrated Energy Education and Training	Cross-Cutting	\$8,502,000	Non-Resource								

⁹PG&E's and MCE's budgets are based on 2021 program budgets. These budgets are subject to change once the 2022 ABAL is finalized. PG&E budgets are from Advice 4303-G-A / 5936-E-A, PG&E's Supplemental 2021 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2021 Annual Budget Advice Letter Advice 45-E.

DESCRIPTION OF PROGRAMS

MCE16: Workforce, Education and Training (WE&T) Program

MCE launched the components of its WE&T program in 2020 related to existing energy industry professionals. In 2021, the program continues this training and has launched contractor/job-seeker matching components of the program.

Building on the knowledge gained in 2020 from MCE's workforce roundtables, MCE provides interested contractors (contractors working within the MCE territory and working on electrification, energy efficiency, or home performance) with the building performance and electrification information through no-cost in-person or virtual field meetings. This information will help contractors to understand and to provide maximum value and performance to customers.

In 2020, MCE establish a priority list of electrification topics for which there is an additional training need in MCE's service territory. In 2021, MCE is continuing to refine and deliver workshops for each of the identified topics.

Finally, MCE has launched an "on-the-job" training opportunity to provide job seekers home performance, electrification, energy efficiency, and safety experience. This program component was designed based on feedback from industry roundtables, participating contractor field meetings, and direct contractor outreach.

PGE21071: Integrated Energy Education and Training (IEET)

The PG&E WE&T IEET subprogram offers hundreds of technical workforce trainings per year with the goal of equipping a California workforce with the tools, resources, and skills to meet the State's climate goals. Some of the classes delivered are restricted to PG&E's Energy Training Center (ETC) in Stockton, the Food Service Technology Center (FSTC) in San Ramon for food service, or other specific locations, due to the need to use large teaching props or laboratories. However, the majority of classes can be offered at off-site locations and/or via online simulcast or webinar, especially if a local organization will assist with marketing and outreach to ensure good attendance from the appropriate target audience. A class being offered at other locations is also dependent on the instructor being willing and able to travel. PG&E's WE&T program also has an online on-demand learning platform, where many classes are focused on residential construction and contractors.

PG&E has a Tool Lending Library (TLL) with thousands of energy diagnostic tools available to borrow at no-cost to the borrower for short-term (~2 weeks) loans. The TLL addresses an up-front cost barrier faced by many small businesses and energy consultants. Once local health ordinances allow, tools will be available from the ETC in Stockton or from San Ramon. PG&E can also ship tools anywhere in California if the borrower covers shipping costs.

PG&E has also transitioned the Advanced Pumping Energy Program to operate under the WE&T IEET program. The Advanced Pumping Efficiency Program (APEP) is an agricultural third-party energy efficiency program, implemented by the California State University Fresno Foundation.

APEP is an educational program intended to improve overall pumping efficiency and encourage energy conservation in California.

The PG&E WE&T team does not offer soft skills training such as interviewing skills, resume writing, etc. PG&E will coordinate with organizations that offer soft skills training as part of the Statewide Career and Workforce Readiness (CWR) program scheduled to launch in 2021. PG&E WE&T does not directly offer certifications such as BPI, HERS, or NATE; however, PG&E supports these certifications by providing classes that prepare students to take the tests and complete them successfully. Examples include PG&E's IHACI NATE Series, an 8-part class that prepares technicians to take the test. IHACI is an approved NATE testing proctor. Another example is PG&E's Combustion Safety and Depressurization class that prepares workers to take the BPI examination.

DATA SHARING PROTOCOL & DOUBLE DIP PREVENTION PROTOCOL

To coordinate on the implementation of MCE's and PG&E's WE&T programs, PG&E will provide its list of trainings to MCE on a quarterly basis, and MCE will provide a similar list to PG&E. The list of trainings will include the following information:

- Class name(s);
- Description(s);
- Instructor name(s);
- Whether PG&E owns content (as opposed to licensing it);
- Mode of access and location (ex: in-person, training center/city, online);
- Class schedule (if one exists) and URL for class calendar(s).

PG&E and MCE shall distribute this quarterly list of classes to the appropriate internal staff and/or consultant(s).

MCE will then determine which of PG&E's existing offerings should be leveraged and will coordinate with PG&E to market these resources. Whenever feasible, MCE will leverage existing IOU curriculum and training by communicating training needs via email or in regular coordination meetings with PG&E counterparts.

Vice versa, MCE will provide to PG&E its announcements of industry roundtables and direct vendor outreach collateral as it is developed and distributed. During MCE and PG&E's monthly Residential/WE&T check ins, MCE will provide PG&E with updates on lessons learned related to topic-area interest from industry roundtables and vendor outreach.

The goal of coordination between MCE's and PG&E's WE&T programs is to ensure that ratepayer funds deliver resources efficiently and effectively across the shared territories. PG&E and MCE will approach coordination with the goal of offering transparency through regular communication, ensuring efficiency through a collaborative approach to any shared resources, and providing support for the success of programs across the service area. To achieve these goals, PG&E and MCE will meet regularly to coordinate the WE&T programs. The programs will be a standing agenda item at the monthly meeting to discuss the topics of trainings in development to reduce the potential of duplication of efforts. While MCE and PG&E's trainings are generally distinct and

will focus on different forms of contractor education and workforce development, PG&E and MCE will coordinate on leveraging each other's resources and materials when appropriate to avoid duplication.

WORKPAPER EX-ANTE COORDINATION

Workpaper coordination is necessary to support the implementation of similar deemed measures offered by both PG&E and MCE. The investor-owned utilities (IOUs) are responsible for updating and maintaining EE workpapers, as well as providing notice to the public that leverage IOU approved work papers to substantiate their deemed measure offerings. In instances in which MCE develops workpapers that no other IOU has used in the past, PG&E will rely on MCE to maintain and update those workpapers as needed.

The CPUC approved workpapers and associated measures can be found on the DEER Workpaper and Disposition Archive¹⁰ and the California Technical Forum ("CalTF") Electronic Technical Reference Manual (eTRM)¹¹. The eTRM became the "conditional data source of record" as of January 2021 and will become the official ex ante database of record by 2022.¹² The IOUs provide a Statewide Deemed Workpaper Revision List to the CalTF website at the end of each month. The list includes workpapers the IOUs are actively working on that had recent changes or anticipated changes, revisions to existing workpapers, and workpapers under development for new measures. Like the IOUs, MCE will work with CalTF to upload any future CPUC approved MCE workpapers.

To further support this existing process, MCE and PG&E will establish regular, pre-scheduled check-ins to discuss the reasoning and timing of workpaper updates that impact the implementation of similar deemed measures being offered by both PAs. Discussion of workpaper updates may include, but are not limited to the following:

- Workpaper revisions in accordance to the DEER resolution;
- Workpaper revisions related to DEER methods, assumptions, and values;
- Workpaper revisions that are outside the scope of DEER such as code changes or dispositions;
- Measures planned for sunset from the IOU portfolios;
- Timing of existing workpaper revisions and new workpapers as they relate to planning for Annual Budget Advice Letters (ABALs).

¹⁰ <http://deeresources.net/workpapers>

¹¹ <https://www.caetrm.com/login/?next=/>

¹² DEER Resolution E-5082

STATEWIDE PROGRAM COORDINATION

Starting in 2016, the Commission directed¹³ the California IOUs to begin transitioning California towards greater statewide program administration and third-party involvement in the proposal, design, implementation, and delivery of energy efficiency programs. IOUs are required to allocate at least 25% of their proposed Business Plan budgets to Statewide Programs¹⁴ and at least 60% to third-party programs by the end of 2022.¹⁵ The Commission established Statewide Programs and the associated Lead IOU¹⁶ in 2018, as described here:

Table 8: Lead Program Administrator for Statewide Programs by Area

Program Category	Lead IOU
Plug Load and Appliance	SDG&E
HVAC (Upstream Residential, Upstream Commercial)	SDG&E
New Construction (Residential)	PG&E
New Construction (Non-Residential)	PG&E
Codes & Standards (Building Codes Advocacy)	PG&E
Codes & Standards (Appliance Standards Advocacy)	PG&E
Codes & Standards (National Advocacy)	PG&E
Lighting	SCE
Emerging Technologies (Gas)	SoCalGas
Emerging Technologies (Electric)	SCE
Workforce Education & Training (Career Connections)	PG&E
Institutional Partnerships (University of California, California State University), called “Higher Education”	SCE
Institutional Partnerships (State of California, California Department of Corrections)	PG&E
Foodservice Point of Sale	SoCalGas
Midstream Commercial Water Heating	SoCalGas
Plug Load and Appliance	SDG&E
HVAC (Upstream Residential, Upstream Commercial)	SDG&E
New Construction (Residential)	PG&E

Table 9: Lead Program Administrator for Statewide Downstream Pilot Programs

Program Name	Lead IOU
HVAC Quality Installation/Quality Maintenance (QI/QM)	SDG&E
Water/Wastewater Pumping Program	SCE
Workforce Education & Training (Career and Workforce Readiness)	PG&E

¹³ D.16-08-019, Decision providing guidance for Initial Energy Efficiency Rolling Portfolio Business Plan Filings.

¹⁴ D.16-08-019, OP 6.

¹⁵ D.18-01-004, OP 1.

¹⁶ D.18-10-041, OP 26.

PG&E will include Statewide program updates in sector coordination calls with MCE, when available and appropriate. Statewide solicitations status updates are also available on the Joint IOU Energy Efficiency Solicitation Schedule.¹⁷

DESCRIPTION OF PROGRAMS

A summary narrative has been provided below for PG&E-lead Statewide programs that have either already launched or have reached the stage of seeking Commission approval of contracts through the Advice Letter process. For detailed narratives regarding Statewide programs where PG&E is not the lead, please see the Lead IOU's respective 2020 EE Annual Report.¹⁸

PGE_SW_CSA_Bldg: State Building Codes Advocacy Program: Title 24, Part 6 & Part 11

The Statewide Building Codes Advocacy subprogram supports the California Energy Commission's triennial update to the Energy Code (Title 24, Part 6) to include new EE regulations or to strengthen existing regulations for various technologies or measures. Advocacy activities include the development of Codes and Standards Enhancement (CASE) proposals, research to provide the data needed to advance EE regulations, and participation in the public rulemaking processes. The subprogram also supports the Energy Commission in preparing recommendations to the Building Standards Commission to update the California Green Buildings Standards (Title 24, Part 11 or CALGreen). The voluntary energy measures in CALGreen provide foundational elements for local reach codes.

PGE_SW_CSA_Appl: State Appliance Standards Advocacy Program

The Statewide Appliance Standards Advocacy (ASA) subprogram targets improvements to Title 20 by the California Energy Commission. Advocacy activities include developing Title 20 code enhancement proposals and participating in the California Energy Commission public rulemaking process. Additionally, the subprogram monitors state and federal legislation and intervenes, as appropriate.

PGE_SW_CSA_Natl: National Codes and Standards Advocacy Program

PG&E advocates for national building codes and appliance standards that support California by encouraging adoption of transformative technologies and construction processes. Alignment between national and state codes also helps reduce barriers to compliance by harmonizing the requirements across state borders. Organizations that work across multiple states, including California, can establish business practices that would result in less customization for the California market. Participation in the DOE, Environmental Protection Agency (EPA), Federal Trade Commission (FTC), ASHRAE and IECC code and standard update proceedings in support of increasing requirements is important to minimize gaps, when regionally appropriate, between the California's EE regulations and the EE regulations that other states adopt.

¹⁷ <https://www.caeecc.org/third-party-solicitation-process>

¹⁸ <https://www.cpuc.ca.gov/general.aspx?id=6442468251>

TBD: Non-Residential New Construction (All-Electric and Mixed-Fuel) Program

In 2020, PG&E began the solicitations process for the All-Electric and Mixed-Fuel Statewide Non-Residential New Construction Programs (NRNC). In February 2021, PG&E completed the solicitation and submitted Advice Letters seeking Commission approval of the program contracts. The All-Electric and Mixed-Fuel programs will serve the non-residential customer sub-sectors (consisting of commercial, public, industrial, agriculture, and multifamily high-rise) in all California IOU service territories and include integrated QA/QC and M&V throughout program steps, designed by experts in these areas.

Both the All-Electric and Mixed-Fuel programs are designed to be stand-alone programs and are critical to meeting California's aggressive EE and decarbonization goals. The objective is to enroll and influence the non-residential new construction market to deeper energy savings and decarbonization with key activities of outreach and education, real-time energy modeling, verification, and data tracking to inform codes and standards. Program incentives are designed to motivate project teams to deeper energy savings and help overcome financial barriers. The Commission issued approval of the Statewide NRNC program contracts in April 2021, and the programs are expected to finalize Implementation Plans and launch in Q3 2021.

PROGRAMS EXPECTED TO LAUNCH IN 2022

2021 is a year of transition for the PG&E portfolio. Following successful third-party program solicitations throughout 2019 and 2020, PG&E ramped down and closed many programs, and has begun launching a broad range of new third-party implemented programs across the entire portfolio. Solicitations for both statewide and local programs are expected to continue throughout 2021. PG&E is committed to communicating with MCE to provide regular updates on program decisions whenever feasible to (1) ensure no overlap and (2) enhance the customer journey.

Other PA programs (PG&E or statewide) may launch in 2022 as well. MCE and PG&E will revisit the need for coordination once a bidder is chosen and program implementation and measure portfolios are more clearly defined to identify potential areas over overlap between programs. PG&E will share program details with MCE program staff at that time to determine if specific coordination efforts are needed.

**PG&E Gas and Electric
Advice Submittal List
General Order 96-B, Section IV**

AT&T	East Bay Community Energy	Pioneer Community Energy
Albion Power Company	Schneider & Harris LLP Energy Management Service	Redwood Coast Energy Authority
Alta Power Group, LLC	Engineers and Scientists of California	Regulatory & Cogeneration Service, Inc.
Anderson & Poole		SCD Energy Solutions
Atlas ReFuel	GenOn Energy, Inc.	San Diego Gas & Electric Company
BART	Goodin, MacBride, Squeri, Schlotz & Ritchie	SPURR
Barkovich & Yap, Inc.	Green Power Institute	San Francisco Water Power and Sewer
California Cotton Ginners & Growers Assn	Hanna & Morton	Sempra Utilities
California Energy Commission	ICF	
California Hub for Energy Efficiency Financing	IGS Energy	Sierra Telephone Company, Inc.
California Alternative Energy and Advanced Transportation Financing Authority	International Power Technology	Southern California Edison Company
California Public Utilities Commission	Intestate Gas Services, Inc.	Southern California Gas Company
Calpine	Kelly Group	Spark Energy
Cameron-Daniel, P.C.	Ken Bohn Consulting	Sun Light & Power
Casner, Steve	Keyes & Fox LLP	Sunshine Design
Cenergy Power	Leviton Manufacturing Co., Inc.	Tecogen, Inc.
Center for Biological Diversity	Los Angeles County Integrated Waste Management Task Force	TerraVerde Renewable Partners
Chevron Pipeline and Power	MRW & Associates	Tiger Natural Gas, Inc.
City of Palo Alto	Manatt Phelps Phillips	TransCanada
City of San Jose	Marin Energy Authority	Utility Cost Management
Clean Power Research	McKenzie & Associates	Utility Power Solutions
Coast Economic Consulting	Modesto Irrigation District	Water and Energy Consulting Wellhead Electric Company
Commercial Energy	NLine Energy, Inc.	Western Manufactured Housing
Crossborder Energy	NRG Solar	Communities Association (WMA)
Crown Road Energy, LLC	Office of Ratepayer Advocates	Yep Energy
Davis Wright Tremaine LLP	OnGrid Solar	
Day Carter Murphy	Pacific Gas and Electric Company	
Dept of General Services	Peninsula Clean Energy	
Don Pickett & Associates, Inc.		
Douglass & Liddell		