

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



Pacific Gas & Electric Company
ELC (Corp ID 39)
Status of Advice Letter 4259G/5850E
As of July 16, 2020

Subject: Marin Clean Energy and Pacific Gas and Electric Company Annual Joint Cooperation Memorandum for Energy Efficiency Programs for Program Year 2021

Division Assigned: Energy

Date Filed: 06-15-2020

Date to Calendar: 06-17-2020

Authorizing Documents: D1805041

Disposition:	Accepted
Effective Date:	07-15-2020

Resolution Required: No

Resolution Number: None

Commission Meeting Date: None

CPUC Contact Information:

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PGETariffs@pge.com

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
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Energy Division's Tariff Unit by e-mail to
edtariffunit@cpuc.ca.gov

June 15, 2020

CA Public Utilities Commission
Energy Division
Attention: Tariff Unit
505 Van Ness Avenue, 4th Floor
San Francisco, CA 94102-3298



MCE Advice Letter 43-E; PG&E Advice Letter 4259-G/5850-E (ID U39 M)

Re: Marin Clean Energy and Pacific Gas and Electric Company Annual Joint Cooperation Memorandum for Energy Efficiency Programs for Program Year 2021

Pursuant to Decision (“D.”) 18-05-041, *Decision Addressing Energy Efficiency Business Plans*¹, Marin Clean Energy (“MCE”) hereby submits the annual Joint Cooperation Memorandum (“JCM”) between MCE and Pacific Gas and Electric Company (“PG&E”) for energy efficiency (“EE”) programs for the program year 2021.

Tier Designation

This Advice Letter (“AL”) has a Tier 2 designation pursuant to OP 38 of D.18-05-041, which requires MCE and PG&E to submit their annual JCM no later than June 15.

Effective Date

Pursuant to General Order 96-B, MCE and PG&E respectfully request that this Tier 2 AL become effective on July 15, 2020, which is 30 calendar days from the date of this filing.

Background

On January 17, 2017, MCE and PG&E filed their respective business plans with the California Public Utilities Commission (“Commission”).² On June 5, 2018, the Commission issued D.18-05-041 approving the aforementioned business plans.³ The Commission granted MCE’s and PG&E’s sector-level proposals for the following overlapping sectors: (1) Residential, single family; (2) Residential, multifamily; (3) Commercial; (4) Industrial; (5) Agricultural; and (6) Workforce Education and Training.

¹ D.18-05-041, OP 38 at p. 190.

² See Application of Pacific Gas and Electric Company for Approval of 2018-2025 Rolling Portfolio Energy Efficiency Business Plan and Budget (Application (“A.”) 17-01-015) filed January 17, 2017; see also Application of Marin Clean Energy for Approval of its Energy Efficiency Business Plan (A.17-01-017) filed January 17, 2017.

³ See D.18-05-041.

In granting MCE's business plan, the Commission emphasized the potential for MCE and PG&E program overlap. The Commission also noted the difficulty in identifying program overlap because the business plans appropriately focus on sector-level strategies, not specific programmatic activities.⁴ 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."⁵

Submission and approval of an annual JCM is a prerequisite for consideration of MCE's and PG&E's Annual Budget Advice Letters ("ABALs").⁶

Purpose

This AL provides Commission staff with the JCM for EE programs for program years 2021, executed by and between MCE and PG&E as required by OP 38 of D.18-05-041. The JCM is included with this AL as Attachment 1.

The JCM describes the EE programs that MCE and PG&E anticipate offering in their shared service area in program year 2021 pursuant to their approved business plans. The JCM provides a summary of MCE's programs and, if PG&E offers a similar program, describes program coordination and double dipping prevention procedures.

Conclusion

PG&E and MCE respectfully submit the JCM pursuant to OP 38 of D.18-05-041 and request Commission approval of same.

Notice

A copy of this AL is being served on the official Commission service lists for Rulemaking 13-11-005.

For changes to these service lists, please contact the Commission's Process Office at (415) 703-2021 or by electronic mail at Process_Office@cpuc.ca.gov.

Protests

Anyone wishing to protest this advice filing may do so by letter via U.S. Mail, facsimile, or electronically, any of which must be received no later than 20 days after the date of this advice filing. Protests should be mailed to:

⁴ *Id.* at p. 111.

⁵ *Id.*

⁶ *Id.*, OP 39 at p. 191.

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

Copies should also be mailed to the attention of the Director, Energy Division, Room 4004 (same address as above).

In addition, protests and all other correspondence regarding this AL should also be sent by letter and transmitted electronically to the attention of:

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There are no restrictions on who may file a protest, but the protest shall set forth specifically the grounds upon which it is based and shall be submitted expeditiously.

Correspondence

For questions, please contact Jana Kopyciok-Lande at (415) 464-6044 or by electronic mail at jkopyciok-lande@mceCleanEnergy.org.

/s/ Jana Kopyciok-Lande

Jana Kopyciok-Lande
Senior Policy Analyst
MARIN CLEAN ENERGY

cc: Service Lists: R.13-11-005



ADVICE LETTER SUMMARY

ENERGY UTILITY



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

Company name/CPUC Utility No.: Marin Clean Energy (MCE), Pacific Gas and Electric Company (ID U39 M)

Utility type:

☒ ELC ☐ GAS ☐ WATER
☐ PLC ☐ HEAT

Contact Person: Jana Kopyciok-Lande

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E-mail Disposition Notice to: jkopyciok-lande@mcecleanenergy.org

EXPLANATION OF UTILITY TYPE

ELC = Electric
PLC = Pipeline
GAS = Gas
HEAT = Heat
WATER = Water

(Date Submitted / Received Stamp by CPUC)

6/15/2020

Advice Letter (AL) #: MCE 43-E; PG&E 4259-G/5850-E

Tier Designation: 2

Subject of AL: Marin Clean Energy and Pacific Gas and Electric Company Annual Joint Cooperation Memorandum for Energy Efficiency Programs for Program Year 2021

Keywords (choose from CPUC listing): Compliance, Energy Efficiency

AL Type: ☐ Monthly ☐ Quarterly ☒ Annual ☐ One-Time ☐ Other:

If AL submitted in compliance with a Commission order, indicate relevant Decision/Resolution #: Decision 18-05-041, Ordering Paragraph 38

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: 7/15/20

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
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San Francisco, CA 94102
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ENERGY Advice Letter Keywords

Affiliate	Direct Access	Preliminary Statement
Agreements	Disconnect Service	Procurement
Agriculture	ECAC / Energy Cost Adjustment	Qualifying Facility
Avoided Cost	EOR / Enhanced Oil Recovery	Rebates
Balancing Account	Energy Charge	Refunds
Baseline	Energy Efficiency	Reliability
Bilingual	Establish Service	Re-MAT/Bio-MAT
Billings	Expand Service Area	Revenue Allocation
Bioenergy	Forms	Rule 21
Brokerage Fees	Franchise Fee / User Tax	Rules
CARE	G.O. 131-D	Section 851
CPUC Reimbursement Fee	GRC / General Rate Case	Self Generation
Capacity	Hazardous Waste	Service Area Map
Cogeneration	Increase Rates	Service Outage
Compliance	Interruptible Service	Solar
Conditions of Service	Interutility Transportation	Standby Service
Connection	LIEE / Low-Income Energy Efficiency	Storage
Conservation	LIRA / Low-Income Ratepayer Assistance	Street Lights
Consolidate Tariffs	Late Payment Charge	Surcharges
Contracts	Line Extensions	Tariffs
Core	Memorandum Account	Taxes
Credit	Metered Energy Efficiency	Text Changes
Curtailable Service	Metering	Transformer
Customer Charge	Mobile Home Parks	Transition Cost
Customer Owned Generation	Name Change	Transmission Lines
Decrease Rates	Non-Core	Transportation Electrification
Demand Charge	Non-firm Service Contracts	Transportation Rates
Demand Side Fund	Nuclear	Undergrounding
Demand Side Management	Oil Pipelines	Voltage Discount
Demand Side Response	PBR / Performance Based Ratemaking	Wind Power
Deposits	Portfolio	Withdrawal of Service
Depreciation	Power Lines	

Attachment 1



MCE and PG&E Joint Cooperation

Memorandum for Program Year 2021

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June 15, 2020

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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 2021 (2021 JCM) demonstrates how PG&E and MCE intend to minimize duplication of efforts for programs that address common sectors.

2020 is a year of transition for the PG&E portfolio. PG&E is working to outsource 25% of its portfolio to third-party implementers by June 2020, and 40% of the portfolio to third-party implementers by December 2020. As a result, PG&E anticipates many programs will ramp down in 2020 and there are many unknowns about the programs that will be onboarded through solicitations by the end of 2020. 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.

In preparation of the 2021 JCM, PG&E and MCE held a meeting in April 2020 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 2021 and will continue collaboration once programs are designed. Collaboration details on these potential future programs are not included in this 2021 JCM because details are not yet determined. However, PG&E provides a summary of programs that are expected to launch in 2021. MCE is currently not expecting to launch any new programs in 2021.

This document contains six 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. Programs Expected to Launch in 2021.

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 offerings;

- 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 prevent duplication and double-dipping 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 will occur in quarterly check-ins through in-person or audio or video teleconference, or email communications. Meetings will address new and ongoing coordination issues related to all relevant programs as discussed in detail below.

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) 2021.

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 2021 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 2021 are listed in the last section of this document.

Table 1: Commercial Sector

Program ID	Program Name	Sector	Budget¹	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	\$783,593	Resource	X	X	X	X	X	X	X	X	X	X	X	X
IOU (comparable programs)																
PGE21011	Commercial Calculated Incentives	Statewide	\$5,851,063	Resource	X	X	X		X	X	X	X	X			X
PGE21012	Commercial Deemed Incentives	Statewide	\$8,852,809	Resource	X	X	X	X	X			X			X	X
PGE210123	Healthcare Energy Efficiency Program	Commercial	\$994,021	Resource	X		X		X	X	X	X	X	X	X	X
PGE210143	Hospitality Program	Commercial	\$2,529,781	Resource	X		X		X	X	X	X				
PGE21015	Commercial HVAC	Statewide	\$6,044,854	Resource			X					X				
PGE21018	EnergySmart Grocer	Commercial	\$6,176,529	Resource	X		X		X	X		X				X
PGE2110051	Local Government Energy Action Resources (LGEAR)	Commercial	\$11,058,317	Resource	X				X							

¹ PG&E's and MCE's budgets are based on 2020 program budgets. These budgets are subject to change once the 2021 ABAL is finalized. PG&E budgets are from Advice 4136-G-A/5627-E-A, PG&E's Supplemental 2020 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2020 Annual Budget Advice Letter Advice 37-E.

Table 2: Agricultural Sector

					Measures										
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls	Whole Building	Water Heaters	Other
Program ID	Program Name	Sector	Budget ²	Resource / Non-Resource											
MCE															
MCE11	MCE Agricultural and Industrial Resource Program	Agriculture	\$687,463	Resource	X		X		X	X	X	X	X	X	X
IOU (comparable programs)															
PGE21031	Agricultural Calculated Incentives	Statewide	\$1,947,535	Resource	X	X	X		X	X	X	X	X		X
PGE21032	Agricultural Deemed Incentives	Statewide	\$1,894,430	Resource	X	X	X	X	X			X		X	X
PGE210311	Process Wastewater Treatment Program for Ag Food Processing	Agriculture	\$203,931	Resource						X					X
PGE210312	Dairy and Winery Industry Efficiency Solutions	Agriculture	\$1,421,553	Resource	X				X	X	X		X		X
PGE21034	Advanced Pumping Energy Agricultural Energy Advisor	Agriculture	\$2,326,462	Resource						X					X
PGE21039	Comprehensive Food Process Audit	Agriculture	\$2,250,083	Resource	X		X		X	X					X

² PG&E's and MCE's budgets are based on 2020 program budgets. These budgets are subject to change once the 2021 ABAL is finalized. PG&E budgets are from Advice 4136-G-A/5627-E-A, PG&E's Supplemental 2020 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2020 Annual Budget Advice Letter Advice 37-E.

Table 3: Industrial Sector

					Measures											
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls	Whole Building	Water Heaters	Other	
Program ID	Program Name	Sector	Budget ³	Resource / Non-Resource												
MCE																
MCE10	MCE Agricultural and Industrial Resource Program	Industrial	\$2,125,484	Resource	X		X		X	X	X	X	X	X	X	X
IOU (comparable programs)																
PGE21021	Industrial Calculated Incentives	Statewide	\$3,966,195	Resource	X	X	X		X	X	X	X	X			X
PGE21022	Industrial Deemed Incentives	Statewide	\$290,275	Resource	X	X	X	X	X			X			X	X
PGE210135	Water Infrastructure and System Efficiency	Industrial	\$1,301,793	Resource						X						X
PGE210210	Industrial Recommissioning Program	Industrial	\$1,426,592	Resource	X					X	X	X	X			X
PGE210212	Compressed Air and Vacuum Optimization Program	Industrial	\$290,275	Resource						X						X
PGE21026	Energy Efficiency Services for Oil Production	Industrial	\$927,077	Resource	X					X						X
PGE21027	Heavy Industry Energy Efficiency Program	Industrial	\$8,117,891	Resource	X					X						X
PGE21030	Industrial Strategic Energy Management	Industrial	\$4,706,245	Resource						X						X

³ PG&E's and MCE's budgets are based on 2020 program budgets. These budgets are subject to change once the 2021 ABAL is finalized. PG&E budgets are from Advice 4136-G-A/5627-E-A, PG&E's Supplemental 2020 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2020 Annual Budget Advice Letter Advice 37-E.

Table 4 : Financing Sector

					Measures											
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls	Whole Building	Water Heaters	Other	
Program ID	Program Name	Sector	Budget ⁴	Resource / Non-Resource												
MCE ⁵																
IOU (comparable programs)																
PGE21091	On-Bill Financing (excludes Loan Pool)	Financing	\$4,986,247	Resource	X	X	X		X	X	X	X			X	X
PGE210911	On-Bill Financing Alternative Pathway	Financing	\$793,414	Resource	X	X	X	X	X	X	X	X			X	X

⁴ PG&E's and MCE's budgets are based on 2020 program budgets. These budgets are subject to change once the 2021 ABAL is finalized. PG&E budgets are from Advice 4136-G-A/5627-E-A, PG&E's Supplemental 2020 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2020 Annual Budget Advice Letter Advice 37-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.

MCE expects an expansion of the Commercial Upgrade Program in 2020 and 2021, primarily rooted in the development of population-level NMEC portfolios.

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 (Statewide)

PG&E implements the Statewide 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 (Statewide)

PG&E implements the Statewide 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.

PGE210123: Healthcare Energy Efficiency

The Healthcare Energy Efficiency Program (HEEP) provides hospital facilities (medical office buildings and acute care facilities) a wide range of support services to address barriers to EE. HEEP delivers electric and gas savings through retrofits (deemed and calculated) and RCx services.

PGE210143: Hospitality

PG&E's Hospitality program offers a comprehensive list of EE measures and services to hospitality customers with annual peak demand above 100 kW or that have ten or more locations within PG&E's territory. The program offers both custom and deemed measures, and assists customers with EE projects from start to finish.

PGE21015: Commercial HVAC (Statewide)

PG&E implements the Statewide Commercial HVAC program for customers in its territory. The program is comprised of three elements that enable market transformation, direct energy savings, and demand reductions: Upstream HVAC Equipment Incentives, Commercial Quality Installation, and midstream Commercial Quality Maintenance (C-QM). This program is designed for commercial rooftop units powered by electricity from PG&E.

PGE21018: Energy Smart Grocer

The Energy Smart Grocer program provides comprehensive EE services for medium to large grocery stores and supermarkets with annual peak demand above 70kW and those with multi-plex refrigeration systems. The program provides comprehensive energy audits, long-term energy planning, and support for the implementation of efficiency measures.

Regional Direct Install: PGE211009-East Bay; PGE211013-Marin; PGE211015-Napa; PGE211029-Solano

Regional Direct Install programs serve small and medium business (SMB) customers with annual peak demand below 200 kW. Through this offering, SMBs benefit from a high level of technical assistance and turnkey installation of lighting, refrigeration, and HVAC control measures whereby the incentive payment is incorporated into the project proposal. These programs are implemented by either 3rd parties or local government partnerships.

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 and conditions are set to provide simple payback from energy savings during the

maximum allowed terms, and are calculated by dividing the loan amount by the estimated monthly energy cost savings resulting from the energy efficiency project.

PGE21031: Agricultural Calculated (Statewide)

PG&E implements the Statewide 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 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.

PGE21032: Agricultural Deemed Incentives (Statewide)

PG&E implements the Statewide 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.

PGE210311: Process Wastewater Treatment Program for Ag Food Processing

PG&E implements the Process Wastewater Treatment Program in its territory. Agriculture and Food Wastewater Energy Program focuses on the reduction of energy and demand in wastewater treatment facilities at existing and new/expanding food processing facilities.

PGE210312: Dairy and Winery Industry Efficiency Solutions

PG&E implements the Dairy and Winery Industry Efficiency Solutions Program in its territory. The Dairy and Winery Industry Efficiency Solutions (DWIES) is a third-party energy efficiency program. DWIES identifies efficiency improvement opportunities and provide incentives through either installation support services or rebates for measures including refrigeration, HVAC, lighting, controls, motors and process specific equipment unique to the dairy and wine industry.

PGE21034: Advanced Pumping Energy Agricultural Energy Advisor

PG&E implements the Advanced Pumping Energy Agricultural Energy Advisor Program in its territory. 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 and incentive program intended to improve overall pumping efficiency and encourage energy conservation in California.

PGE21039: Comprehensive Food Process Audit

PG&E implements the Comprehensive Food Process Audit Program in its territory. The CLEAResult Food Processing program, also called the Comprehensive Food Processing Audit and Resource Efficiency program in some PG&E materials, is a downstream third-party energy efficiency program. The program focuses on delivering electric, natural gas and water savings and demand reduction for the food processing industry.

PGE210135: Water Infrastructure and System Efficiency

PG&E implements the Water Infrastructure and System Efficiency Program in its territory. The Water Infrastructure and System Efficiency (WISE) Program is a third-party energy efficiency program. WISE will garner energy savings through optimizing water and wastewater agency, special districts, city owned (Customer), and miscellaneous other water systems.

PGE210210: Industrial Recommissioning Program

PG&E implements the Industrial Recommissioning Program in its territory. The Industrial Recommissioning (IRCx) Program is a third-party energy efficiency program. IRCx focuses on reducing the substantial energy losses that routinely occur in industrial facilities due to poorly controlled or malfunctioning equipment.

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.

PGE21026: Energy Efficiency Services for Oil Production

PG&E implements the Energy Efficiency Services for Oil Production Program in its territory. The CLEAResult Oil and Gas program, also called Energy Efficiency Services for Oil and Gas Production, is a third-party energy efficiency program. The program provides a turnkey custom-measure hardware/incentive project targeted toward oil producers in the PG&E service territory. It implements measures including: conversion of outdated pumping systems, pump-off controllers, motor controllers, proper sizing of motors, pumps, and premium efficient motors, variable frequency drives, water reduction technologies, and splitting water injection systems into high and low pressure; and provides on-site surveys to identify energy efficiency opportunities and post installation surveys to determine impacts and certify installations.

PGE21027: Heavy Industry Energy Efficiency Program

PG&E implements the Heavy Industry Energy Efficiency Program in its territory. The Healthcare Energy Efficiency Program (HEEP) enables medical facilities to lower energy use and utility costs while conserving natural resources and reducing air emissions. By offering a wide range of support services, HEEP helps healthcare facilities overcome barriers to energy efficiency and savings that currently exist in the market. HEEP services include financial incentives, energy audits, engineering analysis, implementation oversight, and retro-commissioning assistance.

PGE21030: Industrial Strategic Energy Management (Statewide)

PG&E implements the Statewide Industrial Strategic Energy Management Program 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 similar to Continuous Energy Improvement (CEI).

DATA SHARING PROTOCOL

Data sharing is integral for effective coordination between MCE and PG&E programs and to ensure proper reporting and claims of project savings. PG&E and MCE are taking the following steps to continue strengthening effective data sharing for non-residential programs in 2021.

- 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 non-residential customers (including MCE and PG&E customers), it is important that a pathway for sharing this data be identified.
- Prior to the annual claims submission and drafting of the Annual Report, PG&E and MCE will share program participation records of customer sites that have submitted applications to both PG&E and MCE during the program year. Using the service account ID (SAID) field in the claims submittal, participation records from one PA will be checked against the other by both PAs. Any discovery of potential overlap will then be evaluated further at the measure level.
- PG&E may provide on-bill financing (OBF) to participants in MCE's non-residential 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.
- In the event that both PG&E and MCE have claimed the same project measures through quarterly submissions, 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.

MCE and PG&E will coordinate ad-hoc data sharing needs, methods and cadence during regular check-ins.

DOUBLE DIPPING PREVENTION PROTOCOL

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 bi-monthly basis to review double-dipping prevention procedures, data sharing, and general updates to programs that may impact coordination and program overlap. The intent of the meeting is to improve upon the process outlined in the JCM;
3. All formal program documents (fact sheets, flyers, enrollment forms, rebate applications, etc.) from both MCE and PG&E indicate that program participants may not apply to multiple programs for the same measures;

4. 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;
5. Project enrollment forms will require a form field identifying the last utility incentive received, and the scope of work covered by the project;
6. 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 project 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;
7. MCE will disclose to PG&E all identified instances where their customers participate in a 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-dipping;
8. Rejected applications will be shared among relevant Program Managers (managers of overlapping programs) monthly to ensure rejected applications are not sent to other programs;
9. 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.

RESIDENTIAL SECTOR COORDINATION

The following sections describes coordination efforts between MCE and PG&E regarding existing residential EE programs for PY 2021.

TABLES OF COMPARABLE MCE AND IOU PROGRAMS

The residential programs offered that are 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 JCM due to solicitations 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. Residential programs expected to launch in the program year 2021 are listed in the last section of this document.

Table 5: Multi-Family Programs

					Measures										
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls	Whole Building	Water Heaters	Other
Program ID	Program Name	Sector	Budget ⁶	Resource / Non- Resource											
MCE															
MCE01	Multifamily Comprehensive Program	Residential	\$412,358	Resource	X	X	X	X		X	X	X	X	X	
MCE05	Multifamily Direct Install (Stand Alone)	Residential	\$391,064	Resource	X		X			X				X	
IOU (comparable programs)															
PGE21003	Multifamily Energy Efficiency	Residential	\$4,651,856	Resource									X		

Table 6: Single-Family Programs

					Measures										
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls	Whole Building	Water Heaters	Other
Program ID	Program Name	Sector	Budget ⁷	Resource / Non-Resource											
MCE															
MCE07	Single Family Comprehensive Program	Residential	\$552,865	Resource	X	X	X	X	X	X	X	X	X	X	
MCE08	Single Family Direct Install Stand Alone	Residential	\$704,976	Resource	X	X						X		X	X

⁶ PG&EPG&E budgets are from Advice 4136-G-A/5627-E-A, PG&E's Supplemental 2020 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2020 Annual Budget Advice Letter Advice 37-E.

⁷PG&E budgets are from Advice 4136-G-A/5627-E-A, PG&E's Supplemental 2020 Energy Efficiency Annual Budget Advice Letter. PG&E's PG&E budgets are from Advice 4136-G-A/5627-E-A, PG&E's Supplemental 2020 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2020 Annual Budget Advice Letter Advice 37-E.

					Measures										
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls	Whole Building	Water Heaters	Other
Program ID	Program Name	Sector	Budget ⁷	Resource / Non-Resource											
IOU (comparable programs)															
PGE21001	Residential Energy Advisor (Home Energy Checkup)	Residential	\$17,028,201 (\$2,231,250)	Resource											X
PGE210010	Pay for Performance Pilot	Residential	\$4,835,316	Resource	X		X	X					X		X
PGE21002	Residential Energy Efficiency	Residential	\$5,549,380	Resource		X							X		

DESCRIPTION OF PROGRAMS

MCE01: MCE Multifamily Comprehensive Program

The program targets multifamily properties in MCE's service area. Its primary objectives are to reduce participation barriers by guiding property owners through the process of creating long-term project plans and coordinating upgrade timing with key trigger points, such as at unit turnover. MCE offers a SPOC model to guide property owners through the process of participating in the program and offers technical assistance to help them understand the energy and resource conservation options that are a good fit for their property. The program offers rebates and free direct install in-unit measures to address barriers related to equipment cost and split incentives. Measures include, among others, interior and exterior LED lighting, Energy Star appliances, HVAC equipment, networked lighting controls and water heaters.

MCE05 and MCE08: Multifamily Direct Install (Stand Alone) and Single-Family Direct Install (Stand Alone)

The Single-Family and Multifamily Direct Install programs provide no-cost EE measures to eligible homeowners and tenants in both single-family and multifamily dwellings in MCE's service area. This program targets (but is not limited to) customers in Disadvantaged Communities (DACs) whose household income exceeds 200% 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 Program (ESA) and MCE's Low-Income Families and Tenants (LIFT) Program, yet customers are still income constrained (lower middle-income). 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. The goal is to 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 low-flow showerheads (with and without thermostat), shower restriction valve (TSV), kitchen faucet aerators, and 11W screw-in LEDs. The program also offers a limited number of electric heat pump replacement for electric water heaters.

MCE07: Single-Family Comprehensive Program

Beginning May 2020, MCE will provide 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 will receive a series of HERs and, if enrolled in the digital platform, digital energy budget reports and alerts, as well as access to a web portal where they can learn about additional savings potential. Customers have been enrolled into the program in compliance with the measurement and verification (M&V) plan filed with the California Public Utilities Commission (CPUC) and all current CPUC behavioral NMEC program rules and requirements. The program will monitor participant eligibility on an ongoing basis, removing participants who no longer wish to participate or otherwise become ineligible to participate.

PGE21003 - Multifamily Energy Efficiency

The Multifamily Energy Efficiency Program targets multifamily properties in PG&E's service area. It offers per-unit incentives for multiple energy efficiency upgrades that escalate with higher

energy savings. Third-party energy raters and contractors (trade allies) conduct site audits, build models to calculate project savings, and complete installations. PG&E has transitioned program delivery channels to integrate available multifamily services through a single customer service pathway referred to as the single point of contact (SPOC). The SPOC approach removes the customer burden of navigating available programs, determining eligibility, and applying to various program opportunities. SPOC provides tailored guidance for each multifamily customer. Rather than prescribing a program to a customer base, PG&E helps each customer assess needs individually to identify the best solution, or solutions, for each community or property. Through a menu that includes various complementary offerings, energy efficiency to water savings, and renewables, and previously out-of-reach assistance like benchmarking and financing, SPOC helps multifamily customers maximize project scope and energy savings by locating individualized solutions to their specific needs. These customers can use the On-Bill financing program which provides qualified PG&E customers 0% interest loans for energy efficiency retrofits; loans are repaid on PG&E bills.

PGE21001- Residential Energy Advisor (Home Energy Checkup subprogram)

The Home Energy Checkup (HEC) subprogram is an online self-guided online assessment that helps customers understand where they use energy in their homes. It also provides energy-saving tips and suggestions based on the customer's specific responses and generates a simple checklist plan. The checklist plan is saved on the customer's PG&E Your Account website to track progress as they complete the items.

PGE210010 – Pay for Performance Pilot

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.

The P4P subprogram is comprised of two implementers 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 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.

DATA SHARING 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. For the multifamily offerings, since MCE and PG&E do not currently overlap incentives for EE applications, ongoing data sharing is not currently needed. However, PG&E and MCE will continue to coordinate on the outcomes of PG&E's Residential Energy Efficiency program, which may inform opportunities for MCE's Multifamily Direct Install Stand Alone Programs and its Multifamily Energy Savings Program.

For the Single-Family Comprehensive Program, PG&E and MCE have coordinated on the following activities:

- PG&E and MCE have engaged in discussions via phone 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;
- PG&E and MCE agreed that PG&E would provide a list to MCE of its HER program participants to date. Prior to authorizing release of this data, PG&E required MCE to complete a Third-Party Security Review (TSR) and to sign a Non-Disclosure Agreement (NDA). MCE completed the TSR and NDA, which was approved by PG&E;
- MCE subsequently received a list of all PG&E's behavioral EE program participants to date and removed them from the participant list for the Single-Family Comprehensive Program. Vice versa, PG&E has agreed to exclude MCE customers from participation in future enrollment under the PG&E HER program.

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

DOUBLE DIPPING PREVENTION PROTOCOL

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.

- Identify all programs which have measure or customer overlap within MCE's service area;
- MCE and PG&E 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. As described in more detail in the data sharing section above, MCE and PG&E have

exchanged program participant information in MCE's Single-Family Comprehensive Program and PG&E's HER program in an effort to prevent double-counting of savings, and also to prevent participation in programs with similar design and implementation concepts.

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 2021.

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 ⁸	Resource / Non-Resource	Measures											
					Lighting	Appliances	HVAC	Plug Load	Refrigeration	Custom	Lighting Controls	HVAC Controls	Whole Building	Water Heaters	Other	
MCE																
MCE16	Workforce, Education and Training	Cross-Cutting	\$346,667	Non-Resource												
IOU (comparable programs)																
PGE21071	Integrated Energy Education and Training	Cross-Cutting	\$8,600,052	Non-Resource												

⁸PG&E budgets are from Advice 4136-G-A/5627-E-A, PG&E's Supplemental 2020 Energy Efficiency Annual Budget Advice Letter. MCE budgets are from its 2020 Annual Budget Advice Letter Advice 37-E.

DESCRIPTION OF PROGRAMS

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

In May 2020, MCE's WE&T program was launched. The scope of work includes three elements: workforce engagement, MCE program-participating contractor engagement, and new workforce development.

Regarding workforce engagement, MCE and its program implementer will leverage existing relationships with industry groups to facilitate roundtable events that can increase the interest, and subsequent participation of residential contractor companies and their staff in high-performance building training. Outreach efforts will include participating contractors from disadvantaged communities and minority-focused groups to ensure diversity, equity, and inclusion. MCE will also leverage relationships with participating contractors and other vendors to gain insight into the barriers to electrification and high-performance building work.

Furthermore, MCE aims to provide contractors who participate in MCE programs with the fundamental building performance knowledge they need to understand how to deliver maximum value and performance within their trade and how their work can impact on the building systems or trades that they do not work on. MCE will provide participating contractors with field mentorships. Based on industry roundtables and field mentoring, MCE will establish a priority list of electrification topics for which there is an additional training need and will develop and deliver workshops for each of the identified topics.

Finally, MCE will prepare an internship program to provide job seekers home performance, energy efficiency, and safety with on-the-job training in their desired specialty. This program component will be based on feedback from industry roundtables, participating contractor field mentorships, and direct contractor outreach. The internship component is expected launch in 2021.

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 physical Energy Centers in Stockton, San Ramon for food service, or San Francisco, 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, assuming that the instructor is willing and able to travel. PG&E's WE&T program also has an online 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. The TLL addresses an up-front cost barrier faced by many small businesses and energy consultants. Tools are available for loan from our Stockton and San Francisco energy centers. PG&E can ship the tool anywhere in California if the borrower or MCE covers shipping costs.

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 prepare 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

To coordinate on the implementation of MCE's and PG&E's WE&T programs, PG&E will provide their list of trainings to MCE on a quarterly basis and 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 online class schedule.

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 quarterly check ins, MCE will provide PG&E with updates on lessons learned related to topic-area interest from industry roundtables and vendor outreach.

DOUBLE DIPPING PREVENTION PROTOCOL

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 quarterly 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. To facilitate this process, the IOUs post a Statewide Deemed Workpaper Revision List to the CalTF website at the end of each month. It includes status updates to existing workpapers, as well as workpapers under development for new measures.

To further support this existing process, MCE and PG&E will establish monthly 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).

PROGRAMS EXPECTED TO LAUNCH IN 2021

2020 is a year of transition for the PG&E portfolio. PG&E is working to outsource 25 percent of its portfolio to third-party implementers by June 2020, and 40 percent of the portfolio to third-party implementers by December 2020. As a result, many programs will be ramping down in 2020 and there are many unknowns about the programs that will be onboarded through solicitations by the end of 2020. PG&E is committed to communicating with MCE to provide updates on program decisions whenever feasible, in order to ensure no overlap and enhance the customer journey.

Other PA programs (PG&E or statewide) may launch in 2021 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	Downey & Brand	Pioneer Community Energy
Albion Power Company	East Bay Community Energy	Redwood Coast Energy Authority
Alcantar & Kahl LLP	Ellison Schneider & Harris LLP	Regulatory & Cogeneration Service, Inc.
	Energy Management Service	SCD Energy Solutions
Alta Power Group, LLC	Engineers and Scientists of California	
Anderson & Poole		
Atlas ReFuel	GenOn Energy, Inc.	SCE
BART	Goodin, MacBride, Squeri, Schlotz & Ritchie	SDG&E and SoCalGas
Barkovich & Yap, Inc.	Green Power Institute	SPURR
California Cotton Ginners & Growers Assn	Hanna & Morton	San Francisco Water Power and Sewer
California Energy Commission	ICF	Seattle City Light
California Public Utilities Commission	IGS Energy	Sempra Utilities
California State Association of Counties	International Power Technology	Southern California Edison Company
Calpine	Intestate Gas Services, Inc.	Southern California Gas Company
	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		TerraVerde Renewable Partners
		Tiger Natural Gas, Inc.
Chevron Pipeline and Power	Los Angeles County Integrated	TransCanada
City of Palo Alto	Waste Management Task Force	Troutman Sanders LLP
	MRW & Associates	Utility Cost Management
City of San Jose	Manatt Phelps Phillips	Utility Power Solutions
Clean Power Research	Marin Energy Authority	Water and Energy Consulting Wellhead
Coast Economic Consulting	McKenzie & Associates	Electric Company
Commercial Energy		Western Manufactured Housing
Crossborder Energy	Modesto Irrigation District	Communities Association (WMA)
Crown Road Energy, LLC	NLine Energy, Inc.	Yep Energy
Davis Wright Tremaine LLP	NRG Solar	
Day Carter Murphy		
Dept of General Services	Office of Ratepayer Advocates	
Don Pickett & Associates, Inc.	OnGrid Solar	
Douglass & Liddell	Pacific Gas and Electric Company	
	Peninsula Clean Energy	