



Draft Implementation Plan Workshop

MCE Single Family Comprehensive Program (SF Program)



# Agenda

- Welcome & Introductions
- MCE SF Program Development
- MCE SF Program Overview
- MCE SF Program Implementation Plan Content
- Support Resources
- Q&A

# Open & Public Process

This workshop is intended to elicit feedback on MCE's DRAFT Implementation Plan for its

Single Family Comprehensive Program

Feedback received may directly inform the program design. Input may be provided today or via email through Friday, November 29, 2019 to

[\*\*jgreen@mceCleanEnergy.org\*\*](mailto:jgreen@mceCleanEnergy.org)

# Welcome & Introductions

**Jennifer Green-MCE**  
**Michelle Nochisaki-MCE**  
**Qua Vallery-MCE**  
**Alice Havenar-Daughton-MCE**  
**Carmen Best-Recurve**  
**Colin Gibbs-Bidgely**

Program Team

## OUR MISSION

Address climate change by  
reducing greenhouse gas emissions

**Renewable Energy**

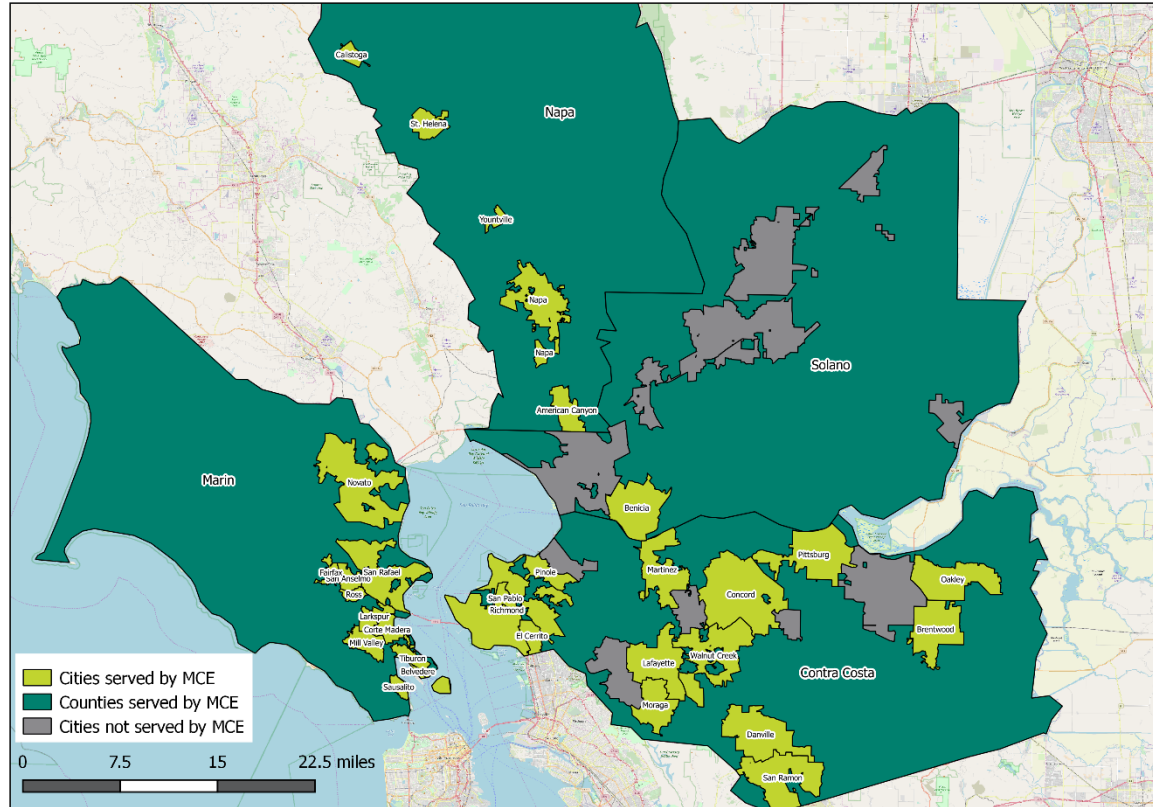
**Stable, Competitive Rates**

**Local Economic & Workforce Benefits**

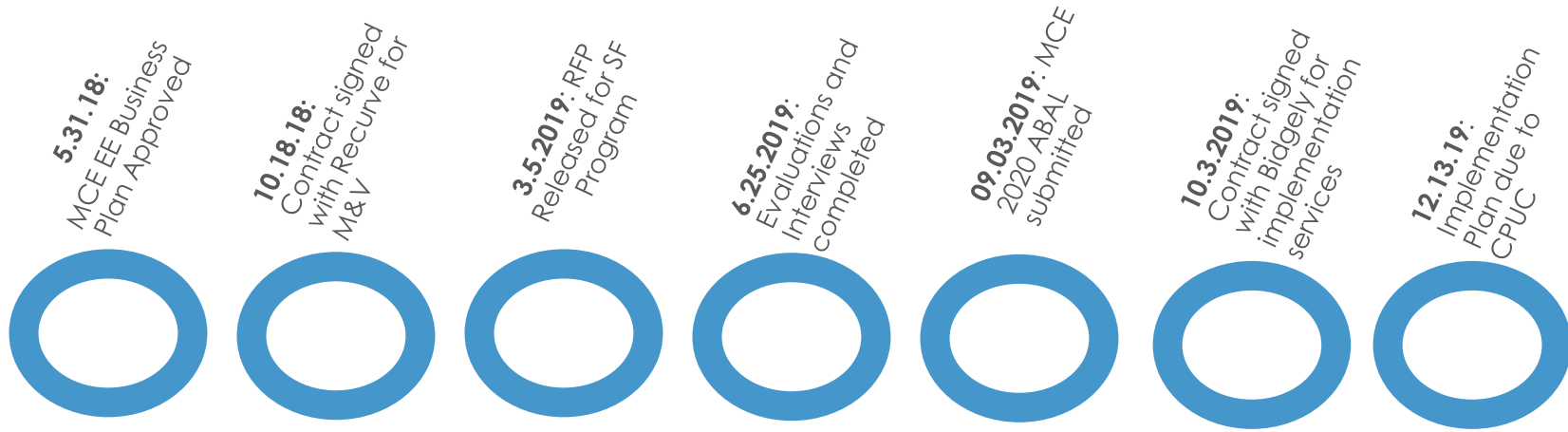
**Energy Efficiency**



# MCE 2019 Service Territory



# Program Development Timeline





# Program Background

MCE will launch the Single Family Comprehensive Program which offers **behavior intervention** strategies and **energy upgrade recommendations** to residential participants with the goal of achieving short-term energy and budget savings that can persist into long-term behaviors.

# MCE SF Program Overview

# Program Overview

## Single Family Comprehensive Program Identifiers

Program ID	Sector	Implementer Type	Program Type	Intervention Strategy
MCE07	Residential	Third Party	Behavioral	Downstream

# First Year Budget

MCE07 - Residential	2020*
Admin	\$158,776.78
Marketing and Outreach	n/a
Direct Implementation - Non-Incentive (DINI)	n/a
Incentives	\$394,088.3
<b>Total</b>	\$552,865.08

\* 2021-2023 program year budgets will be finalized in the Annual Budget Advice Letter

# 3 Year Projected Net Impacts

Total Units				
Projected Net Savings	2020	2021	2022	2023
Treatment Group	69,531	66,054	62,752	59,614
Net kW	407			
Net kWh Reduced	4,072,319	7,585,693	10,809,613	10,269,132
Net Therms Reduced	56,147	82,568	125,503	131,151

# Forecasted Cost Effectiveness

Program	2019 TRC
MCE07-Residential	1.57

Program	2019 PAC
MCE07-Residential	1.57

# Program Coordination

The Program will coordinate with Pacific Gas and Electric Company to ensure double dipping risks are mitigated, to minimize potential customer confusion, and ensure customers are receiving maximum benefit.



# Implementation Plan Content



# Market Barriers

Barrier	Solution
Difficulty providing personalized end use data and recommendations	Regular paper or digital reports that include energy consumption and saving potential
Lack of information/awareness of end use consumption	Energy disaggregation tool identifies key energy consumers in the home
Lack of understanding of similar home performance norms	HER compares participant's home to similar homes
Behavior programs to date have not measured actual at-the-meter savings	SF Program uses Normalized Metered Energy Consumption (NMEC) data to measure savings
Many residential customers do not trust program providers	MCE is a trusted non-profit agency
Personalized assessments are expensive and time-consuming	Program tools allow home energy use disaggregation digitally, eliminating the need for and cost of an in-home assessment

# Recap of MCE's Business Plan: Single Family Sector

- Core Activities: Provide consuming customers with information about how they use energy and advice for how to reduce consumption
- Key Innovations: Online portal provides a one-stop-shop to understand energy usage, identify upgrade opportunities, search available rebates and licensed contractors, and perform cost comparisons of energy efficiency appliances

# Recap of MCE's Business Plan: Single Family Sector

“Additionally, there is a need in the residential sector for customers to better understand how they use energy in their home. Advanced metering technology provides highly detailed and real-time information about energy usage. Programs can couple this information with social science theories on behavior modifications to try to influence customers' energy usage habits.”

# Implementation Plan Summary

- Program Objective and Goals
- Program Components and Description
- EM&V
- References

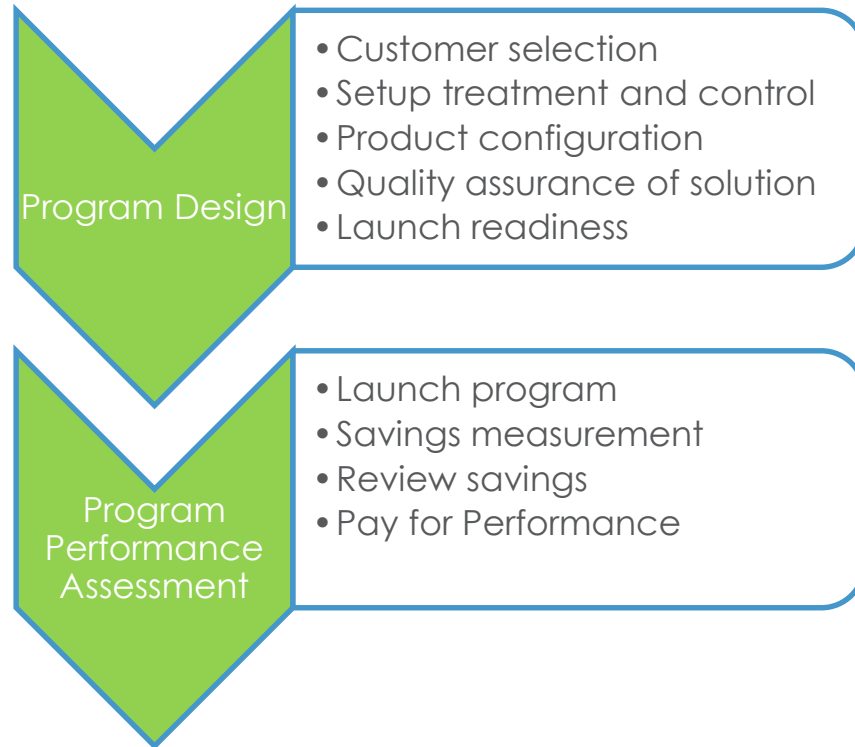


# Program Objective and Goals

MCE is launching the SF Program, which offers behavior intervention strategies and energy upgrade recommendations to residential participants with the goal of achieving **short-term energy and budget savings** that can persist into **long-term behaviors**.

- Establish a cost effective residential behavioral program to educate participants on their energy consumption behavior
- Motivate participants to save energy over the short- and long-term
- Validate participant savings using CalTRACK method
  - Randomized Control Trial (RCT)

# Program Logic



# Participant Selection Process

MCE will provide paper or digital Home Energy Reports (HERs) to an eligible pool with the following eligibility requirements:

- Not be a current participant in PG&E's Home Energy Report program
- Project site must be located in the MCE service area
- Single family structure with a single meter for each fuel
- Mixed-used sites are eligible if residential space represents at least 50% of conditioned space
- Have 12 months of consecutive consumption data for the same account
- Received electric distribution service from MCE or PG&E and natural gas service from PG&E
- No installed solar at least 12 months prior to intervention
- Model fit needs to be  $< 1.0$  CVRMSE (MCE will conduct analysis at intake)
- Not be a current participant in MCE's Single Family Direct Install program
- Must have never opted out to receive communications i.e. HERs, CARE/Low-Income Programs

# Program Description

## **No. of Customers**

- 70,000-80,000 treatment group
- 20,000-30,000 control group

## **Customer Selection**

- Must meet eligibility requirements

## **Report Content**

- Appliance cost itemization
- E&O about complementary programs
- Similar home consumption comparison
- Energy- and cost-savings recommendations

## **Channel and Delivery**

- Paper OR
- Digital



# Program Reports

John Smith  
123 Main Street  
Anycity Anystate 12345-6789

## Your Home Energy Report

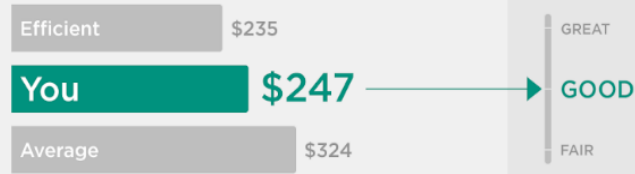
6/16/18 - 7/16/18

This report contains insights into your energy usage for past billing cycle(s) including your overall energy efficiency, top energy consuming appliances, and money saving energy tips.

You may also find this information online at: [mccleanenergy.org](http://mccleanenergy.org)

### How you compare to similar homes

6/16/18 to 7/16/18



You're being compared to 150 nearby homes of similar housing type, size, and appliances. Efficient homes are the top 20% in this group that use the least energy.

So close! You're just \$8 away from being **GREAT!**

### Your top appliance costs

6/16/18 to 7/16/18

\$122	Cooling
\$43	Pool Pump <span>Savings Opportunity! ▶</span>
\$19	Always On
\$17	Cooking
\$16	Laundry and Cleaning

Based on your usage, we recommend

#### Use a variable-speed pool pump

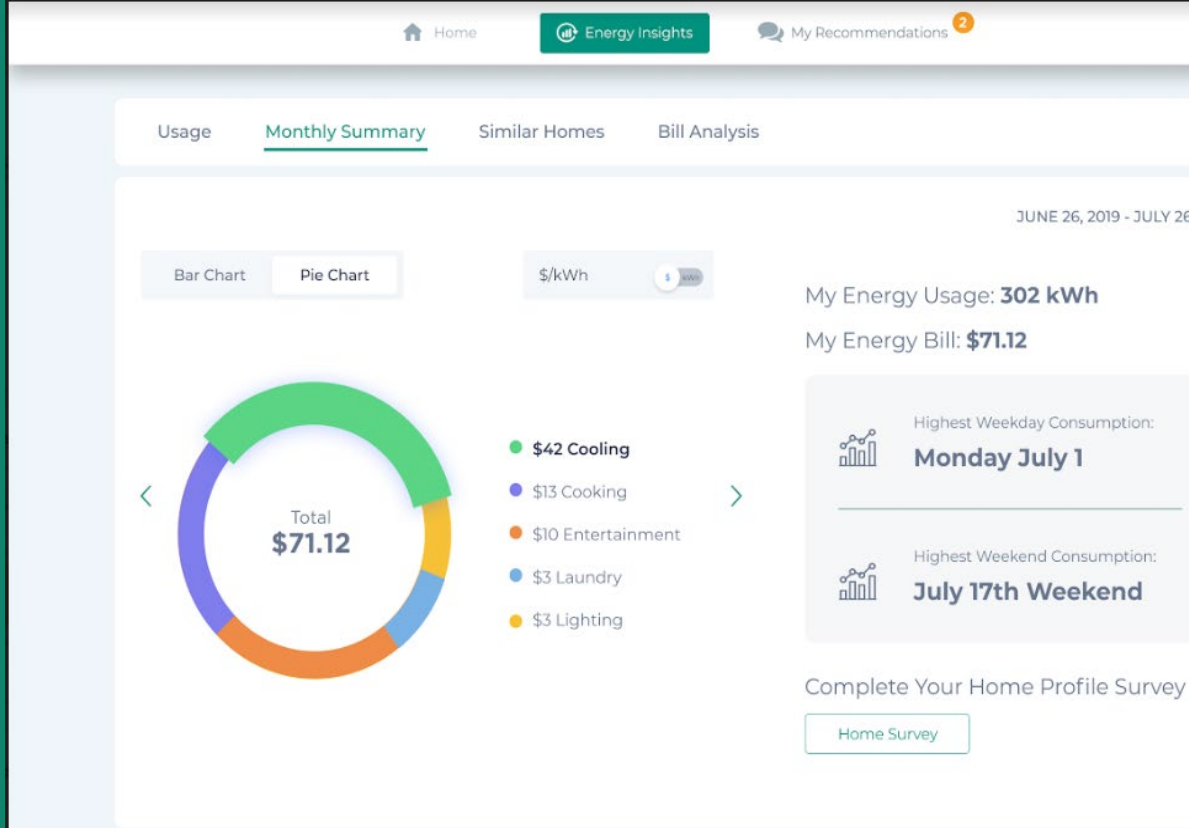
A well-designed variable-speed pool pump can reduce your pool's energy cost by up to 90 percent.



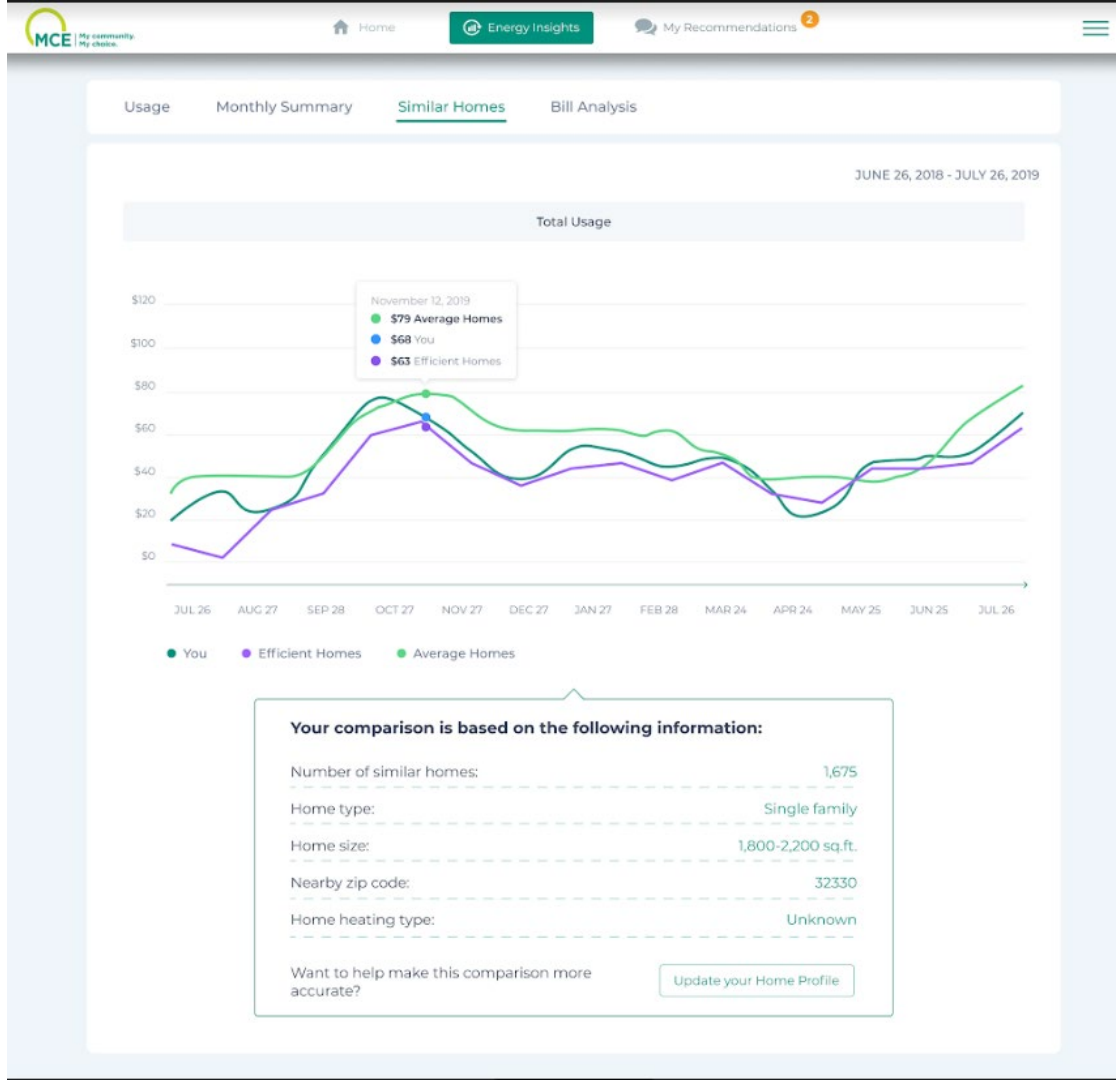
# Program Description

Output	Paper Option	Digital Option
Home Energy Report	X	x
Monthly Summary Itemization	X	X
Seasonal Alerts		X
Access to web portal		x

# Web Portal



# Web Portal





# EM&V

## Program Participants

- Eligibility criteria
- Randomized Control Trial
- Normalized Metered Energy Consumption

## Savings Calculations

- Evaluate consumption changes contemporaneously for treatment and control groups
- Use treatment group consumption reduction as basis for payment to implementer
- Savings claims will be based on RCT results

## Regulatory Directives

- Compliance with any directive regarding third-party evaluation, measurement, and verification (EM&V) plans and fulfill all EM&V activities required by the CPUC

# RCT and NMEC

## **Randomized Control Trial**

Program first selects non-participants randomly from within the intended treated population, using stratification to ensure equivalency between the two groups

## **Normalized Metered Energy Consumption**

- Program will follow the guidelines set by the *Draft Rulebook for Custom Program and Projects Based on Normalized Metered Energy Consumption (NMEC)*.
- Program rules will be update as guidelines for the implementation of NMEC projects and program evolves
- Program will calculate NMEC savings for both participants and non-participants to arrive at a difference of differences net savings claim

# Reference / Document Locations

Draft Implementation Plan:

[https://www.mcecleanenergy.org/regulatorydocuments/#ee\\_program](https://www.mcecleanenergy.org/regulatorydocuments/#ee_program)

Residential Behavior Evaluation Protocol; The Uniform Methods Project: Methods for Determining Energy Efficiency Savings for Specific Measures

<https://www.nrel.gov/docs/fy17osti/68573.pdf>

Draft Rulebook for Custom Program and Projects Based on Normalized Metered Energy Consumption (NMEC):

<https://www.cpuc.ca.gov/General.aspx?id=6442456320>

# Timeline and Milestones

Milestone	Timeline
Implementation Plan Workshop	11/20/19
Comments/Feedback Period	11/20/19-11/29/19
Incorporation of Comments and Feedback	11/29/19-12/13/19
Implementation Plan Upload	12/13/19
Select Program Participants	1/20-3/20 (Estimated)
Launch Program	3/20 (Estimated)
CPUC Reporting	Monthly and Quarterly



Questions

Thank You

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