

DOCKETED

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Energy Efficiency

SoCalGas Energy Efficiency Business Plan 2018-2025

June 7, 2018

SoCalGas Business Plan Overview

Vision:

To offer a suite of solutions that incorporates the best available technologies and services valued by our customers, contributes to achievement of energy efficiency goals, and that ultimately aligns with the State's overarching energy and environmental goals.

Key energy efficiency portfolio goals:

- Facilitate, sustain, and transform the long-term delivery and adoption of energy-efficient products and services
- Cultivate, promote, and sustain lasting energy-efficient operations and practices
- Meet customers' energy efficiency adoption preferences through a range of simplified offerings that address customer energy efficiency needs

How to Achieve SB 350

1 New program models to scale cost-effectively and streamline customer experience

2 Increased collaboration with the EE industry to provide innovative programs to customers

3 Customer targeting via interval data analytics

Sector Goals

RESIDENTIAL

- 1) Achieve comprehensive, deep energy efficiency levels through a whole house approach.
- 2) Increase energy efficiency adoption levels for all residential customers with a focus on multi-family customers with high potential through efficient outreach and effective offerings.
- 3) Increase adoption of energy-efficient gas appliances and energy management devices.
- 4) Through the promotion of gas efficiency, enable new construction to achieve zero net energy (ZNE) performance levels.

COMMERCIAL

- 1) Increase energy efficiency adoption levels for commercial customers with high energy efficiency potential through efficient outreach & effective offerings.
- 2) Increase energy efficiency levels in the commercial leased properties by reducing the split-incentive market barrier.
- 3) Increase number of ZNE-ready buildings across most commercial segments through increased gas energy efficiency levels.
- 4) Support the proper installation, maintenance, & use of HVAC systems in the commercial sector.

INDUSTRIAL

- 1) Increase adoption of energy efficiency solutions by smaller-sized industrial customers.
- 2) Provide simple, no hassle, low cost customer transactions that encourage greater customer investment in energy efficiency.
- 3) Reshape industrial organizational practices to enable adoption of energy efficiency solutions as part of customer's industrial processes.
- 4) Increase energy efficiency adoption levels across all industrial segments.

AGRICULTURAL

- 1) Substantial increase in deeper, more comprehensive natural gas energy efficiency in the small customer groups.
- 2) Encourage investment in natural gas energy efficiency to lower operational costs and improve competitiveness.
- 3) Increase in natural gas energy efficiency among all agricultural customer segments.

PUBLIC

- 1) Achieve comprehensive, deep energy efficiency levels among all public facilities to support the achievement of zero net energy buildings.
- 2) Incorporate energy efficiency into policies and practices to permanently modify the public customer's organizational decision-making process regarding energy efficiency solutions.
- 3) Increase energy efficiency adoption levels among public sector customers in rural and disadvantaged communities.

Cross-cutting

Sector Approach



Key Industry Trends

Opportunities



SB 350, AB 793, AB 802 driving deeper retrofits and more energy efficiency options



New construction gaining momentum for the industrial sector



Increased port activity and eCommerce driving more industrial and commercial new construction



Increases in tax revenue generating more money available to overcome financial energy efficiency barriers



More organizational mandates may lead to increased energy efficiency investment



Decreased vacancy rate leading to increase in energy efficiency investment in buildings and processes



Increased water pumping and continued drought driving combined water & energy savings opportunities



Increase in multi-family new construction is an opportunity for increased energy efficiency investment

Challenges

Recession in rural communities persists, depressing energy efficiency investment



Varied and unique segments make it difficult to offer standard programs that fit the needs of all customers



Increasing number of renters leading to increase in split-incentives



EE OPPORTUNITIES BY SECTOR

Program Intervention Strategies	Residential	Commercial	Industrial	Agricultural	Public
PARTNERING with other entities, through structured arrangements, is intended to: increase the number of customers adopting energy efficiency; promote deeper, comprehensive energy efficiency; simplify customer engagement; and reduce program costs through a cost-sharing partner model.	X	X	X	X	X
INTELLIGENT OUTREACH uses energy consumption data, in concert with other sources, to effectively target and inform customers about energy efficiency opportunities within their homes and non-residential buildings.	X	X	X	X	X
TECHNICAL ASSISTANCE is focused on educating and training key facility personnel on energy efficiency practices and providing supplemental assistance in energy efficiency project development and implementation.		X	X	X	X
STRATEGIC ENERGY MANAGEMENT is focused on achieving deeper and permanent energy efficiency levels for larger operations through improved customer operational and maintenance practices and energy-efficient equipment installations with continuous monitoring of energy usage to confirms realized energy savings.		X	X	X	X
CUSTOMER INCENTIVES are a simplified suite of financial incentive offerings directed at customers to reduce the high first cost barrier: a key market barrier for most customers. Recognizing the varied preferences among customers for different financial solutions, the program strategy offers a menu of tactics.	X	X	X	X	X
DIRECT INSTALL (DI) delivers natural gas energy efficiency solutions, with electric and water efficiency, where feasible, to achieve near-term measurable results. Comprehensive DI delivers deeper energy savings and will rely on ratepayer funds as well as customer co-fund contributions and/or customer financing.	X	X	X	X	X
MIDSTREAM ENERGY EFFICIENCY provides deemed incentives to distributors to reduce the retail cost of natural gas energy efficiency equipment, promote stocking of energy-efficient equipment & inform contractors at the distributor level.	X	X	X	X	
FINANCING relies on various financing vehicles including on/off bill repayment solutions and statewide CHEEF pilots to encourage customers to adopt deeper, more comprehensive energy efficiency solutions.	X	X	X	X	X
HOMEOWNER RESALE works with the real estate community, homeowners, lenders and multi-family property owners (including new construction) to promote the advantages of purchasing an energy-efficient home (single family and multi-family).	X				

EE Program Opportunities

Sector	Program Opportunities	Segment	Potential Program Strategies
Residential	<ul style="list-style-type: none"> Whole Building Solutions Efficient Home Rating System 	SF, MF	<ul style="list-style-type: none"> Connection with alternate financing options Bundled measures (Coordination with RNC) Customer Partnering Energy Performance Rating / Benchmarking
	<ul style="list-style-type: none"> Emerging Management Technologies (EMT) Prescriptive Incentives 	MF	<ul style="list-style-type: none"> Segment-specific solutions Bundled Measures Intelligent outreach / Virtual Energy Audits
	<ul style="list-style-type: none"> Direct Install – (standard and comprehensive) DAC Outreach 	All	<ul style="list-style-type: none"> Simplified customer program experience Comprehensive deeper EE retrofits Include ways to use local contractors in rural communities ESA Program Coordination
	<ul style="list-style-type: none"> AB 793 Residential EMT 	SF	<ul style="list-style-type: none"> Segment-specific solutions for SF Bundled Measures Pay-for-Performance
Industrial	<ul style="list-style-type: none"> Small Industrial Upgrades 	Small	<ul style="list-style-type: none"> Process-related retrofits solutions Bundled measures Industry partnering
	<ul style="list-style-type: none"> Segment Solutions 	All	<ul style="list-style-type: none"> Process-related retrofits solutions Disadvantaged Community outreach

EE Programs Opportunities

Sector	Program Opportunities	Segment	Potential Program Strategies
Commercial	<ul style="list-style-type: none"> DAC Outreach 	All	<ul style="list-style-type: none"> Target non-English speaking owners Intelligent Outreach
	<ul style="list-style-type: none"> Direct Install (Standard & Comprehensive) 	All	<ul style="list-style-type: none"> Provide simple/low cost EE retrofits & deeper EE retrofits Customer co-pay for deeper EE retrofits Funding assistance through finance programs Primarily focused on above-code, early retirement opportunities
	<ul style="list-style-type: none"> Segment Solutions 	<ul style="list-style-type: none"> Office Mixed Use Retail Foodservice (Leased restaurants) Laundry Lodging 	<ul style="list-style-type: none"> Premium incentives for communities Bundled measures tailored to unique customer groups Pay-for-Performance incentive component for larger projects Whole building approaches and facility audits Industry partnering Locational targeting with premium incentives
Agricultural	<ul style="list-style-type: none"> Segment Solutions 	Urban Farming and Greenhouses	<ul style="list-style-type: none"> Process-related retrofit solutions DAC outreach

EE Savings Programs (By Sector)

Sector	Program Opportunities	Segment	Potential Program Strategies
Public	<ul style="list-style-type: none"> Direct Install (Standard & Comprehensive) 	All	<ul style="list-style-type: none"> Customer co-pay Funding assistance via finance programs
	<ul style="list-style-type: none"> Tech, Policy & Planning 	All	<ul style="list-style-type: none"> Technical Assistance Climate Action Planning Support Green Building and Sustainability Policy Assistance
	<ul style="list-style-type: none"> Performance and Prescriptive Incentives 	K-12	<ul style="list-style-type: none"> Pay-for-performance incentives Whole Building Approaches
	<ul style="list-style-type: none"> Outreach 	All	<ul style="list-style-type: none"> Target public sector customers serving rural communities Target public sector customers serving Disadvantaged Communities

MARKET TRANSFORMATION AND BEHAVIORAL STRATEGIES

Current Market Transformation and Behavior Programs

- In partnership with Nest Labs, SoCalGas' Seasonal Savings programs achieves incremental energy savings using software controls of existing Nest smart thermostats.
- Ramping up delivery of Home Energy Reports.
- SoCalGas plans to implement co-delivered programs with various water utilities and a Retrofit ZNE program for K-12 Schools.
- Four Prop 39 ZNE pilots are currently taking place throughout SoCalGas' service territory:
 - Santiago High School
 - Los Osos Middle School
 - Ralston Middle School
 - San Bernardino Middle School



CPUC Implemented Program

PROP 39 ZNE PILOT

Santiago High School

- Garden Grove, CA
- **ZNE Project Size:** 8,069 SF
- **Original Construction:** 1961
- **Student Enrollment:** 2,214
- **Climate Zone:** 8
- **Proposed EE Measures:** Roof insulation, thermal window improvements, natural ventilation, LED lighting & controls, daylighting, gamification, temperature control, improved HVAC
- **Current Status:** Construction Started December 2017

Los Osos Middle School

- Los Osos, CA
- **ZNE Project Size:** 72,554 SF
- **Original Construction:** 1977
- **Student Enrollment:** 583
- **Climate Zone:** 5
- **Proposed EE Measures:** computer room temperature control, adjust scheduling, replace bard units and water heaters, reduce lighting power density, interlock doors with HVAC
- **Current Status:** Construction Complete

Ralston Intermediate

- Garden Grove, CA
- **ZNE Project Size:** 6,200 SF
- **Original Construction:** 1952
- **Student Enrollment:** 643
- **Climate Zone:** 8
- **Proposed EE Measures:** Upgrade Refrigeration Equipment, LED lighting, daylighting, kitchen exhaust fans and fume hoods, Energy Star gas ovens, added envelope insulation, HVAC Evaporative Coolers, Water Heaters, Walk-In Freezer Closers and Strip Curtains
- **Current Status:** Construction Started July 2017 with EM&V installed December 2017

San Bernardino Community College District

- San Bernardino, CA
- **ZNE Project Size:** 30,500 SF
- **Original Construction:**
- **Student Enrollment:** 25,000
- **Climate Zone:**
- **Proposed EE Measures:** HVAC Controls, New RTUs, evaporative condenser add-on, convert units to VAV, gas water heater improvement, plug load mgmt., LED lighting, Automated shading, daylighting
- **Current Status:** Solar PV being installed. Design of mechanical system

REPORTING AND ANALYZING IMPACTS IN DISADVANTAGED COMMUNITIES

Reporting and Analyzing Impacts to Disadvantaged Communities

- Market studies of disadvantaged communities will identify unique market characteristics, market barriers, and customer preferences and energy habits.
- Portfolio and sector-level metrics for tracking progress toward energy savings will be established and reported in programs administrators' annual reports:
 - First year annual and lifecycle ex-ante gas, electric, and demand savings in disadvantaged communities.
 - Percent of participation in disadvantaged communities.
 - Percent of participation by customers defined as “hard-to-reach”.