

REPORT TO THE GOVERNOR AND LEGISLATURE

Report on Progress Towards Achieving
Energy Efficiency Goals in compliance
with CPUC Code Section 454.55(a)(2)
and 454.56(a)(d)

2013-2016 Results

July, 2019



Executive Summary

Senate Bill 350, the Clean Energy and Pollution Reduction Act (De León, Chapter 547, Statutes of 2015), sets targets for California to double energy efficiency savings in electricity and natural gas end uses by 2030. This report complies with Assembly Bill (AB) 1330 (Bloom, Statutes 2015-2016) and addresses the progress toward achieving cost-effective electricity and natural gas efficiency savings for Investor Owned Utilities and Small-Multi-Jurisdictional Utilities based on the established efficiency goals set by the California Public Utilities Commission. In addition, the report describes the specific strategies the California Public Utilities Commission is currently working on to maximize the contribution of electricity efficiency savings in disadvantaged communities. Specifically, this report provides electricity and natural gas savings results from the agricultural, commercial, industrial and residential sectors, including regional energy networks and community choice aggregators, from the period 2013-2016.

Introduction

Scope of this report

This report complies with Assembly Bill (AB) 1330 (Bloom. Statues 2015-2016) which amended Sections 454.55 (a) and (2) and 454.56 (a) and (d) of the California Public Utilities Code (CPUC) as follows:

Section 454.55 (a) and (2):

- (a) The commission, in consultation with the Energy Commission, shall identify all potentially achievable cost-effective electricity efficiency savings and establish efficiency targets for an electrical corporation to achieve, pursuant to Section 454.5, consistent with the targets established pursuant to subdivision (c) of Section 25310 of the Public Resources Code.
- (2) By July 1, 2019, and every four years thereafter, the commission shall, pursuant to Section 9795 of the Government Code, report to the Legislature on the progress toward achieving the targets established pursuant to subdivision (a). The commission shall include specific strategies for, and an update on, progress toward maximizing the contribution of electricity efficiency savings in disadvantaged communities identified pursuant to Section 39711 of the Health and Safety Code.

Section 454.56 (a) and (d):

- (a) The commission, in consultation with the Energy Commission, shall identify all potentially achievable cost-effective natural gas efficiency savings and establish efficiency targets for the gas corporation to achieve, consistent with the targets established pursuant to subdivision (c) of Section 25310 of the Public Resources Code.
- (d) By July 1, 2019, and every four years thereafter, the commission shall, pursuant to Section 9795 of the Government Code, report to the Legislature on the progress toward achieving the targets established pursuant to subdivision (a). The commission shall include specific strategies for, and an update on, progress toward maximizing the contribution of energy efficiency savings in disadvantaged communities identified pursuant to Section 39711 of the Health and Safety Code.

The AB 1330 report summarizes the accomplishments of the California Public Utilities Commission’s (CPUC) 2013-2016 energy efficiency programs based on evaluation studies conducted during and after the 4-year cycle, as well as information obtained from the CPUC’s Energy Efficiency Portfolio Report (2018). These studies verified the energy savings for electricity and gas savings programs that were measured using at least 100 evaluation studies conducted across the set of more than 400 programs during the period 2013-2016.¹ It is important to note that the 2016 energy efficiency program year will not be evaluated and the numbers for that year are proxy values based on 2015 results and not the final evaluated results. Numbers from 2017-2018 are not provided as these program years are still being evaluated.

Further, the report focuses on energy savings goals and progress for each Investor-Owned Utility (IOU) under the residential, commercial, industrial and agricultural sectors, as well as the energy savings of low-income programs. Electricity and gas savings from Small-Multi-Jurisdictional Utilities (SMJUs) are also included. Throughout the report, Codes & Standards are identified separately than the general energy efficiency programs, unless otherwise noted.² The discussion of energy savings at the portfolio level focuses on evaluated savings that have been verified by the CPUC. However, these evaluated savings numbers have not been adjusted to remove savings that would have occurred without energy efficiency rebates.

The CPUC provides direction and oversight of the energy efficiency programs, and the program administrators (PAs) implement and administer the energy efficiency programs. These PAs include: Pacific Gas & Electric Company (PG&E), Southern California Edison (SCE), Southern California Gas Company (SCG), and San Diego Gas Electric (SDG&E), as well as two regional energy networks (RENs), BayREN and SoCalREN, and one community choice aggregator (CCA), Marin Clean Energy (MCE). In the report, we also included the SMJUs that are comprised of: Southwest Gas Corporation, Liberty Utilities (CalPeco Electric) LLC, PacifiCorp, and Bear Valley Electric Service.

The report is organized into two sections. The first section identifies the progress toward achieving the targets on all potentially cost-effective electricity and natural gas efficiency savings for IOUs and SMJUs. The second section of the report describes current CPUC efforts to maximize energy efficiency in disadvantaged communities.

¹ Energy efficiency Portfolio Report Page 8

² “Goals Proposal,” Attachment A of 2013-2014 Energy Efficiency Goals Ruling at 9

Section 1

Progress toward achieving the targets on electricity and natural gas efficiency savings for Investor-Owned Utility and Small Multi-Jurisdictional Utilities.

Tables 1 and 2 below show the evaluated electricity and gas efficiency savings by the four IOUs. The 2013-2016 results show that the program administrators exceeded their program savings goals for electric savings and peak demand savings but fell short of the natural gas savings goal. Specifically, the energy efficiency program portfolio saved 6,653 gigawatt-hours of electricity, 1,300 megawatts of demand, and 125 million therms of natural gas, exclusive of the savings attributed to the Codes & Standards (C&S) and low-income programs. The SMJUs had a combined energy savings of 35 gigawatt-hours.

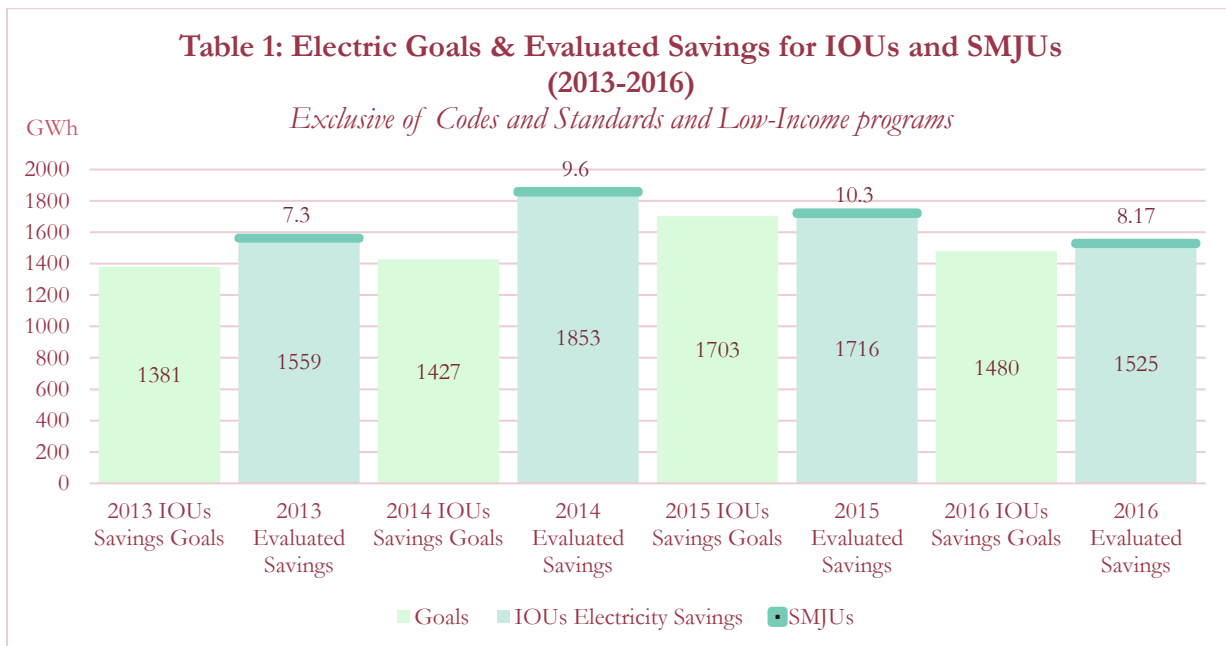
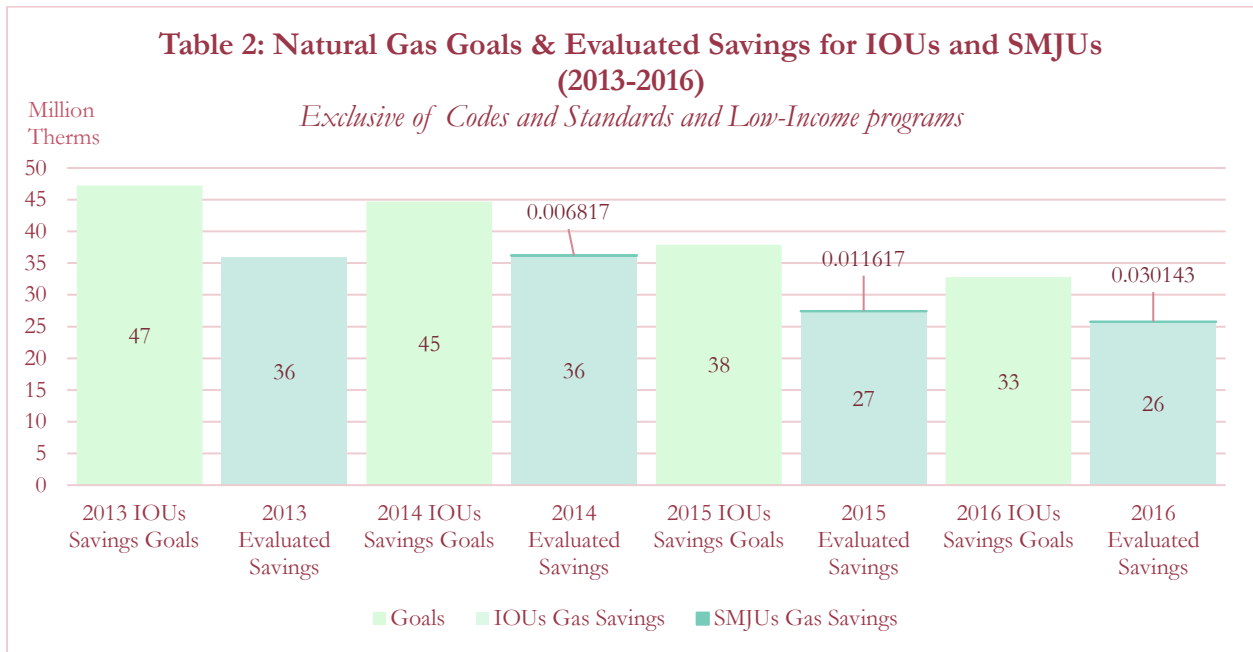


Table 2 reflects natural gas savings goals and evaluated natural gas savings for IOUs. In contrast to the IOUs, no specific targets were established for SMJUs pursuant to Public Utility Code Section 454.55(a), therefore the table below only contains reported savings.



Investor-Owned Utility Energy Savings Goals:

For the 2013-2016 portfolio, the CPUC set energy and gas efficiency savings goals for each Investor Owned Utility. The total combined goal savings for the four Investor Owned Utilities was 5,890 GWh for electricity and 163 MM therms for gas usage. Table 3 shows the breakdown of savings goals for the program portfolio and Codes and Standards. The combined goals are shown for illustrative purposes only.

Table 3: 2013-2016 Energy Efficiency Portfolio Goals{3}				
		Electric (GWh)	Demand (MW)	Natural Gas (MM Therms)
Program Goals	Gross	5,890	1,061	163
Codes and Standards Goals		3,244	577	30
Combined Goals		9,134	1,638	193

^[3] Decision 12-05-015 Page, 95. Decision 14-10-046 Page 10. Decision 15-10-028 Page 8.

The electricity and gas savings in Table 3 reflect first-year savings which are the savings that a measure accumulates in the first year after installation, as opposed to lifecycle savings that accrue over the entire lifetime of the measure that was installed. The program goals include RENs and CCAs savings as well as the agricultural, commercial, industrial and residential sectors. Codes and Standards savings are calculated separately.

Table 4 reflects the different breakdowns for the 2013-2016 IOUs evaluated energy savings. Program savings include; IOUs, RENs, CCAs as well as the agricultural, commercial, industrial and residential sectors. Codes and Standards are calculated separately.

Table 4: 2013-2016 Energy Efficiency Evaluated Energy Savings			
	Electric (GWh)	Demand (MW)	Natural Gas (MM Therms)
Program Savings - Evaluated Gross	6,653	1,300	125
Codes and Standards - Evaluated Gross	9,018	1,765	58
Combined Evaluated Savings	15,671	3,065	183

Small Multi-Jurisdictional Utilities Reported Savings

In contrast to the Investor Owned Utilities, no specific targets were established for SMJUs pursuant to Public Utility Code Section 454.55(a). Tables 5a-5d reflect the reported electricity and gas savings from Bear Valley Electric Service, PacifiCorp, Southwest Gas Corporation, and Liberty Utilities (CalPeco Electric) LLC respectively. SMJUs energy savings are also reflected in Tables 1 and 2.

Table 5a: 2013-2016 Energy Efficiency Reported Energy Savings BEAR VALLEY ELECTRIC SERVICES (BVES)										
Actuals	2013		2014		2015		2016		Total Gross	
	Therms	GWh	Therms	GWh	Therms	GWh	Therms	GWh	Therms	GWh
Residential Program	0	0.07	0	0.12	0	0.08	0	0.07		0.34
Non-Residential EE program	0	0.38	0	0.09	0	0.94	0	0.61		2.02
Energy Savings Assistance	0	0.12	0	0.08	0	0.18	0	0.09		0.47
Total	0	0.57	0	0.29	0	1.2	0	0.77		2.82

[1] Amounts may include rounding.

[2] Includes commercial, industrial, and irrigation, varies based on utility.

Table 5b: 2013-2016 Energy Efficiency Reported Energy Savings PACIFICORP										
Actuals	2013		2014		2015		2016		Total Gross	
	Therms	GWh	Therms	GWh	Therms	GWh	Therms	GWh	Therms	GWh
Residential Program	0	2.54	0	4.67	0	3.82	0	1.81	0	12.84
Non-Residential EE program	0	2.23	0	2.77	0	3.69	0	3.64	0	12.33
Energy Savings Assistance	0	0.16	0	0.1	0	0.12	0	0.11	0	0.49
Total	0	4.93	0	7.54	0	7.63	0	5.56	0	25.66

[1] Includes commercial, industrial, and irrigation customers.

Table 5c: 2013-2016 Energy Efficiency Reported Energy Savings SOUTHWEST GAS CORPORATION										
Actuals	2013		2014		2015		2016		Total Gross	
	Therms	GWh	Therms	GWh	Therms	GWh	Therms	GWh	Therms	GWh
Residential Program	0	0	1,479	0	6,501	0	5,115	0	13095	0
Non-Residential EE program	0	0	5,348	0	5,116	0	25,028	0	35492	0
Energy Savings Assistance	63,813	0	68,776	0	48,857	0	45,573	0	227,020	0
Total	63,813	0	75,603	0	60,474	0	75,716	0	275,607	0

[1] Amounts may include rounding.

[2] Includes commercial, industrial, and irrigation, which varies based on utility.

[3] Southwest Gas' initial Conservation and Energy Efficiency (CEE) Program was approved by the CPUC in Decision 14-06-028 and implemented in July 2014.

Table 5d: 2013-2016 Energy Efficiency Reported Energy Savings LIBERTY UTILITIES (CalPeco Electric) LLC										
Actuals	2013		2014		2015		2016		Total Gross	
	Therms	GWh	Therms	GWh	Therms	GWh	Therms	GWh	Therms	GWh
Residential EE Programs	0	0.27	0	0.36	0	0.36	0	0.58	0	1.57
Non-Residential EE programs	0	1.81	0	1.55	0	1.38	0	1.46	0	6.19
Energy Savings Assistance	0	0.15	0	0.07	0	0.09	0	0.11	0	0.42
Total	0	2.23	0	1.98	0	1.83	0	2.15	0	8.18

[1] Includes commercial, schools, industrial, and irrigation, varies based on utility.

[2] Amounts may include rounding.

For the years 2013-2016, the SMJUs energy efficiency programs reported a combined electricity savings of 35,300,000 kWh or 35.3 GWh and Gas savings of 48,587 Therms. The SMJUs low-income programs reported 1,380,000 kWh or 1.38 GWh, and 227,020 (Therms) savings. If we compare the SMJUs total energy savings from 2013-2016 (35.3 GWh) to the IOUs energy savings 2013-2016 (6,653 GWh), we see a significant difference. This is due to the total of customers served. To put it in perspective a rough total of 316,622 customers are served by Bear Valley (24,019), Liberty Utilities (48,603), PacifiCorp (50,000) and Southwest Gas (194,000). The four IOUs have a combined total of 56,400,000 serving customers. Specifically, PG&E 16 million,³ SCE 15 million,⁴ SDG&E 3.6 million⁵ and SoCalGas 21.8 million.⁶ This means the SMJUs serve a slight fraction of customers, approximately 0.56%, in comparison to the customer served by the four large IOUs.

³ https://www.pge.com/en_US/about-pge/company-information/profile/profile.page

⁴ <https://www.sce.com/about-us/who-we-are>

⁵ <https://webarchive.sdge.com/aboutus>

⁶ <https://www.socalgas.com/about-us/company-profile>

Section 2

Progress toward maximizing the contribution of electricity and natural gas efficiency savings in disadvantaged communities.

In this section, the report addresses the most significant contributions the CPUC has made towards advancing and maximizing the electric and gas efficiency savings in disadvantaged communities (DAC). These contributions include: 1) the inclusion of a refined definition of DAC and hard-to-reach as part of the Energy Efficiency Business Plans to ensure fair inclusion and equity for these communities; 2) the creation of the Disadvantaged Communities Advisory Group; 3) San Joaquin Valley Proceeding which addresses clean energy needs in that region; 4) Electric Program Investment Charge (EPIC) that focuses on research development and deployment projects such as strategies of near zero-net-energy residential homes and commercial buildings; and 5) the role of the Low-Income Programs, specifically Energy Savings Assistance Program (ESA).

1) Business Plans: CPUC adopts definition for disadvantaged communities and hard-to-reach customers

On May 31, 2018, the CPUC approved Decision (D.) 18-05-041, the Program Administrator Energy Efficiency Business Plans for 2018-2025, which authorizes funding for annual energy efficiency budgets and business plans for eight program administrators. The program administrators include; four Investor-Owned Utilities (SCE, SDG&E, SoCalGas, and PG&E); one Community Choice Aggregator (Marin Clean Energy); and three Regional Energy Networks (BayREN, SocalREN, and Tri-County REN). The decision enables the state to achieve doubled energy efficiency savings goals through new program administrator strategies, increases innovation from third parties that design and implement energy efficiency programs, and promotes greater long-term savings through the promotion of market transformation programs.

To maximize California's energy efficiency savings goals and ensure no communities are left behind, as dictated by SB 350, the Energy Efficiency Business Plans includes a refined definition of disadvantaged communities and hard-to-reach customers as well as the areas of overlap and distinction in order to, among other things, identify unique barriers for each community and established appropriate rules when delivering energy savings programs to these customers.⁷

Different strategies to increase participation and effective delivery of energy efficiency measures in these areas are needed. To address this and maximize the delivery of energy savings, the Energy Efficiency Business Plans provided the following clarifications:

- ***Disadvantaged communities***

The CPUC uses CalEPA's method for identifying disadvantaged communities. CalEPA follows the Health and Safety Code Section 39711, which outlines disadvantaged

⁷D.18-05-041 Page 3 & 39

communities as those census tracts scoring in the top 25% of census tracts statewide on the set of 20 different indicators in CalEnviroScreen.⁸

According to Section 39711 of the Health and Safety Code, the California Environmental Protection Agency (CalEPA) identifies disadvantaged communities, which may include, but are not limited to:

Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation.

Areas with concentrations of people that are of low income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.⁹

- ***Hard-to-reach***

The CPUC's Energy Efficiency Policy Manual previously defined hard-to-reach residential customers as those customers who do not have easy access to program information or generally do not participate in energy efficiency programs due to a language, income, housing type, geographic, or home ownership (split incentives) barrier. Hard-to-reach business customers also include factors such as business size and lease (split incentive) barriers.¹⁰

However, the CPUC found this definition was too broad and open to interpretation. As a response, the CPUC adopted the hard-to-reach definition in Resolution G-3497. It clarifies that if a "customer does not meet the geographic criterion (i.e., they are not located in one of the identified metropolitan statistical areas), they must meet a total of three criteria to be considered hard-to-reach; and if a customer meets the geographic criterion, they must meet one other criterion to be considered hard-to-reach."¹¹

While they are distinct concepts, there is considerable overlap in the definitions of disadvantaged communities and hard-to-reach customers. One of the overlaps with slight distinctions is the socioeconomic characteristics. Another is the policy objectives. Under the Business Plan decision 18-05-041 this was highlighted, and the CPUC required the inclusion of this overlap as part of the definition of hard-to-reach.¹²

On the other hand, "a clear difference in the designation of disadvantaged communities is the Pollution Burden indicators that inform the CalEnviroScreen Tool, though even in that respect there are likely parallels beyond mere coincidence between customers considered hard-to-reach based (in part) on where they live, and residents of a disadvantaged community that is so designated based (in part) on disproportionate exposure to diesel particulate matter, pesticide use, drinking water contaminants, and other pollution factors."¹³

⁸ D.18-05-041 Page 40

⁹ D.18-05-041 Page 39

¹⁰ Energy Efficiency Policy Manual (Version 5, July 2013), accessible from the CPUC's energy efficiency webpage: <http://cpuc.ca.gov/egyefficiency/>

¹¹ D.18-05-041 Page 43

¹² D.18-05-041 OP 27 Page 175

¹³ D.18-05-041 Page 47

2) Disadvantaged Communities Advisory Group (DACAG)

The Advisory Group was established pursuant to Pub. Util. Code § 400(g). The Group first launched in 2018 in conjunction with the California Energy Commission and is composed of 11 members representing disadvantaged communities from different parts of California. *DACAG* goal is to advise both commissions on how programs can effectively reach, and benefit communities burdened by pollution and socio-economic challenges, including rural and tribal communities. Program areas include renewable energy, energy efficiency, and transportation electrification.

Disadvantaged Communities are burdened by poverty and high unemployment.¹⁴ In fact, low-income households spend three times more as a proportion of income on energy than higher-income households, partially due to lack of weatherization.¹⁵ This emphasizes why energy efficiency programs are a critical need in DACs. Widespread use of efficient appliances, electronics, equipment, and lighting, along with better insulation and other weatherization, could significantly help reduce electric bills. This need is reflected in the DACAG guiding principles¹⁶, which are to:

- 1) Increase the benefits of clean energy programs in disadvantaged communities.
- 2) Increase access to clean energy technologies for disadvantaged communities.
- 3) Maintain or enhance the affordability of energy service in disadvantaged communities by considering the potential rate impacts of any proposed program.

3) San Joaquin Valley Proceeding-AB 2672 (Perea 2013-2014)

In March 2015, the CPUC opened proceeding R.15-03-010 to implement Assembly Bill 2672, codified as Public Utilities Code Section 783.5.1 to provide clean affordable energy options to disadvantaged communities in the San Joaquin Valley. These communities rely on propane and wood burning as a source of energy and AB 2672 ensures that these communities get access to clean affordable energy including energy efficiency technologies to maximize energy savings.

The pilot projects offer eligible San Joaquin Valley households that choose to participate in a no-cost replacement of their propane and wood burning appliances. Also, they will benefit from energy efficient appliance upgrades, weatherization, solar, energy storage, workforce training, and bill protection, among other benefits. The pilots are comprised of electric and natural gas projects.

There are twelve proposed pilot projects, and these communities represent some of the lowest income households in California with an average annual household income of \$31,214 per year.¹⁷

¹⁴ <https://www.cpuc.ca.gov/discom/>

¹⁵ <https://www.nrdc.org/stories/energy-efficiency-clean-facts>

¹⁶ California Public Utilities Commission Press Release

¹⁷ Rulemaking 15-03-010 Page 10

“Together the communities comprise approximately 7,480 households, with about 2,758, or 36% of those lacking access to natural gas.”¹⁸

The pilots have three phases:

Phase I - Outreach and Identification of Communities

The CPUC adopted Phase I on May 11, 2017, in Decision 17-05-014. The Phase I decision adopted the methodology for identification of communities meeting the statutory definition of a San Joaquin disadvantaged community under Section 783.5. related to household income levels, population size, and distance from a natural gas pipeline. It approved 170 communities.¹⁹

Phase II - Pilot Projects and Data Gathering

The Phase II Scoping Memo was released on December 6, 2017, and lays out two tracks, A and B, that set expectations for pilot projects and data gathering activities, respectively. As part of the Track A- Pilot Projects, on January 31, 2018, Pacific Gas and Electric Company, Southern California Edison Company, and SoCalGas Company submitted pilot project proposals for twelve communities. They identified the type of project proposed, estimated cost, and whether program funding from other CPUC programs can be utilized to implement the proposed pilot project. On October 3, 2018, an Assigned Commissioner’s Ruling in R.15-03-010 was released to create a proposal for the pilot projects. In May and June 2018, the CPUC held two Community Energy Option Assessment Workshops in each of the identified proposed host pilot communities on affordable energy options and pilot project concepts, including extending natural gas pipelines, increasing electric subsidies, and other potentially cost-effective and innovative clean energy options for disadvantaged communities in the San Joaquin Valley. On December 13, 2018, the CPUC approved a \$56 million investment for 11 pilot projects. The Track B - Data Gathering, will address data gathering needs for evaluation of economically feasible energy options and will finalize a Data Gathering Plan.²⁰

The CPUC is currently working on phase II track B in order to assess the scope, feasibility, and cost-effectiveness of the eleven pilots. These pilot projects and data gathering will inform Commissioners on the best ways to provide assistance to these communities. Phase 2 will take 2-3 years to complete depending on permitting and finance.²¹

Phase III - Economic Feasibility Study

Once Phase II is complete, Phase III will focus on a) evaluating progress with implementation of the authorized Pilot Projects and b) review the data collected pursuant to an approved Data Gathering Plan created in Phase II. Phase III will also utilize data collected in accordance with the approved Data Gathering Plan and evaluation of pilot projects to conduct the economic feasibility study required by AB 2672.²²

¹⁸ Rulemaking 15-03-010 Page 11

¹⁹ <http://www.cpuc.ca.gov/SanJoaquin/>

²⁰ <http://www.cpuc.ca.gov/SanJoaquin/>

²¹ Rulemaking 15-03-010 Page 14

²² <http://www.cpuc.ca.gov/SanJoaquin/>

4) Electric Program Investment Charge (EPIC)

In 2012, the CPUC established the EPIC program pursuant to Decision (D.) 12-05-037, to support investments in clean energy technologies that provide benefits to the electricity ratepayers. The EPIC program funds clean energy research, demonstration, and deployment projects in order to promote greater electricity reliability, lower costs, and increase safety. Examples include “strategies of near zero-net-energy residential homes and commercial buildings, high-efficient businesses, low-carbon localized generation, sustainable bioenergy systems, electrification of the transportation system, and a resilient grid that is supported by a highly flexible and robust distribution and transmission infrastructure.”²³

The Energy Commission, Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company are the four administrators of the program. The program administrators are charged with administering their portion of the EPIC Program funding and are required to submit coordinated triennial investment plans to the CPUC.

One example of an EPIC activity is the Energy-Efficient Attic Designs for California Homes which has the potential to reduce energy in homes at costs competitive to existing practices.²⁴ Another is the development and testing of the Next Generation Residential Space Conditioning System, which is an energy efficient space conditioning system optimized for California's climates which could reduce energy bills for consumers while benefiting the environment.²⁵ From 2012-2015, there were no targets for EPIC funding in disadvantaged communities. That changed in December 2016, when the Energy Commission adopted a target for 25% of EPIC Technology Demonstration and Deployment funding awarded by the Energy Commission to be allocated to projects sited in disadvantaged communities.²⁶ Additionally, on October 7, 2017, Governor Jerry Brown signed Assembly Bill 523 (Reyes, 2017) that codifies this target and also requires an additional 10 % of the Energy Commission's EPIC project funds to be allocated in areas located in low-income communities.²⁷ Both of these actions demonstrate how California is advancing opportunities for energy savings in disadvantaged communities.

5) Low-Income Programs

The ESA Program is one of the CPUC's main low-income energy assistance programs. The CPUC oversees this program to improve the quality of life for California's low-income population.²⁸

²³ <https://www.energy.ca.gov/research/epic/faq.html>

²⁴ <http://innovation.energy.ca.gov/SearchResultProject.aspx?p=30007&tk=636942935287183673>

²⁵ <http://innovation.energy.ca.gov/SearchResultProject.aspx?p=30005&tk=636942936280360294>

²⁶ However, there are no approved targets for expenditures in DACs for the IOUs

²⁷ <https://www.energy.ca.gov/research/epic/>

²⁸ Decision (D.) 08-11-031 Page 2

Energy Savings Assistance Program (ESA)

The CPUC established the ESA program to respond to the Public Utilities Code Section 2790 that requires an electrical or gas corporation to perform home weatherization services for low-income customers. A utility must balance the cost-effectiveness of the weatherization services and the policy of reducing the hardships facing low-income households. The ESA Program installs weatherization and energy efficiency measures and provides minor home repairs and energy education at no cost to income eligible program participants. The goal of ESA is to reduce energy consumption, while also increasing the health, comfort, and/or safety of the household. An ongoing goal for the ESA program is to deliver increasingly cost-effective and longer-term savings to participants. Income eligibility for ESA participation is set at 200% or less of the Federal Poverty Guideline (FPG).

By December 31, 2020, the CPUC is required to ensure that all eligible low-income electricity and gas customers are given the opportunity to participate in the program.²⁹ In order to achieve this, ESA aims to treat on average 370,000 low-income CA households annually with an authorized annual average budget of approximately \$498 million per year from 2017-2020.

The ESA is funded by ratepayers as part of a statutory “public purpose program surcharge” that appears on monthly utility bills, and it is the intention of the CPUC to maximize that investment to the fullest extent possible. The four tables below reflect this effort by the four Investor-Owned Utilities. The combined ESA treated homes during the years 2013-2016 was 1,092,858 or 75% penetration based on their planning assumptions. The CPUC will continue its efforts to ensure that by 2020, 100% of all eligible and willing low-income customers have the opportunity to participate in the program.³⁰

It is important to point out that even though the ESA program is based on income eligibility and not determined by region (located in a disadvantaged community), there is often an overlap. Table 6 also provides a breakdown by the utility of homes that were treated by the ESA program located in a disadvantaged community. For the period 2013-2016, this population represented approximately 28% of the homes treated by ESA.

²⁹Public Utilities Code Section 382 (e)

³⁰ Public Utilities Code Section 382 (e)

**Table 6a Investor-Owned Utility Energy Savings Assistance Program (ESA) Homes Treated Tables (2013-2016):
ESA Penetration PY' 13 YTD**

Utility	Homes Treated	Homes Treated in DAC	Planning Assumptions for homes treated	% of total homes treated compared to planning assumptions	% of total homes treated in DAC
PG&E	123,566	26,512	119,940	103%	22%
SCE	69,031	34,152	87,389	79%	39%
SoCalGas	106,948	85,830	136,836	78%	63%
SDG&E	17,568	2,182	20,316	86%	11%

**Table 6b Investor-Owned Utility Energy Savings Assistance Program (ESA) Homes Treated Tables (2013-2016):
ESA Penetration PY' 14 YTD**

Utility	Homes Treated	Homes Treated in DAC	Planning Assumptions for homes treated	% of total homes treated compared to planning assumptions	% of total homes treated in DAC
PG&E	123,539	30,462	119,940	103%	25%
SCE	76,983	38,084	87,389	88%	44%
SoCalGas	92,967	70,731	136,836	68%	52%
SDG&E	22,039	2,469	20,316	108%	12%

**Table 6c Investor-Owned Utility Energy Savings Assistance Program (ESA) Homes Treated Tables (2013-2016):
ESA Penetration PY' 15 YTD**

Utility	Homes Treated	Homes Treated in DAC	Planning Assumptions for homes treated	% of total homes treated compared to planning assumptions	% of total homes treated in DAC
PG&E	100,573	27,602	119,940	84%	23%
SCE	54,127	21,721	87,389	62%	25%
SoCalGas	80,316	57,560	136,836	59%	42%
SDG&E	20,209	1,562	20,316	99%	7.6%

**Table 6d Investor-Owned Utility Energy Savings Assistance Program (ESA) Homes Treated Tables (2013-2016):
ESA Penetration PY' 16 YTD**

Utility	Homes Treated	Homes Treated in DAC	Planning Assumptions for homes treated	% of total homes treated compared to planning assumptions	% of total homes treated in DAC
PG&E	74,319	20,336	119,940	62%	17%
SCE	41,070	19,731	87,389	47%	23%
SoCalGas	69,811	53,426	136,836	51%	39%
SDG&E	19,792	1,270	20,316	97%	6.2%

Conclusion

California is well known for its ambitious environmental goals and for developing policies and regulations to ensure California's clean energy transformation is equitable for every community in the state regardless of their social status. This report demonstrates the progress being made toward achieving cost-effective electricity and natural gas efficiency savings for the utilities the CPUC regulates, while also recognizing the contributions to low-income disadvantaged communities. The 2013-2016 energy efficiency portfolio is on its way to meeting the energy efficiency goals mandated by SB 350. As shown in the report, during the period 2013-2016, the IOUs exceeded CPUC-established electricity and demand goals while coming close to achieving their gas goals.³¹ Specifically, the energy efficiency program portfolio saved 6,653 gigawatt-hours of electricity, 1,300 megawatts of demand, and 125 million therms of natural gas, exclusive of the savings attributed to the codes and standards and low-income programs.

³¹ SMJUs do not have established goals