



California Public Utilities Commission Aliso Canyon Demand Side Management Activity and Impact Summary (September 27, 2016)

I. CSI-Thermal Program Changes

Estimated Impacts

Total Estimated Savings to Date¹	91,972 Therms
Total Estimated Savings Through 2016	140,472 Therms

Background

A. Shifting Funding -- On March 17, 2016, Energy Division approved a joint Advice Letter² from the CSI-Thermal Program Administrators to shift \$25M from the General Market incentive budget to the Low-Income incentive budget, which had exhausted funds.

Results:

- 18 multifamily and single family projects have been installed, representing an estimated annual energy savings of 7,738 therms.
- 3,500 therms of additional savings is anticipated from projects installed through the end of 2016.

B. Additional Incentives for systems install before December 31 -- On May 6, 2016, Energy Division approved SoCalGas Advice Letter 4953, implementing temporary additional incentives, for solar water heating systems installed by the end of 2016 including the following modifications:

¹ CSI Thermal estimated savings data are as of September 23rd, 2016.

² PG&E AL 3694-G/4800-E; Center for Sustainable Energy AL 69; SoCalGas AL 4930

- **Solar Pool Heating** -- Removed cap that limited the Solar Pool Heating incentive from covering more than 50% of a project's cost.

Results:

- 71,569 therms of expected additional savings from 35 additional projects installed since May 2016, compared to May –September 2015 installation data.
- 45,000 therms anticipated from projects installed through the end of 2016.

- **Homes and Businesses** -- Increased incentive levels for general market single family and multi-family/commercial projects in Step 1 (current incentive step).
 - Incentives were modified from \$29.85/term to \$70/therm for single family and from \$20.19/therm to \$25/therm for multifamily and commercial.

Results:

- 278 additional applications, representing expected annual energy savings of 12,665 therms, have been approved since May 2016, compared to May – September 2015. However, the increase in applications occurred in single family residential sector, which has significantly smaller average system size than commercial/multifamily so only a minimal additional energy savings was achieved.
- Significant additional savings are not anticipated through the end of 2016, as the higher Step 1 incentive level for the single family residential sector is expected to be exhausted by the end of September.

- **More funds for early incentive levels** -- Reallocated funds from later Steps 3 and 4 to the new higher Step 1 incentives for single family and multifamily/commercial general market funds.

II. Demand Response

Estimated Impacts

Total Estimated Savings to Date³	32 MW
Total Estimated Savings Through 2016	43.44 MW

Background

Increased Demand Response in target area -- CPUC directed SCE to intensify demand response activities in the LA Basin. SCE's proposal, submitted April 4th 2016 included⁴:

- Targeted marketing to increase enrollment in their AC Cycling program.
- Increasing enrollment in their emergency curtailment programs.

³ Demand Response estimated savings data are as of September 2nd, 2016.

⁴ SCE's proposal was approved on June 16, 2016 in D.16-06-029

- Offering a rebate for smart thermostats and enrolling in the Peak Time Rebate program.
- An Aliso Canyon focused competitive demand response solicitation.

A. AC Cycling Program -- The AC Cycling program is triggered during high system peaks, high electricity prices or emergency conditions and a signal is sent to control devices that limit the operation of the AC unit.

Results:

- 9,000 additional customers worth 9.5 MW of new load has been added.
- 500 additional new customers and 0.5 MW of load could be added by end of 2016.

B. Emergency curtailment -- Emergency curtailment programs provide monthly capacity payments based on committed load to eligible customers for allowing SCE to temporarily interrupt electric service during a CAISO or local emergencies.

Results:

- 10 MW of estimated new load has enrolled in two programs.

C. Smart Thermostats Load Control Program -- SCE Peak Time Rebate-Enabling Technology Direct Load Control allows SCE or a 3rd Party the ability to control residential customers' loads during a PTR event through a smart thermostat. The customer receives a bill credit for reductions in electricity usage during the event. SCE was given a target of enrolling 22,000 customers by the end of 2016.

Results:

- 2,500+ new customers since partial launch in July. Approximately 1.5 new MW of load is estimated to have been enrolled at this time.
- 15,000 new customers and about 12 MW of new load is achievable by end of 2016 (based on the current rapid growth of the program in August).

D. Aliso Competitive Demand Response Solicitation -- SCE held a solicitation for demand response contracts from 3rd parties to meet Aliso Canyon reliability needs in the LA Basin.

Results:

- 11 MW of incremental DR load reduction.

III. Low Income Expansion- Intensified deployment of Energy Savings Assistance (ESA) Program measures

Estimated Impacts

Total Estimated Savings to Date⁵	176,532 Therms (SoCalGas) 355,177 kWh (SCE)
Total Estimated Savings Through 2016	353,064 Therms (SoCalGas) 710,354 kWh (SCE)

Background

The CPUC directed SoCalGas and SCE to take immediate steps to intensify existing Energy Savings Assistance (ESA) programmatic efforts in low-income communities affected by the Aliso Canyon Gas Storage Facility natural gas leak. The decision:

- Granted authority to utilize approximately \$158.6M for SoCalGas and \$89.7M for SCE in unspent funds already collected from ratepayers for the emergency response effort to the Aliso Canyon Gas Storage Facility natural gas leak.
- Directed SoCalGas and SCE to suspend the “three measure rule” and “go-back rule” and serve previously treated households to facilitate and target significant savings;
- Extended this emergency authorization for the remainder of the current CARE/ESA portfolio cycle, which lasts until the end of 2017 unless modified in a subsequent Decision.

A. Program Rule Changes and Target Measures -- SCE and SoCalGas identified high impact ESA program measures and high usage households for prioritization and also completed IT enhancements to suspend designated program rules on June 10, 2016.

Results:

- 11,061 homes treated with an estimated 176,532 Therms saved by SoCalGas in Aliso impacted area since CPUC order was issued in April (36,535 homes treated with an estimated 741,777 Therms saved for all of 2016).
- 3,391 homes treated with an estimated 355,177 kWh by SCE in the Aliso impacted suspended area since CPUC order was issued in April (27,362 homes treated with an estimated 16,399,321 kWh saved for all of 2016).
- Increased activity and deeper savings are anticipated in this area as a result the recent IT enhancements.

IV. Reprioritize Existing Energy Efficiency

Estimated Impacts

Total Estimated Savings to Date	15,633,156 Therms (Installed)
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⁵ Low Income Program estimated savings data are as of August 31st, 2016.

	19,795,937 Therms (Committed, Uninstalled)
Total Estimated Savings Through 2016	29,100,000 Therms

Background

The CPUC authorizes approximately \$76M per year for SoCalGas’ energy efficiency portfolio. To date, SoCalGas’ 2016 gas savings across its service territory are significantly greater than 2015 savings. The majority of gas savings installed to date are from codes and standards – which are not directly related to the Aliso Canyon efforts. Committed but uninstalled savings are predominantly from custom industrial projects. In response to Aliso Canyon, the CPUC directed SoCalGas to accelerate custom projects and expand deemed program offerings in the LA Basin.

Program Type	Installed To Date (Therms)	Uninstalled Committed (Therms)
Codes and Standards Advocacy	10,098,331	6,491,784
Custom (Industrial)	429,250	10,070,689
Custom (Commercial and Agriculture)	1,789,061	3,170,748
Deemed Programs	3,315,514	62,716
Total	15,633,156	19,795,937

Source: SoCalGas July 2016 Monthly Report (most recently available data) available on EE Stats: <http://162.15.7.45/Views/Documents.aspx>

A. **Custom Projects** – Custom projects involve site-specific energy efficiency activities that usually include complex processes that result in significant energy savings. SoCalGas identified 71 custom projects that may provide relief in the Aliso Canyon impact area through an incentive kicker, accelerated ex ante review, additional technical assistance, or support in obtaining local permits. Of the 71 custom projects, three have been accelerated to date; 50 have cleared ex ante review or are waiting for additional data from SoCalGas; eight projects were identified as out of the Aliso Canyon impact area or adding new load; two were canceled or on hold; and eight project reviews are currently in progress.

Results:

- 448,000 therm savings have been achieved ahead of schedule.
- Customers implementing custom projects have difficulty accelerating project installation schedules due to long project lead times and the need to purchase, manufacture, or install unique, project-specific equipment.

- Commission staff and SoCalGas continue to meet weekly to discuss custom projects, including projects that may provide relief for the Aliso Canyon impact area.

B. Commercial Direct Install Program –The CPUC approved a new program⁶ which includes a three-pronged approach to deliver measures to the small commercial market. SoCalGas is working in partnership with LADWP and SCE to target hard-to-reach small to medium-sized commercial businesses throughout the SoCalGas territory and install no- or low-cost energy efficiency equipment.

Results:

- 14,376,302 kWh and 8,817 Therms have been saved in partnership with LADWP.
- SoCalGas recently completed negotiations to include gas measures in an existing SCE program. New measures are expected to roll out by the end of August 2016.
- SoCalGas will issue an RFP to target high-potential gas customers with a new laminar flow restrictor measures that save both water and energy and other measures by the end of August 2016.

C. Targeted Measure Rebate Kickers – Available for all pipe and tank insulation, pool covers and heaters, and process boilers purchased and installed between June 1, 2016 and March 31, 2017 receive an incentive kicker. The measures were selected for additional incentives because they can be installed quickly and have significant potential.

Results:

- 86,604 therms via 15 projects., .

D. New Measure Offerings – Additional new offerings include ENERGYSTAR® High Efficiency Dryers, laminar flow restrictors for healthcare facilities, tub spout thermostatic diverters, smart thermostats, and AC/furnace tune ups. These measures may save natural gas, electricity, and/or water.

Results:

- 1,130 ENERGYSTAR® high efficiency dryers have been processed. These may save gas or electricity.
- A new laminar flow restrictors program that saves electricity, gas, and water in healthcare facilities launched on July 1. Savings data are still being collected.
- Tub spout thermostatic diverters became available to multifamily customers on September 1. Savings data are still being collected.
- SoCalGas and LADWP are in the process of developing a joint AC/furnace tune up program. This program may save electricity and gas.

⁶ Advice Letter 4950

V. Accelerated Deployment of Electricity Storage

Estimated Impacts

Total Estimated Online Storage Capacity by Dec 2016/Jan 2017	91 MW
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Background

A. SCE Expedited Energy Storage Procurement: The CPUC ordered SCE to hold an expedited energy storage procurement solicitation to mitigate potential Aliso Canyon-related reliability problems.⁷ The Resolution required that storage resources solicited in the expedited storage procurement must:

- Be located in front of the meter ("IFOM")
- Be operational by December 31, 2016
- Interconnect in a location that helps to alleviate electric reliability concerns associated with Aliso Canyon
- Qualify for Resource Adequacy credit
- Be price competitive with previous solicitations
- Have a contract term of 10 years or less

Results:

Third-Party Owned Storage:

- 27 MW of IFOM storage through executed contracts with three different suppliers: AltaGas Pomona Energy Storage, Inc. - 20 MW, Grand Johanna LLC - 2 MW, and Western Grid Development, LLC - 5 MW) (Contracts were approved by a vote of the full Commission.⁸

Aliso Canyon Energy Storage Design Build Transfer Request f or Proposals

- SCE is analyzing final offers for turn-key utility owned storage bi-lateral contracts for projects that will be online by 12/31/16 or 1/31/17

GE Enhanced Gas Turbine (EGT) Storage at SCE Peakers

- EGT integrates 4.3 MWh/10 MW of storage with existing combustion turbine; provides for up to 50 MW spinning reserve per installation, lowers maintenance costs, lowers emissions and adds approximately 1 MW of incremental RA
- Sited at Grapeland and Center Peakers

⁷ Resolution E-4791 passed on May 26, 2016

⁸ Resolution E-4804 passed on September 15, 2016

B. SDG&E Accelerated Deployment of Electricity Storage: SDG&E leveraged its ongoing 2016 Preferred Resources Local Capacity Requirement (“LCR”) Request for Offer (“RFO”) to solicit energy storage projects that could come online by the end of 2016.⁹ SDG&E sought and received Commission approval of two lithium-ion battery energy storage facilities (37.5 MW in total) to be located at two SDG&E substations:

Results:

- 37.5 MW/120 MWh from two projects¹⁰
- Projects will be constructed on a turnkey basis with AES and online by 1/31/17.
- SDG&E will have a long term service contract with AES covering the first 10 years of operation.

C. Behind the Meter Storage Interconnection: Energy Division, SCE, and storage developers are working to facilitate the construction and interconnection of at least **17 MW** of behind-the-meter energy storage projects in the project development pipeline that can come online by the end of 2016.

⁹ Resolution E-4791 found it reasonable for SDG&E to take this action.

¹⁰ Approved by Resolution E-4798 on August 18, 2016.

VI. Marketing and Outreach

Estimated Impacts

Program	July 27	July 28
Flex Alerts**	-490 MW	-540 MW
Total	-490	-540 MW

** CAISO Estimate (not verified by CPUC)

Background

CPUC order SoCalGas to spend \$11 million through the end of 2016 on public message efforts to reduce electric and gas usage.

A. Flex Alerts -- \$5 million was allocated for Flex Alert messaging. Flex Alerts are called by CAISO when on anticipated high use days. Alerts are broadcast by the news media, are advertised, and are sent directly to people who sign up for them. They ask people to reduce their electricity usage, especially in the late afternoon and early evening. There were three Flex Alert days called in Summer of 2016: June 20, July 27, and July 28.

Results:

- CAISO has not yet provided savings data for June 20, though it has been requested.
- 490 MW estimated savings on July 27.
- 540 MW estimated savings on July 28.

B. Marketing, Education, and Outreach Response – \$6 million was allocated a general electric and gas reduction campaign. SoCalGas was ordered to leading an advisory committee of 10 local governments and utilities on coordinated campaign. Strategies include social media, earned media, and event outreach. Information can be found at:

www.conserveenergysocal.com

Result:

- There is an on-going evaluation of the work, though no results are yet available. Some preliminary data should be available in October 2016.