

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**



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Order Instituting Rulemaking into Policies to  
Promote a Partnership Framework between  
Energy Investor Owned Utilities and the  
Water Sector to Promote Water-Energy  
Nexus Programs

Rulemaking 13-12-011  
(Filed December 19, 2013)

**COMMENTS OF SOUTHERN CALIFORNIA GAS COMPANY (U904G)  
TO ASSIGNED COMMISSIONER'S RULING ENTERING WORKSHOP REPORTS  
INTO THE RECORD AND SEEKING COMMENTS  
DATED OCTOBER 5, 2016**

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Dated: October 21, 2016

**BEFORE THE PUBLIC UTILITIES COMMISSION  
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Order Instituting Rulemaking into Policies to Promote a Partnership Framework between Energy Investor Owned Utilities and the Water Sector to Promote Water-Energy Nexus Programs

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On October 5, 2016, Commissioner Sandoval issued a Ruling, *Ruling of Assigned Commissioner Entering Workshop Reports into the Record and Seeking Comments* (“Ruling”), to solicit comments on workshop reports, meta-themes and questions, relating to the six workshops held in the Water-Energy Telecommunications Nexus portion of the above-captioned proceeding. Southern California Gas Company (“SoCalGas”) hereby submits its opening comments to address the questions on the energy utility related workshops and meta-themes posed to parties in the Ruling.

**I. QUESTIONS ON PROCEEDING META-THEMES**

**A. Reduce Leaks**

- 1. What steps should the Commission take to promote the deployment and use of communications facilities, technologies, and services to identify leaks and promote better water and energy management?**

**Response:**

SoCalGas believes that any effort taken to promote the deployment and use of communications facilities, technologies, and services to identify leaks and promote better water and energy management should be focused on the customer side of the meter. As approved in

Decision (“D.”) 12-11-005, SoCalGas has implemented a water loss/leak detection pilot, Water Loss Control, in support of the water-energy nexus rulemaking. Prior experience through this pilot demonstrates that water loss/leak detection programs for natural gas are very expensive and not cost effective.<sup>1</sup> The limited use of natural gas used for supplying, conveying, treating, and distributing water, provides few opportunities for leak detection at the “systems” level that result in natural gas savings.

SoCalGas is also working on two pilots with water agencies to leverage our Advanced Meter Infrastructure (“AMI”) network, pursuant to D.16-06-010, where SoCalGas expects to not only prove the ability to have water utilities piggyback off of the AMI network, but learn how leveraging and comparing usage data would assist in identifying hot water leaks on the customer side of the meter. Smart water meter data may offer significant water (and therefore direct and indirect energy) savings by providing real-time feedback on water use. A smart meter can, under some circumstances, indicate if there is a leak at a customer’s premises.

## **B. Data**

- 1. What steps should the Commission take to enable the gathering, sharing, and analysis of water data? How do these steps differ in urban vs. rural areas, or for different sectors, residential, commercial, industrial or agricultural? What steps should the Commission take to protect user privacy and cybersecurity for water data? Should the Commission order greater use or aggregated level sharing of water data for the CPUC, other state, local, or federal agencies, or access to data for researchers as it did for energy data?**

### **Response:**

Regardless of the steps the Commission decides take to enable the gathering, sharing, and analysis of water data, it should order the water utilities to comply with the same data privacy requirements defined for energy customer data, in order to protect user privacy and cybersecurity

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<sup>1</sup> SoCalGas has proposed to cancel this pilot, per Advice Letter 4991, pending Commission approval.

for water data. These customer data privacy requirements were previously established for the Investor-Owned Utilities (“IOUs”)<sup>2</sup> in D.11-07-056, D.12-08-045, D.13-09-025, and D.14-05-016. Although the rules on data sharing are complex, they are critical to conserve the privacy of customer information.

The Workshop Report on Establishing a Cloud-Based Water and Energy Data Platform (Attachment E) suggests piloting ways to improve the data sharing process given existing privacy laws and regulations, and while SoCalGas will support efforts to advance data sharing, these laws and regulations are still applicable.

## **II. QUESTIONS ON WORKSHOPS**

### **A. Attachment A – Report on August 13, 2014 Water-Energy Nexus Actions to Address the Drought Workshop**

- 1. How can the CPUC foster greater partnerships between water and energy utilities and leverage different sources of funding to further reduce water loss due to leaks? How might the CPUC better promote water audits, partnerships with agriculture water users, customer side programs and foster partnerships to help conserve water and energy? What types of partnerships might be most useful?**

#### **Response:**

SoCalGas does not believe there is a need for the Commission to expand partnership opportunities between water and energy utilities to further reduce water loss due to leaks. These efforts are already underway and well-established in this, and other proceedings before the Commission.<sup>3</sup> SoCalGas has a longstanding partnership with Los Angeles Department of Water and Power (“LADWP”), which includes a one-year shared network AMI pilot. This pilot

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<sup>2</sup> The IOUs consist of SoCalGas, San Diego Gas and Electric Company (“SDG&E”), Southern California Edison (“SCE”), and Pacific Gas & Electric Company (“PG&E”).

<sup>3</sup> Similar efforts are currently taking place in R.13-11-005.

leverages the Advanced Meter Data Collection Unit Network Infrastructure to transmit meter and sensor data for other utilities within the SoCalGas service territory.

Additionally, as part of rulemaking (“R.”) 13-12-011, SoCalGas has partnered with two water utilities, San Gabriel Valley Water Company and California American Water, and Valor Water Analytics to implement two Water-Energy Nexus (“WEN”) pilots to test the technical ability for water companies to piggyback on the AMI network and assess the impact of joint delivery of energy and water data to customers on energy and water savings behaviors. The pilots include an analytics component for identification and evaluation of potential hot water leaks based on analysis of anomalous gas consumption patterns, and analytics on the combined gas and water usage data. Valor Water Analytics will perform analysis to quantify the benefits of using combined AMI data and assess how data integration will allow the utilities to address apparent water losses, enhance conservation efforts, increase energy savings, and reduce greenhouse gas emissions to a greater extent than can be done using AMI data from one utility. This analysis will also be used to improve the accuracy of water leak modeling for both utilities. Data gathered during the Pilot will be used to evaluate our capability to identify and report on potential hot water leaks by analyzing natural gas usage in comparison to actual water usage and our capability to validate those analytics during field visits.

**B. Attachment E - Workshop Report on Establishing a Cloud-Based Water and Energy Data Platform**

The Workshop Report on Establishing a Cloud-Based Water and Energy Data Platform (“Workshop Report”) has several factual errors. On page 14 of the Workshop Report, it states that SoCalGas and LADWP have partnered to identify energy efficiency improvement opportunities, including identification of hot water leaks. As noted, SoCalGas and LADWP do have a long-standing partnership, but it does not include hot water leak detection. While

SoCalGas is conducting two WEN AMI Pilots, which are intended to identify and evaluate hot water leaks based on analysis of both gas and water data, LADWP is not a participant.

SoCalGas does have an AMI Pilot with LADWP, which is limited to network sharing only. The Workshop Report should be amended to correct this factual error.

Additionally on page 14, it is stated that “SoCalGas found many leaking hot water heaters that were wasting large amounts of natural gas and water.” SoCalGas has, as part of its exploratory phase of enhanced data analytics efforts, identified hot water leaks based on anomalous gas consumption, however we have made no claim that a large amount of natural gas is associated with these hot water leaks, nor do we have any information regarding the amount of water loss. This section of the Workshop Report should be amended to remove any references regarding the amount of natural gas (or water) associated with hot water leak identification.

- 1. How can we increase energy utility knowledge of water utility system and processes to encourage water and energy conservation and increased collaboration across the utility spectrum? Does access to internet impact the ability to optimally manage water and energy? If so how? How can the CPUC level the playing field so that participants can assist in the optimization of water and energy management with the appropriate signals?**

**Response:**

SoCalGas believes that to increase of energy utility knowledge of water utility systems can be done through continued partnerships between the utilities, similar to the partnerships currently in place at SoCalGas. Through the AMI WEN and shared network pilots, SoCalGas will gain knowledge of the water utility system and AMI data sharing opportunities. Internet access does impact the ability to optimally manage water and energy. Internet access is required by water and energy utility customers to see and manage water and energy usage.

- 2. How might an integrated water-energy data platform promote better decision-making by water and energy utilities to increase resource efficiency and reduce greenhouse gas emissions? Where might be the appropriate place to develop such an integrated data platform? Should the CPUC order a meet**

**and confer among energy and water utilities to come up with categories for such a platform? Would paper comments be preferable?**

**Response:**

An integrated water-energy platform would be redundant to the Commission's Water-Energy Cost Calculator, adopted in R.13-12-011. The primary goal of the calculator is to quantify the embedded energy savings as a result of water efficiency measures. D.12-05-015 directed Commission Staff to address appropriate methods for calculating energy savings and cost-effectiveness in the water-energy context, and include appropriate methodologies for calculating the greenhouse gas emission reductions associated with water-energy nexus programs. Energy and water utilities can utilize this cost calculator in their decision-making for conservation programs without the need to develop an additional data collection and sharing platform.

**3. One cannot manage what is not measured. Please propose some innovative solutions to overcome existing challenges in data sharing.**

**Response:**

The Five Existing Challenges to Data Sharing presented in this Workshop Report are an oversimplified view of the issues and neglect to include the larger challenges preventing data sharing. The challenges in data sharing break out into three types:

- 1) Fiscal – who will pay to create the data sharing mechanism – ratepayers, the private sector or educational institutions?
- 2) Technical – these are simplest and easiest to address once funding is secured.
- 3) Regulatory and Legislative – the most important challenges are not listed in Table 2 of the Workshop Report.

If this Workshop Report is intended to propose a pathway to increased data sharing, failure to mention the legal and regulatory barriers faced by energy utilities would give an incomplete assessment of the current environment. Although the workshop discussed the

challenges listed above, SoCalGas believes that it did not solve, or lay the ground work for a solution. Further discussion by stakeholders is required to address these challenges.

**4. How can the CPUC help collaboration within and across utilities, as well as with the range of other stakeholders?**

**Response:**

As discussed above in the Section A.1, partnerships within and across utilities are thriving and the policy landscape set by legislative and Commission mandates encourages further collaboration across utilities and with a wide range of stakeholders. Senate Bill 350 created an environment of ambitious energy efficiency goals, which will require new and innovative approaches to energy efficiency programs that may lead to a number of additional partnerships across utilities. Additionally, the Commission recently directed the IOUs, in D.16-08-019, to partner with third party implementers to design and deliver energy efficiency programs, in addition to partnerships with other IOUs and publicly owned utilities. The policy landscape set by legislative and CPUC mandates encourages further collaboration across utilities and with a wide range of stakeholders.

**5. What steps need to be taken to accomplish the following tasks inside each utility - please be specific about barriers between utilities: (Please do not address utilities collectively if there are individual differences, please specify the differences by utility specifically.)**

- a. Should utilities benchmark water and energy use across customers, customer classes, and utilities?
- b. Should utilities assess the effectiveness of demand management strategies within a utility and across utilities?
- c. Should utilities improve the effectiveness of data generated from AMI systems?
- d. Improve demand forecasts for water wholesalers
- e. Streamline and standardize reporting to the California Urban Water Conservation Council, state agencies, and other agencies and organizations

- f. Provide collective input to the State Water Resources Control Board (SWRCB) and other decision makers
- g. Better understand the impacts of various conservation actions including but not limited to rebates, public education, and marketing
- h. Evaluate the effectiveness and equity of different rate structures and propose differences in upcoming GRCs?
- i. Assess the effectiveness of utilities' responses within a particular utility as well as across utilities to past and present state mandated actions?

**Response:**

a. SoCalGas has been using the Environmental Protection Agency Portfolio Manager benchmarking tool for the energy aspect, which is also the subject of new legislation (AB 802, superseding AB 1103). Both water and energy usage can be benchmarked, but it is up to the specific customer to initiate. SoCalGas recognizes both water and energy customers benefit from the ability to see and manage their water and energy usage online. Assuming cross-subsidization and data privacy issues are resolved; it is important to understand the scope of the effort that would be undertaken to benchmark all SoCalGas energy customers with their respective water usage. At this time, SoCalGas has approximately 375 water companies in its service territory. Most (275) have less than 10,000 service connections and only 24 are regulated by the Commission. The 24 Commission-regulated companies serve approximately 12% of the water customers in our service territory.

b. There is a robust Evaluation, Measurement, and Verification (EM&V) effort led by the Commission staff for IOU energy efficiency (and other DSM) programs that already assesses program effectiveness. SoCalGas' demand management strategy goes beyond energy savings to include water saving measures, including no cost faucet aerators and low-flow showerheads, an online storefront for discounted high quality low-flow showerheads, and multi-family direct installation of energy and water measures. SoCalGas does not have the experience

or expertise to assess the effectiveness of demand management strategies executed by water utilities.

c. SoCalGas is not aware of any deficiencies in data generated by AMI systems.

g. SoCalGas, through EM&V efforts, is constantly evaluating the effectiveness of rebate programs in achieving energy savings goals. Marketing, education, and outreach (ME&O) efforts are also tracked and measured, though tying these efforts to direct energy savings is not standard practice. The primary objective of the ME&O is to raise awareness of conservation programs and actions. The secondary objective is to encourage participation in utility rebate programs, which is measured through volume of rebates processed and the energy savings that result, however program participation is not be tied to specific marketing tactics. For evaluating participation in rebate programs, utilities track rebates given on a quarterly basis. Each utility reports savings data at the end of every year data is collected, for each of their programs.

Regulating codes and standards is also an effective conservation action for equipment/appliances, as well as water saving devices.

**6. Do you see a cloud-based data platform as an acceptable mechanism for sharing data? What are the pros and cons of this approach? Are there alternative approaches?**

**Response:**

SoCalGas believes that a cloud-based data solution can be an acceptable mechanism for sharing data but is not able to comment on the appropriateness of any technical solution without greater understanding of the data sharing requirements around the security and privacy protection of customer data.

