

STATE OF CALIFORNIA

Public Utilities Commission
San Francisco

M e m o r a n d u m

Date: April 2, 2013

To: The Commission
(Meeting of April 4, 2013)

From: Lynn Sadler, Director
Office of Governmental Affairs (OGA) – Sacramento

Subject: **AB 1274 (Bradford) – Public Utilities: Consumer Privacy.**
As introduced: February 22, 2013

RECOMMENDED POSITION: SUPPORT IF AMENDED

SUMMARY OF BILL:

This bill requires the utilities to develop a communication standard for home area network (HAN¹) device that “communicates electric or gas consumption data” of that device *to the utility through an AMI² system* [emphasis ours] to ensure 1) protection of that data from unauthorized access or disclosure and 2) compatibility of HAN devices. Additionally, the bill requires the utility to provide educational materials to consumers regarding HAN data protection.

CURRENT LAW:

There are existing state laws (SB 1476) and CPUC decisions (D.11-07-056, 12-08-045) ensuring the privacy and security of consumer’s consumption data obtained by a gas or electric investor-owned utility (IOU) *from the IOU’s smart meter.*

CPUC decisions (D.07-04-043, D.09-03-026) required the IOUs to collaborate and adopt an industry accepted HAN communication standard (on a statewide basis) for secure communications between the IOU smart meters and customers’ HAN devices. The California IOUs have implemented the NIST (National Institute of Standards &

¹ The HAN function of a smart meter is a communications interface that is managed by the Utility and can be accessed wirelessly by a customer’s HAN device located on the customer’s premise to monitor, in near real-time, the customer’s energy usage¹ measured continuously by the smart meter. The wireless communication between the smart meter and the customer’s HAN device is enabled when the smart meter’s HAN function is activated by the Utility to recognize and securely communicate only with a particular customer’s HAN device that has been authorized by both the customer and the Utility.

² AMI stands for Advanced Metering Infrastructure, also referred to as smart meter system.

Technology) and SGIP (Smart Grid Interoperability Panel) recognized SEP 1.X standard for HAN communications.

In Resolution E-4527, the CPUC required the utilities to provide basic education to customers about the HAN function and the responsibilities of the utility, the third party HAN device supplier and the customer in protecting customer's usage data, HAN network and appliances.

AUTHOR'S PURPOSE:

The bill intends to ensure that consumer consumption data obtained by the IOUs from HAN devices is secure and protected from unauthorized access or disclosure.

DIVISION ANALYSIS (Energy Division):

The bill as currently drafted would have no impact on CPUC policies as there are no HAN devices that would be expected to come under the bill's scope. A bill revised as suggested here would also have no impact on CPUC policies as the oversight of HAN data received by non-IOU third parties would presumably be outside CPUC's jurisdiction.

The situation that the bill attempts to address does not really exist in California. The HAN devices are customer-controlled devices, generally obtained by the customer from the retail market, and installed behind the meter (inside the customer's home). The HAN device is designed to obtain energy consumption data *from* an IOU smart meter (not provide data *to* the smart meter) through a wireless communication channel and then provide that consumption data to customers in near real-time. In the case of some HAN devices, data cannot be accessed at all by any third party (including an IOU). For some other types of HAN devices (with an independent communication channel controlled by the customer), data could be accessed by a third party (including an IOU) only if the customer allows this access to occur by configuring the device appropriately.

In the case of the AMI deployments by California IOUs, the IOUs collect customers' energy consumption data only from the IOU-owned smart meters (not customers' HAN devices). The smart meter measures the whole house energy consumption on an hourly basis (15 minutes, in the case of commercial customers) and internally stores that consumption data for a limited period of time. Periodically during the day, this consumption data stored within the smart meter is transferred to the IOU's data warehouse for processing and billing. In other words, the IOU has no visibility (via the AMI system) into a customer's real-time consumption data, which is only viewable by a HAN device under the customer's control that has been authorized by the IOU to communicate with the smart meter assigned to that customer.

For the consumption data actually collected by the IOUs from the smart meters, existing state law and CPUC decisions already require the IOUs to protect the data from

unauthorized access or disclosure. No additional measures are needed to further protect this data.

The situation involving HAN device data is analogous to other devices on a customer's premise that store the customer's private data (such as, computer, smart phone, wifi router, cable modem, etc.).

If the bill were to be revised with the goal of protecting the HAN data received by *any* third party (not specifically the IOU) from unauthorized access, we suggest that such consumer protection measures are more appropriate outside the Public Utilities Code and should fall under the jurisdiction of agencies other than the CPUC. For example, the attorney general's office may be enforcing general privacy laws, such as privacy requirements for consumer mobile applications, including those involving energy data.

SAFETY IMPACT:

If the bill is amended as recommended, the privacy issues involving HAN data received by third parties will be outside CPUC jurisdiction, and there would be no safety considerations for the Commission under the amended bill.

RELIABILITY IMPACT:

No impact.

RATEPAYER IMPACT:

No impact.

FISCAL IMPACT:

No impact.

ECONOMIC IMPACT:

No impact.

LEGAL IMPACT:

No impact.

LEGISLATIVE HISTORY:

SB 1476 was passed in 2010 and provided privacy protections for customer's electric/gas consumption data collected by an IOU in Section 8380 of Public Utilities Code. In summary, this section 1) restricts the IOU from disclosing customer's

consumption data without customer consent or selling it, and 2) requires the IOU to use reasonable security procedures to protect customer data from unauthorized access, destruction, use or disclosure

PROGRAM BACKGROUND:

See discussion under “Division Analysis” section above.

OTHER STATES’ INFORMATION:

Not applicable.

SUMMARY OF SUPPORTING ARGUMENTS FOR RECOMMENDATION:

The bill as currently drafted is not needed for the following reasons:

- (1) The situation intended to be addressed by the bill’s current language does not occur with California IOUs.
- (2) Existing state law and CPUC decisions provide adequate protection of customer energy consumption data collected by the IOUs from smart meters.

If desired, the bill could be amended to provide general consumer protection (outside of CPUC’s jurisdiction) of consumption data in a HAN device from unauthorized access or disclosure by any third party (not specifically an IOU).

SUMMARY OF SUGGESTED AMENDMENTS:

Several amendments to the current version of the bill could be proposed to provide general protection of consumer’s HAN data, such as:

- Remove all references to Public Utilities Code, Commission, or CPUC.
- Replace references to “electric or gas corporation” by “any party receiving gas or electric consumption data from a home area network (HAN) device.”
- Revise Section 1 (a) as follows: “Any party receiving gas or electric consumption data from a HAN device shall implement reasonable security measures to ensure against the access, destruction, use, modification, or disclosure of the data not authorized by the customer of the HAN device.”
- Revise Section 1 (b): Strike “After the development of the communication standards and protocols.”
- Strike Section 2.

STATUS:

AB 1274 is pending hearing in the Assembly Utilities and Commerce Committee.

SUPPORT/OPPOSITION:

None yet.

VOTES:

None yet.

STAFF CONTACTS:

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BILL LANGUAGE:

BILL NUMBER: AB 1274 INTRODUCED
BILL TEXT

INTRODUCED BY Assembly Member Bradford

FEBRUARY 22, 2013

An act to add Sections 8382 and 8383 to the Public Utilities Code, relating to public utilities.

LEGISLATIVE COUNSEL'S DIGEST

AB 1274, as introduced, Bradford. Public utilities: consumer privacy.

Existing law prohibits, except as specified, an electric corporation or gas corporation, and a local publicly owned utility, from sharing, disclosing, or otherwise making accessible to a third party a consumer's electric or gas usage that is made available as a part of an advanced metering infrastructure, including the name, account number, and residence of the customer (data). Existing law requires the electrical corporation or gas corporation, and a locally publicly owned utility, to use reasonable security procedures and practices to provide a consumer's unencrypted data from unauthorized access, destruction, use, modification, or disclosure.

This bill would require the commission, by order or rule, to require an electrical corporation or gas corporation to establish, on or before December 31, 2014, communication standards and protocols for a home area network device that communicates electrical or gas consumption data, as defined, of that device to the electric corporation or gas corporation through an advanced metering infrastructure to ensure against the unauthorized access, destruction, use, modification, or disclosure of the data (cyber-security) and compatibility of the home area network devices. The bill would require a local publicly owned utility, on or before December 31, 2014, to establish communication standards and protocols for a home area network device that communicates electrical consumption data of that device to the utility to ensure cyber-security. The bill would require the electric corporation or gas corporation and a local publicly owned utility to provide to the consumer educational materials regarding cyber-security after the development of the communication standards and protocols.

Vote: majority. Appropriation: no. Fiscal committee: yes.
State-mandated local program: no.

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 8382 is added to the Public Utilities Code, to read:

8382. (a) The commission shall, by order or rule, require an

electric corporation or gas corporation to establish, on or before December 31, 2014, communication standards and protocols for a home area network device that communicates electrical or gas consumption data of that device to the electric corporation or gas corporation through an advanced metering infrastructure to ensure against the unauthorized access, destruction, use, modification, or disclosure of the data and compatibility of the home area network devices.

(b) An electric corporation or gas corporation shall ensure the consumer's electrical or gas consumption data are not compromised by a third-party consultant of the corporation.

(c) After the development of the communication standards and protocols, the electric corporation or gas corporation shall provide to consumers educational materials regarding measures to ensure against the unauthorized access, destruction, use, modification, or disclosure of the electrical or gas consumption data.

(d) As used in this section, "electrical or gas consumption data" means a consumer's electrical or gas usage, and includes the name, account number, or residence of the consumer.

SEC. 2. Section 8383 is added to the Public Utilities Code, to read:

8383. (a) On or before December 31, 2014, a local publicly owned electric utility shall establish communication standards and protocols for a home area network device that communicates electrical consumption data of that device to the utility through an advanced metering infrastructure to ensure against the unauthorized access, destruction, use, modification, or disclosure of the data and compatibility of the home area network devices.

(b) A local publicly owned electric utility shall ensure that the consumer's electrical consumption data are not compromised by a third-party consultant of the utility.

(c) After the development of the communication standards and protocols, the local publicly owned electric utility shall provide to consumers educational materials regarding measures to ensure against the unauthorized access, destruction, use, modification, or disclosure of the electrical or gas consumption data.

(d) As used in this section, "electrical consumption data" means a consumer's electrical usage, and includes the name, account number, or residence of the consumer.