



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

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Order Instituting Rulemaking to consider Smart Grid Technologies Pursuant to Federal Legislation and on the Commission's own Motion to Actively Guide Policy in California's Development of a Smart Grid System.

Rulemaking 08-12-009  
(Filed December 18, 2008)

**REPLY COMMENTS OF THE UTILITY REFORM NETWORK  
CONCERNING PRICES AND PRIVACY  
IN RESPONSE TO THE ACR OF 9/27/2010**



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Pursuant to the procedural schedule established in the Assigned Commissioner's Ruling ("ACR") of August 27, 2010, as modified by the ALJ Ruling of October 29, 2010, the Utility Reform Network (TURN) respectfully submits these reply comments on smart grid privacy and the issues identified in the ACR.

**1 Introduction**

TURN submitted opening comments concerning privacy rules and a preliminary assessment of the impact of SB 1476. TURN participated at the workshop on privacy and price disclosure on November 25-26, 2010. The workshop included a very useful discussion of the rules proposed by the Center for Democracy and Technology and the Electronic Frontier Foundation ("CDT/EFF") to implement the Fair Information Practice Principles ("FIPPs");<sup>1</sup> and also of the method by which SDG&E customers can authorize SDG&E to transfer data to their Google account for use with the Google PowerMeter.

It appears that there is broad consensus on many points regarding the protection of the customer-specific residential meter data generated by "smart

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<sup>1</sup> Throughout the text, any reference to Section # refers to the proposed Privacy Rules attached as Appendix A to the opening comments of CDT/EFF. Any reference to existing Public Utilities Code statutory section is preceded by "PUC."

meters.” However, there are still areas that lack operational clarity and a few areas of specific disagreement:

- Whether the Commission should direct the utilities to wait until version 2.0 of the Smart Energy Profile (“SEP”) protocols are finalized to authorize communications with the HAN signal from the meter;
- Whether to implement backhaul transfers only through the OpenADE, and if so, whether through a contract or tariff;
- Whether it is useful and cost-effective to provide residential customers with wholesale price information;
- Whether all third parties seeking access to customer data – either from the utility server or the HAN meter signal – should register with the Commission;
- How to align the proposed rules with the requirements of SB 1476.

In the following reply comments, TURN recommends a few minor changes to the CDT/EFF proposed rules and discusses certain additional issues that stem from either the opening comments or the workshop. TURN’s primary recommendations for the near term are the following:

- The Commission should focus in the near term on promoting the price disclosure options and services already instituted by the utilities;

- The Commission should order the utilities to expand their tier notification services as widely as possible;
- The Commission should adopt the privacy rules proposed by CDT/EFF with some minor changes, and the Commission should institute a process to codify adopted policy rules and implementing forms in a General Order;
- The Commission should order the utilities to file a Tier 3 Advice Letter prior to authorizing any devices to receive the HAN signal from the meter;
- The Commission should require any contracting third party to obtain customer consent prior to using data for any “secondary commercial purpose”; and
- The Commission should require all third parties to register with the Commission as a condition of obtaining customer consent and customer data.

## **2 Comments Concerning the Provision of Price Data to Residential Customers**

TURN strongly supports the comments of the Division of Ratepayer Advocates (“DRA”) and of SCE concerning the need to provide understandable and actionable data. In the past TURN has not opposed providing customers with wholesale price data as long as it did not entail any significant additional costs. While we continue to be sympathetic to the notion that more information is

beneficial, we also appreciate the genuine concern that provision of wholesale price signals to live residential customers (as opposed to the provision of machine-readable price signals to appliances that have the capability to actually respond to those specific signals) will simply confuse customers and may actually promote undesirable behaviors. For this reason, we urge the Commission to redirect its focus to promote the provision of other data, at least in the near term. There will be plenty of opportunity to focus on wholesale prices after “smart appliances” enter the market.

TURN thus supports the provision of bill-to-date and bill forecast data as discussed by SCE and others. We believe that the focus at this point should be on systems that promote such data disclosure without having to resort to the “MyAccount” websites. While TURN appreciates that a fairly large number of customers have apparently accessed their utility websites,<sup>2</sup> the numbers are still relatively small. Historical studies showed that very few C&I customers accessed their day-behind data available for many years on utility websites.

We also agree with SDG&E regarding the value of providing the projected month-end tiered rate. However, we believe that a customer’s attention and response will be significantly enhanced by receiving a programmed “tier alert” message with a statement of the actual price in the next tier. It is our understanding that some of the utilities are implementing this on a limited basis.

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<sup>2</sup> TURN believes that SDG&E indicated about 100,000 customers have accessed their MyAccount website, while PG&E indicated about 250,000 have done so.

Regrettably, there was no discussion at the workshop concerning the mechanism and extent of the utilities' adoption of automatic (robocall, paging or email) tier alert notifications.

TURN thus strongly recommends that the Commission order the utilities in its next decision to implement automatic tier notification, to maximize consumer enrollment, and to report back on the statistics of enrollment.

### **3 Comments Concerning Privacy Issues**

#### **3.1 The Commission Should Eventually Adopt Specific Rules and Requirements in a General Order**

TURN strongly supports the rules proposed by CDT/EFF, with some minor changes as discussed below. However, these rules still require additional details to operationalize the principles in disclosure forms, contract terms or tariff language. TURN supports the recommendation made by PG&E that the Commission eventually codify all the rules, procedures and forms related to customer privacy protection in a General Order. It is difficult for parties who do not regularly participate at the Commission to know and comply with rules that are established solely through different Commission decisions. If there is ever a proliferation of entities seeking access to customer data, we presume infractions and ignorance will be reduced through consolidation of the relevant guidelines in a General Order.

### 3.2 Proposed Specific Changes to the CDT/EFF Privacy Rules

- Sec. 1(a) – Covered entity: Gas aggregators (core transport aggregators) should also be included. The gas meters will be collecting and sending gas consumption data. CTAs are still authorized to solicit residential and small commercial customers for commodity service and may find such data to be of value.
- Sec. 1(b) – Covered Information: The definition of covered information should be expanded to include all “consumption and other data” collected by the meter. SB 1476 defines “consumption data” as data about “electrical or natural gas usage that is made available as part of an advanced metering infrastructure, and includes the name, account number, or residence of the customer.” It is not clear whether the legislature intended to thereby limit protection only to commodity usage data. But as several parties (e.g., UCAN, CEERT, EnerNOC) have pointed out, power quality data may also have use and value to third parties, and may be relevant to promoting energy management solutions.
- Sec. 1(c) - Definition of “primary purposes”: PG&E proposed to expand the definition in subsection 1.c.4 to include any “utility program” operated by a third party under contract with the IOU. Such an expansion is unnecessary and may conflict with the language in SB 1476, which authorized data transfer without consent only to

contractors implementing DR, energy management or energy efficiency programs (PUC 8380(e)(2)) or providing a monitoring service (PUC 8380(c)). TURN notes that subsections 1.c.1-3 provide the utility full authority to transfer data for any number of legitimate utility needs, and are thus consistent with AB 1476 which allows transfer for “system, grid, or operational needs.”

Our concern is not just theoretical. PG&E has provided no explanation of what legitimate “programs” would not be covered fully by subsections 1-3. TURN notes that PG&E is authorized to use utility assets in some cases to provide non-tariffed products and services that are unrelated to utility service. TURN suggests that any transfer of data to an entity providing a NTPS or a “program” which is not related to the services enumerated in AB 1476 would violate PUC Sec. 8380(b).

It is our understanding based on recent conversations that PG&E may find the addition of “authorized” in subsection 1(c)(3) to be sufficient to meet their needs.

- Sec. 2(b) – Notice: TURN is unclear why the notice is triggered by the first “paper” correspondence. To the extent a third party does not

communicate at all by “paper,” the trigger should be broadened to include any “written communication.”

- Sec. 6(d) – Disclosure for secondary purpose: The proposed rules prohibit disclosing customer information to a third party for a “secondary purpose” without explicit authorization. Practically speaking, the definitions of primary and secondary purposes in subsection 1(c) and 1(d) mean that any entity that performs a primary purpose must be under contract with the utility to provide a utility or energy-related service. Thus, this section would effectively preclude disclosure to any non-contracting third party without explicit customer consent, irrespective of the purpose for which the third party intends to use the data. Such a restriction is consistent with PUC Sec. 8380(b). TURN recommends that the language should be simplified to simply state that disclosure to any third party who is not under contract with the utility is prohibited absent explicit customer authorization.
- Sec. 9(b) – Redress: TURN continues to be extremely troubled by the potential lack of enforcement and lack of potential penalties to deter violations. In our opening comments TURN suggested that violations should result in 1) disqualification from data access, and 2) liquidated damages (set penalties) for unauthorized data release. The issue of penalties and enforcement was not covered in great detail at the workshop. TURN strongly recommends the adoption of a set fine as a

deterrent. We also suggest a registration process, and violations should lead to suspension, similarly to the provision for deregistering an ESP under PUC Section 394.1.

### **3.3 Use of Data by Third Party Contractors for “Secondary Commercial Purpose”**

TURN notes that there exists a potential gap or anomaly between these rules and the provision of newly enacted PUC Section 8380. SB 1476 differentiates between contractors implementing a DR, EE or energy management program (Section 8380(e)(2)) and contractors implementing a monitoring service (Section 8380(c)).

SB 1476 makes this distinction only for the purpose of notice and consent related to the use of data for “secondary commercial purposes.” While PUC Section 8380(e)(2) requires customer consent before a contractor uses any data for a secondary commercial purpose, PUC Section 8380(c) apparently allows a third party with a contract to provide a “monitoring” service to use the data for a “secondary commercial purpose” without consent, as long as there is notice to the customer.

The proposed rules allow the disclosure of data to parties that contract with the utility without customer consent, as reflected in Section 6(b) and 6(c), but only for the purpose necessary to fulfill the contract with the utility. The rules require that the disclosure of data to a contracting third party must be accompanied by proper notice to the customer, including a description of the

purpose of the disclosure (Section 3(a)(2)). Section 6(a) limits the use of the information obtained by the third party from the utility only for the purpose specified in the notice, and Section 6(e) requires authorization for any secondary purpose.

Unfortunately, there was little discussion at the workshop concerning these provisions of SB 1476. TURN suggests that distinguishing between “monitoring” and “energy management” services will be a futile undertaking. At this time, the Commission should either prohibit any uses of the data for a “secondary commercial purpose” (as recommended by the DRA), or explicitly require that any utility contractor obtain customer consent if they seek to use the data for a “secondary commercial purpose” (as required in the CDT/EFF proposed rules).

If the Commission at all expands the potential of third party contractors to use customer-specific data for secondary commercial purposes, TURN reiterates our recommendation as made in our opening comments that the Commission adopt a rule providing the customer a clear and easy option to opt-out after receiving such a disclosure from a third party. Any request for authority to disclose to a third party for “secondary commercial purposes” should also trigger the provision of basic consumer education information to the customer concerning the nature of the meter data and its potential uses or abuses.

### **3.4 The Utilities Should File a Tier 3 Advice Letter prior to Enabling the ZigBee Signal from the HAN Gateway**

While the focus of SB 1476 is on the transfer of utility backhaul data to third parties, even greater risks of personal privacy infringement and data abuse will be possible when third parties gain access to data broadcast from the meter to the Home Area Network through the ZigBee HAN gateway in the meter. Such data will be in near real time and will consist of very short interval data.<sup>3</sup> It is precisely these type of data that might allow instantaneous information regarding home occupancy and very detailed information concerning home appliance use and in-home behaviors.

The proposed rules do not distinguish between third parties or covered entities that obtain data from the utilities or directly from the HAN signal. Some of the issues relevant to this distinction will depend on the resolution of issues regarding CPUC jurisdiction and enforcement, as discussed below. At the workshop the ALJ indicated his intent that the adopted rules would cover all third parties, irrespective of the source of the meter data. TURN recommends that at this time the Commission order the utilities to file a Tier 3 Advice Letter prior to authorizing any device registration using the SEP protocols.

Our recommendations are driven by a consideration of the distinguishing characteristics of technology that impact customer choice. The backhaul data is collected without any customer input, and the data is available only because the

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<sup>3</sup> In its opening comments PG&E indicated that meter data from the HAN gateway will be available in 10-second intervals.

utilities installed the new communicating interval meters on the premises of residential and small commercial customers. These customers had no choice in the collection of the consumption data. For this reason, any dissemination of backhaul data from the utility should be highly protected through the rules proposed by CDT/EFF.

On the other end of the spectrum, a customer can choose to voluntarily install “bolt-on technologies” to their meter and obtain real-time meter wireless output signal data to their own HAN systems.<sup>4</sup> The existence of the data is thus made possible only due to the customer’s explicit choice to purchase a technology; indeed, technology choices provide near-real time interval data even with the older electromechanical meter. In other words, the customer chooses to obtain this data irrespective of any action by the utility, and should thus have complete control over the disposition of the data.

The broadcast of data from the smart meter through the Zigbee enabled gateway to a device on the customer’s premises falls somewhere within this spectrum, and the eventual degree of “willful choice” by the customer is unknown. The availability of the signal into the home is only made possible by the utility installation. It is TURN’s understanding that in order for the HAN signal to communicate to any other device, the customer must at some point communicate with the utility to complete the authorization/registration process

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<sup>4</sup> The “TED” device discussed in the workshop is one example of such a product. This is the type of product discussed as residing within the “consumer domain” in the comments of Tendril. (Tendril, p. 6-7).

for the device consistent with the Smart Energy Profile (SEP) standards.<sup>5</sup>The exact nature of that customer communication – whether it would be electronic, automatic, etc. – are not clear.

The customer’s “choice” to enable an in-premise device to read the signal may be highly deliberate. For example, a customer purchasing an IHD for her own use may affirmatively request the utility to register the device. However, the customer’s “choice” may be an entirely passive one. For example, the customer might respond to an email sent automatically when a embedded chip detects the ZigBee signal and the third party manufacturer/vendor has the customer’s email address due to their separate transaction.

TURN makes the following recommendations concerning the HAN data transfer from the ZigBee-enabled gateway:

- ◆ The Commission should require that the utilities file a Tier 3 advice letter prior to any authorization/registration of devices to read the meter signal;
- ◆ The advice letter should, at a minimum, include a proposed communication to a customer who first seeks access to the HAN

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<sup>5</sup> One of the utility witnesses (perhaps Mr. Fong from SDG&E?) explained that the customer has to take some action to complete the SEP process to enable a device to register with the encrypted HAN output from the meter. However, the exact nature of the ‘customer action’ is a bit unclear. Specifically, TURN is unsure whether the customer must “initiate” the contact, or whether a device that reads the signal might generate an automatic email to the utility which will result in a communication from the utility to the customer initiating the registration process.

signal, using clear and understandable language, that describes the nature of the data and a short summary of the types of information concerning premise use that can be derived from the data;

- ◆ TURN does not have the expertise to determine whether the differences in protocols between SEP 1.0 and SEP 2.0 warrant delaying HAN activation until the availability of SEP 2.0. TURN recommends that the Commission consult with relevant federal agencies and hire expert consultants if necessary to evaluate the competing claims of some of the utilities and Tendril.

### **3.5 The Commission Should Adopt a Registration Process for Third Parties**

In its opening comments Tendril supported a registration system for those third parties accessing utility backhaul data. SCE suggested that a tariff be authorized for all third parties seeking backhaul data through the OpenADE system. The workshop discussion concerning a registration or certification process was rather limited.

TURN suggests that a “registration” process would be valuable, if only as a mechanism to compile in one location third party contact information that could be accessed by consumers. A registration process could also begin to address the problems of jurisdiction and enforcement over different types of third parties.

As ALJ Sullivan noted, there are at least three types of “third parties”: 1) an agent of the IOU under contract with the utility to provide some utility-

related service, 2) a third party obtaining backhaul data from the utility pursuant to an agreement, and 3) a third party obtaining data directly from the customer through the Home Area Network gateway signal.

Much of the discussion at the workshop concerned the rules governing utility transfer of their backhaul data (hourly data, one day after) to an authorized third party. However, the rules proposed by CDT/EFF would apply similar policies to any third party (“covered entity”) obtaining customer-specific data through the HAN. ALJ Sullivan indicated an expectation that any rules governing disclosure adopted at this time will likewise pertain to third parties obtaining data through the HAN.

The outstanding question concerning some of these third parties is the potential ability of the customer and the Commission to enforce any violations. Such enforcement could come through remedies of contractual provision or Commission jurisdiction and direct enforcement of penalty provisions. The legal nature of the Commission’s jurisdiction is scheduled for briefing in this proceeding. TURN suggests that adopting a registration process that requires a third party to comply with the proposed rules as a condition of receiving data (either from the utility server or directly from the utility meter) will enhance any potential for future enforcement.

November 8, 2010

Respectfully submitted,

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CERTIFICATE OF SERVICE

I, Larry Wong, certify under penalty of perjury under the laws of the State of California that the following is true and correct:

On November 8, 2010, I served the attached:

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on all eligible parties on the attached list **R.08-12-009** by sending said document by electronic mail to each of the parties via electronic mail, as reflected on the attached Service List.

Executed this November 8, 2010, at San Francisco, California.

/S/  
Larry Wong

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