

September 7, 2018

VIA ELECTRONIC FILING

Mark L. Johnson
Executive Director and Secretary
Washington Utilities & Transportation Commission
1300 S. Evergreen Park Drive S. W.
P.O. Box 47250
Olympia, Washington 98504-7250

Received
Records Management
09/07/18 16:33
State Of WASH.
UTIL. AND TRANSP.
COMMISSION

Re: Docket U-180525—Pacific Power & Light Company’s Comments

On July 10, 2018, the Washington Utilities and Transportation Commission (Commission) issued a Notice of Opportunity to File Written Comments regarding consumer protection and meter-related rules as Advance Metering Infrastructure (AMI) technologies are deployed. In response to this notice, Pacific Power & Light Company (Pacific Power), a division of PacifiCorp, submits these written comments responding to the questions for consideration in the notice.

Pacific Power does not have a plan to install AMI in its Washington service area in the near term. Pacific Power completed installation of automatic meter reading (AMR) technology in its Washington service area in 2010 and 2011. AMR allows for one-way communication from the meter, enabling the company to perform remote meter reading. However, AMR does not have many of the functions that are available with AMI, which allows for two-way communication from the meter. For example, while AMI meters allow for remote disconnects and reconnects, AMR meters do not. Pacific Power’s AMR technology provides cost savings to customers in the form of lower meter-reading costs and, with a useful life of 25 years, Pacific Power intends to continue use of AMR technology in its Washington service area. Pacific Power will continue to assess whether replacement of AMR with AMI in Washington is cost-effective for customers.

Pacific Power is currently installing AMI in its Oregon and California service territories. Pacific Power did not install AMR throughout its Oregon or California service territories and is a late-adopter of AMI technology in both of those states (relative to other investor-owned utilities). For purposes of responding to the questions posed by the Commission with respect to AMI, Pacific Power is relying on its experience implementing AMI in Oregon and California.

Data Privacy

1. What information pertaining to customers’ energy usage do companies currently collect, retain, or share with third parties?

In Washington, Pacific Power collects and retains monthly usage data for billing purposes. Interval usage data may be collected for some commercial and industrial installations, largely for the convenience of those customers. Data is not shared externally without the consent of customers unless a third party has a legal right to obtain that information, such as through the subpoena process.

a. What incremental or different information will companies collect or retain with the implementation of AMI?

In other jurisdictions in which Pacific Power has installed AMI, the company collects hourly usage data for residential installations, and 15-minute interval usage data for non-residential installations. The company's current AMR meters in Washington transmit usage data on a monthly basis. With the new AMI meters installed in Oregon and California, the company is also able to collect outage detection and restoration information. If AMI were to be implemented in Washington, the company envisions that the information collected and retained would be the same as or similar to the information the company collects and retains using AMI in California and Oregon.

b. Under what circumstances would sharing customer information be necessary for companies to provide utility service?

Pacific Power sometimes partners with third-party vendors to meet specific business needs or provide services to customers on the company's behalf. For example, Pacific Power uses a third-party vendor to print and mail out customer bills. By necessity, this requires the company to share certain customer information with that third-party vendor. Pacific Power's vendors are under contractual obligations with respect to the confidentiality of such data. In addition, as technology and regulations change, to the extent there is a need or requirement to share customer information with third parties who are not company vendors, Pacific Power would advocate that such third parties be subject to robust privacy requirements with respect to any customer data that is so provided.

i. What specific information would it be necessary for companies to share to provide utility service?

With respect to third-party vendors, depending on the service the vendor is providing, it may be necessary to share information such as customer name, account number, mailing address, phone number, and billing information.

ii. With whom or with what organizations would it be necessary for companies to share such information?

As discussed above, currently the company provides information to third-party vendors that provide services on the company's behalf for customers. Under rare circumstances, the company may be required to furnish information to regulatory agencies who audit the company's business, government agencies, or in response to a subpoena, warrant, court order, levy, attachment, or other comparable legal process.

- c. If not necessary for providing utility service, what information do companies anticipate sharing with third parties for the benefit of customers, and for what specific purpose should the utility share the information with third parties?**

Pacific Power does not anticipate the need to provide customer usage information to third parties that is not necessary for providing utility service without customer authorization. Customers may, however, elect to ask Pacific Power to share their usage data with third parties for any reason. For example, Pacific Power currently shares information with certain agencies for the purposes of enrollment in low-income bill assistance programs or energy efficiency programs. This information is shared only with the consent of the customer.

- 2. With respect to the information provided in response to Question #1, please respond to the following:**

- a. What kind of historical data, and for what time period, should companies maintain information in order to comply with regulatory reporting needs (load studies, conservation and energy efficiency, reliability)?**

Pacific Power retains customer usage, outage, and billing data for a period of seven years, which aligns with the company's record retention policies and all reporting requirements. The company does not intend to change that practice. In the jurisdictions where AMI has been installed, all data collected using AMI is retained for the same seven-year period. Customer usage data from AMI is based on hourly intervals for residential customers and 15-minute intervals for commercial customers. In Washington, the data collected using the company's AMR meters is monthly interval data.

- i. How will companies dispose of customers' energy usage information collected from AMI when it is no longer needed or used?**

Customer usage data is purged using OPTIM, which is an IBM tool utilized specifically to manage data through creation to retirement. This disposal method completely purges data from all storage devices and frees up space for reuse. Offsite tape backup is shredded and destroyed. This process is consistent for all customer usage data regardless of whether the data is collected through AMI or AMR or through any other method.

- b. What rights do or should customers have with respect to their energy use data (co-owners of the data, right to access, right to share with third-parties)?**

Pacific Power believes that customers have a right to access their own billing and usage data and provides customers with that functionality. In addition, customers have the right to share that data with third parties as needed. Specifically, Pacific Power customers have access to their last two years of usage data on the company's

secure website. The company will share additional usage data with customers upon request. Usage data is also included on each billing statement.

i. What type of customer notice should be required regarding the collection, storage, use, and disclosure of customer data (within a company and with third-parties)?

Pacific Power believes its current practices are sufficient. When customers open an account, they receive a general welcome kit from Pacific Power, which includes information regarding the company's privacy policy. This information is also available on the company's website.¹ Regardless of whether that data is collected through AMI or other means, Pacific Power is committed to protecting customer information.

ii. How should the companies be required to obtain customer authorization to share data?

Pacific Power does not obtain authorization from customers to share customer data with third-party vendors under contract to perform services. With respect to disclosures of customer data by phone, Pacific Power does not provide such information until after the company's representative verifies the customer's identity, if the caller is the customer, or until after the representative verifies that the customer has provided authorization to disclose the customer data to the third-party caller, if the caller is a third party. The company allows customers to provide authorization to disclose customer data to third parties by phone, to a company call center agent or a regional business manager for larger commercial and industrial customer accounts, or in writing using the company's authorization form. Any written authorizations received electronically or through US mail are stored electronically. Pacific Power believes these current practices are sufficient.

3. How will companies manage and protect customers' energy usage data generated by AMI technologies?

Whether customer usage data is collected by AMI or by other means, utilities should be required to protect that data just as they protect other private consumer information. Subject to exceptions with respect to the disclosure of non-identifying, aggregated usage data, this information should not be disclosed without the consent of the customer.

Pacific Power maintains physical assets, computing resources, and procedural safeguards that comply with federal, state, and industry regulations to safeguard customer information. Customer information is both secured from outside access through secure firewall technology as well as internally through customized employee access security profiles. The company also restricts access to sensitive personal customer information to only those employees who need to know the information to provide services to the customer and all third party vendors

¹ <https://www.pacificpower.net/footer/privacy.html>.

with access to customer information are subject to contractual requirements regarding confidentiality and data security.

In connection with Pacific Power's roll-out of AMI in its California service territory, the company has recently received approval of two new tariffs that address privacy of consumer data and disclosure to third parties. Copies of these rule tariffs, referred to as Rule 27 and Rule 28, will soon be available on Pacific Power's website.

a. How should the rules differ for individual customer data and aggregated use data?

The company agrees with the current provisions for disclosure of private information as documented in WAC 480-100-153. Aggregated information that does not allow specific customer information to be identified is allowed to be released under this provision.

b. What data collected by AMI should be classified as personally identifiable customer information (PII)?

There is no data collected by AMI that should be classified as customer personally identifiable information under Washington law RCW 42.56.590.

However, AMI-collected data does qualify as "private consumer information" under WAC 480-100-153, and the company does not disclose this data without customer authorization, as described above.

As defined in WAC 480-100-153, "Private consumer information includes the customer's name, address, telephone number, and any other personally identifying information, as well as information related to the quantity, technical configuration, type, destination, and amount of use of service or products subscribed to by a customer of a regulated utility that is available to the utility solely by virtue of the customer-utility relationship."

i. How should the rules differ for Anonymous Personal Usage Information (defined as data not explicitly classified as PII that may reveal details, patterns, or other insights into the personal lives, characteristics, or activities of individual customers)?

Aggregated usage information that does not allow customer information to be identified with any specific customer should be allowed to be released.

c. How have companies evaluated cyber security risks in the planning, design, or implementation of the AMI system?

In the case of the company's roll-out of AMI in California and Oregon, Pacific Power and its smart grid vendor, Itron Networked Solutions (Itron) considered cyber security

risks in the planning, design, and implementation of AMI as follows:

- Each of PacifiCorp and Itron complied with National Institute of Standards and Technology (NIST) guidelines for Smart Grid Cyber Security.
- Pacific Power used a third-party auditor to audit the cyber security risks in planning, design and implementation stages of the project. An additional third party performs penetration testing on the implemented solution for security vulnerabilities.

i. Did your evaluation cause any changes to the plan or procurement of system components? How?

Yes, in the case of the company's installation of AMI in California and Oregon, Pacific Power made the following changes to its AMI systems meet the NIST cyber security standards. These changes mitigate the impact of a security breach or make it more difficult to penetrate its AMI systems and include:

- The addition of two-factor authentication.
- The relocation of the systems to a CIP-secure facility.
- The relocation of back-up data so that it is stored separately from transactional data.
- The inclusion of physical limiters in AMI configuration so that the number of automated disconnects that can be performed in a 24-hour period is subject to a specified maximum.

ii. If you are using a third-party vendor for any portion of the AMI network, have you evaluated your supply chain for the necessary data security protections? Are there contractual requirements?

Yes, Pacific Power performed a full audit on its third-party AMI vendor for Oregon and California before the AMI solution was implemented in those jurisdictions. As discussed above, a post-implementation penetration test was also performed. Pacific Power also receives a copy of the vendor's annual SOC 2 Type 2 audits.

iii. In the event of a cyber security incident that impacts AMI meters or back office systems, what is your plan to mitigate the rate impact to customers?

1. Are you purchasing (or do you plan to purchase) cyber security insurance for this project? Does this protection extend to third-party vendors in the event the breach of customer data is beyond your firewall?

The company has not purchased cyber security insurance because it is expensive and provides less benefit than other risk management

techniques. Instead, Pacific Power mitigates cyber security risks through a comprehensive security program aligned with NIST guidelines for Smart Grid Cyber Security, which includes regular third-party audits and security penetration tests.

d. Should the companies be required to report any breach of customer data to the Commission? If not, what set of parameters or threshold is appropriate to require reporting of a breach?

Pacific Power believes it is important for the Commission to be notified if a breach of customer data occurs. The Commission is a point of contact for customers and may be contacted by customers with questions in the event of a security breach. Pacific Power's current Cybersecurity Incident Response Plan contains a communication plan to provide notice to various external agencies, including the state commissions in the jurisdictions the company operates in. If the Commission has a designated contact person or phone number for these incident reports, it would be helpful to have that information available on the Commission's website or contact page for this purpose.

i. What timeframe should the companies be required to report the breach to the Commission?

The company will immediately comply with reporting requirements as established by applicable state law, and endeavor to notify the Commission as soon as reasonably possible.

e. Should the National Institute of Standards and Technology (NIST) cyber security standards form a basis for keeping customer data secure? If not, why?

Yes, Pacific Power supports the use of the NIST security standards or the ISO 27001 security standards as they are internationally recognized frameworks of policies, procedures, and cyber, physical, and technical controls to manage information risk.

4. How will customers have access to their energy usage information collected in AMI?

All Pacific Power customers, regardless of whether they have an AMI meter or not, can access their information on the company's secure website and on their monthly bills. Customers may also request additional usage data by contacting the company.

a. What platform will you use for customer data access?

Customers in the company's Oregon and California service territories with AMI installations will be able to access interval data through the company's secure website.

b. How will you educate customers on viewing and using the platform?

Pacific Power developed an extensive customer-facing communication plan for AMI implementation in California and Oregon, which included letters, fliers, postcards, reminder phone calls, door knocks, and door hangers. Written communications to customers included information about the meter upgrading process, changes that could be expected from those upgrades, and also pointed customers to the company's website.² The company's smart meter site is complete with installation information, a helpful frequently asked questions page, contact information for questions, informational videos, and notifications for upcoming smart meter workshops that customers can attend to learn more.

i. Will the usage provided to customers be at the same granularity as programmed into the customer's smart meter? What type of outage reporting will you provide?

Yes, customers with AMI meters in Oregon and California can access the same usage data that is transmitted by the meter. On the company's website, customers can review and download interval usage data in the same granularity. (Hourly usage data for residential customers and 15-minute interval data for non-residential customers.)

The company will be able to determine if contact with a smart meter has been severed, indicating a network problem or power outage, and will respond based on that indication. However, customers may still report an outage directly to the company using telephone, internet, mobile app, or text notification options. Outage updates may also be obtained through these systems. Once installations are complete, the company is planning to create a protocol for communication to customers if their meter is indicating an outage.

c. What time intervals will you use to send customers their energy usage data (near real-time, sub-hourly, daily)?

Customers with AMI meters may access interval data through the company's secure website, or request paper or electronic records to be forwarded to them or a third party. Customers will also continue to receive their monthly bill in the same manner as before. AMI customers may also sign up for text or email alerts to be notified if their billing will exceed a usage or expense threshold within a billing period.

Prepaid Service and Customer Deposits

5. What kind of prepaid services will you implement for AMI customers?

The company is not considering a prepaid option at this time.

² <http://www.pacificpower.net/smartmeter>.

Remote Disconnection

6. What are the advantages and limitations of remote disconnection?

Remote disconnection provides a safe, efficient, and inexpensive means to terminate service when customers close their accounts, move addresses, or meet the criteria for a disconnection due to non-payment. Remote disconnects occur in near real time, do not require the scheduling with Pacific Power field employees to perform the work, and can either be performed by a call center agent (for customer requested disconnects) or directly by the customer using the Pacific Power secure website.

One limitation remote disconnection has is that it is not possible to determine if a new occupant intends to transfer service if no application has yet been made. Since there is no employee on site to disconnect, it is also not possible to know if there are any abnormalities or problems at the property.

7. If the Commission allows remote disconnections for non-payment, in what circumstances would you remotely disconnect customers?

At this time, the company has not determined the criteria it would use for remote disconnections in its Washington service area. However, compliance with all governing rules regarding disconnections for non-payment would be strictly followed. In the company's other states where remote disconnection is available, the company's policies for disconnections, regardless of technology, has not changed.

8. What percentage of current disconnection visits result in the customer making a payment to stop the impending disconnection after the service technician makes contact, but before service is disconnected?

The company does not provide a field payment option directly to company employees for safety reasons. Customers must make a payment or call the company to make arrangements to pay before an employee is onsite to disconnect service. For Pacific Power, disconnecting electric service for non-payment is always the last resort. Pacific Power provides customers with multiple notifications of potential disconnection before an employee comes onsite to perform the disconnection. Specifically, the company sends out a monthly bill showing the amount due, a past due notice with the next month's bill, a final past due notice, a courtesy outbound call, and a courtesy door hanger left 48 hours before the scheduled disconnection.

9. Is it necessary to modify current rules governing disconnection or customer notice rules to allow companies to remotely disconnect and reconnect customers?

The company has not fully assessed the need for rule changes regarding remote disconnection in its Washington service area. In Oregon and California, the company proposed lower fees for remote reconnections to reflect the lower cost to perform the service.

10. During what time of day should disconnection and reconnections occur (e.g., before noon, 24 hours a day, or during business hours only)?

The company has not made plans to install AMI metering in Washington. However, if AMI meters are installed, the company will perform disconnections before noon, similar to Oregon and California, to allow customers access to payment locations to make necessary payment to reconnect service the same day as a disconnection occurs. Reconnections will occur 24 hours a day shortly after payment confirmation has been received by the company.

a. In the case of a customer disconnected for non-payment, how long will the company take to remotely reconnect service after payment has been received?

When and if Pacific Power installs AMI with remote disconnect ability, the company will rely upon a network connection to restore service remotely to customers with AMI metering in place. A reconnect command will be sent to the network within minutes and the average time to turn the power back on is 20 minutes. This information is based on the network currently being installed in Oregon and California.

Meters

11. What meters will the companies be installing in Washington State (brand, make, model)?

Pacific Power does not currently have plans to install AMI meters in Washington.

12. Are you aware of any health or safety concerns related to AMI?

No. Smart meters transmit energy usage data using low-watt radio frequency (RF) waves that are proven to be safe and are well within the limits set by the Federal Communications Commission. Additionally, the World Health Organization has concluded that no adverse health effects have been found to result from exposure to low-level RF energy. Smart meters emit very low RF energy. In fact, you could stand directly in front of a smart meter for a full year and still be exposed to less RF than the amount of energy emitted by a single 15-minute cell phone call.

a. What research have you conducted concerning health or safety for the meter sets you will be purchasing?

Pacific Power relies on the findings and research of health and government agencies as described above, and makes this information available to our customers.³

³https://www.pacificpower.net/content/dam/pacific_power/doc/Your_Account/Smart_Meters/PAC_18044_SmartMeter_RF_HealthSafety_UPDATE_081318.pdf.

b. Please provide copies or electronic links to the research and any studies on which you have relied.

The following links are representative of the research and studies Pacific Power has reviewed as part of its implementation of AMI in Oregon and California:

- <http://www.who.int/peh-emf/publications/factsheets/en/>
- <https://www.fcc.gov/general/radio-frequency-safety-0#block-menu-block-4>
- <https://www.fcc.gov/general/fcc-policy-human-exposure#block-menu-block-4>
- <https://www.cancer.org/cancer/cancer-causes/radiation-exposure/smart-meters.html>
- <https://ccst.us/publications/2011/2011smart-final.pdf>
- <https://www.epri.com/#/pages/product/1021126/?lang=en>

13. Please explain your current tampering and theft detection process.

Pacific Power identifies tampering and theft in several ways:

- Investigation of sites that experience a significant drop in consumption from previous months
- Investigation of sites that are coded as disconnected in our system but continue to register consumption
- Visual inspection by a Pacific Power employee
- Tips from customers

a. How might AMI technology alter that process?

Not applicable. Pacific Power would supplement the existing processes with additional analytics from AMI system data.

Billing Requirements

14. In what circumstances do you believe estimating a customer's bill will be required with AMI?

Estimating a customer's bill may be necessary if the AMI network or the meter itself sustains significant damage, and usage data is not available to the company at the time of billing. However, as long as the target meter is transmitting reads to the network at the time of billing, estimation should not be required.

15. Generally, what type of reporting will be available on customer bills as it relates to usage? More specifically:

Customer usage data on customer bills have not changed as a result of AMI. The company's current bills include monthly usage data, meter readings, and average daily usage by month for the previous year. The company occasionally also uses bill messages to let customers know that additional information is available online.

a. What mechanism in customers' bills will display customer-elected load curtailment and control?

This is not a program in place for Pacific Power customers at this time.

b. What type of reporting will you provide as it relates to tamper and theft detection?

Tampering and theft notifications occur outside of the billing statement as formal correspondence. The approved tampering fee will appear on the billing statement for each instance of theft or tampering, along with any appropriate billing adjustments. Tampering and theft are rare occurrences that would not require a regular report to the Commission, but the company can certainly provide that information upon request.

c. What type of reporting will you provide as it relates to voltage reduction?

Voltage reduction reporting on bill statements currently is not performed by Pacific Power.

16. Will the AMI system give customers the ability to program budget billing and conservation goals?

AMI customers may sign up for text or email alerts to be notified if their billing is projected to exceed a usage or expense threshold within a billing period.

17. Explain the rate and bill flexibilities you will offer customers in conjunction with AMI deployment.

The company has not considered changes to its Washington billing rates or structures regarding AMI deployment as there is no current plan to deploy AMI technology in the company's Washington service area.

Customer Education

18. Please identify the policies and education programs will you use to inform customers about the following:

- a. How to report suspected equipment malfunction.**
- b. How to get help reading usage, voltage reduction reports, and outage reports.**
- c. How to use the AMI technologies to curtail electricity use, and the potential to help control peak demand for all customer classes.**

Because Pacific Power does not have plans to install AMI in Washington at this time and has not developed programs to inform customers as to these issues in Oregon or California. In Pacific Power's experience, however, a very small number of customers have questions

regarding these topics. And as with any other question or request that customers may have, Pacific Power customers are welcomed and encouraged to call the company's toll-free number to request information about their service.

Please contact Ariel Son at (503) 813-5410 if you have any questions.

Sincerely,

 /s/
Etta Lockey
Vice President, Regulation
Pacific Power & Light Company
825 NE Multnomah Street, Suite 2000
Portland, OR 97232
(503) 813-5701
etta.lockey@pacificorp.com

Enclosures