

November 7, 2018

VIA ELECTRONIC MAIL

Public Utility Commission of Oregon
201 High Street SE, Suite 100
Salem, OR 97301-3398

Attn: Kristi Collins
Michael Grant
Julie Peacock

RE: PacifiCorp's Comments in Response to Commission Memorandum

PacifiCorp d/b/a Pacific Power encloses for filing its written comments in response to the Commissioner questions from the November 6, 2018 public meeting.

SAFETY AND TECHNICAL OPERATION OF METERS

1. Since beginning its program roll-out, has PacifiCorp been made aware of any new research concerning health and safety associated with smart meter deployment?

No. The Aclara smart meters the company is installing do not pose a health or safety concern. The guidelines established by the Federal Communications Commission for a stationary radio frequency (RF) emitting device is much higher than the RF emissions on the Aclara meters. The meters also meet American National Standards Institute standards. Both of these nationally recognized organizations are tasked with ensuring the safety of products by establishing standards and protocols to ensure a uniform standard is in place to gauge the safety and reliability of products. PacifiCorp took the extra step to have the meters tested and approved by UL, an organization familiar to most consumers of electric products.

2. Did the recent New Mexico Commission decision to scale back PNM Resources' meter upgrade to a pilot raise any safety issues applicable to Oregon?

No. The New Mexico Public Service Commission found that “[s]mart meters can provide benefits to utilities and rate payers. Most significant, smart meters can give consumers greater control over their energy use and help them manage their use more efficiently.”¹ In that case, the decision was based on concerns over whether the costs outweighed the benefits and, in fact, the decision explicitly states that smart meters are beneficial for utilities and ratepayers and encourages PNM to apply again after engaging in a public input process. Although there was a great deal of testimony related to health and safety, the decision found

¹ *In the Matter of the Application of Public Service Company of New Mexico for Prior Approval of the Advanced Metering Infrastructure Project, Determination of Ratemaking Principles and Treatment, and Issuance of Related Accounting Order*, Case No. 15-00312-UT, Recommended Decision at 71 (Mar. 19, 2018).

that there was insufficient evidence of any negative health impacts associated with smart meters and found that there was compelling evidence for the safety of smart meters.²

3. How often do the smart meters broadcast information – either meter data or a status / handshake with the data receiver? Is the number of times per day that PacifiCorp’s meters transmit a cause for concern?

Smart meter transmissions take place in a matter of milliseconds. On average, this equates to 60 seconds per day. Some smart meters may transmit data as much as 2 minutes per hour, depending on where they are located within the mesh network.

As stated above, the radio frequency of the type of meters that PacifiCorp installs are safe and transmit for a fraction of the time as compared to WiFi, cellular phones, or baby monitors.

4. How does the company evaluate general requests to alter service due to medical conditions?

PacifiCorp has an extensive process to ensure that customers that rely on the company’s electric service for medically-certified reasons are not disconnected.

The health of customers is important to PacifiCorp. At the same time, PacifiCorp cannot, and should not, make evaluations or validate the medical issues of customers.

Rather than trying to evaluate the appropriate service accommodations based on a customer’s medical condition, PacifiCorp designed a smart meter program that enabled customers to opt-out. In direct response to the need to allow customers options, PacifiCorp included an opt-out program as part of its smart meter deployment. In contrast, at least seven states, including Idaho, Delaware, Indiana, Kansas, and Pennsylvania do not even allow opt-outs. Within Oregon, Columbia River Public Utility District and Douglas Rural Electric Co-op do not allow opt outs.

PacifiCorp continues to develop more options for customers that do not wish to have a smart meter installed at their home. Having more options for customers that do not want a smart meter will ensure that customers can make choices consistent with their health concerns.

5. How is the company addressing the risk of technical obsolescence?

The company is a relatively late adopter of smart meter technology, which allowed PacifiCorp to implement mature meter technology and to learn from the experiences of other utilities that have deployed advanced metering infrastructure. According to the U.S. Energy

² “The Hearing Examiner, thus, cannot, based upon this record, make definitive findings on the health impacts of emissions from PNM’s proposed AMI Project or recommend that PNM’s Application be denied on the basis of adverse health conditions.” *Id.* at 107-108.

Information Administration, as of the end of 2017, approximately half of the 150 million electric customers in the United States have smart meters.

Smart meters have been installed since 2010 and PacifiCorp is not aware of major obsolescence issues with even the first-generation smart meters. This gives PacifiCorp confidence that its smart meters, which are newer, will not face obsolescence issues. The average life span of a smart meter is 20 years. PacifiCorp is installing Aclara smart meters that have an average life of at least 20 years, according to Aclara. For purposes of internal planning, PacifiCorp assumes an average life of 25 years.

CHARGES AND DEPLOYMENT

6. How is Pacific Power ensuring customers are appropriately notified before installing the broadcasting meter?

PacifiCorp strives to reach every single customer about the pending installation of a smart meter, provide information about the benefits of the technology, and provide information on opt-out options. PacifiCorp is performing broad-reaching customer outreach through multiple customer communication channels, including both earned and paid media (press release at start of deployment in each area, newspaper ads) and targeted digital media. PacifiCorp hosted several community workshops to demonstrate the smart meter technology (including the radio frequency output of the meters), to answer questions and receive feedback, and to showcase the increased access to energy consumption available to each customer as a result of the smart meter. The company also created a robust website with information about the meters, additional scientific studies, and technical statistics about the network.

Before the installation of the meter, each customer receives the following outreach:

- Post Card: mailed several months before smart meter installation
- Letter: mailed no later than one month before smart meter installation
- Phone Call: placed within a few days of smart meter installation
- Door hanger: left at the property at the time of installation
- Post card: mailed after installation is complete.

7. If there are two meters on a property, will a customer be charged the same opt-out fee per meter as would a customer with one meter?

Cost-based rates naturally involve averages rather than a specific cost for a specific customer. To approximate the cost of a manual meter read after smart meters are deployed, PacifiCorp looked at the average cost currently incurred to read a meter outside of the monthly meter reading schedule. This was cost the basis for the opt-out monthly meter reading fee.

After deployment of smart meters is complete, PacifiCorp will be able to use the data from newly optimized manual meter reading routes based on the geographical location of the opt-out customers. These costs could set a new opt-out meter reading fee on a prospective basis. Multiple meters on one premise will likely drive down the average cost, particularly if the meters are physically located near one another. Additional factors to consider when developing a new opt-out meter reading fee are the proximity of meters on a single property with one customer and multiple meters on one property with multiple customers, i.e. an apartment complex. Currently 197 opt-out customers (out of approximately 4,600) have multiple meters on the same property while a currently unknown number of customers may have multiple meters on different properties.

As PacifiCorp develops alternative options for opt-out customers, PacifiCorp will look carefully at this issue, and collecting this data later in the deployment cycle will help PacifiCorp assess the impact to all rate payers when the fee can reflect actual costs associated with the number of trips required to read the opt-out customers' meters rather than the average cost per meter that existed before smart meters were rolled out.

8. Are Pacific Power opt-out customers located in cities charged the same opt-out fee or is the fee lower because manual reads require less time driving?

Yes. The manual monthly meter reading fee is based on the average cost on a per meter basis, not the cost for an individual customer. Ideally, each customer would pay only the cost to read their meter at their specific location. However, that is not a feasible or practical way to set rates. Instead, PacifiCorp uses average costs to fairly allocate the total cost of manual meter reads to customers that choose to not have a smart meter.

9. Are there customers, other than those opting out, that won't be receiving smart meters? If so, will those customers be charged a monthly meter reading fee?

Yes, the company does have customers in extremely remote areas and those customers will not have a smart meter installed. These customers will not be charged a monthly meter reading fee as the customer did not voluntarily make the decision to forgo a smart meter.

10. If a smart meter is out of reach of the new mesh network, will those customers be charged a monthly meter reading fee?

Similar to the previous question, only customers that are voluntarily opting out of the smart meter program will be charged the opt-out fees, including the monthly meter reading fee.

11. Is PacifiCorp phasing out analog meters all together? What kinds of meters will opt-out customers receive?

Yes. The company has not stocked analog meters for over twenty years. Digital non-radio frequency meters are both the industry and company standard metering technology for non-smart meter customers.

Customers that opt-out will retain their current meter, which may be a digital non-radio frequency meter or an older analog meter. Once the existing meter fails, the meter is replaced with a digital non-radio frequency meter.

12. When will the charge first appear on bills and when will manual reading of all meters cease?

PacifiCorp understands that customers want more information about when opt-out fees will be charged. The company commits to sending a notification to opt-out customers before the opt-fees show up on their bill.

After the smart meter is installed, PacifiCorp reads the meters manually and remotely. The reads are compared to ensure the accuracy of the remote reads. When this step is completed, the route is converted to all network meter reads. After all of the meter routes are converted, the only meters requiring a meter reader are those of the opt-out customers. At this point the manual meter reading charge will begin appearing on the opt-out customers' bills. This takes approximately 30 to 60 days after the completion of installation in the area.

13. Customers already pay for meter reading in rates. If this is true, how are opt-out customers not being double-charged in their \$36 fee?

Based on information from PacifiCorp's 2012 general rate case, a meter-reading cost of \$1.60 per meter read is currently included in base rates. The marginal cost of service study for the 2012 general rate case showed that the marginal cost of additional meter reads was \$1.40 per meter read, reflecting the benefits of economies of scale for optimized meter reading routes. In comparison, meter reads for customers that elect not to receive a smart meter will not benefit from the economies of scale of PacifiCorp's previous meter reading system, increasing the average cost per meter read.

Smart meters will be fully deployed by the end of 2019; PacifiCorp anticipates filing a general rate case in March of 2020 for new rates effective January 1, 2021, at which time the embedded cost of manual meter reads will be removed from rates.

14. Is it reasonable to allow all customers to read their own meters? Why or why not?

The meter readers and metering process PacifiCorp has now is the most efficient way to obtain the data needed to provide customers with the timely and accurate bills they need. The upgrade to smart meters will make this process even more efficient and more beneficial for customers. Even if PacifiCorp did allow customers to read their own meters, a manual reading and validation process would still be required, so it is unclear

that there would be any cost savings associated with this approach. In fact, there could be additional costs and the increased likelihood of billing estimates, inaccurate customer reads, and subsequent billing adjustments, all of which are not optimal for customers.

In the past, PacifiCorp did allow customers to supply meter reads primarily in rural areas where access to the meters could be difficult due to either the remote location of the meter or seasonal weather conditions. The company was still required to read the meter at least once a quarter. The program was phased out for several reasons. Ultimately, the program was a customer dissatisfier because meter reads were not received in time resulting in an excessive amount of estimated bills and/or high catch-up bills.

Operationally, the company needs access to metering equipment to provide reliable service and accurate bills. To resolve these issues, PacifiCorp made a concerted effort to work with customers to obtain access to the meters by getting keys to locked gates, adding company locks to customers' property, and as technology advanced, installing radio frequency meters.

To immediately switch to billing based on customer-supplied meter reads, customers would need to provide the meter reads at the end of the billing cycle to ensure the days on the bills remain somewhat consistent for the proper billing of rates and fees and the meter reads would need to be manually validated for billing purposes. To automate this process, PacifiCorp would need to develop a new web feature and modify its existing billing system to allow customers to input meter reads for the purposes of billing. A capital investment would be required for this technology that would be used by an extremely low number of customers. It is true that PacifiCorp has customers that call in to provide meter reads, however, the company only uses company-obtained meter reads or system estimates to calculate their bills.

15. When the company reexamines the smart meter opt-out charge, and if the charge is adjusted downward, will the company propose that customers that previously opted out receive a credit?

The company is charging the approved rate at this time, and it is premature to make a prediction on what the costs will be after meters are installed and meter reading routes for opt-out customers are established.

It is not, however, standard practice to go back and adjust rates after they have been charged because that would constitute retroactive ratemaking. To highlight this point, if it turns out that monthly meter reading costs are actually higher than \$36, PacifiCorp would not go back and retroactively charge customers for the increased amount.

16. Does the meter upgrade continue to demonstrate net benefits to standard customers, which will be detailed in the next rate case?

Yes. PacifiCorp's business case for smart meter deployment assumed there would be customers that would want to opt-out of having a smart meter, thus the company's

assessment of the net benefits took that into account. To date, PacifiCorp is 0.76 percent of the 590,000 targeted for replacement, which is below the one percent opt-out level assumed in the business case.

Customer Data

17. What information other than electric usage does the smart meter provide to PacifiCorp? Does this information include which appliances in the house a customer is using at a given time?

The meters measure whole house usage just like existing meters. The only difference is the frequency of the meter reading intervals.

18. What are PacifiCorp's protections for customer data received by smart meters? Does PacifiCorp share this data with other companies? Does PacifiCorp sell this data?

The data is encrypted and the company does not share or sell usage information.

ADDITIONAL QUESTIONS

19. What procedures does PacifiCorp have in place to notify customers regarding neighborhood transmission devices?

The transmission devices or access points for the encrypted data sent through the mesh network are mounted on utility owned poles, and are the first phase of building an area network. The devices are boxes that are clearly to bystanders and, similar to other infrastructure equipment placed on utility poles, PacifiCorp does not provide notice to customers in the area before installation. This is the same process followed when the company enters into joint use agreements with other utilities that attach equipment on utility poles. Along with most utility services, access points are visible to the public but are considered part of the company's critical assets and infrastructure. As such, a map of the location of access points is not provided at the request of the public nor has the need for such information to be disseminated been identified.

20. Is PacifiCorp complying with all local and county ordinances regarding neighborhood transmission devices?

Yes. PacifiCorp complies with all known laws governing attachments to utility poles.

PacifiCorp appreciates the opportunity to provide these written comments to complement its comments provided at the November 6, 2018 public meeting. If you have questions about this filing, please contact Melissa Nottingham at (503) 813-5136 or Natasha Siores at (503) 813-6583.

Public Utility Commission of Oregon

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Sincerely,

A handwritten signature in black ink, appearing to read 'Etta Lockey', with a long horizontal flourish extending to the right.

Etta Lockey
Vice President, Regulation