

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

Responses to Questions from February 16, 2018, Notice of Workshop

Smart Meter Installation Opt-In/Opt-Out Policy

1. *Should companies be required to offer customers the choice to opt-out of smart meter installation at their premises? Alternatively, should customers affirmatively opt-in?*

NW Natural Gas	Companies should not be required to offer an opt-out choice. Customers should default to being serviced by the utility's standard meter (regardless of type). Companies should have the flexibility to offer an opt-out choice based on the company's ability to reasonably accommodate the volume of opt-outs that may arise. In response to Question #3, NW Natural believes an opt-in choice would have slow adoption rates and if any choice is deemed necessary, it should be restricted to an opt-out choice.
Avista	Companies should not be required to offer an opt-out option but may elect to do so if they believe it is appropriate/necessary. Avista notes it did not experience any issues with customers during its AMI meters as part of its Smart Grid Demonstration Project in Pullman, WA (no opt-out was offered). The Company is opposed to an opt-in option due to significant impacts on the design and reliability of the communication network.
Public Counsel	Yes. In researching other jurisdictions, Public Counsel found several other Public Utility Commissions that ordered companies to offer an opt-out program after an initial rollout did not provide an option. These orders were in response to customer opposition of smart meter installation citing health, security, and privacy concerns. Public Counsel believes an opt-out versus opt-in may be more appropriate for Washington ratepayers for cost reasons. Only one opt-in program was identified in New Hampshire, which was implemented through legislation.
Pacific Power	Utilities should be allowed to provide an opt-out option. This option strikes an appropriate balance of customer choice without causing excessive inefficiencies or additional costs. An opt-in scenario would require tracking of enrollment choice for all customers and would see lower overall participation.
Puget Sound Energy	If meter installation customer choice is required by the Commission, PSE supports offering an opt-out choice in the form of a non-communicating digital AMI meter. PSE does not support

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

		an opt-in choice because it will result in higher costs and greater inefficiencies for any wireless metering solution.
2.	<i>Should companies be required to offer all customer classes the choice to opt-out or opt-in for smart meter installation?</i>	
	NW Natural Gas	See response to Question #1. It would be problematic if an opt-in or opt-out option were available to the class of customers where the data obtained from the advanced meter is critical to a billing function (e.g., hourly data frequency).
	Avista	Avista only supports making an opt-out option available to single-family residential homes. For multi-family unit dwellings (MUDs) a single meter opt-out would likely not address an individual customer concerns about an AMI meter due to “meter banks” (walls where several meters are located in one location).
	Public Counsel	Public Counsel is not opposed to IOUs offering opt-in/out programs for larger classes.
	Pacific Power	Pacific Power does not recommend requiring utilities to offer all customer classes an opt-out option. However, the Company does believe allowing some non-residential services (garages, shops, barns, well pumps) located on residential properties be eligible for the opt-out option.
	Puget Sound Energy	PSE is open to an opt-out option for residential customers but not for commercial, industrial, or net metering customers. Commercial and industrial customers are billed demand charge and non-communicating meters do not have the function needed to remedy any issue before a bill is required to be distributed to the customer. For net metering customers, a utility needs to know how much and in what direction the electricity is flowing because customers who push too much electricity back onto the grid can lead to an overload on parts of the grid. Safety issues can occur when a net metering customer is sending electricity back onto a part of the grid when it is being worked on by utility workers.
	Public Comment(s)	Smart meter installation should be denied. In the event it is allowed, an opt-in program should be the required option.
3.	<i>What company estimates, if any, have already been developed for how many customers would choose to opt-out or opt-in for smart meter installation?</i>	
	NW Natural Gas	In 2014, NW Natural made tariff revisions to provide an opt-out choice for residential customers only. Only nine Oregon customers have opted out of the advanced meter installation (zero for Washington).
	Avista	Avista has maintained a listing of customers interested in opt-out options (40 customers as of 2016). In Oregon, the Company has had one customer choose to opt-out since 2012. Avista

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

		shares this experience to highlight that while many customers may be interested in learning about opt-out options, very few remain interested after learning the costs associated with manual meter reading.
	Public Counsel	While the inquiry is directed towards the IOUs, Public Counsel observes nationally the number of customers who choose to opt-out of smart meter installations is low.
	Pacific Power	Pacific Power has not completed analysis to estimate opt-out percentages at this time. Less than one percent of the Company's customers have opted out of AMR metering.
	Puget Sound Energy	PSE's internal research of customers across its service area showed that approximately four to eight percent of the customers expressed opposition to or concern about smart metering (2017). The Company believes the number of customers who elect to opt out will depend upon the structure and costs of an opt-out program and customers' understanding of the benefits of smart metering.
Smart Meter Benefits		
4.	<i>What challenges do the companies face based on different levels of opt-in and opt-out (e.g., 1 percent, 5 percent, 25 percent) and what smart grid benefits are either reduced or eliminated at these levels?</i>	
	NW Natural Gas	Benefits related to smart grid do not directly apply to gas utilities. NW Natural has AMR technology deployed, which has significantly reduced the costs for meter reading and billing. The Company estimates that for each percentage level, on average, an additional 7,000 meter read orders would be generated per month, equating to seven full time employee equivalents.
	Avista	In an AMI network, meters rely on neighboring meters to send data. At high opt-out levels there would be significant degradation to the AMI network. Several benefits would be reduced including load forecasting capabilities, power quality monitoring, power outage restoration, power line sensors, network redundancy, access to battery storage, and charging options for EVs. At one percent, the impacts would be negligible. At a range of five percent, those areas of benefit impacted on a less proportional basis would likely move into the directly proportional category. At 10 percent, there would likely be a 90 percent reduction in the overall net financial benefits of an AMI system. An 11 percent opt-out rate eliminates all benefits.
	Public Counsel	No response.
	Pacific Power	Pacific Power has not performed analysis regarding opt-out percentages and its impact on smart grid benefits at this time.

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

	Puget Sound Energy	AMI network performance would be reduced. As each smart meter is removed, the RF mesh (communication technology) is weakened and more pole-top network devices need to be installed at an additional expense (installation and maintenance). It would also result in slower outage identification and restoration, as well as less efficient grid management, including line loss monitoring and reduction (power quality), CVR (conservation voltage reduction), and engineering planning. Grid management efficiency benefits rely on nearly complete adoption of smart metering to achieve the maximum benefit. Opting out creates safety concerns and an inability to quickly identify tampering or theft.
5.	<i>For those customers who select to opt-out of, or decline to opt-in to, smart meter installation, what types of services or benefits would they be forgoing?</i>	
	NW Natural Gas	AMR nearly eliminates on-site meter reading, reduces the number of estimated meter readings, provides more accurate opening and closing billings, reduces the utility's carbon footprint (automobile mileage), and allows for quickly identifying meter malfunctions (including meter damage, tampering, and theft).
	Avista	Customers would not be able to view their hourly or daily consumption data online, enroll in future energy savings programs (e.g., demand load control, distributed generation), receive high bill alerts (or customer determined text alerts for usage parameters), automated service interruption notices, more accurate billing, rapid response time for remote service connects, remote diagnosis for outages (particularly those on the customer side of the meter), smart appliance monitoring (both appliances and HVAC equipment), or detection and remediation of low or high voltage issues. At a system level, customers who opt-out would continue to receive the following benefits (because their neighbors have smart meters): reduction of peak system demand, reduced outage duration if their neighbors are AMI-enabled, reduced outage restoration costs, reduced cost for remote service connects and disconnects, reduced cost for thwarted energy theft and unbilled usage, energy conservation savings provided by conservation voltage reduction, and reduced costs for studies requiring customer usage information.
	Public Counsel	Public Counsel believes that Customers who chose to opt-out of smart meter installation should only be limited in services (and thus benefits) of programs directly requiring a smart meter. Basic service standards should not diminish for any customer because of their rejection of a smart meter (e.g., timely response to outages and bills based on accurate meter readings).

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

	Pacific Power	Customers would not have access to the following benefits: usage-based billing alerts, interval usage data, outage management automated notices, greater privacy (less need to access customer's property).
	Puget Sound Energy	Customers would not receive the following benefits: automatic outage detection, more accurate meter reading data including access to hourly or daily data, ability to prepay for services, limited participation in time-based rate programs.
Smart Meter Costs		
6.	<i>What type of costs are associated with offering an analog/existing meter opt-out option?</i>	
	NW Natural Gas	See response to Question #5. Additionally, other administrative costs associated with delays in making bill corrections and identifying situations of tampering or theft.
	Avista	The choice of retaining an analog meter is not an option. The new digital meter with the communications turned off provides the same choice as retaining an analog meter. Keeping existing meters poses multiple problems. Analog meters are becoming obsolete, as they are no longer being manufactured. Expanding the manufactures and type of meters in the field becomes complex to manage.
	Public Counsel	Public Counsel believes Washington IOUs should have a uniform calculation of the costs associated with opting out and fees payable to the extent possible, as well as uniform opt-out program models. Public Counsel would like to ensure those customers who elect to opt are not "double paying" for existing meters, readings, and other AMI capital investments that may already be embedded in current rates.
	Pacific Power	Pacific Power is not able to offer an analog meter option (standard meter is AMR). For opt-out customers an upfront opt-out fee, a monthly meter reading fee, and reconnection fees for non-radio-frequency (RF) meters on an as-needed basis.
	Puget Sound Energy	Up-front infrastructure and information system costs, ongoing program administration costs, one-time costs associated with each customer who elects to opt out, and ongoing manual meter reading costs. Engineering work would be required to remedy network communication holes that develop as the result of the opt-out program by relocating existing network devices or purchasing additional work.
7.	<i>Are costs a function of the number of customers choosing to opt-in or opt-out?</i>	
	NW Natural Gas	The same costs are in play regardless of the number of customers that opt-out. As the number of opt-outs increase there could be cost stabilization that could arise as a function of volume.

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

	Avista	No. The cost of a meter and the system to support the opt-out remain the same.
	Public Counsel	Costs associated with participating in an opt-out or opt-in program should be directly tied to the number of participants (the more customers that participate would reduce the costs per customer by spreading the costs over a larger number of participants).
	Pacific Power	The Company has not performed analysis to determine how a greater or lesser volume of opt-out customers may impact costs.
	Puget Sound Energy	The ongoing costs associated with meter reading will differ in wide range based upon the number of customers choosing to opt-in or opt-out. Given that PSE's electric, natural gas, and combined fuel service area encompasses 6,000 square miles in ten counties, the number and distribution of opt-out customers are the key elements in determining how the meter reads can be attained in an efficient and economical way.
8.	<i>Should all costs associated with the opt-out choice be paid by the individual customer making that election or should some portion of those costs be allocated to all ratepayers and/or to company shareholders?</i>	
	NW Natural Gas	All costs should be paid by the individual making the election.
	Avista	All costs should be borne by the individual customers that choose to opt out.
	Public Counsel	Those participating in the opt-out program should pay any costs associated with their choice to refuse a smart meter. The principle of cost causation should be followed. Public Counsel notes that in its research other jurisdictions followed this principle with the exception of Vermont, where legislation requires opt-outs free of charge.
	Pacific Power	All costs associated with the choice to opt-out should be paid by the customer choosing to opt-out. By opting out, these customers will require additional services that are not provided to the rest of the customers.
	Puget Sound Energy	PSE proposes that the incremental meter costs and costs to support non-communicating meter reading be paid by the individual opt-out customer. PSE also proposes that the initial costs associated with the design and configuration of the metering, information, and billing systems, as well as the ongoing overall program administration costs are allocated to all customers.
<i>Fees</i>		
9.	<i>What fees (one-time/recurring) should be assessed to customers who elect to opt-out and should the fees be assessed on a per-meter or per-location basis?</i>	

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

	NW Natural Gas	NW Natural currently assesses a one-time fee of \$172 to switch out the meters and an additional monthly service charge of \$26.55 to cover the cost of obtaining a monthly meter read. These charges are assessed on a per-meter basis.
	Avista	Customer choosing to opt-out should be assessed a fee for the following: the cost of the meter utilized for opting-out; the cost to configure the metering technology; the cost to install the meter utilized for opt-out customers; the cost to put an AMI meter back in place when the customer moves or closes their account; the monthly meter reading costs. One-time fees should be per meter with recurring meter reading fee per location.
	Public Counsel	Monthly charges should be assessed by location.
	Pacific Power	One-Time fee to cover the costs of processing the request and any metering changes (paid at the time opt-out occurs) and recurring monthly meter-reading fee.
	Puget Sound Energy	Up-front cost to cover the installation and eventual removal of the non-communicating meter. Monthly fee to cover the cost of the manual meter reading. PSE supports fees on a per-meter basis. While PSE believes a per-location fee is possible it introduces further complexity in rate making.
	Public Comment(s)	There should be no extra fees charged to those who decide to opt-out or decline to opt-in. The initial opt-out fee should be zero because it costs nothing to leave the existing analog meter in place. There should be no continuing monthly opt-out fee, but if there is to be one, it should cost no more than the actual cost to send out a meter reader.
10.	<i>If a monthly fee component is included, should there be a limited duration for companies to recover the incremental costs associated with the customer's choice to retain an analog/existing meter?</i>	
	NW Natural Gas	NW Natural's current one-time fee fully recovers the meter change costs for both the start of opting-out and the eventual opting-in. As long as manual reads are required, the monthly charge should continue.
	Avista	No. Incremental fees will continue as long as the customer receives service.
	Public Counsel	No response.
	Pacific Power	Customers should continue to bear the costs associated with the opt-out choice for as long as they remain opted out. This will protect the remaining customers from increased rates due to the costs caused by customers who opt-out of smart metering.
	Puget Sound Energy	The ongoing monthly fee should not be limited in duration as the manual meter reading costs will continue to be incurred.

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

11.	<i>If a one-time or up-front fee is required, should the companies be required to offer a payment plan?</i>	
	NW Natural Gas	No. The one-time fee should be due in full at the time it is assessed.
	Avista	The Company would be open to discussing a payment plan for any one-time or up-front fees assessed.
	Public Counsel	Public Counsel is open to the IOUs offering a payment plan for a one-time or up-front fee. Low-income rates for those who qualify for low-income bill assistance should be considered.
	Pacific Power	Because the one-time or up-front fee is voluntary, Pacific Power believes a payment plan offering should not be required. Utilities should have discretion as to whether to include such offerings in their individual opt-out programs.
	Puget Sound Energy	PSE currently would support treating the one-time or up-front fee as any other one-time charge. PSE does not have a tariff schedule that provides an installation payment plan for one-time charges. PSE believes it is reasonable to collect the up-front costs before installation or deploying of any optional services or equipment.
12.	<i>If recurring opt-out fees are assessed with each meter reading, should alternative meter reading schedules be adopted to reduce the opt-out fees paid by the customer (e.g., bi-monthly, quarterly, or annually with budget billing)?</i>	
	NW Natural Gas	No. The absence of AMR technology alone creates the potential for an adverse impact on the utility's ability to promptly identify a meter malfunction.
	Avista	Avista is open to exploring alternatives including customer self-reads with Company actual reads twice annually for verification purposes.
	Public Counsel	Utilities are required to bill customers at intervals not exceeding two one-month billing cycles and show the amount of metered service billed per WAC 480-100-178(1)(a). Increasing the intervals may overwhelm customers with bills that are too large.
	Pacific Power	Pacific Power does not recommend alternative meter reading schedules. Customers benefit from monthly meter readings that show actual usage and charges for actual consumption. Budget billing is generally based on invoice history; if based on alternative meter reading schedules, it can be challenging to provide accurate monthly installment amounts to implement budget billing.
	Puget Sound Energy	PSE currently has both monthly and bi-monthly billing available in electric Schedule 80. PSE does not advocate quarterly or annual meter reading schedules because the prolonged billing cycles may have an impact on accounting reporting for issues such as revenue recognition.

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

	Public Comment(s)	Meter reading cycles should be consolidated into few cycles per year to limit the fees and the emissions used by fleet vehicles for meter reading.
13.	<i>Should fees differ based on whether the customer is selecting to opt-out of a smart meter for a single service (e.g., electric or natural gas) or both services?</i>	
	NW Natural Gas	This question does not apply to NW Natural.
	Avista	Yes. All fees should be cost based, meaning they should differ based on the service the customer is receiving.
	Public Counsel	Fees related to opting out should be based on the actual price of providing either the electric or natural gas service.
	Pacific Power	Pacific Power does not provide gas service.
	Puget Sound Energy	The fees could be assessed for a single location or individual service or a single meter depending on the determination of a utility or the Commission. However, the introduction of blended or discounted rates would increase the complexity for customer billing, tariff adjustments, and create cross subsidization among customers and energy services.
14.	<i>Should there be a fee imposed on customers who elect to opt-out and later desire to have a smart meter installed?</i>	
	NW Natural Gas	See response to Question #9. It may be appropriate to restrict the number of opt-outs that are allowed within a specific timeframe (for instance within a one-year period).
	Avista	Yes. If there is an incremental cost for this scenario, then customers should be required to pay that cost.
	Public Counsel	No. Public Counsel considers a customer who ceases to continue in an opt-out program as now being a standard customer, and should not have to pay for a smart meter.
	Pacific Power	Pacific Power does not recommend charging an additional fee at the time customers opt back into smart metering.
	Puget Sound Energy	Yes. This fee would be covered in the charge associated with the smart metering installation so that the costs are borne by the customer that chooses to opt-out rather than all customers.
15.	<i>Should opt-out fees be a separate line item on a customer's bill?</i>	
	NW Natural Gas	Yes.
	Avista	Yes.
	Public Counsel	Yes. Any additional fees associated with opting out should be clearly and individually displayed on a customer's bill.

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

	Pacific Power	Yes.
	Puget Sound Energy	Yes.
Options		
16.	<i>Should more than one opt-out option be offered to customers who do not wish to have a wireless smart meter (e.g., a digital non-communicating meter)? If so, should the cost differ based on the type of meter selected?</i>	
	NW Natural Gas	Residential customers should have the option of a non-communicating meter and different fees should apply if there are incremental costs differences between the types of meters.
	Avista	No. Please see Avista's response to Question #6.
	Public Counsel	If more than one opt-out option is offered to customers, then all IOUs should offer the same type of opt-out options with varying fees that cover the actual cost of operations and service.
	Pacific Power	Pacific Power would need to understand more specifics related to the options being offered to determine if there would be a cost difference between options.
	Puget Sound Energy	PSE proposes only one opt-out meter option in the form of a digital non-communicating AMI meter.
	Public Comment(s)	Analog meters should be provided, not merely a non-communicating digital meters.
17.	<i>Should customers with smart meters be offered the opportunity to relocate the smart meter to another location on their premises? If so, should the customer pay the cost of relocation?</i>	
	NW Natural Gas	Yes, within the confines of industry codes and utility standards and requirements. Customers should pay the entire cost.
	Avista	Today, Avista allows customers to move their service point anywhere on their property as long as it meets the Company's current construction standards. Per the Company's tariff, if customers choose this option, they are required to pay the costs to relocate the meter.
	Public Counsel	Yes. Costs of relocating the meter should be borne by the individual customer.
	Pacific Power	Pacific Power provides an option for customers to relocate service under existing tariffs and supports relocation of smart meters as long as the customer pays the cost of relocation, and the new location of the meter meets service and access standards.
	Puget Sound Energy	PSE currently provides customers who wish to have PSE facilities modified to meet their individual need with this service under the terms and conditions set forth in PSE's WN U-60, Tariff G for electric service and PSE's WN U-2, Tariff for natural gas service, and under the

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

		line extension policies outlined in the electric Schedule 85, Line Extensions & Service Lines, and natural gas Rule No. 6, Extension of Distribution Facilities.
	Public Comment(s)	Yes, at a reduced or subsidized cost.
<i>Customer Communication</i>		
18.	<i>What form(s) of communication should the companies employ to advise customers of their smart meter installation options, and what type of information should be communicated?</i>	
	NW Natural Gas	Customers should be made aware of a wholesale replacement of existing meters and the impact of changing out the meter (people on their property, features of the new technology). If the meter change-out is intended to be optional, then the communication should include that information. Otherwise, proactively communicating about an opt-out option is not recommended. NW Natural only provides the opt-out information upon customer inquiry but it is available in the Company tariffs.
	Avista	Information will be available through the Company's call center and placing the information on its website. The Company has developed a communication plan (filed as Attachment A to its comments), but will not be including information related to opt-out in all of its customer communications. The Company does not believe emphasis or focus should be place on an opt-out option as it may undermine the benefits of transitioning to AMI.
	Public Counsel	IOUs should have two methods for relaying information. Information should be included in their materials on their general AMI/Smart Grid deployment notices (provided through bill insert or accessible through their websites). Companies should also provide individualized customer notices stating the estimated time period in which the Company will be installing smart meters in a given area (as a bill insert, other mailing, or electronic notification). The information provided in the individualized notice should include (at a minimum): an explanation of the IOUs infrastructure changes, benefits of AMI/Smart Grid upgrades, an estimated timeline for installation in the customer's area, a statement about any future communication on smart meter installation dates, an explanation of opt-out options, and IOU contact information for further inquiries.
	Pacific Power	Customers should be provided with advance notice of the Company's intent to schedule a smart meter installation so questions or concerns are addressed before the meter exchange. Pacific Power believe that customers should be provided with information regarding smart meters and any alternative options on the Company's website.

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

	Puget Sound Energy	Prior to smart meter installations, PSE would have information available on its website (project information and deployment schedule). PSE would train its customer service personnel to assist customers in understanding and applying for the opt-out program.
	Public Comment(s)	Such information should be included in customers' monthly bills and prominently displayed on utilities' websites, with notices/press release[s] sent to local media. It should include all local/state government hearings/forums concerning this issue, with sufficient time to hear comments (1-2 minutes is not time enough, although 3 may be for public comment). Public comment hearings should be scheduled during the early evening when people can attend them, and should be held at venues with adequate parking.

Other Issues

	Puget Sound Energy	If the Commission is going to require utilities to offer customers the choice to opt-out of or opt-in to smarter metering installation, it would be beneficial if the Commission also provides the guidelines on the implementation of the customer choice and the cost recovery associated with the initial implementation and the on-going processes.
	Puget Sound Energy	PSE recommends that only the current account holder would be eligible to opt out.

General Public Comments - 28 submissions received as of 3/13/2018 (individual and group responses)

	Frequent replacement costs to be born[e] by consumers.
	Measuring system has been shown to be less accurate (averaging peak use, rather than actual power use). Virtually no customer recourse if overcharged.
	Negative health effects (EMF technology). EMF technology (pulses) cannot be turned off by the consumer.
	Violation of privacy and vulnerability to data collection. Cybersecurity threat. Meters are easily hacked.
	Costs associated with opting-out are an added burden (especially for low income and senior residential customers).
	Request the UTC block any further implementation of smart meters.
	Physical meter reading useful for checking on the proper maintenance of the meters.
	Safety concerns – new meters are not grounded and the analog ones are putting house at risk in the event of a power surge; faulty installation can cause fires.
	Promised benefits are not being realized.
	Fiber optic communications are safer and can be shared with internet and phone providers.
	Not enough time has been provided for public comment.

Inquiry on Customer Choice for Smart Meter Installation

Comment Matrix

Docket U-180117

	Operational details must be open to public inspection, not hidden behind a maze of non-disclosure agreements and claims of proprietary technology.
	Opt-out may not be available if landlords do not want to pay the extra fees.
	Electronic meters consume a significant amount of electricity to operate.

The Energy Project – Provided response indicating strong interest in AMI deployment but observes that the questions posed in the Notice were appropriately seeking company information and experience. TEP offered no direct responses to the questions in the Notice but will await further opportunity to address other policy issues related to AMI installation (e.g., data privacy, remote disconnection, and customer notifications).