BEFORE THE WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, Complainant, v. PUGET SOUND ENERGY, Respondent.	DOCKET NOS. UE-190529, UG-190530, UE-190274, UG-190275 (*Consolidated)*

RESPONSE TESTIMONY OF

WENDY M. GERLITZ

ON BEHALF OF

NW ENERGY COALITION

November 22, 2019

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Wendy M. Gerlitz. I am the Policy Director of the NW Energy Coalition (NWEC). My business address is 811 1st Avenue, Suite 305, Seattle, WA 98104.

Q. Please describe your background and experience.

A. I am a graduate of the University of Wisconsin—Madison and have a Masters of Environmental Management from Yale University. I joined the staff of the NW Energy Coalition almost 10 years ago. In my time with the NWEC, I have provided testimony on a variety of electric and natural gas utility issues at the Washington Utilities and Transportation Commission (UTC or Commission), Oregon Public Utility Commission as well as in Bonneville Power Administration rate case proceedings. I have authored and contributed to comments submitted to the UTC in many proceedings regarding renewable energy, utility integrated resource plans, conservation, low-income programs and rate design. I am a member of the Energy Trust of Oregon Conservation Advisory Committee and the Conservation Resource Advisory Committee for the NW Power and Conservation Council.

Q. On whose behalf are you appearing in this proceeding?

A. NWEC, which is a non-profit alliance of one hundred environmental, civic and human services organizations, utilities, businesses, labor unions, and communities of faith in the Pacific Northwest. NWEC's primary purpose is to promote an energy future that is clean, reliable, affordable, and equitable. NWEC provides technical and policy leadership on energy issues in this region, and seeks to promote the development of renewable energy, energy conservation, and affordable energy services. Additionally, NWEC, as the primary advocacy organization monitoring

utility implementation of the Energy Independence Act (I-937 or EIA) and the recent Clean Energy Transformation Act (CETA), is also concerned with matters relating to PSE's state requirements under these laws and how those requirements will be impacted by the proposed actions in this filing.

Q. Please describe the interests of NWEC that are affected by this proceeding.

A. Our members have a substantial interest in the Puget Sound Energy (PSE or Company) General Rate Case for tariff revisions to increase rates for electric and natural gas services provided to customers in Washington, Dockets UE-190529/UG-190530. PSE's proposed tariff revisions, and the related rate case proposals, will directly affect our member groups as well as the individual members of our organizations. In particular, the outcome of this proceeding has a high likelihood of impacting residential and low-income customers and PSE programs that serve the interests of these customers.

Members of NWEC will be affected by (1) rate changes and cost shifting among customer classes that may result from this proceeding; (2) two-year rate plan and attrition adjustment issues that may impact customers and clean energy acquisition; (3) issues related to PSE's current natural gas line extension methodology and its impact on customers; and (4) issues associated with energy efficiency programs and acquisition.

Q. How is your testimony organized?

A. The first part of my testimony discusses issues related to PSE's proposed attrition adjustment proposal. The second part of my testimony describes NWEC's concerns

about rate impacts to customers and discusses actions PSE should take to mitigate these rate impacts through additional energy efficiency efforts.

Q. Are there any other witnesses testifying on behalf of NWEC?

A. Yes, in addition to my testimony, Amy Wheeless will present testimony for NWEC.

Q. What will Amy Wheeless be testifying about?

A. Amy Wheeless will discuss NWEC's concerns regarding PSE's current natural gas line extension methodology and propose changes to that methodology.

II. ATTRITION ADJUSTMENT

Q. What is PSE proposing with regard to an attrition adjustment in this case?

A. As I understand PSE's proposal, it is for a rate plan that incorporates a newly designed attrition adjustment. PSE is proposing a limited "attrition adjustment" that supports an increase in electric base rates by $118.4 million, resulting in increased after-tax cash flows of approximately $40 million; and an increase in gas rates by $108.2 million, resulting in an increase in after-tax cash flows of approximately $22 million.[1] In designing the attrition adjustment, PSE appears to have calculated expected revenues at current rates and revenues required given rate base and expense projections, then determined the expected shortfall.

Q. In your view, what factors should the Commission consider in determining whether to approve the attrition adjustment proposed by PSE in this case?

A. An attrition adjustment is a flexible regulatory mechanism designed to address issues related to regulatory lag. Often, attrition adjustments are used in the context of performance and incentive-based regulation to achieve a more holistic set of regulatory reforms. It is important that, in addition to examining the specific

[1] Amen, Exh. RJA-1T at 32:3-8.

calculation and methodology of the proposed adjustment, the Commission should also consider the broader context of utility regulatory reform and whether the proposal provides an approach that adequately achieves benefits that are in the public interest.

Q. Please provide an overview of performance and incentive-based regulation.

A. Performance and incentive-based regulation (PBR) is an approach that seeks reforms to traditional cost of service regulation to recognize the changes occurring in the utility sector. Rapid advances in technology, increasing customer control over usage and, increasingly, their own generation, and other trends necessitate changes to traditional ratemaking approaches that are based upon capital intensive, large power generating stations. "Performance-based regulation provides a regulatory framework to connect goals, targets, and measures to utility performance, executive compensation, and investor returns."[2]

Common elements of PBR include multiyear rate plans (MYRP) of at least 3-5 years; an attrition relief mechanism (ARM) (sometimes called an attrition adjustment mechanism); earnings sharing mechanisms; and performance incentives mechanisms.[3]

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[2] David Littell et. al., *Next Generation Performance Based Ratemaking*; Technical Report No. NREL/TP-6A50-68512 (Sept. 2017), available at https://www.nrel.gov/docs/fy17osti/68512.pdf.

[3] Mark Newton Lowry and Tim Wolf, *Performance-Based Regulation in a High Distributed Energy Resources Future,* Ed. Schwartz, Lisa C., Report No. LBNL-1004130, Vol. FEUR Report No. 3. (Jan. 2016) available at http://eta-publications.lbl.gov/sites/default/files/lbnl-1004130.pdf; Dan Cross-Call et. al., Rocky Mountain Institute, *Navigating Utility Business Model Reform* (Jan. 2018) available at https://rmi.org/insight/navigating-utility-business-model-reform/.

Q. What are the benefits of a PBR approach that includes the elements you describe above?

A. There are many benefits of PBR reforms. A well-designed approach should provide the following benefits:

(1) Aligns utility earnings with performance that is based on public interest objectives;

(2) Provides incentives for utilities to control costs between rate cases without reductions in service quality;

(3) Reduces administrative burden through reductions in regulatory time and cost;

(4) Provides for greater utility operating flexibility, which can increase responsiveness to changing technology and associated opportunities and innovation at the utility;

(5) Reduces barriers to grid modernization, distributed energy resource implementation, energy efficiency, and other customer-focused strategies by reducing capital bias; and

(6) Increases alignment of utility operations and capital expenditure with clean energy and other environmental goals.

Q. How are typical attrition relief mechanisms associated with PBR structured?

A. An "attrition relief mechanism" (ARM) is typically included as part of a MYRP to automatically adjust utility revenues in response to cost pressures without needing to track actual utility cost of service. There are three types of common ARMs:

(1) Forecasts – rate adjustments based on forecasted costs that adjusts revenues on a predetermined percent per year.

(2) Indexing – typically uses industry cost trends to adjust revenues on a predetermined percent per year.

(3) Hybrids – commonly uses a combination of forecasting and indexing (often an indexing approach for operations and maintenance expense and a capex forecast).

ARM revenues are typically calculated using a formula that incorporates inflation, a productivity or "X" Factor (to reflect impact of productivity growth on cost growth), an exogenous event or "Z" Factor (to account for elements outside a utility's control), and sometimes a "stretch factor." The stretch factor is added to share benefits of stronger performance incentives expected under the plan with customers.[4]

Efficiency carry-over mechanisms are sometimes used along with the ARM to maintain utility incentives to control cost by allowing carryover savings between rate periods. Sometimes the approach will also incorporate the use of cost trackers, which are used for the expedited recovery of costs that are difficult to account for under the ARM.

Q. Does PSE follow any of these common ARM designs in their attrition adjustment proposal?

A. No. The proposed attrition adjustment does not include the ARM approaches I discussed above.

Q. Please explain more about performance incentive mechanisms and the importance of these mechanisms in PBR?

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[4] *See* Mark Newton Lowry and Tim Wolf, *Performance-Based Regulation in a High Distributed Energy Resources Future,* Ed. Schwartz, Lisa C., Report No. LBNL-1004130, Vol. FEUR Report No. 3. (Jan. 2016) available at http://eta-publications.lbl.gov/sites/default/files/lbnl-1004130.pdf.

A. Performance incentive mechanisms (PIMs) provide a method to integrate the evaluation of utility performance on important public interest objectives. PIMs are an important element to use along with an ARM because they serve to balance incentives for cost containment with incentives to pursue other goals that matter to customers and the public.

PIMs provide for the adoption of specific performance metrics, targets, or incentives to affect utility performance that represents the interests of its state policy, interest groups, and customers. These mechanisms can include increments or decrements to revenue or earnings. PIMs are a commonly used tool for traditional outcomes like safety, reliability and energy efficiency. In recent years, a growing number of states have begun pursuing PIMs for more emergent outcomes like: customer satisfaction, peak demand reduction, greenhouse gas emissions reductions, distributed energy resource (DER) interconnection experience, DER utilization, among other things.

Q. Is PSE's proposed attrition adjustment consistent with historical Commission precedent regarding attrition adjustments?

A. In a general sense, it does appear that PSE used a methodology similar to the methodology approved by the Commission for Avista in their 2015 general rate case UE-150204, with changes based on the discussion of attrition in the Commission's order in UE-160228 and UG-160229.

Q. In your view, is the fact that the Commission approved a similar methodology for Avista in 2015 sufficient rationale for the Commission to approve PSE's proposed attrition adjustment in this case?

A. No. A number of relevant legislative, judicial and regulatory matters have taken place since that case that inform the discussion of regulatory reform and the use of

flexible regulatory mechanisms such as an attrition adjustment. This recent context should be taken into consideration. To begin, as noted in PSE Witness Amen's testimony,[5] the Washington Court of Appeals struck down all portions of the attrition allowance attributable to rate base approved in the Avista case on the grounds that projections of future rate base were not "used and useful." After this court decision, the Washington legislature amended RCW 80.04.250 through the passage of the Clean Energy Transformation Act (S.B. 5116 or CETA) passed this year by the Washington legislature. CETA includes several sections relevant to the Commission's ratemaking authority,[6] and includes specific language related to the Commission's authority regarding performance and incentive-based regulation, multiyear rate plans and other flexible regulatory mechanisms.[7] Further, Section 1 of the CETA provides:

> The legislature declares that utilities in this state have an important role to play in this transition, and must be fully empowered, through regulatory tools and incentives, to achieve the goals of this policy. In combination with new technology and emerging opportunities for customers, this policy will spur transformational change in the utility industry. Given these changes, the legislature recognizes and finds that the utilities and transportation commission's statutory grant of authority for rate making includes consideration and implementation of performance and incentive-based regulation, multiyear rate plans, and other flexible regulatory mechanisms where appropriate to achieve fair, just, reasonable, and sufficient rates and its public interest objectives.[8]

The CETA goes on to specify that the public interest includes at least three desired outcomes:

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5 Amen, Exh. RJA-1T at 8.
6 *See* 2019 Wash. Sess. Laws, Chapter 288, § 20 (2)-(3).
7 *Id.* at § 20 (6).
8 *Id.* at § 1 (5).

(1) The equitable distribution of energy benefits and reduction of burdens to vulnerable populations and highly impacted communities;

(2) Long-term and short-term public health, economic, and environmental benefits and the reduction of costs and risks; and

(3) Energy security and resiliency.[9]

Lastly, the Commission opened docket U-180907 on November 8, 2018 to examine the adequacy of the current regulatory framework employed by the Commission in addressing developing industry trends, new technologies, and public policy affecting the utility sector. Many stakeholders provided comments in this proceeding urging the Commission to consider the benefits of implementing performance and incentive-based regulation in Washington state.

Q. Please explain your concerns with PSE's attrition adjustment proposal in this case.

I do not support the idea that the adjustment proposed by PSE, on its own, is consistent with the recent legislative or regulatory progress on the topic of performance and incentive-based regulation, which I believe argues for more comprehensive measures to address regulatory reform. Washington State is transforming the electric sector to 100% clean electricity and incorporating a more deliberate perspective of ensuring equitable benefits from this transition, and will need the regulatory tools to assist with this transition. PSE's proposal has neither a clear and compelling link to achieving the 100% clean electricity objectives nor the public interest objectives of equitable distribution of benefits and reduction of barriers, long-term and short-term public health, economic, and environmental benefits and the reduction of costs and risks, and energy security and resiliency. The

[9] *Id.* at § 1 (6).

attrition adjustment proposed by PSE in this case, by itself, is unlikely to promote either societal benefits such as decarbonization or customer value.

Q. Did PSE investigate alternatives to its proposed attrition adjustment to address regulatory lag and meet the purposes outlined for the use of PBR and flexible regulatory mechanisms?

A. No. In response to AWEC DR 16, PSE admitted it has not considered other flexible mechanism alternatives.[10] Nor has it considered implementation of other PBR measures to complement the attrition adjustment to achieve a broader set of goals.[11]

Q. What other flexible regulatory mechanisms should they have considered?

A. A more fully developed PBR approach would offer greater long-term customer benefits and be better aligned with the objectives of moving toward 100% carbon free electricity. Specifically, I recommend a MYRP that includes:

(a) A mechanism to adjust revenues in response to cost pressures over the rate period (e.g., incorporation of a positive x-factor and/or stretch factor to motivate cost savings);

(b) An earnings sharing mechanism; and

(c) Performance incentives and/or penalties linked to public interest goals outlined in statute.

A well-designed ARM will be a valuable ***part*** of a successful performance based ratemaking approach, however, the adoption of an attrition mechanism should be accompanied by a multiyear rate plan, ideally of a duration of at least three years,

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[10] Exh. WMG-02 (PSE Response to AWEC Data Request No. 016).
[11] Exh. WMG-03 (PSE Response to NWEC Data Request No. 026).

performance incentive mechanisms, and potentially other PBM approaches that all are designed to work together to achieve the desired public interest outcomes.

Q. What important aspects of regulatory reform are left unfulfilled by PSE's limited approach?

A. Several. Specific to the design of the attrition adjustment itself, as I understand the calculations used in the attrition adjustment and the proposed true-up process, I do not believe that there is anything specific about the attrition adjustment proposed by PSE will provide incentives for the Company to control costs in the time period between this rate case and the next.

Furthermore, while I agree with PSE that the high pace of technology change related to grid modernization requires innovation and flexibility on the part of the utility, and changes to traditional cost of service ratemaking (COSR) to ensure appropriate and timely cost recovery of these technological investments,[12] I disagree that PSE's proposed attrition adjustment goes far enough to really address the issue of technology investment in a satisfactory manner.

Most importantly, without the concurrent implementation of performance incentive mechanisms linked to public interest objectives, the attrition mechanism fails to achieve public interest goals and also fails to provide the well-rounded benefits associated with PBR and MYRPs.

For example, the current need for DERs (e.g., energy efficiency, peak load management, distributed generation, storage) and associated grid modernization contribute to the need for regulatory reform because traditional COSR discourages

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[12] Doyle, Exh. DAD-1T at 19 and 20.

these types of investments, especially if they take place on the customer side of the meter. Without PIMs that incentivize DER programs and investments, a large portion of the motivation for PBR is left unfulfilled by PSE's limited use of a one-time attrition adjustment.

In recent years, several other states including New York, Rhode Island, Minnesota, Hawaii and others have explored PIMs focused on DER and other grid modernization outcomes as part of comprehensive approaches to PBR strategies to improve utility performance in key areas.

Q. Are there other aspects of PSE's proposal that should have been approached in a different manner?

Yes. A PBR approach should be developed collaboratively, with interested stakeholders, in order to ensure a participatory and well-developed approach. A collaborative process is more likely to produce an outcome that a broad set of stakeholders are confidant will advance or accelerate progress toward policy goals and desired outcomes.

Q. What is your recommendation regarding the attrition adjustment?

A. The attrition adjustment proposed by PSE should not be approved by the Commission. Rather, the Commission should make clear that attrition should be addressed as a part of a more complete PBR proposal. Ideally, the Commission should provide guidance to PSE regarding:

(1) Ratemaking mechanisms that should be included in a comprehensive PBR approach;

(2) Length of time for a successful MYRP;

(3) Criteria necessary for evaluating whether the rate plan is in the public interest;

(4) Minimum requirements for an acceptable process, including consultation with interested stakeholders, for development of a PBR proposal; and

(5) Any specific information or studies that are needed to accompany the PBR proposal.

III. MITIGATING RATE INCREASES TO CUSTOMERS THROUGH ENERGY EFFICIENCY AND LOW INCOME ASSISTANCE

Q. Is NWEC concerned about the rate increase requested by PSE in this case?

A. Yes. PSE has requested a 6.9% increase in rates and a 7.9% increase for gas customers.[13] These are sizable increases that may be difficult for many customers to manage, especially low and moderate income households.

Q. Is this rate increase reasonable?

A. In this testimony, I am not taking a position on the reasonableness of the rate increases proposed by PSE, other than my testimony related specifically to the attrition adjustment.

Q. What is your recommendation related to the proposed rate increase?

A. NWEC takes the position that the Company has a responsibility to its customers to mitigate the current and future potential rate increases by aggressively pursuing energy efficiency, especially considering the continued authorization and use of its decoupling mechanism. I propose one additional action that PSE can take to ensure it is maximizing opportunities to obtain cost-effective energy efficiency: implementation of an on-bill repayment program for all customers.

[13] Mills, Exh. DEM-1T at 18:6-7.

Q. But doesn't PSE already have energy efficiency targets and an additional commitment to achieving 5% above its targets that is associated with its decoupling mechanism?

A. Yes. However, it is NWEC's position that the Company should be taking additional steps to ensure they capture all cost-effective electric conservation. Having an on-bill repayment option for customers will significantly increase the number of customers undertaking energy efficiency programs by removing barriers related to the upfront cost of these projects.

Q. Do you believe that an on-bill repayment offering could help PSE achieve additional cost-effective conservation?

A. Yes. In fact, when PSE issued a Request for Information (RFI) related to on-bill financing in 2017, PSE received a response from a bidder with extensive lending experience with other utilities in the region. This response estimated PSE energy savings as "an annual lending volume of 400 loans for $4 million composed of 150 small projects (weatherization, heating) of average $6,750 loan amount with total savings of 1,112,176 kWh and 250 larger projects (multiple measures, whole-home, windows, potentially solar) with average loan amount of $11,950 and total savings of 2,472,959kWh for total savings of 3,585,136 kWh."[14]

Q. Can you describe the concept of an on-bill repayment offering?

A. Yes. On-bill repayment programs are offerings made by a utility to their customers on an opt-in basis, to finance customer improvements related to electricity or natural gas service. The programs are intended to overcome barriers to the upfront costs of energy efficiency or distributed renewable generation projects by allowing customers

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[14] Exh. WMG-04 at Section 3.d. (PSE Response to NWEC Data Request No. 014_Attach A; Financing RFI's, PSE RFI Craft 3 Response 053017).

to pay back the investments over a period of time directly on their utility bills. Even in projects where a life-cycle cost/benefit analysis is positive, many customers find the upfront costs to be a barrier to undertaking customer-side investments. Approximately 110 utilities across the country, including publicly-owned utilities (i.e., municipal and rural electric cooperatives) and investor-owned utilities, offer some form of on-bill repayment program.[15]

Q. Is there a concern that an on-bill repayment program could lead to cost shifting that will raise non-participant rates?

A. A properly structured program will ensure that the costs associated with on-bill repayment are borne solely by each voluntarily participating customer and consequently no cost-shifting will occur.

Q. Are there different types of on-bill repayment programs?

A. Yes. At a high level, there are two primary types of on-bill repayment approaches: loans and tariffs. On-bill loans typically utilize third-party financing to offer loans to customers that are then paid back on the customer's utility bill. These programs are conventional loans to an entity (the customer) and thus require good credit scores, home/property-ownership against which a lien can be assigned, and an agreement to pay-off the loan in full if the property is sold, among other requirements. In an on-bill tariff approach, such as the Pay as You Save® (PAYS®) approach, the utility finances the energy efficiency project (sometimes by securing financing from a third

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[15] U.S. Department of Energy, *Issue Brief: Low-Income Energy Efficiency Financing through On-Bill Tariff Programs* available at https://betterbuildingsinitiative.energy.gov/sites/default/files/IB%20L-I%20EE%20Financing%20through%20On-Bill%20Tariffs_Final_0.pdf.

party), but, as opposed to a traditional loan, the repayment is structured as a tariff that is assigned to the premise meter over a period of time.

Q. Does PSE currently offer or plan to offer any type of on-bill repayment program to its customers?

No.

Q. Do you have a recommendation regarding the type of program PSE should offer its customers?

A. Yes. I recommend that PSE offer a tariffed on-bill program for customers.

Q. Please describe in more detail how a tariffed on-bill program works.

A. Typically, the tariff structure ensures that the customer is assured of savings because the program will only pay for efficiency upgrades where projected annual savings are greater than the service charge and, if upgrades ever fail, the tariff structure ensures that payments stop until the upgrade has been repaired.

In effect, the utility is providing the customer with a service (improved energy efficiency and lower billing) and is charging for this service through a monthly program services charge for a time period not to exceed the expected life of the upgrade and the structure. The customer has the important security of being assured the monthly service charge will be less than the estimated average energy billing savings. In no case should the estimated annual savings be less than the annual charges. In the case of non-payment, the utility's adopted policies for non-payment and disconnection of service apply, however, I do not believe there has been even one

instance of a disconnection for non-payment among any of the utilities offering this opt-in tariff option.[16]

Q. What upgrades will qualify for the tariff?

A. Any customer-side upgrade that results in a positive cost/benefits analysis could be considered. The upgrade must be a proven technology that produces reliable and calculable savings. Examples include: high efficiency air source heat pumps, duct sealing and duct insulation, high efficiency lighting, and eliminating insulation voids. In addition to energy efficiency, programs can also include cost-effective storage and on-site renewable investments. Typically, programs require that upgrades must pass the 80% rule to be eligible based on a location specific, on-site cost effectiveness analysis. The 80% rule means the total annual on-bill charge cannot exceed 80% of the estimated annual utility bill savings and the maximum cost recovery term cannot exceed 80% of the useful life of the upgrade or a full parts and labor warranty, whichever is greater.

Q. What costs are typically included in the tariff amount?

A This calculation involves a simple annual percentage rate (APR) calculation with three primary variables: cost to install the upgrades and any fees, the cost of capital, and the duration of cost recovery.

Q. What are the benefits of a tariffed on-bill program over a loan program?

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[16] Exh. WMG-05 (Clean Energy Works, *What is Inclusive Financing and Why Are Some of the Largest States in the Country Calling for it Now?*).

A. The program uses a tariffed on-bill service charge that will eliminate the need for personal loans or up-front cash investment by the customer to finance customer-side investments. No debt obligation is created for the customer because the terms of service defined in the tariff assign the obligation to the location, not to the customer. Tariffed on-bill programs have the following additional benefits:

(1) They can and have served all types of customers including renters who pay their utility bills, moderate-income customers (including those with low credit scores); municipalities, and commercial customers.

(2) The PAYS® model, one type of an on-bill tariff model, has achieved offer acceptance rates as high as 70 – 90%.[17]

(3) While the potential for disconnection for non-payment helps utilities realize high cost recovery, for tariffed on bill programs using the PAYS® model, the consumer assurances which create these offers have to date ensured that no customer has been disconnected for non-payment.[18]

(4) Utility cost recovery has been better than implementing utilities' current rate of collectables. Reporting utilities average collections of 99.9% of their investments.[19]

(5) The investment is more secure because utility collections have a charge-off rate that is approximately 10 times lower than unsecured consumer lending.[20]

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17 *Id.*
18 *Id.*
19 *Id.*
20 *Id.*

Q. Can you say more about the benefits of a tariffed on-bill program in addressing the split incentive problem that often results in less energy efficiency achieved in rental properties?

A. Certainly. Under a tariffed on-bill approach, the customer pays for their utility service as long as they occupy the location where the upgrades are installed, and the charge remains on the bill for that location until all costs are recovered. In the case of rental units, there is no upfront capital required by landlords, and tenants only pay for the improvements as they realize the benefits through the utility bill. If a tenant moves, they no longer pay for the upgrade at the old location, rather the new tenant that is realizing the benefits from the upgrade, assumes the payment and obtains the benefits. Additionally, a requirement that the tariff be suspended if the upgrade fails further protects rental customers to ensure that needed repairs are conducted in a timely fashion. Robust consumer protections must be in place for on-bill tariff programs to notify and explain to new residents that there is an additional financial obligation associated with the property as a result of investment in upgrades that have lowered the overall bill. However, ultimately, the renter is paying a lower energy bill as a result of the upgrades than they would have paid without it.

Q. Does a tariffed on-bill program provide benefits for customers that are non-participants?

A. Yes. The program is intended to fund projects that typically will not move forward, and the projected energy savings never be realized, without a program of this type. Energy efficiency projects are in non-participant customers interests because they result in reduction of future cost of generation, transmission and distribution and in environmental improvement. This program not only lowers participating customers' energy costs, it will also lower the long-term cost of power related to required

additional generation for all PSE customers, help PSE comply with I-937 and the CETA at a lower cost, and result in environmental benefits and reduced pollution from fossil fuel use.

Q. Are other utilities across the nation utilizing this tariffed on-bill approach?

A. Yes, one common type of tariffed on-bill program is called PAYS® (Pay As You Save®).[21] Inclusive financing programs based on the PAYS® system have been successfully implemented during the past 18 years in 7 states by 17 utilities, including investor owned, cooperative, and municipal utilities. Five thousand locations have been upgraded and more than $40,000,000 has been invested in energy efficiency and renewable upgrades. To date, participants of all types have been repaying their utility for its investments through tariffed on-bill charges.[22]

Q. What are you recommending to the Commission on the topic of on-bill repayment?

A. I recommend that the Commission order PSE to design and implement an on-bill repayment program for customers, designed in conjunction with its Conservation Resources Advisory Group and its Low Income Advisory Committee, by December 31, 2020.

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[21] Holmes Hummel and Harlan Lachman, *What is Inclusive Financing and Why Are Some of the Largest States in the Country Calling for it Now?* (2018) available at https://aceee.org/files/proceedings/2018/node_modules/pdfjs-dist-viewer-min/build/minified/web/viewer.html?file=../../../../../assets/attachments/0194_0286_000158.pdf#search=%22hummel%22.

[22] Exh. WMG-05.

Q. Do you have additional recommendations to mitigate any rate increase impacts on customers?

A. Yes. PSE has included a proposal to increase electric low-income bill assistance by $2.9 million and gas low-income bill assistance by a little over half a million dollars.[23] I support this proposal as one viable way to help mitigate rate increases on low-income customers.

IV. CONCLUSION

Q. Does this conclude your testimony?

A. Yes.

[23] Pilaris, Exh. JAP-1T at 19 and 44.