EXH. KM-1CT
DOCKET UE-220701
WITNESS: KRISTINA MCCLENAHAN

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

ALEXANDER AND ELENA ARGUNOV, THOMAS AND HEIDI JOHNSON, CHAD AND VICTORIA GROESBECK **Complainants,** **v.** **PUGET SOUND ENERGY,** **Respondent.**	**Docket UE-220701**

PREFILED RESPONSE TESTIMONY (CONFIDENTIAL) OF

KRISTINA MCCLENAHAN

ON BEHALF OF PUGET SOUND ENERGY

REDACTED VERSION

FEBRUARY 9, 2023

PUGET SOUND ENERGY

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I. INTRODUCTION

Q. Please state your name, business address, and position with Puget Sound Energy.

A. My name is Kristina McClenahan, and my business address is Puget Sound Energy, P.O. Box 97034, Bellevue, Washington 98009-9734. I am employed by Puget Sound Energy ("PSE") as Supervisor of Billing and Payment Systems.

Q. Have you prepared an exhibit describing your education, relevant employment experience, and other professional qualifications?

A. Yes, I have. It is Exhibit KM-2.

Q. What are your duties as Supervisor of Billing and Payment Systems for PSE?

A. My duties include understanding and interpreting the compliance rules and laws for utilities for Puget Sound Energy's rate schedules and partnering with technical teams on how the billing and payment systems apply the logic to provide timely and accurate bills to customers. In addition, I provide guidance and expertise for billing and payment processes which have impacts to customers, and the billing and payment systems.

Q. What topics are you covering in your testimony?

A. My testimony addresses how Puget Sound Energy utilizes SAP's Industry Standard Utilities, Customer Relationship and Billing system, also known as SAP IS-U, CR&B, and the processes utilized within SAP to calculate and process billings. I also address the specific rate schedules and billing histories associated with the customers who filed this formal complaint.

The SAP billing process is the final piece of a three-part process from energy usage to billing. PSE witness Ian Hagan addresses the meter functioning, and PSE witness Allison Sains addresses how usage information from the meters is communicated, stored, and processed in PSE's meter data management system ("MDMS").

II. TESTIMONY

A. Overview of the SAP Billing Process

Q. Please provide a high-level overview of how energy usage is recorded, stored, and billed in PSE's SAP system.

A. PSE's SAP system is the final process meter data goes through before it is sent to the customer for billing purposes. The SAP system gathers the data regarding a customer's energy usage, which is stored on the meter data management system ("MDMS"), and then uses that information to create a bill for the customer. Puget Sound Energy follows SAP's Standard Periodic Meter Reading Process which

organizes meter readings and meter read results for devices that are read for specific activities, an example of this is for billing. This process enables meters to be read periodically for periodic billing, or aperiodically to receive accurate readings at time of meter replacement, removal, or disconnection.

Q. Please provide a step-by-step discussion of the SAP billing process.

A. First, the SAP system creates the meter read order for billing three days prior to the date for billing, which enables MDMS lead time to get a meter read. The meter read order requests a meter read for billing from the MDMS if the meter is an Advanced Meter Infrastructure ("AMI") or Automated Meter Reading ("AMR") meter. If the meter is a non-communicating meter ("NCM") then a manual order is created for an employee to travel to the meter's location to capture the meter read manually.

Second, once the meter read is captured in MDMS the raw data is validated within MDMS for billing and is then uploaded into SAP. Next, the meter read is automatically processed within SAP validation rules to validate the meter read entry. The validation rules include checking if the current meter read is lower than the previous meter read and whether the number of permitted meter readings by estimation has been exceeded. If the validations fail an outsort is created for manual review, or if a meter does not provide a meter read to MDMS, SAP will process any estimations or corrections, and complete the meter read order in SAP. This then begins the billing process to create the billing order and billing

document through the standard SAP billing processes where using the results of the meter read order and the rate component of the bill is calculated. This billing document and billing order are created and the information is then moved through SAP's invoicing process, where the end result is an output to bill print for delivery to the customer through their preferred method of bill delivery and an archived PDF associated with the account.

Q. Please describe PSE's SAP system and how it is used by PSE.

A. Puget Sound Energy utilizes multiple modules of SAP. Specifically we utilize SAP IS-U CR&B as the system of record for customer information data as it relates to their utility service and billing. This is a comprehensive system that allows PSE to communicate with customers and accurately align those customers with their bills and payment. SAP runs nightly processes to apply payments received to customer accounts, process meter read orders, process billing and invoicing for delivery, create correspondence letters for delivery, process dunning and create disconnection orders, and process move ins and move outs. PSE employees utilize SAP to respond to inquiries and requests from customers and to communicate field work for premises out to field employees. The information within SAP is also utilized to enable self-serve channel capabilities for customers through the website at PSE.com, mobile application, integrated voice response telephone system, and to communicate through the customers preferences.

B. Interval Data Is Not Used By PSE for SAP for Billing Purposes

Q. What is interval data?

A. Interval data refers to data demonstrating customer usage that is recorded on shorter-term basis, such as every 15 minutes, every hour, or every day and which is available for customers to review on PSE.com in order to monitor their usage. This interval data is displayed in kilowatt hours ("kWh").

Q. How is the interval data displayed?

A. When the customer views their usage at PSE.com, they are able to view the usage by bill, day, or hour. The usage data viewed is displayed in kWh because, as discussed in the Prefiled Response Testimony of Ian Hagan, Exh. IH-1T, the meters record a customer's energy usage in kWhs. If the customer chooses to download their usage, there are clear descriptions of the energy usage, and for electric usage the unit of measure shows kWh. The electric meter itself measures the actual energy use over time and is also in kWh which requires no conversion, customers on residential rates will not see any usage in KW when they view their usage data on PSE.com.

Q. Does PSE's SAP system incorporate interval data readings into its monthly meter readings for residential billing purposes?

A. Puget Sound Energy does not use interval data readings for its monthly reads for residential billing purposes. PSE uses the beginning or start read and the ending

read for each billing cycle to bill residential customers. Since PSE uses SAP's Periodic Meter Reading Process, the residential customer is either billed monthly or bi-monthly based on their billing cycle. Once the monthly meter read order is complete and the end read received, SAP is ready to bill. SAP uses the start read which corresponds to the end read from the previous billing cycle, then SAP subtracts the start read from the end read. This difference results in the total energy usage in kWh to be billed for that monthly billing cycle.

Q. Is PSE violating SAP system rules by not incorporating interval data readings into its monthly meter readings for billing purposes?

A. No. Puget Sound Energy is following SAP system rules by utilizing standard monthly and bi-monthly billing cycles to bill customers. SAP does not require interval data meter readings for utility companies to bill customers accurately. PSE follows SAP's Standard Periodic Meter Reading Processes.[1]

Q. Does PSE's SAP system use 15-minute residential customer interval usage reading for any purpose?

A. Puget Sound Energy does not store 15-minute interval usage readings for residential customers in SAP for any purpose. PSE provides visibility to customers' 15-minute interval data at PSE.com as it is available for those with

[1] For additional information, please see https://help.sap.com/docs/SAP_S4HANA_ON-PREMISE/2ac7fe29a0c94cdd88fb80c2cb9f7758/bc90d0533f8e4308e10000000a174cb4.html

AMI meters. This data is provided so customers are able to see how they are using energy throughout the day and is provided in kWh.

Q. Why is PSE not using the 15-minute interval usage reading for the calculation of total monthly usage?

A. Puget Sound Energy utilizes a monthly billing cycle process using SAP's standard Periodic Meter Reading Process which is based on periodic billing. PSE billing cycles are monthly and bi-monthly which follow the SAP periodic billing processes. These processes calculate the total monthly usage based on successive meter read dates for billing, which are then associated with the rate schedule prices at the premise address. The rate schedules and pricing utilized for billing are approved through the Commission and available in the pricing summary sheets on PSE.com.

Q. Does such a use contradict the U.S. Department of Energy's description of AMI meters?

A. The use of monthly AMI meter reads to generate monthly billings does not contradict the description and guidance of AMI meters from the U.S. Department of Energy. AMI meters and systems are utilized for a multitude of reasons one of which is two-way communication between the utility and a customer which does support accurate and timely billing. However, AMI meters also enable restoration and resilience through outage management including isolated outage visibility where AMI meters are deployed as well as timely connect/reconnect services.

C. Complainants Were Not Billed Demand Charges or Billed Based on Kilowatts

Q. Does PSE bill residential and small commercial customers based on demand?

A. In general, PSE bills residential and small commercial customers based on their energy usage in kWh and not based on demand. There are a few exceptions to this general rule. For example, Puget Sound Energy bills residential farm rates based on demand for schedule 10, schedule 11, and schedule 12. Also, master metered residential service under schedule 7A, where service is delivered through one meter to multiple single-family units located in a structure of four or more stories that are above ground level, is billed based on demand. But none of the customers in this proceeding have been on rate schedules that bill based on demand.

Q. Does PSE bill other customers based on demand?

A. Yes. Puget Sound Energy does record and bill commercial and/or industrial customers for demand based on their commercial rate schedule and with demand greater than 50 kW.

Q. Does PSE bill residential customers using time varying rates at this time?

A. No. PSE received approval for a pilot program to provide a Time of Use/Time Varying Rate option for residential customers in which it will use demand data for billing, but this program is still being developed and is not applicable to the Complainants.

Q. The Argunovs were billed on a Commercial rate schedule (Schedule 24) in November 2021. At that time were they billed based on kW demand charges?

A. The Argunovs were not billed based on a demand charge.

Q. Please elaborate on how their account was billed.

A. For account [redacted] the bill issued November 12, 2021 was billed on Commercial Rate 24 for one day 10/13 – 10/14 as reflected on the bill. On this same bill, the rate was changed from commercial to Residential Rate 7 starting on 10/14 – 11/11. The bill was calculated by using the start read for meter [redacted] was then billed for the Commercial Rate 24 at [redacted] for the energy usage. The rate for the meter was changed to start Residential Rate 7 on 10/14/2021. The bill was calculated by using the start read for meter [redacted]. These calculations exclude basic charges, taxes, other charges and credits and represent the prices for energy usage only.

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Q. Can you further explain how Commercial rate schedule 24 and Residential rate schedule 7 are billed?

A. Commercial rate schedule 24 is for commercial or industrial customers with demand less than 50 kW, and PSE does not bill based on demand for rate schedule 24. Residential rate schedule 7 is for residential service, and PSE does not bill based on demand for rate schedule 7. The Argunovs were not billed based on demand during November 2021 for either Commercial rate 24 or Residential rate 7 as it would have shown on the billing statement as a demand charge. Neither of these bills would have qualified for demand charges even if the customer was on a demand rate schedule as the kWh converted into kW would not come close to the demand requirement.

Q. How do you respond to Exh. EACCH-26, which according to Ms. Argunov seems to show that the meter reads are consistent with billing actual daily demand * 4?

A. I have reviewed Exh. EACCH-26, for account [redacted] and is on rate schedule Residential 7 for the dates within the exhibit. The meter for this location measures the number of kWhs used and the Residential Rate schedule 7 applies the pricing with no demand charges. When I review the exhibit EACCH-26 compared to the daily kWh for meter [redacted] it is unclear how Ms. Argunov reaches the conclusion PSE is charging based on

demand, particularly because the data she would have accessed would be in kWh rather than kW.

Q. Were any of the Complainant's accounts billed based on demand?

A. None of the billing histories for the three accounts reflect that demand charges were applied to the accounts. Their rate schedules all dictate billing based on energy usage in kWhs rather than demand charges based on kW.

Additionally, the meter data used in Exh. EACCH-26 never reached the level of usage needed to meet the demand threshold, even if these had been commercial demand accounts, which they were not.

D. Bill Estimates in SAP

Q. Please explain why PSE might provide an estimated bill to a customer.

A. There are times when SAP receives no actual read from MDMS, and then SAP follows its standard estimating processes to complete a meter read order for billing to avoid a delay in billing to a customer.

Q. What is the process for SAP bill estimations?

A. PSE uses the following estimation processes within SAP. SAP estimates based on consumption and meter read history from the last six years or the number of years available if less than six. If less than a year is available, SAP uses the last billing period as a reference to estimate the meter read. When no history is available,

SAP will use data from the period consumption set up during the installation of a meter. If an estimated read is used for billing, PSE reflects the estimated read and that it is an estimate read type on the bill.

Q. Has PSE previously shared with the Commission the process for estimation of bills?

A. Yes, at a high level without sharing proprietary data PSE has shared how SAP is utilized to estimate bills based on historical periodic data. PSE does its best to follow the requirements set forth in WAC 480-100-178 (1)(e), its Electric Tariff Schedule 80, and as further discussed in the rulemaking proceedings in Docket U-144155.

Q. What if the SAP estimation is not correct?

A. When SAP requests a meter read order for billing, it is sent to MDMS to request and receive the raw data within MDMS. When MDMS provides an actual read, the SAP system goes through automated system checks to validate the meter read, which includes a comparison of the meter read to the end read previously billed to the customer. For the occasions where MDMS does not provide a read, the SAP system creates an estimated read based on history at the location. That estimated end read is used for the current billing and is then used as the start read for the next month's billing. If another estimate is calculated by SAP, then that estimated read is used as the end read for the second month's billing and is clearly displayed on the bill as estimated read.

Once an actual read is received, the meter read is then used for the billing cycle to calculate the number of kWh usage to be billed for the current billing cycle. The kWh is recorded and SAP fulfills the billing order to create the billing document, which applies the rate schedule prices associated with the address and meter to then create an invoice. SAP then invoices the account, which is then presented to the customer and the kWh calculation will show in the Electric Detail Information and the calculations will show in the Electric Charge Details section of the customer bill.

Q. What does PSE do if a customer receives multiple estimated bills in a row?

A. SAP is programmed to allow up to three consecutive estimated meter reads in a row. Upon the fourth estimated meter read within SAP, the customer's account is out sorted to have PSE review the account. In some cases, PSE creates an SAP service notification to investigate and obtain an actual read from the field, as well as to investigate the reason why a read is not being communicated to MDMS.

Q. How does PSE reconcile estimated bills with actual energy usage?

A. PSE uses SAP processes to bill customers for their actual read where estimations were previously used to bill the customer. The charge detail information typically found on page 2 of most PSE bills explain the reads and charge details. If the previous bill had been estimated and the current bill received an actual read, the current bill will use the previous bills estimated read as the start read and the actual read as the end read for the current bill. The difference in kWh will be used

to bill and true-up the previously estimated bill. This process applies if the estimate was high or low. If the estimate was higher than the actual read, a correction will be made using the actual meter read data.

Q. How do PSE bills communicate whether a statement includes a reconciliation for an incorrect estimate?

A. If an estimation is incorrect and a correction needs to be performed, PSE presents very large yellow/orange banners at the top of bills to make clear there has been a correction. The banner includes the titles specific to the reason for the notice of corrected charges, examples of the title include: "Notice of Corrected Error that Delayed Delivery of Bill," or "Notice of Corrected Charges Based on Actual Meter Read." These banners also include a phone number to call and an offer for an interest-free installment plan should the customer choose. PSE follows WAC 480-100-178 for these processes. A bill true-up (correction) based on an actual meter reading after one or more estimated bills is not considered a corrected bill for purposes of subsection (5)(a) of this section. *See* WAC 480-100-178(8).

Q. Does PSE ever issue "catch up" bills?

A. Yes, PSE does occasionally issue true-up bills if a meter had been estimated and the estimates were lower than the actual usage. When SAP receives the actual meter read and the actual kWh used was higher than the estimated kWh on previous bills, PSE might issue a true-up bill. If the estimated read was higher than the actual usage, PSE will utilize SAP to issue a corrected bill to update the

appropriate charges based on actual usage. Also, some customers choose to go on PSE's Budget Billing program and a true-up bill is provided through SAP annually to true-up the customer's actual energy usage to the equal amount they paid every month throughout the year.

Q. Does PSE provide supporting data when PSE issues a catch up bill?

A. PSE provides charge details to reflect how the bill was calculated. In the case of canceling an original bill and sending out corrected bills, a banner and a table are included on the bill to show original bill information, any adjustments, and the corrected bill, in addition the detail information to include charge details are included to show the periodic monthly billings.

Q. Does PSE have a process if a bill appears to be unusually high?

A. Yes. PSE utilizes SAP's multiple automated validations to check on the meter reads, estimations, dollar thresholds based on rate schedules and if one of these validations fail, an outsort is created for a manual review. Once the outsort is created, a PSE employee reviews the reason for the validation failure. Depending on the failure, the employee will use tools like Meter Data Link to attempt to ping/call the meter to see if they are able to receive an actual read or communication with the meter. If that fails, they will create a service notification for a field employee to physically go to the meter and validate the meter read usage. Sometimes there are vehicles or equipment blocking the ability for the meter to connect, and other times the employee will change out the meter. The

field employee records the meter reads for the current meter and if applicable the start read for the new meter. Once an actual meter read is obtained and it fulfills the service notification, or the meter read order, the employee follows the SAP bill correction process to generate a corrected or true-up bill to the customer depending on the issue if any with the meter at the location.

E. Coyote Creek Homeowner Complaints

Q. Have you reviewed the billing history for the Complainants?

A. Yes. I have reviewed the billing histories for [redacted] (Argunov), [redacted] (Groesbeck), and [redacted] (Johnson).

Q. Did PSE issue any estimated bills to the Complainants?

A. Yes.

Q. Please describe the estimated bills PSE issued and the steps taken to reconcile the estimated usage to actual usage.

A. For [redacted] (Argunov) a billing correction was processed on July 29, 2021 to correct the original billings for the account based on a manual read of the AMR meter on July 13, 2021. This billing correction also included the electric charges for the billing periods of April 13, 2021 – May 13, 2021; May 13, 2021 – July 13, 2021 when an actual read had been obtained. One of the reasons why there was a delay in receiving actual reads and changing the meter to an AMI

meter was due to COVID protocols during these time periods. A notice of corrected charges based on actual meter read message was included on the billing and an offer of an interest-free installment payment plan was included within the message. This billing includes a table showing the billing periods, original billings with kWh and amount billed, the adjusted kWh and adjusted amount billed, and finally the corrected kWh and corrected amounts billed with the corresponding meter. Also included are the electric charge details providing the breakdown of the rate and calculated charges for each corrected billing period. An estimated read was used for the bill issued December 15, 2021 and January 13, 2022 and the true up bill was issued February 11, 2022 when an actual read was received by SAP. March through June 2022 all included actual reads from the AMI meter, however the customer switched to a non-communicating meter which is manually read.

For [redacted] (Groesbeck) estimated bills were issued in November and on December 16, 2020, and a Notice of Charges for Corrected Rate Schedule bill was sent which reflected the updated rate schedule and corrections for November with an actual start read and an estimated end read for December 14, 2020. In January and February 2021 estimated bills were also issued. In April 2021 a Notice of Corrected Error causing a delayed bill was sent with an estimated bill covering March and April 2021. Then a service order was created to exchange a part for the meter. In August 2021 a Notice of Corrected Charges based on actual meter read was issued, as PSE had continued to receive estimated

reads and was able to get a read from the meter on August 18, 2021. This enabled a final correction to be performed as PSE decided to exchange the meter. There was a delay in changing the meters due to the COVID protocols during these time periods. This corrected bill included the table of original bills and the adjusted bill along with the corrected bill. It also included an Understanding Your Corrected Puget Sound Energy statement page. When PSE changed the meter, a new corrected bill was generated on August 18, 2021. Then on the September 14, 2021 the bill issued reflected the meter change when an AMI meter was installed in August 2021. This bill included actual reads and reflected the installment plan created allowing the customer to pay over time. The bill issued December 15, 2021 and January 13, 2022 were also estimated bills. On January 20, 2022 PSE sent a Notice of Corrected Charges bill due to an actual read being received. The April 14, 2022 bill was estimated as SAP did not receive an actual meter read. The May 13, 2022 bill is a true up bill from the estimated bill issued April 14, 2022. June through December 2022 and January 2023 were all issued with actual meter reads.

For [redacted] (Johnsons) the bill issued January 13, 2022 was estimated as SAP did not receive an actual meter read; however, the February 11, 2022 bill is a true up bill from the January estimate. On May 19, 2022 a Notice of Corrected Charges due to a delayed delivery of the bill was issued which included billings for the latter part of February, March, April, and part of May 2022. The

bills issued June – December 2022 and January 2023 were all issued with actual meter reads.

Q. How do you respond to Exhibits EACCH 2.1, 2.3, and 2.4 and Ms. Argunov's apparent claim that PSE is not following SAP procedures?

A. I disagree with Ms. Argunov's claim. PSE is following SAP standard processes. First, it should be noted that the exhibits EACCH 2.1, 2.3, and 2.4 appear to explain and apply to billing for real-time pricing billing, which PSE does not use for residential customers. PSE utilizes SAP's Standard Periodic Meter Reading Processes based on the fact PSE utilizes monthly and bi-monthly billing cycles and aperiodic reads for removals, disconnections, and move ins. PSE's MDMS system does follow the Validation, Estimation and Editing processes, however companies utilizing SAP are not required to utilize real-time pricing for billing. SAP has flexibility for industries to utilize Periodic Meter Reading Processes for all types of meters.

III. CONCLUSION

Q. Does that conclude your prefiled response testimony?

A. Yes, it does.