STATE OF NEW JERSEY

BOARD OF PUBLIC UTILITIES

In the Matter of the Petition of Public Service Electric and Gas Company for Approval of an Increase in Electric and Gas Rates and for Changes in the Tariffs for Electric and Gas Service, B.P.U.N.J. No. 17 Electric and B.P.U.N.J. No. 17 Gas, and for Changes in Depreciation Rates, Pursuant to N.J.S.A. 48:2-18, N.J.S.A. 48:2-21 and N.J.S.A. 48:2-21.1, and for Other Appropriate Relief

BPU Docket Nos. _____

DIRECT TESTIMONY

OF

DAVID JOHNSON
VICE PRESIDENT – CUSTOMER CARE AND CHIEF CUSTOMER OFFICER, PSE&G

December 29, 2023

P-12

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PUBLIC SERVICE ELECTRIC AND GAS COMPANY
DIRECT TESTIMONY
OF
DAVID JOHNSON
VICE PRESIDENT – CUSTOMER CARE AND
CHIEF CUSTOMER OFFICER PSE&G

I. INTRODUCTION

Q. Please state your name and business address.

A. My name is David Johnson. My business address is 80 Park Plaza, Newark, New Jersey, 07102.

Q. In what capacity are you employed?

A. I am currently employed by Public Service Electric and Gas Company ("PSE&G" or "Company") as Vice President Customer Care and Chief Customer Officer (COO). I have over 25 years of experience in customer service for energy providers. For example, I previously served as CCO for Duquesne Light Company in Pittsburgh, PA, Vice President for Customer Service at Entergy Louisiana and Senior Vice President of Customer Service at DTE Energy. In my current role, I am responsible for the successful deployment of the CEF-EC program and operationalizing the AMI capabilities that result from this program. Implementation of the CEF-EC program and AMI functionalities involve many of the areas that I oversee including billing, meter reading, collections, customer experience and the contact center.

Q. What is the purpose of your direct testimony?

A. As part of PSE&G's 2023 base rate filing with the New Jersey Board of Public Utilities ("BPU" or "Board"), the purpose of my testimony is to provide information that will support a finding by the Board that the investments and expenditures made by PSE&G for its Clean Energy Future – Energy Cloud ("CEF-EC") program are prudent and reasonable. The CEF-EC costs that

the Company proposes to recover in this proceeding are the investments placed in service by November 30, 2024, six months after the end of the test year, as well as the regulatory asset balances of the CEF-EC Infrastructure Deferral, Stranded Cost Deferral and Operation and Maintenance ("O&M") regulatory assets that have been established in accordance with the Board's January 7, 2021 Order in BPU Docket No. EO18101115 that authorized the CEF-EC program and establishment of the CEF-EC regulatory assets.[1] The accounting and cost recovery for the program and the treatment of depreciation are described in the testimony of Company witness Mr. Michael McFadden.

Q. Do you sponsor any schedules as part of your direct testimony?

A. Yes. I sponsor the following schedules that were prepared or compiled under my direction and supervision.

(1) Schedule DJ-1 sets forth my credentials;

(2) Schedule DJ-2 provides the CEF-EC semi-annual reports that have been submitted to BPU Staff to date.

II. THE COMPANY'S CEF-EC PROGRAM AND CURRENT STATUS

Q. Please describe the Company's CEF-EC Program that was approved by the Board in its CEF-EC Order.

A. By Order dated February 19, 2020, the Board found that AMI is a means to achieve the objectives of the 2019 Energy Master Plan ("EMP").[2] Accordingly, the Board directed PSE&G

[1] *I/M/O The Petition of Public Service Electric and Gas Company for Approval of Its Clean Energy Future – Energy Cloud ("CEF-EC") Program on a Regulated Basis*, BPU Docket No. EO18101115, "Decision and Order Approving Stipulation" (January 7, 2021) ("CEF-EC Order").

[2] *In re the Petition of Rockland Electric Company for Approval of an Advanced Metering Program, and for Other Relief*, BPU Docket No. ER16060524 (February 19, 2020).

and other utilities to file petitions for AMI implementation. In the CEF-EC Order, the Board authorized the Company to install approximately 2.2 million Advanced Meter Infrastructure ("AMI") meters at an estimated investment cost of up to $707 million for the advanced meters, network infrastructure and associated information technology required to implement Release 1 of the CEF-EC program. The Company planned to install AMI meters over the period 2021 to 2024 in accordance with the following schedule:

2021	80,000 meters
2022	300,000 meters
2023	900,000 meters
2024	900,000 meters

Under the CEF-EC Order the Company had the right to accelerate this deployment schedule to effectuate the efficient deployment of AMI meters. The Company began installing AMI meters during 2021 and 2022 according to this plan and, beginning in 2023, conducted an accelerated geographic strategic deployment in which the Company divided its service territory into three separate regions and employed a strategy to identify and group meters for replacement on a daily basis. The Company utilized its existing manual meter reading assignments to develop a deployment strategy to support the efficient deployment of AMI meters and consolidation of meter reading assignments.

Q. What is the current status of PSE&G's AMI installation project?

A. The project is currently ahead of its installation schedule and under the program budget.

Q. What is the status of the AMI network installation and functionality?

A. The Company completed installation of its Landis + Gyr Network ("Network") in June 2022, and 100 percent of the Network was communicating by September of 2022.

Q. How many AMI meters have been installed so far?

A. As of November 30, 2023, 1,270,091 residential and 178,615 commercial AMI meters have been installed, for a total of 1,448,706. Thus, the Company has already exceeded the planned installation of 1,280,000 AMI meters by the end 2023 that is included in the CEF-EC Order. Installations are expected to continue ahead of pace.

Q. Is the Company projecting to complete full AMI deployment within six months beyond the end of the rate case test year (by November 30, 2024)?

A. At this time, yes, PSE&G projects full deployment will be accomplished by November 30, 2024, and possibly could be accomplished earlier.[3] Certain factors that are difficult to predict may impact the timing, such as new supply chain issues, or other issues impacting PSE&G's ability to obtain AMI meter inventory or impacting the labor force. Based on current conditions, the Company expects to finish ahead of schedule.

Q. What are program costs compared to the program forecast as of September 30, 2023?

A. Total actual costs as of September 30, 2023 were approximately $310 million (approximately $278 million for capital and $32 million for O&M). PSE&G forecasts total costs of the Program upon completion in November 2024 to be $625 million (approximately $570 million for capital and $55 million for O&M) well below the approved amount of up to $779 million ($707 for capital and $72 for O&M).

Q. How has PSE&G managed implementation of the CEF-EC program to deliver the program to date significantly under the forecast budget?

A. PSE&G has achieved numerous meter deployment efficiencies by implementing the following strategies.

[3] With the exception of customers who elect to opt out of an AMI meter.

Successful customer communications ahead of meter changes has resulted in an approximate 90% success rate of changing the meter on the first visit. Making only a single visit to a customer location has reduced the need for appointments and unscheduled visits, which, by nature, are less productive and more costly.

Additionally, PSE&G has worked closely with the meter installation vendor to optimize meter change routes. The meter change schedule was organized by "sectors," which are geographic areas. Each sector was carefully designed to reduce travel time both within each sector and to the various warehouses and laydown yards.

PSE&G's internal workforce has also taken advantage of "opportunistic" meter changes on customers' premises. In other words, as PSE&G has been visiting customer homes to address meter-related issues, such as non-registering meters or high bill complaints, PSE&G has taken the opportunity to replace the existing meter with an AMI meter at that visit. This eliminates the need for a separate, future visit just to change that customer's meter.

III. BENEFITS OF CEF-EC PROGRAM INVESTMENTS

Q. Recognizing that the Company has not concluded the implementation of its CEF-EC program, have the benefits of the program identified previously by PSE&G begun to be realized?

A. Yes. PSE&G's CEF-EC program strategy prioritized delivering the benefits of AMI meters to customers as soon as possible following AMI meter installation. The program currently is delivering substantial benefits to customers. Some benefits have been, or are expected to be, achieved ahead of the forecast schedule for delivery.

Q. Please generally explain AMI customer benefits and the expected timing of achieving these benefits.

A. As a result of PSE&G's CEF-EC program deployment design, some customer benefits are already active, such as billing on actual usage transmitted by the AMI meters, and remote capabilities such as move in/move out and disconnect/reconnect.

Additionally, as set forth in the CEF-EC Order, other benefits are achievable over longer periods. In the October 11, 2018 filing to implement the CEF-EC program, the Company proposed a program that would implement 22 out of a total of 70 potential AMI functionalities or "Use Cases" that focused on customer engagement, network operations and planning, and new utility products and services.[4] PSE&G committed in the stipulation of settlement approved by the CEF-EC Order to use "best efforts" to provide the AMI capabilities of the 22 Use Cases within the approved program budget, and the parties recognized that, "these capabilities may not be available until after the full deployment if the AMI meters is complete."[5]

Notwithstanding, PSE&G's CEF-EC program to date has already accomplished deployment of multiple Use Cases that benefit all customers by improving the efficiency of operations and reducing truck dispatches that would previously have been required to perform move in/move out and reconnects.

[4] Those 22 use cases were referred to as "Release 1." *See* CEF-EC Order at Stipulation ¶ 3. The remaining 48 Use Cases were generally described in PSE&G's AMI cost-benefit analysis that accompanied its 2018 filing, and could be proposed as part of future program proposal filings but are not included in the budget or implementation of the currently approved CEF-EC Program.

[5] CEF-EC Order at Stipulation ¶ 17.

Q. Beginning with the most basic AMI functions, when AMI meters are installed, when does data begin to communicate with the Company's systems, and is the AMI data being used for billing?

A. PSE&G's primary goal for the CEF-EC program is that after each meter is installed, the customer will receive an accurate bill utilizing an AMI meter read. Following installation of a meter, PSE&G verifies that the meter is communicating with the Company's systems. After three successful days communicating, the billing system utilizes the AMI read to bill the customer. The Company has achieved a sustained AMI actual read billing rate of over 99 percent. Where there have been a small number of communication issues, these are addressed expeditiously.

Q. Regarding the 22 Use Cases, please provide an overview and the status of their deployment.

A. These 22 Use Cases and deployment status are as follows:

Use Case #	Use Case Name	Deployment Status	Use Case Overview & Value
1,2,3,4	1. Enhanced Customer Engagement & Communications	**Deployed Q3, 2023** (customer access to usage data via portal) **Deployment scheduled Q2, 2024** (enable customer inquiries via portal)	A set of customer benefiting functions and analytic applications that provide visualizations and analytics across a variety of customer and iESP data combined with other data – bills, usage, prices, tips, alerts, energy efficiency, appliance profiles, new products and services, notifications, and available through mobile and web portals.
	2. Rate Analyzer & Comparator	**Deployment scheduled Q3, 2024**	
	3. Usage & Bill Alerts, Saving Tips, Interactive Bill Presentment	**Deployment scheduled Q2, 2024**	
	4. Interactive Energy Demand & Bill Management (Portal part of Meter Data Management System - MDMS project)	**Deployment scheduled Q2, 2024**	
5	Customer Segmentation & Behavioral Analysis	**Deployed Q4, 2023** (pull system) **Deployment scheduled Q2, 2024** (push system)	Provides the ability to develop highly targeted customer segmentation models based on more granular energy usage data and customer interactions to improve customer service, marketing, time of use ("TOU") rates, new products and services, and planning load forecasts. Capability depends on data integration to PSE&G systems to enable usage via "pull system" and "push system"

Use Case #	Use Case Name	Deployment Status	Use Case Overview & Value
6	Customer Power Quality	**Deployment scheduled Q3, 2024**	Capability that allows PSE&G to obtain voltage, load, and alert data directly from the meter to analyze customer power quality issues (flicker, sag, swell), without the need for further instrumentation, and can also help ensure appropriate corrective actions are taken (utility or customer side of the meter).
7	Customer Energy Efficiency Programs (Thermostats & Supporting CEF-EE Filing)	**Deployed Q4, 2023**	iESP data gives the customer the ability to make more educated energy efficiency related decisions, change energy consumption habits, and ultimately lower utility bills. This is enabled by providing customers with detailed iESP data through web or mobile portals, smart devices and in-home devices. PSE&G can also use this iESP data to design and offer energy efficiency products and services.
8	Customer Service & Call Center Performance	**Deployment scheduled Q3, 2024**	Enables the use of broader range of information (including iESP) to increase call center knowledge, improve service, improve customer satisfaction, and lower customer costs by bringing together historical and real-time information to support decision analysis and improve the customer experience.
9	Customer DER/PV/EV	**Deployed Q4, 2023**	Services and systems that will use iESP data to help assist customers with DER (solar, EV, energy storage) installations and the management of any power quality issues that occur as a result of variable DER load
10	Customer Device Safety	**Deployment scheduled Q3, 2024**	Enhances customer safety by using iESP data, such as alerts and voltage data to detect safety issues relating to customer meters and power connections such as hot sockets and fallen wires, and provide alerts to customers and PSE&G.
11	iESP Sensor, Network & Data Operations	**Deployed Q3, 2023**	Back office processes and systems that manage the initial iESP infrastructure deployment and the ongoing and updated Meter Operations business function including acquisition, warehousing, testing, installation, maintenance, data streams and quality, alarm management, and meter data management.
12	Automated Move in/Move out & Remote Disconnect/ Reconnect	**Deployed Q3, 2023**	This use case addresses the messages exchanged between Customer Operations processes and Smart Meter through the HeadEnd and Network when a customer move in or out request is issued by Customer Operations or other customer processes. PSE&G currently sends a metering service employee to move a customer in or out for a variety of reasons. With iESP, the turn on functions and on demand read functions to support these processes can be automated and performed remotely and instantaneously, thereby increasing customer satisfaction and efficiency across various customer processes. • Electric operations reduction due to MIMO and Collection activity automated. • Gas operations reduction due to remote MIMO and Collection activity automated: • Cost reduction due to 85k avoided truck roll costs for move in move outs
13	Remote Disconnect/ Reconnect	**Deployed Q3, 2023**	This use case addresses the messages exchanged between Customer Operations processes and Smart Meter through the HeadEnd and Network when a meter connect/disconnect request is issued by Customer Operations or other processes. PSE&G currently sends a metering service or collections employee to connect or disconnect the meter for a variety of reasons. With iESP, the reconnect/disconnect functions to support these processes can be automated and performed remotely and instantaneously, thereby increasing customer satisfaction and efficiency across various customer processes.

Use Case #	Use Case Name	Deployment Status	Use Case Overview & Value
			• Electric operations reduction due to remote turn-on/off of electric meters • Gas operations reduction due to remote turn-on/off of gas meters: • Cost reduction due to 171k avoided truck roll costs for move in standard turn on/turn offs • Cost reduction due to avoided truck roll costs for turn on/turn off type events • Reduction in writes offs due to energy consumed on inactive accounts. Being able to remotely detect and disconnect will reduce the occurrence. $20m written off yearly. Assuming 70% reduction due to iESP capabilities
14	Next Generation Meter-to-Cash	**Deployed Q3, 2023** (enables billing department to provide revised bills via AMI data) **Deployment scheduled Q3, 2024** (obtain missing interval reads)	With more granular and quality iESP data available, alongside numerous other internal data sources, PSE&G can optimize and re-invent their meter-to-cash processes and drive out inefficiencies, increase service, and reduce costs. The iESP data is significantly more accurate at the source and by mapping the data from the iESP to its end use, leakage can be detected more easily. The cost of these losses is spread across the customer base so any improvement ultimately reduces customer bills. • Billing cost reduction due to a decline of billing irregularities and analysis work • Collection cost reduction due to a decline of backoffice collection workload • Reduction in bad debt due to improvement in field collections. Being able to remotely detect and disconnect will reduce the occurrence. $60m written off yearly. Assuming 31% reduction due to iESP capabilities
15	Network Connectivity Analysis	**Deployment scheduled Q2, 2024**	PSE&G's electricity network is complex, covers a large area, and provides power to different customers at different voltage levels. Ensuring that the required sources and end-use loads are correctly represented in operations systems is often very difficult. The iESP end-point meters can extend the network model and enable a high level of accuracy of connections and phasing, which in turn results in better planning and operations performance, and enables many other network dependent use cases.
16	Outage Detection & Analysis	**Deployment scheduled Q2, 2024**	Uses outage data from operations systems and smart meters to identify and verify possible outage locations, as well as identify network sections and specific customers (and numbers) that are out of power. This data is provided and displayed in real-time, to allow analysis, fast response, and crew dispatch to the precise location (down to meter) with information on the potential cause of the outage in order to more quickly restore power and ensure all customers are restored.
17	Outage Response Notification (ETR)	**Deployment scheduled Q2, 2024**	Use iESP outage data to calculate and communicate reasonable, more accurate, and acceptable outage status and restoration times to customers in real time. This largely eliminates one of the most common customer complaints about utility service, *i.e.,* inaccurate estimated restoration times. Messaging solutions within scope of this use case include Interactive Voice Response (IVR), web portals, text messaging, social media, mobile applications, and press releases.

Use Case #	Use Case Name	Deployment Status	Use Case Overview & Value
18	Voltage Monitoring & Analysis	**Deployment Q3, 2024**	Using iESP data and other network data sources, voltage readings are captured, visualized, and system-wide analysis is run to determine locations where voltage violations exist both above and below nominal voltage. Utilities can utilize this information for accurate analysis of voltage issues and a base for voltage planning and optimization across the network. Further, this information can help planners identify strategic locations for deployment of Volt/VAR optimization equipment.
19	Asset Load/Phase Management, Balancing & Power Analysis (incl. Transformer Load Monitoring & Customer Load Curtailment/Limiting)	**Deployment scheduled Q3, 2024**	Using iESP data and other network data sources, load data is imported, aggregated, and visualized. Power flow analysis is run to examine and monitor loading profiles of every network asset along the feeder from the substation to the smart meter. This use case gives visibility of loading profiles and load flows of all network assets and customers with real-time or overnight iESP data updates. This information can be used by planners and operators to determine areas of overloading of assets on the system, plan responses to major events, execute asset balancing, and customer load curtailment.
20	Load Profiling & Forecasting	**Deployment scheduled Q3, 2024**	Capability that would enhance load profiles and forecasts by using iESP data in combination with network, customer billing or other data (*e.g.*, weather) to perform more detailed usage analysis. This is beneficial to customers and PSE&G planners by supporting optimized planning of load growth, which in turn leads to optimized capital spending and reliability of the network.
21	Distribution Losses	**Deployment scheduled Q3, 2024**	Distribution losses can be identified by comparing the iESP end-point meter usage data with usage data at the distribution entry point (*i.e.*, substation). Areas of high losses or network sections with particularly high losses can be identified through the analysis. Further analysis on the causes of the high losses will shed light into the different types of corrective / mitigating actions that can be taken to reduce the technical losses. Technical losses are spread across the customer base, so any improvement in this area could reduce customer bills.
22	Revenue Protection & Assurance	**Deployment scheduled Q3, 2024**	Revenue protection refers to the prevention, detection, and recovery of losses caused by interference with or theft of utility service. This use case will leverage smart meter consumption, as well as voltage and event data, to detect energy theft and meter tampering by employing multiple screening techniques, including cross-service correlations. Energy theft is spread across the customer base, so any improvement reduces customer bills.

Q. Please identify the Use Cases that have already been deployed.

A. PSE&G has already deployed or partially deployed the following 8 Use Cases:

- Use Case 1: Enhanced Customer Engagement
- Use Case 5: Customer Segmentation & Behavioral Analysis
- Use Case 7: Customer Energy Efficiency Programs
- Use Case 9: Customer DER/PV/EV

- Use Case 11: Sensor, Network & Data Operations
- Use Case 12: Automated Move in/Move out & Remote Disconnect/Reconnect
- Use Case 13: Remote Disconnect/Reconnect
- Use Case 14: Next Generation Meter to Cash

Q. Please describe the benefits currently being realized as a result of the installation and general functionality of installed AMI meters, use of the AMI meter data for billing, and the 8 Use Cases deployed to date.

A. Benefits of the CEF-EC program currently being realized through the CEF-EC program to date can be grouped as follows: meter reading/meter accuracy; benefits derived from remote capabilities; revenue integrity benefits; collections benefits; and customer access to their AMI data. I will generally describe each of these benefit types below:

Meter Reading/Meter Accuracy

Operational and customer benefits result from reduced labor and costs of meter reading and increased accuracy of bills due to a higher meter reading rate due to AMI. Please reference the Company' semi-annual reports in Schedule DJ-2 for meter read rates attributable to AMI.

Remote Capabilities

Currently remote meter reading, remote move-in/move-out, and remote disconnect/reconnect functionalities are enabled and are being used via installed AMI meters. Operational benefits from these functionalities include reduced costs through eliminating the need to dispatch trucks, and the efficiencies of completing these tasks remotely. Through the third quarter of 2023, there have been 10,000 reconnects following disconnection for non-payment completed remotely, avoiding a truck dispatch and greatly reducing the customers' wait time to be reconnected. Additionally, there have been over

125,000 move-ins and move-outs completed remotely (meter reads, turn-ons, and turn-offs). There are also tangential environmental benefits because reducing the need to dispatch a truck reduces the overall greenhouse gas emissions from vehicles.

Collections Benefits

Field collectors now have the ability to disconnect an AMI meter remotely when they update a collection order on their hand-held device. This improves their efficiency and effectiveness. Before having remote turn-on and turn-off capability, the effective rate for a field collector visit was 28%.[6] Since the addition of this capability, the effective rate for a field collector on visits with AMI meters is 88%. There have been over 23,000 move-ins and move-outs remotely turned on and off, resulting in the reduction of unknown accounts and the revenue associated with these accounts (a subset of total remote move-ins/move-outs). In the future, this will result in reduced bad debt expense related to unknown revenues.

Customer Access to Their Data

Customers with AMI meters have access to PSE&G's AMI portal. The portal allows customers to view their usage, set usage threshold alerts, and access existing energy savings tips. The portal available to residential customers also has additional information about home energy assessments.

[6] A field collector visits is typically considered "effective" if it results in either a payment or a shut-off.

Q. Has the Company realized any additional benefits simply by virtue of replacing existing meters?

A. Yes. PSE&G's observations during meter replacement have resulted in PSE&G investigating 9,134 cases of tampering through September 30, 2023. This yields a direct customer benefit, as detecting tampering reduces the costs of theft from meter tampering.

Q. Will AMI meters assist the company in detecting metering tampering and theft going forward?

A. Yes. As described in the table above, the current plan is to deploy an analytical tool by the end of the third quarter of 2024 that will enable identification of potential theft more quickly.

Q. Has the Company implemented the CEF-EC program in a manner consistent with the CEF-EC Order and with regard to customers wishing to opt-out of AMI meters?

A. Yes. The Company has complied with applicable reporting requirements and attempted to implement the program as efficiently as possible. The semi-annual reports submitted to the BPU are attached hereto as Schedule DJ-2. Additionally, the Company has implemented the CEF-EC program in a manner consistent with the CEF-EC Order that fully recognized the rights of customers to opt out of the program. As of November 30, 2023, only 5,559 customers opted out of the AMI meter. This is an opt-out rate of less than one-half of one percent.

Q. Is the Company proposing in this case a change to the manual meter reading fee as was permitted by the CEF-EC Order?

A. No. The CEF-EC Order permits PSE&G to "provide testimony and actual cost information for these fees in its Next Base Rate Case, at which time these fees will be subject to review and modification."[7] However, and in order to achieve an equitable and appropriately non-discriminatory result for all customers, PSE&G is not currently collecting the manual meter-

[7] CEF-EC Order at Stipulation ¶ 31.

reading fees from opt-out customers. Therefore, there is not yet sufficient data to present in this matter regarding the actual costs based on all opt-outs that would support a change in the fee established in the CEF-EC Order. The CEF-EC Order states that "ongoing review and assessment of these fees will be subject to review and modification in future rate cases;" therefore, PSE&G anticipates it will present data related to actual costs of manual meter reads for the entire population of opt-outs in its next rate case.[8]

Q. How does PSE&G communicate these fees to customers that have chosen to opt out?

A. Any customer opting out was notified during the opt-out process that the $12 fee will begin to apply in 2024. PSE&G also intends to send each such customer a letter providing the opportunity to opt back in before PSE&G starts charging the fee. Any customer that opts back in will not be charged a fee.

Q. When will PSE&G begin charging customers the opt-out fees?

A. PSE&G will begin charging a customer an opt-out fee only after PSE&G sends that customer the letter described above providing that customer an opportunity to opt back in.

Q. The CEF-EC Order also established a one-time opt out fee for customers wishing to remove an AMI meter that was previously installed. Is PSE&G currently charging this fee?

A. Yes. PSE&G is currently charging this fee.

[8] *Id.*

IV. ACCOUNTING AND COST RECOVERY FOR CEF-EC PROGRAM

Q. Did the CEF-EC Order establish a method for the Company to account for and recover the costs of the CEF-EC program?

A. Yes. The CEF-EC enables accelerated installation of AMI meters and retirement of legacy and non-AMI meters before they are fully depreciated. The prudence of the costs included in these regulatory assets is subject to review by the Board in this case. The Order provided that until the costs of the CEF-EC programs were rolled into base rates, AMI-related capital costs, legacy meter stranded costs, and AMI-related O&M costs would be deferred and placed in regulatory assets as separate and identifiable accounts. Specifically, the details are shown on Schedule MPM-16, the proposed amortization of the CEF-EC deferrals are shown on Schedule MPM-47, and the *pro forma* revenue requirement adjustment is shown on Schedule MPM-48.

Q. How are the projected O&M savings related to the CEF-EC Program reflected in the Company's filing?

A. In accordance with CEF-EC Order, PSE&G will include a reduction for future O&M savings after the test year. As described in Mr. McFadden's testimony, the Company is proposing a *pro-forma* adjustment to its revenue request in this proceeding to account for future O&M savings resulting from AMI that are not reflected in the test year and is shown on Schedule MPM-48.

Q. Does this conclude your direct testimony?

A. Yes. It does.

Executive Profile

David L. Johnson

Vice President Customer Care and Chief Customer Officer

Public Service Electric & Gas Company

David L. Johnson was named vice president – Customer Care and chief customer officer at PSE&G effective July 2022. In his role, Mr. Johnson is responsible for leading, planning and managing PSE&G's efforts to deliver a seamless and efficient customer service experience, driven by a customer-centric culture. He is responsible for setting the agenda for how the company interacts with customers as well as creating a mindset of continuous improvement to ensure the company is on par with changing customer demographics and expectations.

Mr. Johnson has over 20 years of experience in customer service for energy providers. Mr. Johnson previously served as CCO for Duquesne Light Company in Pittsburg, Pa. and vice president, Customer Service for Entergy Louisiana, where he led day-to-day customer service operations and established and maintained relationships with customers and community stakeholders.

Prior to joining Entergy Louisiana, he was senior vice president, Customer Service and Economic Development, for DTE Energy in Michigan, where he spent most of his career. At DTE Energy, Mr. Johnson led a call center transformation, installation of a new billing system, improved cash collections and built a very solid relationship with internal and external stakeholders.

Mr. Johnson holds a Bachelor of Science degree in accounting from Lawrence Technological University. He is a 2001 graduate of Leadership Michigan and is an active mentor and career coach for young and developing professionals.

Mr. Johnson has served on the boards of several non-profit organizations including Vibrant Pittsburgh, Pittsburgh Symphony Orchestra, Children's Hospital of Michigan, Accounting Aid Society, Junior Achievement, United Way 211 and others. In 2007, he was acknowledged as one of the San Antonio Chamber of Commerce's "Top 40 Under 40." In 2013, he received the highly esteemed "Men of Excellence" award from the Michigan Chronicle. His professional membership includes the American Association of Blacks in Energy.

In his free time, Mr. Johnson is a self-professed classic car lover and enjoys spending time with family.

Clean Energy Futures-Energy Cloud

Advanced Metering Infrastructure (AMI) Program

Semi-Annual Report to the Board of Public Utilities

For the period January 1, 2021-June 30, 2021

Reporting Metric Tables:

Metric Description	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Current Reporting Period 1/1/2021-6/30/2021	Project to Date
Residential Meters Installed	17	1,975	3,613	4,177	6,457	6,880	23,119	23,119
Commercial Meters Installed	2	63	169	314	861	1,151	2,560	2,560
Poles Installed	0	0	0	0	0	0	0	See Note A
Three-radio Network gateways installed	0	0	0	0	0	0	0	See Note A
Single-radio Network gateways installed	0	0	0	0	0	0	0	See Note A
Routers Installed	0	0	0	0	0	0	0	See Note A
Percentage of Network Communicating to L+G Platform	0	0	0	0	0	0	0	See Note B
Total number of opt-out customers	1	11	28	41	56	65	65	65
Number of actual reads recorded from AMI meters each month		997,135	1,239,155	1,431,373	1,815,845	2,204,059	7,687,567	See Note C
Number of meter readers employed by PSE&G each month	357	359	387	416	442	419		
Number of customers who have accessed the AMI web portal	1,083	906	1,149	1,232	1,220	1,232	6,822	6,822
Number of customers identified to have received energy saving messaging	1,817,845	2,725,974	2,550,372	1,553,621	219,038	1,524,373	10,391,223	10,391,223
Number of customers who have authorized third party supplier access to their energy usage data	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note D
Third Party Program-to-date customer engagement efforts undertaken by the Company	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note E
Number of AMI meters replaced due to functioning errors	0	0	0	0	0	1	1	1
Number of remote connects/disconnects performed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note F
Number of AMI meter tampering cases found	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note G
Estimated CEF-EC project completion date							12/31/2024	12/31/2024

N/A – Not applicable at this stage of the AMI Program

Average Installation Costs Costs			Current Reporting Period 1/1/2021-6/30/2021	Project to Date
Average Cost Residential Meters Installed -Total			**$ 215.91**	**$ 215.91**
Average Cost Residential Meters Installed - Labor			$ 99.88	$ 99.88
Average Cost Residential Meters Installed - Materials			$ 116.03	$ 116.03
Average Cost Commercial Meters Installed - Total			**$ 268.83**	**$ 268.83**
Average Cost Commercial Meters Installed - Labor			$ 128.03	$ 128.03
Average Cost Commercial Meters Installed - Materials			$ 140.80	$ 140.80
Captial and O&M Costs	**FORECAST**		**ACTUALS**	
	Current Reporting Period 1/1/2021-6/30/2021	**Project to Date**	**Current Reporting Period 1/1/2021-6/30/2021**	**Project to Date**
CEF-EC Capital Costs - Total	**$8.56M**	**$8.56M**	**$9.82M**	**$9.82M**
CEF-EC Capital Costs - Labor	$.57M	$.57M	$4.45M	$4.45M
CEF-EC Capital Costs - Material	$1.13M	$1.13M	$3.06M	$3.06M
CEF-EC Capital Costs - Other	$6.86M	$6.86M	$2.31M	$2.31M
CEF-EC O&M Expenses - Total	**$3.34M**	**$3.34M**	**$870K**	**$870K**
CEF-EC O&M Expenses - Labor	$0	$0	$500K	$500K
CEF-EC O&M Expenses - Material	$0	$0	$0	$0
CEF-EC O&M Expenses - Other	$3.34M	$3.34M	$370K	$370K
Stranded Costs Deferred			**N/A**	**See Note H**

N/A – Not applicable at this stage of the AMI Program

Reporting Metric Notes:

A. Network Installation

Estimated Quantity of Work: 161 new poles and three radio gateways, 47 single-radio network gateways and 2207 routers are estimated to be installed beginning in July 2021 with completion by mid-2022 to support the expansion of the existing RF Network

B. Percentage of Network Communicating to L+G Platform

Estimated Quantity of Work: 100% installation of network to be completed by mid-2022

C. Actual Reads Recorded from AMI Meters

Actual read number is inclusive of large commercial AMI meters installed prior to start of current AMI Project

D. Customers who have authorized third party supplier access to their energy usage data

The development of a Data Access Plan has been deferred pending the statewide proceeding in Docket No. EO20110716. On August 23, 2021, in that docket, the BPU issued a Straw Proposal on Advanced Metering Infrastructure (AMI) Data Transparency, Privacy & Billing, and has sought written comment from all interested parties by October 7, 2021. Per that August 23, 2021 notice, after submission of comments, Board Staff anticipates having one or more stakeholder meetings to discuss that feedback and, once all feedback is received, Staff expects to recommend that the Board approve an MFR order on data access, among other things, which will be followed by a rulemaking proceeding to codify the requirements placed on each electric public utility with an AMI deployment plan. PSE&G is participating in that Board Staff proceeding.

E. Third Party Customer Engagement Efforts

PSE&G has utilized social media outlets for third party customer engagement efforts to date. The activities and results are as follows:

1. Published 17 messages:

a) *2 paid Facebook ads,*

b) *15 organic messages on Facebook, Twitter and LinkedIn:*

(1) 5 on Facebook,

(2) 9 on Twitter,

(a) 7 on PSEGDelivers,

(b) 2 on PSEGNews.

c) 1 on LinkedIn

2. Channel followers (as of July 2021):

a) *Facebook: 116,659*

b) *PSEGDelivers (Twitter): 101,704 followers*

c) *PSEGNews (Twitter): 20,418*

d) *LinkedIn: 55,182*

3. The social media posts generated:

a) *2,355,520 impressions (how many times an AMI social message was displayed),*

b) *Reached 797,462 Facebook users*

F. Remote Connects/Disconnects Performed

Use case not yet implemented

G. AMI Metering Tampering Cases

Use case not yet implemented

H. Stranded Costs Deferred

Expected to be available for next reporting period

Clean Energy Future-Energy Cloud

Advanced Metering Infrastructure (AMI) Program

Semi-Annual Report to the Board of Public Utilities

For the period July 1, 2021-December 31, 2021

Reporting Metric Tables:

Metric Description	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Current Reporting Period 7/1/2021-12/31/2021	Project to Date 1/7/2021 - 12/31/2021
Residential Meters Installed	7,538	8,720	8,663	12,558	6,394	6,007	49,880	72,999
Commercial Meters Installed	973	1,542	1,815	2,322	2,428	2,029	11,109	13,669
Poles Installed	0	0	0	11	14	32	57	57
Three-radio Network gateways installed	0	0	0	10	10	11	31	31
Single-radio Network gateways installed	0	0	0	0	21	3	24	24
Routers Installed	14	236	167	374	483	475	1,749	1,749
Percentage of Network Communicating to L+G Platform	0.64%	12.36%	20.61%	40.14%	66.24%	91.99%	91.99%	91.99%
Total number of opt-out customers	98	111	117	120	128	135	135	135
Number of actual reads recorded from AMI meters each month	2,697,426	3,280,196	3,721,308	4,659,650	5,203,311	6,189,795	25,751,686	See Note C
Number of meter readers and meter reader support staff employed by PSE&G each month	421	415	405	386	363	362		
Number of customers who have accessed the AMI web portal	1,844	1,539	1,789	1,627	1,149	1,378	9,326	16,148
Number of customers identified to have received energy saving messaging	149,173	19,383	1,638,684	2,277,086	2,307,772	11,581	6,403,679	16,794,902
Number of customers who have authorized third party supplier access to their energy usage data	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note E
Third Party Program-to-date customer engagement efforts undertaken by the Company	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note F
Number of AMI meters replaced due to functioning errors	0	0	2	1	0	0	3	4
Number of remote connects/disconnects performed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note G
Number of AMI meter tampering cases found	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note H
Estimated CEF-EC project completion date							12/31/2024	12/31/2024

N/A – Not applicable at this stage of the AMI Program

Average Installation Costs			Current Reporting Period 7/1/2021-12/31/2021	Project to Date 1/7/2021 - 12/31/2021
Average Cost Residential Meters Installed –Total			**$190**	**$198**
Average Cost Residential Meters Installed – Labor			$75	$83
Average Cost Residential Meters Installed – Materials			$115	$115
Average Cost Commercial Meters Installed – Total			**$242**	**$248**
Average Cost Commercial Meters Installed – Labor			$ 88	$97
Average Cost Commercial Meters Installed – Materials			$154	$51
	FORECAST		**ACTUALS**	
Metric Description (Cost Info.)	**Current Reporting Period 7/1/2021-12/31/2021**	**Project to Date 1/7/2021 - 12/31/2021**	**Current Reporting Period 7/1/2021-12/31/2021**	**Project to Date 1/7/2021 - 12/31/2021**
CEF-EC Capital Costs - Total	**$29.40M**	**$39.22M**	**$23.38M**	**$33.20M**
CEF-EC Capital Costs - Labor	$12.50M	$16.95M	$7.28M	$11.74M
CEF-EC Capital Costs - Material	$7.99M	$11.04M	$8.01M	$11.07M
CEF-EC Capital Costs - Other	$8.92M	$11.23M	$8.08M	$10.39M
CEF-EC Deferred O&M Expenses - Total	**$0.87M**	**$10.03M**	**$3.32M**	**$4.19 M**
CEF-EC Deferred O&M Expenses - Labor	$0.50M	$2.37M	$(0.50)M	$0.00M
CEF-EC Deferred O&M Expenses - Material	N/A	N/A	$0.57M	$0.57M
CEF-EC Deferred O&M Expenses - Other	$0.37M	$7.65M	$3.24M	$3.62M
Stranded Costs Deferred	**N/A**	**N/A**	**See Note I**	**See Note I**

N/A – Not applicable at this stage of the AMI Program

Reporting Metric Notes:

A. Network Installation

Estimated Quantity of Work: 161 new poles and three radio gateways, 47 single-radio network gateways and 2207 routers are estimated to be installed beginning in July 2021 with completion by mid-2022 to support the expansion of the existing RF Network

B. Percentage of Network Communicating to L+G Platform

Estimated Quantity of Work: 100% installation of network to be completed by mid-2022

C. Actual Reads Recorded from AMI Meters

Actual read number is inclusive of large commercial AMI meters installed prior to start of current AMI Project

D. Customers who have authorized third party supplier access to their energy usage data

The development of a Data Access Plan has been deferred pending the statewide proceeding in Docket No. EO20110716. On August 23, 2021, in that docket, the BPU issued a Straw Proposal on Advanced Metering Infrastructure (AMI) Data Transparency, Privacy & Billing, and sought written comment from all interested parties by October 7, 2021. Per that August 23, 2021 notice, after submission of comments, Board Staff anticipates having one or more stakeholder meetings to discuss that feedback and, once all feedback is received, Staff expects to recommend that the Board approve an MFR order on data access, among other things, which will be followed by a rulemaking proceeding to codify the requirements placed on each electric public utility with an AMI deployment plan. PSE&G is participating in that Board Staff proceeding.

E. Third Party Customer Engagement Efforts

PSE&G has utilized social media outlets for third party customer engagement efforts to date. The activities and results are as follows:

1. Published 6 messages:

a) *6 organic messages on Facebook, Twitter and LinkedIn:*
   (1) 1 on Facebook,
   (2) 4 on Twitter,
      (a) 3 on PSEGDelivers,
      (b) 1 on PSEGNews.
   (3) 1 on LinkedIn.

2. Channel followers (as of December 2021):

a) *Facebook: 118,251*
b) *PSEGDelivers (Twitter): 101,942*
c) *PSEGNews (Twitter): 20,673*
d) *LinkedIn: 57,213*

3. The social media posts generated:

a) *18,523 impressions (how many times an AMI social message was displayed),*
b) *Reached 7,242Facebook users*

F. Remote Connects/Disconnects Performed

Use case not yet implemented

G. AMI Metering Tampering Cases

Use case not yet implemented

H. Stranded Costs Deferred

Expected to be available in future reports.

Clean Energy Future-Energy Cloud

Advanced Metering Infrastructure (AMI) Program

Semi-Annual Report to the Board of Public Utilities

For the period January 1, 2022-June 30, 2022

Corrected copy – 03.01.2023

CEF-EC-AMI Program
Semi-Annual Reporting (2022) – Period ending June 30, 2022 , Corrected copy – 03.01.2023

Reporting Metric Tables:

Metric Description	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22	Current Reporting Period 1/1/2022-6/30/2022	Project to Date 1/7/2021 - 6/30/2022
Residential Meters Installed	6,596	7,537	8,744	8,064	8,444	17,280	56,665	~~129,664~~ 129,738 See Note J
Commercial Meters Installed	2.367	2,474	3,910	4,188	3,969	4,027	20,935	~~45,713~~ 34,661 See Note J
Poles Installed	9	29	40	11	1	0	90	159 See Note A
Three-radio Network gateways installed	13	38	50	17	5	4	127	159 See Note A
Single-radio Network gateways installed	28	1	0	0	0	0	29	53 See Note A
Routers Installed	338	69	0	14	58	0	479	2,207 See Note A
Percentage of Network Communicating to L+G Platform	89.40%	93.90%	95.96%	97.30%	99.90%	100.00%	100.00%	100.00% See Note B
Number of opt-out customers	12	7	5	4	34	34	96	231
Number of actual reads recorded from AMI meters each month	6,445,369	6,104,754	7,669,478	8,417,578	8,958,500	9,802,700	47,398,379	See Note C
Number of meter reading staff employed by PSE&G each month	366	390	446	449	475	463	See Note D	See Note D
Number of total visits by customers to AMI portal.	1,626	1,273	1,354	1,413	1,499	2,589	9,754	25,902
Number of customers receiving energy saving messages.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note E
Number of customers who have authorized third party supplier access to their energy usage data	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note F
Third Party Program-to-date customer engagement efforts undertaken by the Company	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note G
Number of AMI meters replaced due to functioning errors	0	0	0	6	6	6	18	21
Number of remote connects/disconnects performed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note H
Number of AMI meter tampering cases found	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note I
Estimated CEF-EC project completion date							12/31/2024	12/31/2024

N/A – Not applicable at this stage of the AMI Program

CEF-EC-AMI Program
Semi-Annual Reporting (2022) – Period ending June 30, 2022 , Corrected copy – 03.01.2023

Average Installation Costs			Current Reporting Period 1/1/2022-6/30/2022	Project to Date 1/7/2021 - 06/30/2022
Average Cost Residential Meters Installed –Total			**$250**	**$220**
Average Cost Residential Meters Installed – Labor			$136	$104
Average Cost Residential Meters Installed – Materials			$114	$116
Average Cost Commercial Meters Installed – Total			**$335**	**$298**
Average Cost Commercial Meters Installed – Labor			$144	$118
Average Cost Commercial Meters Installed – Materials			$190	$180

	FORECAST		ACTUALS	
Metric Description (Cost Info.)	**Current Reporting Period 1/1/2022-6/30/2022**	**Project to Date 1/7/2021 - 06/30/2022**	**Current Reporting Period 1/1/2022-6/30/2022**	**Project to Date 1/7/2021 - 06/30/2022**
CEF-EC Capital Costs - Total	**$34.45M**	**$67.65M**	**$31.85M**	**$65.04M**
CEF-EC Capital Costs - Labor	$8.96M	$20.7M	$10.23M	$22.26M
CEF-EC Capital Costs – Material	$12.68M	$23.75M	$10.95M	$22.01M
CEF-EC Capital Costs – Other	$12.81M	$23.2M	$10.67M	$20.77M
CEF-EC Deferred O&M Expenses - Total	**$5.66M**	**$9.85M**	**$5.88M**	**$10.07 M**
CEF-EC Deferred O&M Expenses - Labor	$2.36M	$2.36M	$0.46M	$0.46M
CEF-EC Deferred O&M Expenses – Material	$0.20M	$0.77M	N / A	$0.57M
CEF-EC Deferred O&M Expenses – Other	$3.1M	$6.72M	$5.42M	$9.04M
Stranded Costs Deferred	**N / A**	**N / A**	**$28.07M**	**$28.07M**

N/A – Not applicable at this stage of the AMI Program

Reporting Metric Notes:

A. Network Installation

Estimated Quantity of Work: 159 new poles and three radio gateways, 53 single-radio network gateways and 2207 routers have been installed to support the expansion of the existing RF Network

B. Percentage of Network Communicating to L+G Platform

Estimated Quantity of Work: Network installation has completed.

C. Actual Reads Recorded from AMI Meters

Actual read number is inclusive of large commercial AMI meters installed prior to start of current AMI Project.

D. Meter Reading Staff

Meter reading staffing fluctuates for various reasons. Permanent Meter Readers continue to decline month over month via natural attrition. Additional temporary Meter Reading staff have been hired to support Collection activities and vacations.

E. Number of customers receiving energy saving messages

Reports issued on September 1, 2021 and March 1, 2022 reported data based on all PSE&G electric customers who had received energy saving messages. In this report and subsequent reports, this metric will indicate how many PSE&G electric customers with AMI meters have received messages based on the implementation of use cases 1, 2, 3, 4, 5 and 7. Use cases not yet implemented.

F. Customers who have authorized third party supplier access to their energy usage data

The development of a Data Access Plan has been deferred pending the statewide proceeding in Docket No. EO20110716. PSE&G is participating in that Board Staff proceeding.

G. Third Party Customer Engagement Efforts

PSE&G has utilized social media outlets for third party customer engagement efforts to date. The activities and results are as follows:

1. Published 4 messages:

a) *4 organic messages on Facebook, Twitter and LinkedIn:*
   (1) 2 on Facebook,
   (2) 2 on Twitter,
      (a) 1 on PSEGDelivers,
      (b) 1 on PSEGNews.

2. Channel followers (as of June 2022):

a) *Facebook: 118,384*
b) *PSEGDelivers (Twitter): 102,165*
c) *PSEGNews (Twitter): 20,860*

3. The social media posts generated:

a) *16,224 impressions (how many times an AMI social message was displayed),*
b) *Reached 14,009 Facebook users*

H. Remote Connects/Disconnects Performed

Use case not yet implemented. A. AMI Metering Tampering Cases

Use case not yet implemented.

I. AMI Metering Tampering Cases

Use case not yet implemented.

J. Correction issued for Meters Installed.

The '**Project to date 1/7/2021 to 6/30/2022**' data figures for line items related to 'residential meters installed' and 'commercial meters installed' was corrected to read as 129,738 and 34,661 meters respectively.

Clean Energy Future-Energy Cloud

Advanced Metering Infrastructure (AMI) Program

Semi-Annual Report to the Board of Public Utilities

For the period July 1, 2022 - December 31, 2022

Reporting Metric Tables:

Metric Description	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22	Dec-22	Current Reporting Period 7/1/2022-12/31/2022	Project to Date 1/7/2021 - 12/31/2022
Residential Meters Installed	25,488	32,331	28,198	42,597	63,856	68,761	261,231	390,972
Commercial Meters Installed	3.870	5,765	5,839	6,779	7,248	7,381	36,882	71,563
Network Installed								See Note A
Number of opt-out customers	31	135	200	468	499	351	1,684	1,912
Number of actual reads recorded from AMI meters each month	11,352,467	13,279,195	15,337,058	18,485,408	21,330,381	27,508,752	107,293,261	See Note B
Number of meter reading staff employed by PSE&G each month	449	408	395	371	356	338	See Note C	See Note C
Number of total visits by customers to AMI portal.	2,254	1,412	2,430	2,305	1,574	1,738	11,713	38,613
Number of unique monthly Log-in's to AMI portal.	110	121	106	124	117	108	686	N/A
Number of customers receiving energy saving messages.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note D
Number of customers who have authorized third party supplier access to their energy usage data	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note E
Third Party Program-to-date customer engagement efforts undertaken by the Company	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note F
Number of AMI meters replaced due to functioning errors	8	11	16	14	31	50	130	152
Number of remote connects/disconnects performed	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note G
Number of AMI meter tampering cases found	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note H
Estimated CEF-EC project completion date							12/31/2024	12/31/2024

N/A – Not applicable at this stage of the AMI Program

Average Installation Costs (Per Unit Cost in USD)			Current Reporting Period 7/1/2022-12/31/2022	Project to Date 1/7/2021 - 12/31/2022
Average Cost Residential Meters Installed –Total			**$201**	**$219**
Average Cost Residential Meters Installed – Labor *(1)			$100	$113
Average Cost Residential Meters Installed – Materials			$101	$106
Average Cost Commercial Meters Installed – Total			**$270**	**$285**
Average Cost Commercial Meters Installed – Labor *(1)			$117	$123
Average Cost Commercial Meters Installed – Materials			$153	$162

	FORECAST		ACTUALS	
Metric Description (USD in Millions)	Current Reporting Period 7/1/2022-12/31/2022	Project to Date 1/7/2021 - 12/31/2022	Current Reporting Period 7/1/2022-12/31/2022	Project to Date 1/7/2021 - 12/31/2022
CEF-EC Capital Costs - Total	**$49.2M**	**$116.9M**	**$66.4M**	**$130.8M**
CEF-EC Capital Costs - Labor *(2)	$10.98M	$31.68M	$9.4M	$30.8M
CEF-EC Capital Costs – Material	$19.78M	$43.53M	$32.8M	$55.3M
CEF-EC Capital Costs – Other *(3)	$18.5M	$41.7M	$24.2M	$44.7M
CEF-EC Deferred O&M Expenses - Total	**$5.7M**	**$15.5M**	**$10.0M**	**$20.0M**
CEF-EC Deferred O&M Expenses - Labor *(2)	$2.58M	$4.94M	$3.7M	$4.1M
CEF-EC Deferred O&M Expenses – Material		$0.77M		$0.6M
CEF-EC Deferred O&M Expenses – Other *(3)	$3.1M	$9.82M	$6.3M	$15.3M
Stranded Costs Deferred			**$26.8M**	**$54.8M**

*(1) Average Installation costs - Internal and External Labor.

*(2) Labor - Internal PSE&G Labor.

*(3) Other - Includes all contractors and Outside services.

Reporting Metric Notes:

A. Network Installation

Network Complete: 159 new poles and three radio gateways, 53 single-radio network gateways and 2207 routers have been installed to support the expansion of the existing RF Network

B. Actual Reads Recorded from AMI Meters

Actual read number is inclusive of large commercial AMI meters installed prior to start of current AMI Project.

C. Meter Reading Staff

Meter reading staffing fluctuates for various reasons. Permanent Meter Readers continue to decline month over month via natural attrition. Additional temporary Meter Reading staff have been hired to support Collection activities and vacations.

D. Number of customers receiving energy saving messages

Reports issued on September 1, 2021 and March 1, 2022 reported data based on all PSE&G electric customers who had received energy saving messages. In this report and subsequent reports, this metric will indicate how many PSE&G electric customers with AMI meters have received messages based on the implementation of use cases 1, 2, 3, 4, 5 and 7. Use cases not yet implemented.

E. Customers who have authorized third party supplier access to their energy usage data

The development of a Data Access Plan has been deferred pending the statewide proceeding in Docket No. EO20110716. PSE&G is participating in that Board Staff proceeding.

F. Third Party Customer Engagement Efforts

PSE&G has utilized social media outlets for third party customer engagement efforts to date. The activities and results are as follows:

1. Published 0 messages:

a) 0 organic messages on Facebook, Twitter and LinkedIn:

(1) 0 on Facebook,

(2) 0 on Twitter,

(a) 0 on PSEGDelivers,

(b) 0 on PSEGNews.

2. Channel followers (as of December 2022):

a) Facebook: 121K

b) PSEGDelivers (Twitter): 101K

c) PSEGNews (Twitter): 21K

3. The social media posts generated:

a) 0 impressions (how many times an AMI social message was displayed),

b) Reached 0 Facebook users

G. Remote Connects/Disconnects Performed

Use case not yet implemented.

H. AMI Metering Tampering Cases

Use case not yet implemented.

Clean Energy Future-Energy Cloud

Advanced Metering Infrastructure (AMI) Program

Semi-Annual Report to the Board of Public Utilities

For the period January 1, 2023 – June 30, 2023

Reporting Metric Tables:

Metric Description	Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Current Reporting Period 1/1/2023 - 6/30/2023	Project to Date 1/7/2021 - 6/30/2023
Residential Meters Installed	80,150	76,707	85,227	79,610	83,894	80,954	486,542	877,514
Commercial Meters Installed	10.148	8,797	12,181	9,476	12,196	8,792	61,590	133,153
Network Installed								See Note A
Number of opt-out customers	414	371	571	622	428	239	2,645	4,557
Number of actual reads recorded from AMI meters each month	29,425,887	31,276,962	37,330,599	45,059,057	49,170,579	54,147,479	246,410,563	See Note B
Number of meter reading staff employed by PSE&G each month	332	312	295	302	331	325	See Note C	See Note C
Number of total visits by customers to AMI portal.	1,961	1,349	1,906	1,728	1,956	1,781	10,681	49,294
Number of unique monthly Log-in's to AMI portal.	131	128	142	116	134	135	786	N/A
Number of customers receiving energy saving messages.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note D
Number of customers who have authorized third party supplier access to their energy usage data	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note E
Third Party Program-to-date customer engagement efforts undertaken by the Company	N/A	N/A	N/A	N/A	N/A	N/A	N/A	See Note F
Number of AMI meters replaced due to functioning errors	32	7	3	9	7	17	75	227
Number of remote connects/disconnects performed	0	0	0	0	0	0	0	See Note G
Number of AMI meter tampering cases found	0	8	2	2	5	1	18	See Note H
Estimated CEF-EC project completion date							12/31/2024	12/31/2024

N/A – Not applicable at this stage of the AMI Program

CEF-EC-AMI Program
Semi-Annual Reporting (2023) – Period ending June 30, 2023

Average Installation Costs (Per Unit Cost in USD)			Current Reporting Period 1/1/20223-6/30/2023	Project to Date 1/7/2021 - 6/30/2023
Average Cost Residential Meters Installed –Total			**$175**	**$194**
Average Cost Residential Meters Installed – Labor *(1)			$58	$82
Average Cost Residential Meters Installed – Materials			$117	$112
Average Cost Commercial Meters Installed – Total			**$256**	**$272**
Average Cost Commercial Meters Installed – Labor *(1)			$89	$108
Average Cost Commercial Meters Installed – Materials			$167	$164

	FORECAST		ACTUALS	
Metric Description (USD in Millions)	**Current Reporting Period 1/1/2023-6/30/2023**	**Project to Date 1/7/2021 - 6/30/2023**	**Current Reporting Period 1/1/2023-6/30/2023**	**Project to Date 1/7/2021 - 6/30/2023**
CEF-EC Capital Costs - Total	**$114.1M**	**$244.9M**	**$114.7M**	**$245.5M**
CEF-EC Capital Costs - Labor *(2)	$10.0M	$40.8M	$8.8M	$39.6M
CEF-EC Capital Costs – Material	$54.9M	$110.1M	$61.3M	$116.5M
CEF-EC Capital Costs – Other *(3)	$49.2M	$93.9M	$44.6M	$89.3M
CEF-EC Deferred O&M Expenses - Total	**$12.2M**	**$32.2M**	**$8.0M**	**$28.0M**
CEF-EC Deferred O&M Expenses - Labor *(2)	$3.2M	$7.3M	$1.5M	$5.6M
CEF-EC Deferred O&M Expenses – Material		$0.6M		$0.6M
CEF-EC Deferred O&M Expenses – Other *(3)	$9.0M	$24.3M	$6.5M	$21.8M
Stranded Costs Deferred			**$27.0M**	**$81.8M**

*(1) Average Installation costs - Internal and External Labor.
*(2) Labor - Internal PSE&G Labor.
*(3) Other - Includes all contractors and Outside services.

Reporting Metric Notes:

A. Network Installation

Network Complete: 159 new poles and three radio gateways, 53 single-radio network gateways and 2207 routers have been installed to support the expansion of the existing RF Network

B. Actual Reads Recorded from AMI Meters

Actual read number is inclusive of large commercial AMI meters installed prior to start of current AMI Project.

C. Meter Reading Staff

Meter reading staffing fluctuates for various reasons. Permanent Meter Readers continue to decline month over month via natural attrition. In May 2023, additional temporary Meter Reading staff had been hired to support Collection activities and vacations.

D. Number of customers receiving energy saving messages

In this report and subsequent reports, this metric will indicate how many PSE&G electric customers with AMI meters have received messages based on the pending implementation of use cases 1, 2, 3, 4, 5 and 7.

E. Customers who have authorized third party supplier access to their energy usage data

The development of a Data Access Plan has been deferred pending the statewide proceeding in Docket No. EO20110716. PSE&G is participating in that Board Staff proceeding.

F. Third Party Customer Engagement Efforts

PSE&G has utilized social media outlets for third party customer engagement efforts to date. The activities and results are as follows:

1. Published 0 messages:

a) *0 organic messages on Facebook, Twitter and LinkedIn:*

(1) 0 on Facebook,

(2) 0 on Twitter,

(a) 0 on PSEGDelivers,

(b) 0 on PSEGNews.

2. Channel followers (as of June 2023):

a) *Facebook: 117K*

b) *PSEGDelivers (Twitter): 101K*

c) *PSEGNews (Twitter): 21K*

3. The social media posts generated:

a) *0 impressions (how many times an AMI social message was displayed),*

b) *Reached 0 Facebook users*

G. Remote Connects/Disconnects Performed

Use case not yet implemented.

H. AMI Metering Tampering Cases

Use case not yet implemented.