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PSEG Services Corporation

October 16, 2020

IN THE MATTER OF THE PETITION OF PUBLIC
SERVICE ELECTRIC AND GAS COMPANY
FOR APPROVAL OF ITS CLEAN ENERGY FUTURE-ELECTRIC VEHICLE
AND ENERGY STORAGE ("CEF-EVES") PROGRAM ON A REGULATED BASIS

BPU Docket No. EO18101111

VIA ELECTRONIC MAIL
Aida Camacho-Welch, Secretary of the Board
Board of Public Utilities
44 South Clinton Avenue, 9th Floor
Trenton, New Jersey 08625

Dear Secretary Camacho-Welch:

Pursuant to Commissioner Upendra Chivukula's April 22, 2020 Order Adopting Procedural Schedule issued in the above-referenced matter, enclosed please find the pre-filed Rebuttal Testimonies of Karen Reif, Todd Hranicka and Raymond Alvarez, Stephen Swetz, and Terrence Moran, filed on behalf of Public Service Electric and Gas Company.

Consistent with the Order issued by the Board in connection with In the Matter of the New Jersey Board of Public Utilities' Response to the COVID-19 Pandemic for a Temporary Waiver of Requirements for Certain Non-Essential Obligations, BPU Docket No. EO20030254, Order dated March 19, 2020, these documents are being filed electronically with the Secretary of the Board, the New Jersey Division of Rate Counsel, and the other parties in this case. No paper copies will follow.

Thank you for your review and consideration of this matter.

Respectfully submitted,

Matthew M. Weissman

C Commissioner Upendra Chivukula
Service List (via e-mail only)

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

In the Matter of the Petition of
Public Service Electric and Gas Company
for
Approval of its Clean Energy Future – Electric Vehicle and Energy Storage ("CEF-EVES") Program on a Regulated Basis

BPU Docket No. EO18101111

REBUTTAL TESTIMONY
OF
KAREN REIF
VICE PRESIDENT RENEWABLES & ENERGY SOLUTIONS

October 16, 2020

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PUBLIC SERVICE ELECTRIC AND GAS COMPANY
REBUTTAL TESTIMONY
OF KAREN REIF
VICE PRESIDENT RENEWABLES & ENERGY SOLUTIONS

Q. Please state your name, affiliation and business address.

A. My name is Karen Reif, Vice President Renewables & Energy Solutions for Public Service Electric and Gas Company ("PSE&G" or "Company"). My principal place of business is 80 Park Plaza, Newark, New Jersey 07102.

Q. Have you testified previously in this proceeding?

A. Yes, I submitted direct testimony on behalf of PSE&G in this proceeding on October 11, 2018. My credentials and experience are fully set forth in Schedule KR-CEF-EV-1 to my direct testimony.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my rebuttal testimony is generally to address: (1) the Board's recent MFR Order[1] adopting certain of Board's staff's recommendations respecting the build out of infrastructure to support light-duty, public electric vehicle ("EV") charging as the order relates to the Company's EV proposals included in its petition ("CEF-EV" or "EV Proposals"), and (2) the testimony and recommendations of Rate Counsel and various Intervenors that was submitted on September 4, 2020 in this matter.

In summary, my responses to the MFR Order, Rate Counsel, and Intervenors' testimony are that:

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[1] *I/M/O Straw Proposal on Electric Vehicle Build Out*, Docket No. QO20050357, Order Adopting The Minimum Filing Requirements For Light-Duty, Publicly-Accessible Electric Vehicle Charging (Sept 23, 2020) ("MFR Order").

- Although the MFR Order does not directly apply to the Company's CEF-EV petition, the EV Proposals largely align with the substantive recommendations of the order. The MFR Order makes clear the urgency of utility support for EV infrastructure build-out, and consideration of the Company's proposals should not be further delayed.
- PSE&G's EV Proposals will provide broad benefits to all utility customers, in spite of Rate Counsel's narrow portrayal of the program to the contrary. The benefits of transportation electrification that the EV Proposals are designed to incentivize are broadly accepted.
- PSE&G's EV Proposals will play a vital role in fostering the EV charging market and achieving state goals and will not stifle competitive EV development.
- The timing for the Board to exercise its clear authority to consider and approve the Company's CEF-EV petition could not be more appropriate, especially considering the PIV Act's statutory targets and the MFR Order.

I. PSE&G's EV Proposal Reasonably Aligns With Board's Recent MFR Order And Helps Address State Goals

Q. Do you propose to update your filing in light of the MFR Order?

A. No. The Company's EV Proposal reasonably aligns with the MFR Order and supports the stated goals of the MFR Order toward achievement of State EV infrastructure targets.

Q. Please review PSE&G's proposed EV sub-programs.

A. As is set forth in the CEV-EV Petition and in my Direct Testimony, PSE&G's EV proposals is comprised of four subprograms designed to spur EV adoption across multiple customer segments and charger use cases:

1. Residential Smart Charging: Incentives towards Level 2 networked EV Chargers at residences;
2. Level 2 Mixed-Use Charging: Deployment of electrical infrastructure and incentives for Level 2 chargers;
3. Public Direct Current ("DC") Fast Charging: Deployment of electrical infrastructure and incentives or ownership of DC fast chargers;
4. Vehicle Innovation: Incentives for electric school buses and charging equipment; and open solicitation for customized electrification projects.[2]

Q. How do the Company's EV proposals Align with the MFR Order?

A. It is not clear that the MFRs apply to the CEF-EV filing. The MFR Order states that pending cases need not be refiled, that "these requirements provide the Board with flexibility to review the EV Proposals on a case-by-case basis", and that the MFRs "should *eventually* be codified . . . ."[3] Nevertheless, it is clear that the CEF-EV program largely satisfies the main substantive requirements stated in the MFR Order.

The scope of the MFR Order primarily addresses publicly accessible, light-duty charging, and residential rebates are also addressed. There are two main points of focus in the

[2] The Company's proposal also includes cross-program investment that is common to all subprograms and includes investment in IT and education and outreach.
[3] MFR Order at 26 (emphasis added).

MFR Order. The first is utility investment in public charging that "must be accessible to all mass-market EV users."[4] The MFR Order provides additional detail on defining areas of "last resort" whereby the utilities may serve as provider of last resort ("POLR") for publicly accessible charging. The second focus of the EV Framework is residential incentives to "targeted areas of need."[5] PSE&G's EV proposals include elements that meet these two main points of focus, and in some cases exceed the minimum requirements in a manner that supports the State's goals. Specifically, with regard to "publicly-accessible EV charging infrastructure" the program includes electric distribution company ("EDC") funding of make-ready investments for EV chargers, with private ownership and operation of those chargers and "last resort options for EDC ownership."[6] With regard to rate structure, PSE&G has proposed a rate structure to address demand charges, as well as residential and multi-family EV charging rates.[7] As required under the MFR Order, CEF-EV is designed to encourage networked, managed charging, and to provide equitable access to the EV Ecosystem in overburdened communities.[8]

I discuss specific elements of the sub-programs in more detail below, including where shifts in focus for implementation of the sub-programs could be considered in light of the MFR Order without need for major program design changes.

[4] MFR Order at 4.
[5] MFR Order at 8.
[6] See MFR Order at 26; Reif Direct Testimony at 19-26.
[7] See MFR Order at 26; Reif Direct Testimony at 22-23; Swetz Rebuttal Testimony at 8-13.
[8] See MFR Order at 26; Reif Direct Testimony at 12-13, 22, 27-32.

Q. Do other parties in the case agree that certain aspects of the Company's EV Proposal align with State goals?

A. Yes, several Invervenors that provided responsive testimony are generally supportive of the Company's EV Proposals, and though they individually recommend various adjustments to the sub-programs, they collectively do not oppose the concept of rebate incentives. ChargePoint, for example, is directly supportive of utility rebates as a means to foster market growth and notes that such rebates have been effective in other states where ChargePoint operates.[9] Even Rate Counsel acknowledges that *some* aspects of the Company's programs could "help alleviate obstacles, and might provide valuable information that will support future program design."[10]

a. Rebates

Q. Which of the Company's EV Proposal sub-programs include rebates?

A. All of the four proposed EV sub-programs include some form of rebates. The Residential Smart Charging program would provide rebates to residential customers toward purchase and installation cost of residential charging equipment; the Level 2 Mixed-Use Charging program would provide rebates to customers toward the purchase and installation cost of Level 2 charging equipment for applications such as multi-family units, workplaces, fleets, municipalities, or overnight loading; the DC Fast Charging Program includes rebates

[9] In identifying "the most effective roles for utilities" in "helping to shape and participate in the implementation of utility EV programs across the country," ChargePoint specifically cites the provision of customer rebates: "A utility provides rebate incentives to their customers to install and operate charging stations, which are used to offset the construction and installation and/or the purchase of qualifying electric vehicle charging stations . . . [i]n ChargePoint's experience, the most successful programs combine make-ready investments by the utility along with rebates toward the EV charging stations or rebates toward the EV charging stations or rebates toward both installation and construction costs in addition to the EV charging station." Intervenor ChargePoint's Direct Testimony, Direct Testimony of Kevin George Miller ("ChargePoint Testimony") at 10-11.

[10] Direct Testimony of Ezra D. Hausman, Ph.D. on Behalf of the State of New Jersey Division of Rate Counsel ("Rate Counsel (Hausman) Testimony") at 12-13.

toward purchase and installation costs for third party development of DC fast charging equipment; and the Vehicle Innovation program provides rebates to school districts for the purchase of EV school buses and related charging equipment as well as funding for other projects to support medium and heavy-duty vehicle electrification.

Q. Are there other states that have approved utility rebate incentives that encourage EV adoption and infrastructure development?

A. Yes, as indicated by the Electric Transportation Biannual State Regulatory Update (June 2020) from the Edison Electric Institute, 17 states have utility commission-approved charging station rebates/discounts to customers.[11] These include Arizona, California, Delaware, Georgia, Indiana, Massachusetts, Maryland, Minnesota, Missouri, Montana, Nevada, New York, Ohio, Oregon, Pennsylvania, Rhode Island, and Utah.

Q. How are rebates addressed in the MFR Order and what is your reaction?

A. The MFR Order focuses primarily on the utility's role in providing make ready infrastructure work for light-duty, publicly accessible charging and does not specifically address utility rebates, but does emphasize that utility incentives should be utilized to benefit all customers. To a limited extent, the MFR Order addresses residential and multi-family charging incentives, discouraging incentives that would duplicate state-provided incentives but stating that utilities may offer programs to address areas of need and promote managed charging.[12] The MFR Order defers consideration of incentives for school busing and medium-

[11] Available at https://www.eei.org/issuesandpolicy/electrictransportation/Documents/FINAL_ET%20Biannual%20State%20Regulatory%20Update_June%202020.pdf, at 3, figure 3.

[12] MFR Order at 8.

and heavy- duty vehicles for separate stakeholder proceedings to occur next year.[13] Importantly, the MFR Order makes clear that the Board intends to exercise its authority to consider utility programs that will help the State meet its environmental goals, including mandated EV infrastructure targets included in the PIV Act.[14]

In my opinion, the Company's proposed rebates largely align with the MFR Order in that they are targeted toward incentivizing EV infrastructure build-out that is beneficial to all customers. These rebates are needed now to spur the market. The average length of new-vehicle ownership in the U.S. is around six years. There are only five years remaining between now and the statutory deadline for reaching the PIV Act target of having 330,000 registered EVs in New Jersey by the end of 2025. In order to meet that goal we will need quickly accelerated EV adoption to extend beyond innovators and early adopters. This will require addressing the primary barriers to EV adoption, which include both range anxiety and the price barrier. To the extent that the MFR Order seems to express a preference at this time for focus on publicly accessible light duty charging and/or incentives that target areas of need in the residential and multi-family, I believe that these issues can be addressed through a more targeted implementation of the Company's proposed programs without having to change the proposed basic components of the sub-programs, and there is no reason why the Company's other proposals could not proceed in parallel with the Board's consideration of other issues. I will address each sub-program below.

[13] MFR Order at 7.
[14] MFR Order at 15, citing to the PIV Act and *N.J.S.A.* 48:2-23 (authority to require public utilities to provide "service in a manner that tends to conserve and preserve the quality of the environment and prevent the pollution of the waters, land and air of this State").

b. Residential Smart Charging Program

Q. With the vehicle purchase price gap shrinking between an EV and a comparable ICE car, why is it important to help subsidize the price of the in-home charger and installations?

A. While the price gap for an EV to a comparable internal combustion engine ("ICE") car continues to shrink, price remains a major factor that drives vehicle choice for middle-income buyers. As noted by Dr. Hausman, the BPU's Charge-Up New Jersey Program, implemented pursuant to the directive of the PIV Act "has attempted to address this issue by offering vehicle rebates of up to $5,000 per vehicle (scaled based on miles of range of a single charge.)"[15]

The price for charging equipment, including installation, will also factor into customer decisions, however, and the cost of an EV charger and its installation, are not currently addressed by any other credits or subsidies, which further drives the price gap between EV and ICE vehicles. The additional cost of transitioning to an EV includes the charger purchase, "generally between $400 and $1000"[16] , plus the cost of in-home installation that averages $1,200 but can range as high as $4,500 per residence.[17] While the PIV Act permits the Board to offer up to a $500 rebate for the purchase and installation of an in-home charger, the Board has not yet implemented a charger incentive program, and even if it does, the maximum incentive pursuant to the PIV Act will not cover both the charger purchase and installation costs.[18] Therefore, the residential charging rebates proposed by the Company would not duplicate any existing or future State charging incentive. Rather, PSE&G's proposed charging

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[15] Rate Counsel (Hausman) Testimony at 21; *see also*, PIV Act, Sections 4-5; *N.J.S.A.* 48:25-4, 5.
[16] Rate Counsel (Hausman) Testimony at 21.
[17] *Available at*: https://www.fixr.com/costs/home-electric-vehicle-charging-station
[18] PIV Act, Section 6; *N.J.S.A.* 48:25-6. A $500 rebate for costs of $2000 or more would amount to merely one-fourth of the cost, or less.

rebates would bridge a gap while there is no state incentive, and would complement and operate in conjunction with any future state-provided incentives through a secure source of funding that cannot be re-appropriated in any given year.[19]

Q. Are there other aspects of the Residential Smart Charging sub-program that align with the MFR Order?

A. Yes. The MFR Order recommends that residential incentive programs encourage managed use charging.[20] The Company's Residential Smart Charging Program includes a rebate incentive for off-peak charging.[21]

Q. What is your reaction to the statements in the MFR Order that residential incentives should be targeted to areas of need including multi-family residential applications and overburdened communities?

A. As filed, the Company's Residential Smart Charging program is generally geared toward single-family residences on a first-come-first-serve basis within certain criteria without specific targets in certain communities. The Company is considering the MFR Order and whether the implementation of the program could focus on targeted areas of need, such as low-income customers. It could also be possible, without major changes to the program benefits and funding levels, to include multi-family residential applications where there is no public access in the Residential Charging Program implementation rather than including them in the Level-2 Charging Program.

[19] The source of funding in the PIV Act is the societal benefits charge that utility customers pay, but that may be subject to appropriation for other purposes such as state budget balancing, whereas utility programs can reliably fund EV programs in years where there might be other pressing state budgetary needs.
[20] MFR Order at 23.
[21] Reif Direct Testimony at 13.

c. Level-2 Charging Program

Q. How does the Level-2 Charging Program align with the MFR Order?

A. This program as filed is intended to provide incentives for multi-family installations of Level-2 equipment as well as other applications such as local government units and other entities, public or private, where members of the public would have access, such as at shopping centers or other workplaces. In essence, aside from some of the multi-family residential applications that were included in this sub-program, the program addresses charging in locations that the public might access, which is a focus of the MFR Order, and seeks to remove barriers to EV adoption in these types of locations.[22] Like the Residential Charging Program, the Level-2 program also includes incentives that encourage managed charging.

As stated above, the focus of implementation could be adjusted so that this program targets publicly-accessible locations. Additionally, implementation could be targeted to underserved communities.

d. DC Fast Charger Program

Q. Does the Public DC Fast Charger sub-program align with the MFR Order?

A. Yes, this program is directly aligned with the scope of the MFR Order, as it addresses charging in public corridor locations. PSE&G's proposal includes two different ownership models, third-party ownership and utility ownership. As per my direct testimony , the utility-

[22] Notably, Intervenor, Burns & McDonnell, testified about their company's experience with the Southern California Edison (SCE) Charge Ready Phase I Pilot and the recently approved Charge Ready 2 Program. As per Mr. Pynn, Phase 1 showed that "two groups encountered significant barriers to adoption: multi-unit dwellings (MUDs) and governmental locations," and Mr. Pynn further opines that "[g]iven that MUDs are often part of disadvantaged communities (DACs), SCE developed the Own and Operate program to better serve DACs and government entities with Charge Ready 2." Testimony of Kyle Pynn on Behalf of Intervenor Burns & McDonnell, Inc. ("Burns & McDonnell Testimony") at 6-7.

ownership model is only to be utilized if the competitive market is unable to support DC Fast Charging station development using the Third-Party Ownership Model, and this is aligned with what the MFR Order envisions for utilities – to serve as POLRs in limited circumstances.

Moreover, the Company's DC Fast Charger sub-program supports fulfillment of the pubic DC fast charging goals mandated under the PIV Act. These goals included at least 400 DC fast chargers available for public use at no fewer than 200 charging locations by December of 2025. The PIV Act is specific in its requirements for DC fast charging to meet program goals, requiring "at least 75 shall be at travel corridor locations, equipped with at least two DCFCs per location, each capable of providing at least 150 kilowatts of charging power."[23] As shown on an October 15, 2020 site map prepared by the New Jersey Department of Environmental Protection, there were only five existing DC fast charging locations that meet this criteria.[24] Thus, the Company's DC Fast Charger sub-program is needed if the Board is to achieve these legislative requirements.

Q. What about the specific criteria set forth in the MFR Order for determining when utilities should serve as POLRs?

A. PSE&G's proposal did not include these specific criteria for making these determinations; however, the Company has developed a process for evaluating locations for POLR and has stated in discovery response S-PSEG-DCE-0041 in this proceeding that there are factors that the Company would consider, including identifying geographical areas with charging gaps or "charging deserts" before determining that PSE&G should become the

[23] PIV Act, Section 3; *N.J.S.A.* 48:25-3.
[24] *Available at:* https://www.nj.gov/dep/drivegreen/dg-partnership-to-plugin.html.

POLR.[25] The Company is currently considering how these factors might align with the criteria the MFR Order recommends and whether and how such criterion should be included in the Company's implementation of the utility-owned aspect of this sub-program. Again, I emphasize here that PSE&G's intention is not to own or operate DC fast chargers unless required to ensure equitable distribution of infrastructure.

e. School Buses and Vehicle Innovation

Q. Does PSE&G believe the CEF-EV program should continue to include the Vehicle Innovation subprogram?

A. Yes. The MFR Order states that there will be "a separate straw proposal, currently scheduled for Fiscal Year 2021, on medium- and heavy-duty electrification, which may address electric transit and school buses."[26] PSE&G believes that the Vehicle Innovation subprogram would provide pilot data that would help inform the medium and heavy-duty electrification stakeholder process. There are approximately 17,000 school buses currently operating in New Jersey. PSE&G's school bus program is perfectly sized as a pilot study of school bus electrification with 102 buses at 25 school districts. The lessons learned from the Company's program will enable greater and more efficient adoption of electric school buses throughout the state. More importantly, as noted by Blue Bird Body Company ("Blue Bird"), "[i]t is also through the addition of V2G technology that EV school buses will become a grid asset to utilities such as PSE&G and a benefit to rate payers."[27] Blue Bird further notes that with V2G technology, a school bus that is idle 85% of the hours of a year on average "can

[25] Schedule KR-CEF-EV-2.
[26] MFR Order at 7.
[27] Testimony of Paul Yousif on Behalf of Intervenor Blue Bird Body Company ("Blue Bird Testimony") at 2.

provide energy services that benefit the school bus owner/operator as well as utilities, other entities in the energy supply network and rate payers."[28] Additionally, the vehicle innovation aspect of the program whereby other public fleet projects could receive funding is also consistent with the New Jersey's 2019 Energy Master Plan ("EMP"), as ChargePoint points out.[29]

The PIV Act sets forth electrification deadlines for NJ Transit that begin with 10% of new bus purchases by 2024. PSE&G feels the project grant element of the Vehicle Innovation subprogram could help support NJ Transit in meeting those goals, and this program should not be delayed as the Board is conducting an additional stakeholder process, presumably with time for receiving and evaluating public comments, next year.

Q. Please summarize the Company's position with regard to the MFR Order.

A. The Company applauds the Board for taking action pursuant to its authority to accelerate EV adoption and acknowledge the important role of utilities in EV infrastructure development. As the Board has directed that there is no need for the re-filing of existing petitions, and because the Company's EV Proposals in large part already align with the MFR Order, the Company's proposals should be approved.

[28] Blue Bird Testimony at 4.

[29] ChargePoint Testimony at 28. ChargePoint supports both the school busing and vehicle innovation aspects of this program, noting that all customers throughout PSE&G's service territory will directly or indirectly benefit including, but not limited to: (i) families with school children will benefit from the availability and use of electric school bus fleets; (ii) public transportation patrons will benefit from the availability and use of electric city bus fleets; (iii) fleet owners will benefit from lower total cost of ownership, and a healthier experience for drivers; and (iv) society will benefit from lower emissions and improved air quality. ChargePoint Testimony at 18.

II. PSE&G's EV Programs Provide Broad Benefits to All Customers

Q. Have you identified an overall theme underlying Dr. Hausman's arguments on behalf of Rate Counsel in opposing PSE&G's EV Proposals?

A. Yes. Several of Dr. Hausman's arguments rely on mischaracterization of the Company's EV Proposal as a "luxury" subsidy program targeted to high income customers lacking benefits to all customers that would justify recovery of program costs in rates. Dr. Hausman's narrow opinion of the nature of EV infrastructure development is both unsupported and ignores that electrification of the transportation sector in New Jersey will benefit all customers in multiple ways as discussed below. Additionally, Dr. Hausman's characterization of the economics and affordability of EVs is outdated and incorrect, and his laser focus on who is driving EVs misses the point entirely. The fact is that any significant increase in EV saturation in PSE&G's service territory, no matter who is driving, benefits all of PSE&G's customers, as recognized and accepted by the State Legislature in the Plug In Vehicles Act ("PIV Act")[30] and by the Board in its recent MFR Order regarding EV infrastructure build-out.

a. Rate Counsel mischaracterizes the EV Proposal as a luxury subsidy to present a narrow view of benefits.

Q. Do you agree with Dr. Hausman's suggestions that PSE&G's program amounts to merely a subsidy for a small subset of higher-income customers who can afford a luxury commercial product?

A. No. The purpose of the CEF-EV filing is to benefit all customers and further New Jersey's clean energy goals through launching the electric vehicle industry and making the

[30] *N.J.S.A.* 48:25-1, *et seq*.

electric grid more reliable, resilient and safe.[31] Indeed, PSE&G's EV Proposals are the types of programs both the State Legislature and the Board envision to deliver the benefits of transportation electrification to New Jersey's utility customers. For example, the PIV Act contemplates incentives for EVs and charging equipment and gives the Board broad discretion to "adopt policies and programs to accomplish the goals [of the PIV Act]".[32] Similarly, the Board's MFR order directs utilities that have not already done so to file EV proposals.[33] The 2019 EMP states, "[b]y transitioning to EVs, New Jersey would take a transformative step toward elimination of the dominant source of local air pollution, including black carbon, providing large, direct health savings, with outsize benefits to environmental justice communities currently burdened by poor air quality."[34]

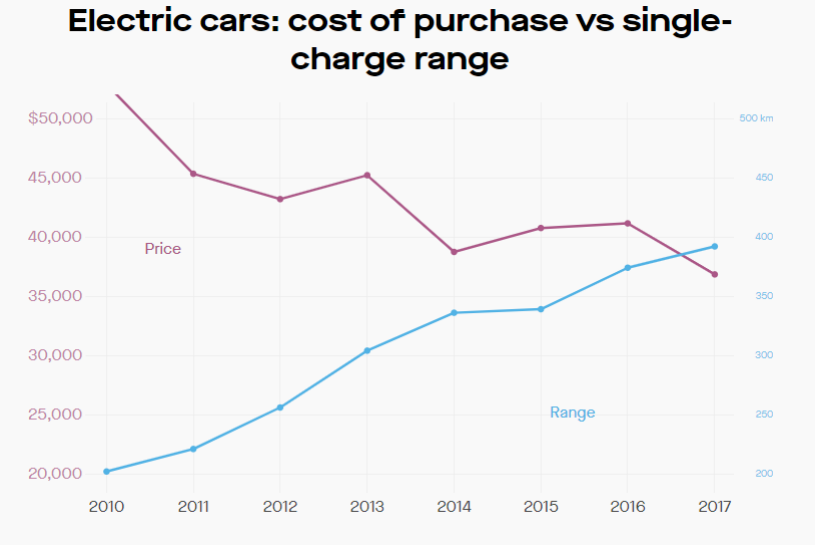
Q. Has Dr. Hausman provided any support for his characterization of EVs as a luxury-only product and is this characterization accurate?

A. No, Dr. Hausman has not supported this characterization, and it is not accurate because the EV market is evolving. As indicated in Rate Counsel's response to discovery request PS-RC-5.b, Dr. Hausman was using the term "luxury vehicle" as the term is generally understood, and not pursuant to any specific analysis he conducted.[35] The initial EV market was targeted to luxury car drivers and therefore, vehicles were at a higher price point than the average ICE vehicle. However, EVs are no longer limited to luxury vehicles simply because they are electric. The market is evolving, car manufacturers are offering more affordable EVs, the

[31] CEF-EVES Petition at 2-3.
[32] PIV Act, Section 3(b); *N.J.S.A.* 48:25-3(b).
[33] MFR Order at 26.
[34] EMP at 61.
[35] Schedule KR-CEF-EV-2.

average EV price continues to go down rapidly, and the price gap between EVs and ICE vehicles is shrinking. Indeed, the State Legislature has recognized this fact in its PIV Act, stating, "plug-in electric vehicles with longer ranges are now widely available at a lower cost and present a viable alternative to vehicles fueled by fossil fuels" and "more plug-in vehicle makes and models will be introduced in the State motor vehicle market over the next serval years."[36] Figure 1 below demonstrates the average cost of purchase decreasing as the charge range increases.

Figure 1: Electric Cars: Cost of Purchase vs Single-Charge Range [37]



Q. Can you provide data supporting those statements?

A. Yes. According to Kelley Blue Book ("KBB"), the average transaction price for a light duty vehicle in the United States in February 2020 was $37,876. There are eleven full-electric

[36] PIV Act, Section 1; *N.J.S.A.* 48:25-1.
[37] *Available at:* https://theatlas.com/charts/HyKWvLomm.

cars from the 2019 model year priced at less than $40,000, including the Model 3 from Tesla. Five of these models have a range in excess of 200 miles and would therefore qualify for the full $5,000 purchase rebate offered through the Board's Charge Up New Jersey program. The remainder would qualify for rebates between $1,450 and $3,750. That is before any other incentives, including the sales tax waiver and any remaining federal rebates.

A side-by-side comparison of the fair market value range also shows the shrinking price gap between EVs and ICE vehicles. For example, KBB shows the 2020 VW Golf fair market value ranges from $21,859 to $24,316. By comparison, the 2020 VW e-Golf ranges from $26,198 to $29,419, a difference of approximately $5,000, which equates to the Charge Up New Jersey purchase rebate. Moreover, the total cost of ownership ("TCO") of EVs is also relevant. KBB states that the average 5-Year TCO savings is significant for some EVs versus their gas-powered counterparts. For example the 5-Year TCO of the 2019 Volkswagen Golf ($34,481) is higher than the TCO of the 2019 Volkswagen e-Golf SE ($33,370). Finally, according to MyEV.com, there is a wide selection of used electric vehicles becoming available on the market for $20,000 or less.[38]

b. Benefits created by PSE&G's EV Proposal flow to all customers

Q. Notwithstanding the affordability of EVs, do you agree with Dr. Hausman's characterization that there are little or no net benefits to all customers derived from offering incentives to support EV charging infrastructure that only a limited number of customers might utilize?

A. No. The environmental benefits of EV adoption are well documented. All PSE&G customers, and indeed, all New Jersey residents, will benefit from improved air quality

[38] *Available at:* https://www.myev.com/cars-for-sale.

resulting from increased use of EVs, regardless of who is driving them. To quote the Board's MFR Order:

> [t]he Legislature and the Governor have made it clear that in order to combat the consequences of climate change, the electrification of the transportation sector is in the public interest. All of New Jersey — its residents, its businesses, its economy, its environment — will benefit from the widespread adoption of EVs.[39]

Moreover, The American Lung Association's 2020 "The Road to Clean Air" report finds that heavily traveled corridors "close to major population sectors inflict serious harms to human health, and often highlight disparities in the impacts of transportation pollution burdens."[40] According to the report, increased adoption of electric vehicles would help New Jersey avoid about 169 premature deaths, prevent more than 2,300 asthma attacks, prevent nearly 11,000 lost work days and save close to $2 billion in public health benefits annually.[41]

Q. Does the Company's EV Proposal provide other customer benefits in addition to health benefits?

A. Yes. As I stated in the direct testimony, the EV program will also "facilitate achievement of state goals set forth in the Global Warming Response Act ("GWRA"), the Energy Master Plan, California's ZEV Program, in which New Jersey participates, and the Clean Energy Law…will support the clean energy economy and create approximately 3,900 direct, indirect and induced job-years; …address critical barriers in the EV market, and provide

[39] MFR Order at 3.
[40] *Available at:* https://www.lung.org/clean-air/electric-vehicle-report.
[41] *Id.*

data to help optimize electric distribution system planning and operation, and support improvements to rate design to better align rates with cost causation."[42]

Q. Do other parties in this case agree that benefits of expanded EV charging infrastructure deliver benefits to utility customers beyond EV drivers?

A. Yes. Notably, Greenlots states that PSE&G's EV Proposal is "effectively designed to support customers in realizing the benefits of EVs, efficiently integrate EV load into the grid, and reduce persistent barriers to EV adoption."[43] Greenlots notes downward pressure on rates as a benefit of increased electric load from EV charging, highlighting transportation electrification as "the single greatest opportunity to increase and optimize the utilization of the electric grid for the benefit of all ratepayers."[44] Environmental Intervenors[45] also tout environmental benefits, job creation, and downward pressure on rates as benefits to all customers, not just owners of EVs.[46] Additionally, Intervenors, Blue Bird,[47] Burns &

[42] Reif Direct Testimony at 4-6. The value of job-years is based on the Rutgers report "Analysis for the 2011 Draft New Jersey Energy Master Plan Update" using the factor 7.91 direct jobs per one million dollars in program spend, *available at:* https://nj.gov/emp/docs/pdf/emp_creeep_report20110412.pdf, and the National Renewable Energy Laboratory Jobs and Economic Development Impact Model, *available at:* https://www.nrel.gov/analysis/jedi/.
[43] Direct Testimony of Joshua J. Cohen on Behalf of Zeco Systems, Inc. d/b/a Greenlots ("Greenlots Testimony at 7.
[44] Greenlots Testimony at 8.
[45] "Environmental Intervenors" includes Environment New Jersey, Environmental Defense Fund, Natural Resources Defense Council, and Sierra Club.
[46] Direct Testimony of Kathleen Harris on behalf of Environmental Intervenors ("Environmental Intervenors' Testimony") at 57-, 11-15.
[47] Blue Bird Testimony at 6 ("utility participation in the acquisition of EV school buses is in the interest of the utility and ratepayers").

McDonnell,[48] ChargePoint,[49] and EnelX[50] provide testimony regarding the broad benefits of the Company's EV Proposals.

Q. Does Dr. Hausman acknowledge in any way the benefits of transportation electrification?

A. Yes. In discussing the Company's Vehicle Innovation sub-program that would, in part, provide incentives for electric school buses and charging equipment, Dr. Hausman states, "I do not question the significant health benefits of reducing particulate pollution that harms low income children in New Jersey." Yet, Dr. Hausman's conclusion with regard to this, and the Company's entire EV Proposal, is that the costs of achieving these benefits should not be spread among utility customers. I agree with Dr. Hausman regarding the unquestioned health benefits of reducing particulate pollution that harms low-income children in New Jersey, but his conclusions not only ignore the fact that EV charging is dependent on, and an extension of, the electric grid, but also are directly contrary to the PIV Act, which is a public utility statute and directs the Board of Public Utilities, and not some other state agency, to adopt programs toward meeting aggressive EV and EV charging targets.

Q. Dr. Hausman claims (at 16-17) that PSE&G "fails to quantify" how its subprograms will contribute to increased adoption of EVs." Please comment.

A. As I made clear in my direct testimony and above, the EV Proposals are intended to deliver the broad benefits of electrification of transportation to all customers. First, it is self-

[48] Burns & McDonnell Testimony at 8-9 (highlighting benefits of PSE&G's proposals to address the "chicken and egg problem" and noting that PSE&G's proposal "offers great benefit, with a modest impact on customer bills").
[49] ChargePoint Testimony at 15 (opining that PSE&G's proposal "has the potential to create value for all customers in PSE&G's service territory, including those wo do not participate in the program").
[50] Testimony of Katie Guerry on Behalf of Intervenor Enel X North America ("EnelX Testimony") at 5-6 (highlighting multiple benefits from investments in residential EVSE including avoiding future costs that would otherwise be borne by utility customers).

evident that the types of programs and incentives the Company proposes toward expansion of the EV charging infrastructure will lead to increased adoption of EVs in New Jersey. The PIV Act's directives for similar incentive programs and broad directive to the Board to undertake programs to reach both charging infrastructure and EV deployment goals bolsters this point. Second, and even more importantly, Dr. Hausman's suggestion that the Company's EV Proposals will be used only by "free riders" – participants who would have participated in the market anyway – is shortsighted and again relies on the flawed premise that EVs are luxury-only products such that incentives are not needed to encourage broader EV adoption. ChargePoint, for example, a company that develops and operates EV chargers, has expressed strong support for PSE&G's proposal and, contrary to Dr. Hausman's belief that incentives will only produce "free riders," opines that incentives *are* needed to support development of charging infrastructure. ChargePoint states that PSE&G's EV Proposal "will appropriately lower market barriers, reduce costs, and increase benefits to ratepayers"[51] and that, "[b]y reducing the cost of Level 2 charging infrastructure for residential customers, PSE&G will be facilitating more widespread adoption of electric vehicles by ensuring residential customers have the ability to charge their EVs at home where they are parked for long periods of time."[52] PSE&G agrees with ChargePoint, a participant in this market, that incentives will increase adoption of EVs that would not otherwise occur.[53]

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[51] ChargePoint Testimony at 14.. Moreover, ChargePoint recognizes the need for broad utility involvement, without artificial limitations; specifically, Mr. Miller notes, "[t]he [CEF-EV] program as proposed underscores the need to holistically support EV charging with efforts that encourage charging at home, at work, and in public while also providing education and raising awareness on transportation electrification." *Id.*

[52] Chargepoint testimony at 18.

[53] Indeed, if the possibility of "free ridership" outweighed the benefits of incentives to encourage EV adoption, the State Legislature through the PIV Act presumably would not have mandated the Board to rapidly develop the Charge Up incentive program toward the purchase or lease of EVs.

Q. Is Dr. Hausman's position on the limited benefits of the Company's EV Propoal aligned with the State Legislature's and the Board's views on the benefits of incentives for EV charging infrastructure development?

A. No. Dr. Hausman ignores the New Jersey Legislature's findings that incentives for EV charging infrastructure are a means to deliver these environmental benefits, and that the costs of such incentives are appropriately spread among utility customers. The Board's MFR Order also acknowledges the broad benefits EV adoption flow to all customers.[54] In line with these findings, and contrary to Dr. Hausman's overly narrow opinion, PSE&G's EV Proposals appropriately benefit PSE&G's customers, not just EV drivers, by encouraging both the private and public EV infrastructure development necessary for broader adoption of EVs.

III. PSE&G EV Proposal's Role In Fostering the Charging Market And Achieving State Goals

a. PSE&G's EV Program supports, and does not stifle, competitive EV development

Q. Are PSE&G's EV Proposals intended to interfere with the competitive EV charging market in New Jersey?

A. No, quite the opposite. PSE&G's EV Proposals provide incentives toward installation and development of residential, Level 2 mixed use, and public DC fast charging, as well as providing outreach and education to the Company's customers regarding EV adoption, that are intended to spur the market. The Company's program will result in increased near-term opportunities for all market participants because not only do incentives encourage customers to procure products and services offered in the marketplace, including charger and network providers and installation contractors, but also the utility, itself, will procure EV service equipment and the services provided by EV market participants. Moreover, PSE&G's program

[54] MFR Order at 3.

will spur the growth of the market over time thereby further increasing opportunity for third market participants.[55]

Q. What about Intervenors' concerns and recommendations regarding the Company's proposal to own and operate DC fast charging stations in locations where the market has not responded?

A. In my opinion, these concerns are overstated and are based on a misunderstanding of the Company's intentions with regard to potential ownership of EV charging stations, which is a minor aspect of the overall EV Proposal. In fact, the Company's proposal to own and operate DC fast chargers as a POLR aligns with the Board's MFR Order.

Q. Please explain.

A. There is a significant amount of Intervenor testimony addressing the pros and cons of utility ownership of public charging stations.[56] The Company's proposal, however, is to only own and operate DC fast charging stations as a POLR – where the third party investors have not responded – to ensure equitable availability of charging throughout the Company's service area. Specifically, the Company estimates investment in 150 locations with 450 charging plugs within PSE&G's territory. As I stated in my direct testimony, the utility-ownership model "will only be utilized if the competitive market is unable to support the DC Fast Charging station development using the Third-Party Ownership Model."[57]

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[55] *See*, response to DE-PSEG-0003 Part (b), Schedule KR-CEF-EV-2.
[56] *See*, ChargePoint Testimony at 24-26; Greenlots Testimony at 11-12, 29; Environmental Intervenor Testimony at 22, 43-44; Rate Counsel (Hausman) Testimony at 26; Prepared Direct Testimony and Schedules of Jigar J. Shah on Behalf of Electrify America ("Electrify America Testimony") at 27-28; Opening Testimony of William Ehrlich on Behalf of TESLA, Inc. in the Matter of the Petition of Public Service Electric and Gas Company for Approval of Its Clean Energy Future-Electric Vehicle and Energy Storage Program on a Regulated Basis ("Tesla Testimony") at 12; Direct Testimony of Carine Dumit on Behalf Of EVgo Services LLC ("EVgo (Dumit) Testimony") at 12-13; Direct Testimony of Brendan Donnelly on Behalf of the Market Participants ("Market Participants (Donnelly) Testimony") at 3-4.
[57] Reif Direct Testimony at 19.

Q. How did the company estimate this number of locations that would require PSE&G to own/operate as a POLR?

A. The Company estimated a percentage of the locations that were likely to be sub-economic for private investors due to lower initial utilization in the five year period following program launch. As stated in the Company's response to S-PSEG-REV-0019, PSE&G is projecting to support private investment in approximately two-thirds of those locations and serving as POLR in approximately one-third of those locations.[58] As stated in the Company's response to S-PSEG-DCE-0041, in the event the private market is interested in 150 locations through the Company's program, PSE&G will not own or operate any public DCFC stations.[59]

Q. Has the Company developed a process to evaluate whether a particular location should be owned/operated by PSE&G?

A. Yes. The evaluation process is described in the Company's response to S-PSEG-DCE-0041.[60] In summary, PSE&G will solicit private market interest in specific areas that the Company identifies as geographical areas with charging gaps or "charging deserts" before determining that PSE&G should become the POLR. As is stated above, the Company is currently considering the POLR assessment recommendations in the MFR Order.

Q. Please address concerns that approving PSE&G's potential POLR ownership and operation of DC fast charges is premature at this time?[61]

A. First, while I acknowledge that there is a market for charging infrastructure that is growing, this market is nascent and is not yet sufficient. If it were, there would have been no reason for the PIV Act, and New Jersey would not rank 45th in the nation for electric charging

[58] Schedule KR-CEF-EV-2.
[59] Schedule KR-CEF-EV-2.
[60] Schedule KR-CEF-EV-2.
[61] Rate Counsel (Hausman) Testimony at 26; Electrify America Testimony at 27-28; EVgo (Dumit) Testimony at 12-13.

stations per registered vehicle.[62] Second, time is clearly of the essence, considering the aggressive targets mandated by the PIV Act. The Company is not opposed to making reasonable efforts to ensure that there are no third party investors willing to serve a particular location prior to undertaking ownership/operation. Such efforts might include elements recommended by the MFR Order. These are implementation issues, however, that do not warrant denial, altogether, of the Company's proposal to operate as a POLR, which would only cause further delay and could render deployment of EV infrastructure inequitable in the communities that would benefit most from fewer fossil-fueled vehicles on the road.

Q. Intervenors also question the impact on price competition for fast charging pursuant to the EV Proposal.[63] Does PSE&G intend to set the price for charging at DC fast charging stations?

A. Not for the third-party ownership model,[64] which encompasses the majority of the Company's DC Fast Charging sub-program. As described in the Company's response to CP-PSEG-0004, for the third party-ownership model, pricing will be set by that third-party owner/operator. The utility will not be involved in that decision, and will not be responsible for enforcement of pricing offered by competitive providers.[65]

If PSE&G becomes the POLR and owns/operates public DC fast chargers, the utility is proposing that the charging price by PSE&G to the EV driver will be based on competitive market benchmarks, similar to the methodology currently being used in Maryland, where

[62] EMP at 65.
[63] Tesla Testimony at 13; EVgo (Dumit) Testimony at 13.
[64] As explained in my direct testimony, the third party ownership model involves a competitive entity developing, owning, and operates the charging station with help from the utility program for make-ready, charging financing, and a demand charge solution. Reif Direct Testimony at 19-26.
[65] Schedule KR-CEF-EV-2.

utility development, ownership, and operation of public chargers has been approved by the Maryland Public Service Commission (MD PSC).[66] There, rates being charged EV drivers at utility-owned charging stations are based on a periodic analysis and survey of all existing public chargers conducted by the EDCs so that utility pricing is commensurate with market-based rates and does not put undue pressure on other charging network market participants.[67]

Q. Intervenors also commented on "gas parity" for pricing at public chargers.[68] How does PSE&G consider gas parity issues in making pricing decisions?

A. PSE&G considers gas parity for pricing at public chargers to mean that the price charged the EV driver to "fuel with electricity" per mile is, on average, no more than the price to fuel with gasoline per mile. This factor is typically in the range of 30 - 35 cents/kWh, but in some cases can be as high as 40 cents/kWh. To further clarify, this is *not* the cost of electricity supplied to the charger station's owner/operator. This average will not be the same as the set-point in the demand charge solution. As an example, if the cost of gasoline is $2.15/gallon, an average traditional vehicle gets 22 mpg, and an EV averages 3.5 miles/kWh, gas parity is 34.2 cents/kWh ((2.15/22) * 3.5). Using the methodology set in the Maryland example, gas parity will not impact the price PSE&G charges EV drivers at utility-owned/operated charging stations, unless gas parity was an underlying factor *also* used by the competitive market in developing prices used for benchmarking.

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[66] *I/M/O the Petition of the Electric Vehicle Work Group for Implementation of a Statewide Electric Vehicle Portfolio*, MD PSC Case No. 9478, Order No. 88997 (Jan. 14, 2019).
[67] *See, Proposal of Baltimore Gas and Electric Company, Delmarva Power & Light Company, and Potomac Electric Power Company for Revised Tariffs Regarding Implementation of Approved Electric Vehicle Charging Program Offerings* at 4, MD PSC Case No. 9478 (filed Nov. 18, 2019) (approved via Letter Order issued Feb. 5, 2020; *available at:* file:///C:/Users/a00126188/Downloads/181%20(1).pdf).
[68] EVgo (Beach) Testimony at 7-10.

Q. Why did PSE&G propose a competitive solicitation process for the Company to perform make ready work pursuant to the third-party model for DC fast chargers?

A. The reason for a competitive solicitation process is to ensure a process for resolving conflicts if/when different proposals would not be geographically diverse. A purely first-come-first-serve process may result in inequity of charging locations in the Company's service territory and could complicate the Company's ability to ensure grid reliability. The competitive solicitation will not be evaluated based on a financial cost estimate of the charging station installation. Rather, the Company will continually review the State's public charging goals in the PIV Act,[69] the proposed location's suitability score by NJDEP[70] and the NJDEP map "Strategic Mapping For Electric Vehicle DC Fast Charging Station Locations"[71] to review the spatial distance between the proposed location and pre-existing locations. For both DC fast charger and Mixed-Use L2 sites, the criteria will also include socioeconomic characteristics of the proposed location such as median household income, percentage of residents without dedicated parking, and diesel particulate concentration. In the event multiple third parties are interested in the same/similar location(s), PSE&G will discuss alternate locations available to seek resolution that improves the geographic distribution of third-party owned DC fast charger stations in the Company's service territory. If that resolution cannot be achieved, PSE&G may default to a first-come-first-served basis.

[69] PIV Act, Section 4; *N.J.S.A.* 48:25-4.
[70] *Available at*: https://www.nj.gov/dep/drivegreen/ChargingStationMappingCorridor.pdf
[71] Ibid.

Q. Another aspect of the Company's EV Proposal that most of the Intervenors addressed is the Company's proposal for demand charge relief. Please summarize how the Company's proposal for addressing demand charges supports the market for EV infrastructure development.

A. The Company chose the set point approach to address demand charges because it follows the cost-causation principle fundamental to rate design as discussed in Company witness Steve Swetz' direct and rebuttal testimony. In summary, the demand charge rebate provides a period of transition toward a standard tariff as utilization increases with increased EV adoption.

Q. Intervenor Tesla makes the recommendation that the eligibility for demand charge rebates should be extended to existing charging station accounts without limitation. What would be the estimated impact of that recommendation?

A. The Company considered extending the proposed EV charging rates to all existing and future EV charging stations, regardless of whether they utilize other aspects of the program. When developing the proposal, PSE&G sought to balance the benefit of supporting EV infrastructure build out with the program cost impact to its customers. Based on internet research, the current number of DC fast charger plugs in PSE&G's service territory is approximately 280.[72] As stated in response to S-PSEG-DCE-0061, applying the demand charge rebate as structured in the Company's proposal to existing facilities for the entire length of the six-year program would approximately triple the $39 million cost.[73] PSE&G decided to target the support to new DC fast charger stations to encourage additional build out.

[72] *Available at:* https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=e41aa50dd8cd45faba8641b6be6097b1
[73] Schedule KR-CEF-EV-2.

Q. If the short-term target rate mechanism for demand charge relief is approved as an interim EV rate substitute, should the rebate be provided as an 'on-bill' credit rather than an 'off-bill' rebate check as PSE&G has proposed?

A. Implementing an "on-bill" credit is not cost effective for a six-year program due to system changes that would have to be made. An on-bill option for rebates would require a longer cost recovery program to be beneficial than the six-year program PSE&G has proposed. Additionally, EVgo questions why the set-point rebate is proposed as an off-bill payment whereas an on-bill repayment ("OBR") is proposed for the in the Level 2 program incentives.[74] There are currently existing mechanisms to facilitate the OBR that decrease the implementation cost substantially, and these options do not currently exist for on-bill rebates.

Q. Brendan Donnelly on behalf of Market Participants has stated "PSE&G's ability to offer customers on-bill repayments would leave its competitors at a distinct disadvantage."[75] Do you agree?

A. No. PSE&G's ability to offer no interest OBR is modeled after its current Energy Efficiency program which today operates similar incentives for Direct Install, Multi-Family and Hospital customers, and was recently approved to offer OBR to all customer classes. In the private market, financing options offered by EVSE companies differ depending on business factors and promotional offers designed to generate more interest. Furthermore, some of these options are unique to the customer and project. These unique offerings are for commercial customers rather than residential.

Katie Guerry of Enel X North America provided testimony supporting the on-bill refinancing laid out in PSE&G's proposal but suggested extending the term from 2 years to 10

[74] EVgo (Beach) Testimony at 17-18.
[75] Market Participants (Donnelly) Testimony at 8.

years to better align with manufacturer warranties. There is no known comparable OBR option offered by other New Jersey utilities but within PSE&G, the current Energy Efficiency program offers 3-year repayment for direct install projects, and 5 or 10 year repayment depending on repayment value for multi-family and hospital projects. The Rebuttal Testimony of Company witness Terrance Moran addresses additional issues related to on-bill options.

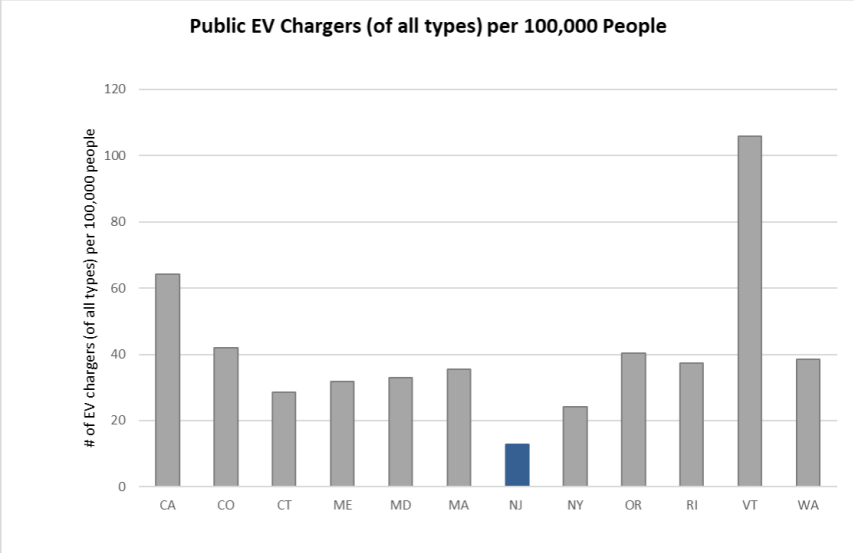
b. PSE&G's investment is needed to meet the PIV Act targets.

Q. If there is a growing market for EV charging in New Jersey, why is the Company's EV Proposal needed?

A. Despite a growing market, and signs that there is private investment interest, including interest expressed by Intervenors in this case, to date there has not been sufficient progress in the development of EV charging infrastructure in New Jersey. The MFR Order specifically finds that "the competitive market has not yet provided the investment necessary to spur the level of EV adoption required for the State to reach its goals."[76] Moreover, as demonstrated in Figure 2, below, New Jersey continues to rank lowest in the density of public chargers relative to population among states participating in California's ZEV partnership.[77]

[76] MFR Order at 25.
[77] The EMP also highlights that as of 2018, New Jersey ranked 45th in the nation in electric charging stations preregistered vehicles. EMP at 65.

Figure 2: Public EV Chargers per 100,000 People for each ZEV State[78]



ChargePoint cites data showing an approximately twenty-nine percent year-over-year growth rate for electric vehicle registrations in New Jersey,[79] which demonstrates progress, but does not resolve the "chicken and egg" problem whereby continued growth in EV purchases is not likely to continue if there is insufficient available charging infrastructure. Moreover, ChargePoint presented the growth of 2019 over 2018, which is actually a drop from the 2018 over 2017 period, demonstrating volatility in the year-to-year rates.[80] In the face of these challenges and the aggressive targets set by the PIV Act, it is unquestionable that utility investments, not limited to make-ready work, are essential to the equitable deployment and development of the EV ecosystem in New Jersey. It is also telling that private market

[78] Data obtained April 22, 2020 from United States Department of Energy, Alternative Fuels Data Center, *available at*: https://www.afdc.energy.gov/data_download and United States Census Bureau, State Population Totals and Components of Change: 2010-2019, *available at:* https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html.
[79] ChargePoint Testimony at 5.
[80] Calculated with data obtained from https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=e41aa50dd8cd45faba8641b6be6097b1.

developers, themselves, agree that utility investments and incentives are necessary to ensure continued market growth,[81] one going so far as to state that the denial of PSE&G's petition would be the "worst-case commercial scenario" for their business.[82]

Q. Dr. Hausman questions the need for residential incentives and states that "many EV drivers often charge at no marginal cost to themselves at their workplace or through a charging network program."[83] Please address these comments?

A. Dr. Hausman seems to be downplaying the impacts of range anxiety as a barrier to EV adoption. Dr. Hausman does not provide support for his assumption that most EV drivers charge for free, and indeed, this assumption appears to be incorrect. As stated in the Company's response to DE-PSEG-0025, at the time PSE&G developed the CEF-EV program, the Company cited the 2017 ChargEVC Roadmap[84] on the impact of range anxiety as a barrier to EV adoption.[85] Since that time, updated studies have confirmed that range anxiety, or the fear of running out of charge on the road, continues to be a known barrier to widespread EV adoption, even for those EV drivers who have access to in-home or workplace charging.[86] Moreover, range anxiety and the chicken and egg problem that PSE&G's programs are designed to combat are very real, as recognized in the State's 2019 EMP, which describes range anxiety as "[a]mong the largest barriers to mass adoption of passenger EVs."[87]

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[81] *See*, Burns & McDonnell Testimony at 8-9; ChargePoint Testimony at 9-12; EnelX Testimony at 5; Greenlots Testimony at 7-8; *see also*, Schedule KR-CEF-EV-3.
[82] EnelX Testimony at 3.
[83] Rate Counsel (Hausman) Testimony at 20-22.
[84] ChargeEVC, A Roadmap for Vehicle Electrification in New Jersey: Market Development Strategy and High Impact Initiatives, (Sept. 13, 2017) ("2017 ChargEVC Roadmap") at 12, *available at:* http://www.chargevc.org/documents/chargevcroadmap/.
[85] Schedule KR-CEF-EV-2.
[86] *See* Company's response to DE-PSEG-0025, Schedule KR-CEF-EV-2.
[87] EMP at 65 ("[t]he EV industry to date has largely been described as a classic chicken-and-egg problem. The private sector has not made a business case to install charging infrastructure without a critical mass of EVs on the road, and consumers struggle to rationalize the purchase of a more expensive vehicle that has limited range").

Consistent with this concern, ChargePoint cites to publicly available data demonstrating that EV drivers tend to charge their vehicles at home over 80 percent of the time.[88]

c. PSE&G should use EV charging data to benefit customers

Q. Brendan Donnelly on behalf of Market Participants has stated that the Company's access to charging data should be limited. Additionally, Jigar J. Shah on behalf of Electrify America, LLC has stated that it provides charging data through its annual reporting and PSEG's access to data would provide administrative and technologies burdens. What is your response?

A. First, PSE&G should have access to charging data to enable the Company to ensure system reliability. Residential level 2 chargers have peak demands in the 7kW to 10kW range, which in many cases more than double the peak demand of residential customers. Current residential meters do not measure demand and customers are not required to inform PSE&G when they purchase one (or more) electric vehicle in-home chargers. Therefore, this demand can lead to overloads of services, secondary, transformers and fuses. When EV adoption begins to accelerate in New Jersey, these issues will be exacerbated.

Second, PSE&G should have access to charging data to enable development of additional customer benefits. The Board has expressed interest in both vehicle-to-grid technology and more complex demand-response programs. For these reasons it is essential to gather as much information as possible and to avoid limitations on the Company's access to charging data.

In the absence of demand meters, PSE&G has no current mechanism to measure residential demand at the pole or individual service level. Meeting increased EV load will be dependent on the existing facilities as well as charging frequency and timing. Without the

[88] ChargePoint Testimony at 19, *citing*, U.S. Department of Energy, Office of Energy Efficiency & Renewable Energy, available at: https://www.energy.gov/eere/electricvehicles/charging-home.

ability to measure and monitor this demand, PSE&G will be reacting to overloads after they occur, many with associate outages, rather than performing proactive management. Additionally, the more data PSE&G has about the system, the faster the Company can restore the system after extreme events. This data will be used in future Distributed Energy Management ("DERMs") systems to evaluate real-time reliability operations as well as planning.

Moreover, it is becoming industry standard to require access to the charging data. The file download requirements of NYSERDA's DC fast charger rebate program provide an example. As part of the operation of equipment, the equipment owner must provide all data requested to NYSERDA on a regular basis by providing NYSERDA with limited administrative access to the network data (preferred) or by establishing regular recurring data transfers to NYSERDA for the duration of the five (5) years, no less than quarterly.[89]

IV. Timing Of and Authority For The Petition

Q. Is this the proper time to consider PSE&G's CEF-EVES petition?

A. Yes, it is. Dr. Housman argues that it is premature to consider PSE&G's proposal, since at the time of his testimony the Board was "in the process of defining a role for utilities in supporting EV infrastructure in its consideration of Staff's EV Straw Proposal under Docket No. 11 QO20050357."[90] Notwithstanding his admission that "there are elements of the Company's proposals that may be beneficial for New Jersey," Dr. Hausman recommends that

[89] *Available at*: https://portal.nyserda.ny.gov/servlet/servlet.FileDownload?file=00Pt000000NgbUpEAJ at 13.
[90] Rate Counsel (Hausman) Testimony at 14.

the entire program be rejected.[91] However, considering that the MFR Order has now been issued, and considering the sense of urgency expressed in the MFR Order requiring the State's EDCs that have not already done so to file electric vehicle proposals within five months,[92] now is the ideal time for the Board's consideration of the Company's petition.

Q. But weren't Dr. Hausman's concerns about the stakeholder proceeding well-grounded?

A. Not at all. I would say they were baselessly pessimistic. More importantly, his blanket conclusion that the Board should simply reject the entire CEF-EV program despite its undisputed benefits reflects a failure to recognize, or a conscious disregard of, the State's express executive and legislative policy to electrify New Jersey's transportation sector.

Q. Why do you believe that Dr. Hausman's concerns about the pending stakeholder proceeding were baseless?

A. When it issued the Straw Proposal on May 18, 2020, the Board Staff was clear that "consideration of [the important] generic policy issues" identified in that proposal "will proceed in parallel with [the Board's] evaluation of EV-related filings from individual EDCs and ultimately result in a faster development of a successful EV Ecosystem."[93] The Staff unequivocally stated that all EDCs would file EV plans and proposed EV programs by December 31, 2020, with implementation dates commencing no later than April 1, 2021.[94]

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[91] Rate Counsel (Hausman) Testimony at 44. As discussed in the Rebuttal Testimony of Todd Hranicka, certain parties (Rate Counsel and Market Participants) argue that the Company's Energy Storage proposals are premature because Board has not yet followed directives of CEA including a meaningful stakeholder process. Rate Counsel (Hausman) Testimony at 32-34; Market Participants (Cavan) Testimony at 9-10.
[92] MFR Order at 26.
[93] *I/M/O Straw Proposal on Electric Vehicle Infrastructure Build Out*, Dkt. No. QO20050357, Notice, New Jersey Electric Vehicles Infrastructure Ecosystem 2020 Straw Proposal (May 18, 2020), at 3.
[94] *Id.*, at 13.

Q. And what happened next?

A. After a public hearing and the submission of over 300 pages of comments from a broad set of stakeholders, on September 23, 2020 the Board issued the EV Minimum Filing Requirements Order and stated that pending filings such as CEF-EVES "need not be refiled", rendering this pillar of Dr. Hausman's testimony moot two-and-a-half weeks after Rate Counsel filed it.[95]

Q. Was there support for a robust EDC role in EV infrastructure build-out during the stakeholder proceeding?

A. Yes. Schedule KR-CEF-EV-3 summarizes comments that were made during the stakeholder proceeding that supported a robust role for EDCs in the EV infrastructure buildout.

Q. Dr. Hausman spends a great deal of time arguing that the CEF-EV filing is legally impermissible. Can you respond?

A. Yes I can. First of all, like Dr. Hausman, I am not an attorney. Nevertheless, it is my understanding that in making the numerous legal assertions and drawing the numerous legal conclusions in his testimony regarding the Company's and the Board's legal authority, Dr. Hausman has essentially repeated the arguments stated in his client's motion to dismiss PSE&G's EV proposal.[96] I would note that the motion was dismissed.[97] Our attorneys have

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[95] MFR Order at 26.

[96] For example, Dr. Hausman: (1) asserts that PSE&G has cited no authority for the offerings that are part of CEF-EV (at 11); (2) opines that while utilities may appropriately provide make ready infrastructure, the provision of rebates is "not consistent with a utility's legal function or with any mandate under the PIV Act" (at 24-25); (3) states that CEF-EV does not qualify as an "energy efficiency" program under New Jersey law (at 30); (4) characterizes the utilities' and the Board's authority in respect of different types of technologies, including EVSE, as matter of New Jersey administrative law (at 13-14).

[97] *I/M/O the Petition of Public Service Electric and Gas Company for Approval of its Clean Energy Future – Electric Vehicle and Energy Storage ("CEFEVES") Program on a Regulated Basis*, Docket No. EO18101111, Order on Motion to Dismiss (N.J.B.P.U. July 1, 2020) ("July 2020 Order").

addressed these arguments in response to the motion and will continue to address these arguments in this case when appropriate.

Q. On what basis was the motion dismissed?

A. Again, I am not an attorney. However, I can state that the order denying Rate Counsel's motion accurately describes many of the positions taken by PSE&G in opposing that motion. I also note that one of the fundamental bases of PSE&G's opposition was that the various Intervenors with diverse knowledge and expertise in this case should have the opportunity to present their facts, opinion, and arguments that could be helpful in deciding this case, and that has proven to be the case considering the various parties that provided responsive testimony on September 4th. I attempt in this rebuttal testimony to make clear the ways in which the testimony not only of PSE&G and Rate Counsel but of the numerous intervening parties has helped create a robust record that enables the Board to exercise its broad jurisdiction over the activities of public utilities to evaluate the efficacy of the proposed CEF-EV petition in light of the EMP and the clear intent of the PIV Act.

Q. Please summarize your reactions to the testimony of Rate Counsel and other Intervenors.

A. My overall reaction is that there is no persuasive reason to reject altogether or to delay approval of the CEF-EV petition. PSE&G has proposed a program that reaches multiple sectors and incentivizes accelerated adoption of EVs in support of the aggressive State Goals set forth in the PIV Act. Board Staff and the Board through the MFR Order have clearly expressed an intent that the policy considerations set forth in the MFR Order, and those the Board is reserving for future consideration, should not be applied retroactively to existing petitions like PSE&G's and further delay puts at risk the delivery of the recognized and

significant benefits of transportation electrification. The Company's proposal largely aligns with important aspects of the MFR Order, in any event. Intervenors representing various sectors have made various recommendations that can be considered in implementing the program, but that do not call for rejection of the program, as Rate Counsel suggests. In short, now is the right time for the Board's consideration of PSE&G's CEF-EV Program, and the program should be approved.

Q. Does this conclude your testimony at this time?

A. Yes.

Public Service Electric and Gas Company
Case Name: CEF-EVES
Docket No(s): EO18101111

Response to Discovery Request: S-PSEG-DCE-0041
Date of Response: 8/12/2020
Witness: Reif, Karen
Provider of Last Resort Criteria

Question:
Please describe criteria for when utility ownership of public DCFC chargers would be allowed, referencing the Staff Straw Proposal on last-resort ownership of DCFC chargers by utilities.

Attachments Provided Herewith: 0

Response:
The Company's EV proposal conforms with the New Jersey Electric Vehicles Infrastructure Ecosystem 2020 Straw Proposal, most specifically with Section V, Part A, which states:

> Staff proposes that charging station infrastructure, or EVSE, costs will be generally borne by private investors, with no recourse to ratepayer funds, except where the EDC acts as the party of last resort, where investment in EVSE is not occurring, or is not occurring in specific geographic areas.[4]

The Company will continually review the updated NJDEP EV Strategic Mapping Effort[5] for proposed EV ecosystem investments. When PSE&G launches the DCFC subprogram, it will solicit interest in program participation from both customers and EVSE providers, using the NJDEP proposed locations as a guide. While continuing to solicit private market interest in program participation, as the Company's program begins the second year of implementation, PSE&G will also identify key locations based on the high priority NJDEP "complete list of suitability scores"[6] that have not garnered private market interest, and a geographical review of gaps or "charging deserts". Upon identifying such key locations, the Company will again solicit interest from the private market for these specific key locations before determining that PSE&G should become the provider of last resort. The Company will repeat this process annually during the program to ensure meeting the program goal of 150 installed stations and support the state goals of the PIV Act or identified on the published NJDEP map and spreadsheet. In the event the private market is interested in 150 locations through the Company's program, PSE&G will not own or operate any public DCFC stations.

[4] EV Straw Proposal, Page 7
[5] https://www.nj.gov/dep/drivegreen/dg-partnership-to-plugin.html
[6] https://www.nj.gov/dep/drivegreen/dg-partnership-to-plugin.html

PS-RC-5. Reference Dr. Hausman's testimony, page 19, lines 4-6. In that section of testimony:

a. How does Dr. Hausman define the terms "low income customer" and "moderate-income customer"?

b. Please define the term "luxury vehicle."

c. Provide all analysis, studies, reports, papers, presentations, published articles, or testimonies Dr. Hausman has performed and/or prepared that supports his conclusion that the CEF-EV program will not impact the likelihood that low or moderate-income customers will purchase an electric vehicle. Please also provide any data and calculations, with formulae intact, supporting any of the items produced in response to this question.

Response:

a. Dr. Hausman was using the terms as they are generally understood and did not intend a specific definition; nor did he intend to be specifically consistent with eligibility requirements for utility low-income programs.

b. Dr. Hausman was using this term as it is generally understood. Speaking generally, he means a vehicle that provides additional features and is more expensive than a baseline model or other vehicles of similar size and utility.

c. Dr. Hausman has performed or prepared no such analyses or studies, nor would it be possible to prove a negative as the question suggests. It is Dr. Hausman's understanding that the Company has the burden of proof that its programs will have the impact described, and the Company's filings have not provided such proof.

Public Service Electric and Gas Company
Case Name: CEF-EVES
Docket No(s): EO18101111

Response to Discovery Request: DE-PSEG-0003
Date of Response: 7/21/2020
Witness: Reif, Karen
Utility Monopolization of Market

Question:
Please refer to the Direct Testimony of Karen Reif, page 10, lines 6-13. Ms. Reif states that PSE&G is uniquely qualified to successfully implement the proposed EV subprograms because it has established customer relationships.
(a) Do you agree that third parties such as a retail energy suppliers may be more effective than PSE&G in offering the proposed subprograms in New Jersey because of their state-wide reach? If you do not agree, please explain.
(b) Do you agree that PSE&G is attempting to use its monopolistic public utility status to the exclusion of competitive third party market participants?

Attachments Provided Herewith: 0

Response:

a. PSE&G does not agree that third party suppliers may be more effective than PSE&G in offering the proposed subprograms. Third party suppliers have yet to make significant progress toward EV infrastructure deployment in New Jersey.
b. PSE&G objects to this request on the ground that it misrepresents the purpose and structure of the proposed public utility program, which is intended to support the competitive market and not to compete with or exclude any competitive market participants. Subject to and notwithstanding this objection, PSE&G states that to date the private market has not provided an adequate level of investment in charging infrastructure to meet New Jersey's transportation electrification and emissions goals. The Company's proposal to accelerate build out of EV charging infrastructure will fill a need that has not been met, and is not likely to be met, by the competitive market. Furthermore, PSE&G's program is small in relation to the overall market need to meet state-mandated goals, and utility investment as proposed by PSE&G results in increased near-term opportunities for all market participants because the utility itself will procure EV service equipment and the services provided by EV market participants, such as charger and network providers and installation contractors. Moreover, PSE&G's program will spur the growth of the market over time thereby further increasing opportunity for third market participants.

Public Service Electric and Gas Company
Case Name: CEF-EVES
Docket No(s): EO18101111

Response to Discovery Request: S-PSEG-REV-0019
Date of Response: 6/30/2020
Witness: Reif, Karen
Provider of Last Resort

Question:
Reference Karen Reif Direct Testimony on Page 19

The testimony states, "The second model will only be utilized if the competitive market is unable to support the DC Fast Charging Station development using the Third-Party Ownership." Please provide any analysis done by PSE&G regarding the anticipated level of this model.

Attachments Provided Herewith: 0

Response:
PSE&G reviewed its service territory for segments within the travel corridors of approximately 25 miles in length and community locations that, combined, would provide a minimum geographic coverage of charging stations to combat range anxiety, which is a barrier to EV adoption. Of that tally, the Company estimated a percentage of the locations that were likely to be sub-economic for private investors due to lower initial utilization in the five year period following program launch. Based on this analysis, PSE&G is projecting to support private investment in approximately 2/3 of those locations and serving as provider of last resort (POLR) in approximately 1/3 of those locations.

Public Service Electric and Gas Company
Case Name: CEF-EVES
Docket No(s): EO18101111

Response to Discovery Request: CP-PSEG-0004
Date of Response: 7/17/2020
Witness: Reif, Karen
DCFC Price Setting

Question:
Please confirm that if the Company moves forward with owning DC fast charging stations, participating commercial customers that host the stations will have the ability to access station usage data and have the ability to set pricing to drivers, whether it be a "flow through" DCFC rate similar to what the site host pays to the utility or some other variation. If not, please explain why.

Attachments Provided Herewith: 0

Response:
Commercial site hosts will have the ability to access station usage data through their utility bill. Additional data access will be available but is dependent on other factors including the software setup and the customer relationship between the site host and end user. Price setting for the sale of charging time and power level will be the responsibility of the site owner. PSE&G does not set standards for commercial site hosts on pricing they offer to the individual end users.

Public Service Electric and Gas Company
Case Name: CEF-EVES
Docket No(s): EO18101111

Response to Discovery Request: S-PSEG-DCE-0061
Date of Response: 10/5/2020
Witness: N/A
Extending EV Charging Rates

Question:
Has the Company considered extending the proposed EV charging rates to all existing and future EV charging stations, regardless of whether they utilize other aspects of the program?

Attachments Provided Herewith: 0

Response:
Yes, the Company considered extending the proposed EV charging rates to all existing and future EV charging stations, regardless of whether they utilize other aspects of the program. When developing the proposal, PSE&G sought to balance the benefit of supporting EV infrastructure build out with the program cost impact to its customers. Based on internet research, the current number of DCFC plugs in PSE&G's service territory is approximately 280. Applying the demand charge rebate as structured in the Company's proposal for the entire length of the six-year program would approximately triple the $39M cost. PSE&G decided to target the support to new DCFC charging stations to encourage additional build out.

Public Service Electric and Gas Company
Case Name: CEF-EVES
Docket No(s): EO18101111

Response to Discovery Request: DE-PSEG-0025
Date of Response: 7/21/2020
Witness: Reif, Karen
DCFC vs. In-Home Charging

Question:
Refer to the Direct Testimony of Karen Reif, pages 19-20. Provide justification for expenditures associated with the installation of DC fast chargers or superchargers along highways when the majority of charging is done at home or at the workplace.

Attachments Provided Herewith: 0

Response:
At the time PSE&G developed the Electric Vehicle (EV) program, the Company cited the 2017 ChargEVC Roadmap[3] on the impact of range anxiety as a barrier to EV adoption. Since that time, updated studies have confirmed that range anxiety, or the fear of running out of charge on the road, continues to be a known barrier to widespread EV adoption, even for those EV drivers who have access to in-home or workplace charging. These studies include, but are not limited to:

- Life in the fast lane, Global Automotive Disruption Speedometer 2019, by OC&C Strategy Consultants[4] that shows that 56% of U.S. respondents noted "access to charging points away from home" as their largest concern in considering an EV.
- Projections of Electric Vehicle Adoption in New Jersey by ChargEVC[5] in 2019 that asserts "[f]or most mainstream consumers, the ability to obtain a fast and convenient charge while "on the road" is a primary consideration in potential PEV adoption."

Moreover, many New Jersey residents may not have access to either in-home or workplace charging, and DC fast chargers and super chargers along highways are needed to achieve equitable distribution of the EV ecosystem. As recognized it the New Jersey Electric Vehicle Infrastructure Ecosystem 2020 Straw Proposal issued by the BPU on May 18, 2020, "New Jersey needs to create a comprehensive EV Ecosystem that provides consumers with easy access to electric vehicle charging infrastructure where they **work and play**."[6] PSE&G's investment in DC fast chargers is intended to combat range anxiety and support goals toward a comprehensive ecosystem.

[3] Page 12, ChargeEVC, A Roadmap for Vehicle Electrification in New Jersey: Market Development Strategy and High Impact Initiatives, (Sept. 13, 2017) ("2017 ChargEVC Roadmap"), available at http://www.chargevc.org/documents/chargevc-roadmap/
[4] Page 26, https://www.occstrategy.com/media/2462/the-occ-global-automotive-disruption-speedometer_us-online.pdf
[5] Page 15, http://www.chargevc.org/wp-content/uploads/2019/09/ChargEVC-Updated-PEV-Projection-Sept-18-2019.pdf
[6] *In the Matter of Straw Proposal on Electric Vehicle Infrastructure Build Out,* Docket No. QO20050357 (May 18, 2020), at page 1.

I/M/O Straw Proposal on Electric Vehicle Build Out, Docket No. QO20050357

June 17, 2020 Written Comments Supporting EDC Role

Party	**Quotation**	**Page(s)**
Alliance for Automotive Innovation	"[A]utomotive industry investments alone are not enough to ensure increased market penetration for electrified vehicles. Increasing customer demand for EVs is necessary, and time and time again studies have shown that purchase incentives and available charging/refueling . . . We appreciate the need for utility charger-ready infrastructure, as this reduces cost for future electric vehicle supply equipment (EVSE) installation. However, it is simply too early in market development to know with precision the exact and most efficient role for utilities. Investing in charger-ready infrastructure is certainly an important and foundational role for utilities, but there will be instances where a utility ownership model makes the most sense to overcome barriers. We urge BPU to be flexible in the role of utilities, evaluate ways to support a competitive market between public and private providers, and be willing to adapt as the EV market continues to evolve."	2-3
Alliance for Transportation Electrification	"[W]ithout dramatic action, including turnkey charging solutions from Electric Distribution Companies (EDCs), today's severe shortage of charging infrastructure in New Jersey will prevent the state from achieving its ambitious transportation electrification goals as well as its overall climate goals. We urge the Board to take an approach more aggressive than outlined in the Straw Proposal, and also to approve expeditiously the TE [transportation electrification] plans currently pending . . . ATE believes that, in these still early days of the electric vehicle industry, it is essential for EDCs to offer, alongside the private sector, creative and economic solutions."	1-2
Atlantic City Electric Co.	"[A] broader role for utilities will be necessary if New Jersey is to succeed in achieving its goals of a widespread deployment of EV charging infrastructure and subsequent EV adoption, as set forth in both the Energy Master Plan ("EMP") and as recently signed into law in the plug in vehicle legislation ("S2252") . . . Overall, ACE believes that enabling utilities to leverage all of the tools at their disposal, including all roles of utility investment in charging infrastructure and rate design initiatives, will be critical to attaining State goals and realizing the benefits of transportation electrification for New Jersey ratepayers."	2
CALSTART	"Significant utility investment in medium- and heavy-duty vehicle charging infrastructure and shrewd rate design will be necessary to increase the trajectory of EV adoption in New Jersey . . ."	1

ChargeEVC	"Most importantly, the most optimal role for the utility will depend on a combination of tools, such as providing make-ready, rate-design, and (in appropriate cases) owning and operating the infrastructure. If properly designed, this portfolio of market development programs will not displace private investment, it will attract and leverage private investment. The EVESP is incomplete in its consideration of the range of tools that can be offered in multiple segments, frequently in combination with each other, and in most cases in a form that complements private investment."	5-6
ChargePoint	"A cohesive partnership between regulated utilities and competitive market actors will be critical to meeting New Jersey's ambitious energy, environmental, and transportation goals . . . rebates toward EVSE purchase costs, combined with make-ready incentives, have been utilized by utilities across the country to successfully incentivize deployment of EV infrastructure while minimizing overall program costs.5 As discussed further below, the BPU has the authority to authorize rebates for EVSE."	4
Edison Electric Institute (EEI)	"Electric companies are well-positioned to make targeted and strategic investments in EV charging infrastructure that benefit the broader community and accelerate EV adoption."	1
Electrify America	"Support from the utility sector is critical to ensuring that New Jersey meets its ambitious targets for transportation electrification, including the goals of 330,000 plug-in vehicles registered and 400 DC fast chargers deployed in the state by 2025 . . . [a]s an EVSE Infrastructure Company with substantial investments in New Jersey, Electrify America appreciates the recognition that private companies have already made substantial investment in the state, and that utility support for make-ready infrastructure can encourage additional private sector investment in EV charging infrastructure in New Jersey."	1-2
EnelX	"[T]he Board should look to establish a shared responsibility model that provides solutions beyond a single market segment and business model, to consider the roles of EDCs, EVSPs, and ratepayer funding to catalyze Charger Ready deployment across a broad cross-section of light duty segments, including single- and multi-family residential, workplace, fleet, and public destination using multiple different business models, funding sources, and ownership structures . . . [w]e also recommend that the Board not close the door on the possibility of ratepayers funding EVSE incentives, especially following S 2252's allowance for the board to adopt rebates for EVSE purchase and installation for residential customers."	6
ENERVEE	"Utilities are critical partners in helping car buyers understand the benefits of EVs and make informed purchasing decisions – considering tariffs, solar and home charger options. According	3

	to Lisa Wood, VP of Customer Solutions for the Edison Electric Institute, the role of investor-owned utilities is 'to help to create a level playing field for EVs'. People already have a contractual relationship with their energy provider, and the overwhelming majority (69%) believe that their energy provider should do more to help them understand the benefits of EVs over conventional vehicles. And EV manufacturers agree. General Motors' former director of advanced commercialization policy, Britta Gross, said: 'It's critical that all utilities are fully involved and directly engaged in growing the EV market.'"	
Environmental Defense Fund	"U]tility involvement in EV development should be more extensive and flexible than the Straw Proposal describes . . . utility support for EV development is needed beyond areas of 'last resort,' including the MHDV sector and other more nascent EV market segments. We must allow EDCs to own and operate EVSE in a wider range of circumstances. There are clear advantages to expanding utility involvement in New Jersey's EV ecosystem given their general infrastructure experience and greater capital flexibility. Allowing utilities to install and operate their own EV infrastructure can help address issues of range anxiety and upfront cost that are currently preventing broader uptake of these vehicles. EDCs can ensure charging infrastructure is consistently available throughout the state. This includes but should not be limited to developing the EV ecosystem in locations considered uneconomical by non-utility market participants, creating a more equitable distribution of EVSE and its benefits."	5-6
Environmental Entities (Environment New Jersey, Isles Inc., The Natural Resource Defense Council, The Nature Conservancy – NJ Chapter, New Jersey Conservation Foundation, New Jersey League of Conservation Voters, New Jersey Sustainable Business Council, Sierra Club, Tri-State Transportation Campaign)	"The Board should look to utility programs to "gap fill" in areas where there are no currently existing programs, or where the state would like to increase available funding for existing programs . . . [t]here are three primary barriers to EV adoption: 1) incremental vehicle cost; 2) the lack of charging infrastructure; and 3) the lack of consumer awareness. EDCs are uniquely situated to help overcome these barriers and meaningfully accelerate the adoption of light-, medium-, and heavy-duty EVs. New Jersey's EDCs should develop programs and rate options that increase fuel cost savings, speed the deployment of EV charging infrastructure, increase consumer awareness of the benefits of EVs, and improve the utilization of the electric grid to the benefit of all customers. Regulated electric utilities have several characteristics that make them well-suited to play a central role in EV infrastructure buildout."	3-4
Fleet Infrastructure Vision for EV Charging	"Electric Utilities sought rate basing investment for EV Infrastructure but have recently been rebuffed in favor of market driven solutions. Utilities derive additional revenue from EV load growth and have rate basing paths with this . . . [the Board should] [i]mmediately engage a largely idled	3-4

	"remote" workforce of utilities, governments, and transit agencies into valuable planning activities that apply off the shelf technologies for shovel ready projects improving the operational competitiveness of multiple industry segments. [o]pen productive and fair paths for utility business model transformation that engages broader community risk and reward options, and reduces wealth extraction through shareholder profit draw."	
Greenlots	"Utilities are critically important to attain EV goals . . . [m]ake-ready investment is an important tool but should be one of serval utility investment approaches . . . [u]tility ownership is essential to overcome market barriers and accelerate electrification."	1
Jersey Central Power & Light Company	"Electric utilities solve this "chicken or the egg" problem. Where utilities develop and own public charging infrastructure, a baseline level of public charging infrastructure is established, which will, in turn, reduce range anxiety for residents and increase EV purchases. Once there are more in-state EV drivers, the competitive market for EV charging infrastructure will expand. This important role that electric utilities can play in jumpstarting EV adoption has been recognized by numerous commissions throughout the country."	2
Port Authority of NY & NJ	While make-ready is a natural fit for EDCs, the Port Authority also believes that, especially in a capital-constrained post-COVID environment, it also makes sense for EDCs to be providers-of-last resort for EV infrastructure to ensure NJ stays on track to meet its EV objectives, and to catalyze the market – bringing costs down for users and other providers . . . We hope the Board of Public Utilities will work swiftly to approve the related filings utilities have provided to begin implementation and piloting of their proposals. The Port Authority has made significant commitments to decarbonize its operations and vehicle electrification represents a keystone of that approach. While PSE&G is a critical partner, they currently lack the expeditious approval and flexibility to assist in the rapid decarbonization of transportation that we hope will result from this straw proposal."	2, 5

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF PUBLIC SERVICE ELECTRIC AND GAS COMPANY FOR APPROVAL OF ITS CLEAN ENERGY FUTURE – ELECTRIC VEHICLE AND ELECTRIC STORAGE PROGRAM ON A REGULATED BASIS

BPU Docket No. EO18101111

PUBLIC SERVICE ELECTRIC AND GAS COMPANY REBUTTAL TESTIMONY

OF
TODD HRANICKA
DIRECTOR - SOLAR ENERGY
AND
RAYMOND C. ALVAREZ
SENIOR DIRECTOR - ASSET MANAGEMENT, TECHNOLOGY AND SYSTEMS

October 16, 2020

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PUBLIC SERVICE ELECTRIC AND GAS COMPANY
REBUTTAL TESTIMONY
OF
TODD HRANICKA
DIRECTOR - SOLAR ENERGY
AND
RAYMOND C. ALVAREZ
SENIOR DIRECTOR - ASSET MANAGEMENT, TECHNOLOGY AND SYSTEMS

Q. Please state your names, affiliations and business addresses.

A. My name is Todd W. Hranicka, and I am Director, Solar Energy, for Public Service Electric and Gas Company ("PSE&G" or "Company"). My principal place of business is 80 Park Plaza, Newark, New Jersey 07102.

My name is Raymond C. Alvarez, Senior Director, Asset Management, Technology and Systems for PSE&G. My principal place of business is also 80 Park Plaza, Newark, New Jersey 07102.

Q. Have you testified previously in this proceeding?

A. Neither of us has testified before in this proceeding. We are jointly adopting the Direct Testimony of Jorge L. Cardenas, who filed testimony in this proceeding on October 11, 2018, and who retired from PSE&G in 2019. We are also adopting all discovery responses submitted in this proceeding concerning energy storage issues.

Q. How is the responsibility for Mr. Cardenas' testimony divided between the two panel members?

A. Mr. Hranicka is adopting Mr. Cardenas' testimony and discovery responses regarding the Clean Energy Future – Energy Storage ("CEF-ES") program elements and the program's overall benefits, and the current state of the energy storage market. Mr. Hranicka is also responsible for this rebuttal testimony with respect to those issues. Mr. Hranicka's credentials and experience are fully set forth in Schedule TH-CEF-ES-1 of this rebuttal testimony.

Mr. Alvarez is adopting Mr. Cardenas' testimony and discovery responses, and is responsible for this rebuttal testimony, to the extent those materials reference or require a knowledge of and experience regarding how PSE&G's electric distribution system operates and is managed. Particularly relevant to this energy storage proceeding, this includes things like mitigation of voltage fluctuations and excursions driven by the output of solar arrays; PSE&G's use of standard electric distribution planning processes to estimate load growth on the distribution grid, and the strategies to accommodate this load growth as well as to achieve peak reduction through the use of an energy storage system ("ESS"); and the use of an ESS as an alternative to using extra transformers during substation upgrades to meet applicable planning criteria for reliability and redundancy. Mr. Alvarez's credentials and experience are fully set forth in Schedule RA-CEF-ES-1 of this rebuttal testimony.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. In our rebuttal testimony, we respond to certain assertions in the direct testimonies of witnesses on behalf of other parties concerning the Company's CEF-ES proposal. Specifically, we respond to the testimony of:

(i) Ezra D. Hausman on behalf of the New Jersey Division of Rate Counsel ("Rate Counsel");

(ii) Peter Cavan on behalf of the Market Paticipants;[1] and

(iii) Justin R. Barnes on behalf of Sunrun Inc.

[1] The "Market Participants" referred to in this rebuttal testimony are Direct Energy Business, LLC, Direct 4 Energy Business Marketing, LLC, Direct Energy Services, LLC, and Gateway Energy 5 Services Corporation (collectively, "Direct Energy"), NRG Energy, Inc. ("NRG"), Just 6 Energy Group Inc. ("Just Energy") and Centrica Business Solutions.

In summary, our conclusions and recommendations are that: (1) the time is right for consideration and resolution of PSE&G's CEF-ES proposal, as part of the New Jersey Board of Public Utilities' ("BPU" or the "Board") on-going implementation of the requirements of the Clean Energy Act ("CEA") and achievement of the CEA goals of 600MW of energy storage by 2021, and 2,000MW by 2030;[2] (2) like the solar energy initiatives pursued since 2008 by PSE&G with the Board's approval, CEF-ES is a beneficial program that will complement, not compete with, other activity in the developing energy storage market; and (3) PSE&G's proposed Distribution Deferral and other CEF-ES subprograms are superior at this time for the deployment of energy storage systems ("ESSs") on the electric distribution system, as compared to the alternative solutions proposed by the Market Participants and Sunrun. Finally, we respond to an issue raised regarding the need for a cost benefit analysis in this case.

I. The Time Is Right For Consideration And Resolution Of CEF-ES, Which Is Consistent With The Terms Of The Clean Energy Act And With New Jersey Policy To Significantly Increase And Broaden The Application Of Energy Storage Systems

Q. Rate Counsel witness Hausman testifies repeatedly that the Board "has not established standards or policies for utility investment in energy storage technology that would justify or support" the various elements of CEF-ES.[3] Similarly, Market Participant witness Cavan suggests that the filing is premature. Do you agree with this conclusion?

A. I do not. As Dr. Hausman discusses, the CEA "mandated that the Board initiate an analysis of the need for, benefits of, and costs of energy storage in New Jersey, and submit a report to the Governor." The study was to "recommend ways to increase opportunities for energy storage and distributed energy resources in the State, including any recommendations for financial incentives to aid in the development and implementation of these technologies by public and private entities

[2] N.J.S.A. 48:3-87.8.

[3] Hausman, at 37-38 (regarding the Solar Smoothing subprogram of CEF-ES); 38 (regarding Distribution Deferral); 40 (regarding Outage Management); and 42 (regarding Peak Reduction for Public Facilities).

in the State."[4] As Dr. Hausman also acknowledges, that report was completed by a group from Rutgers University, and the report was timely adopted by the Board. The report's conclusions, which were quoted by Dr. Hausman as well as by Mr. Cavan, bear repeating:

> This technical analysis of ES shows that it can play an important role in New Jersey's sustainable energy transition. New opportunities are arising to apply mature technologies and gain experience with emerging technologies in the service of a cleaner, more resilient, and more cost-effective electric power system. **These opportunities await at the bulk power level, distribution system level, and behind-the-meter at customers' sites**...Electrochemical battery technologies are beginning to find cost-effective applications, with Li-ion the current leader. Batteries cost-effectively provide ancillary services to the bulk power system. **They hold near-term promise, as costs come down, to help increase hosting capacity for decentralized solar PV on certain distribution systems**; and increase resilience in combination with solar PV on the customer side of the meter for high resilience users such as hospitals, hotels, and supermarkets. With further cost reductions, ES can help with grid stabilization for [offshore wind] projects and EV charging stations. ES can enable several of the key transformations needed to support New Jersey's energy economy, and policymakers have the necessary tools to encourage wider deployments. Fair and efficient policymaking will encourage adoption of ES technologies in applications where they are cost-effective and well suited, while incentivizing emerging, game-changing applications that may soon become feasible. **As with any policy that has transformative aspirations, a key aim should be learning from experience, and adapting both means and ends as evidence accumulates**. This report provides a starting point in that continuing process.[5]

The point is that there are numerous areas of inquiry to pursue if the State is to meet the ambitious storage goals of the CEA and the State's Energy Master Plan, and CEF-ES is an appropriate step in the right direction. As described further in section II of this rebuttal testimony, the subprograms of CEF-ES will allow PSE&G and the State to "learn from experience" how to best incorporate storage into the electric utility distribution system and importantly, will not interfere with other storage initiatives that the Board and the private market can simultaneously pursue.

[4] Hausman, at 32 (quoting N.J.S.A. 48:3-87.8(1)(c).

[5] Hausman, at 32-33 (quoting Rutgers University, New Jersey Energy Storage Analysis (ESA) Final Report, May 23, 2019, available at: https://www.bpu.state.nj.us/bpu/pdf/commercial/New%20Jersey%20ESA%20Final%20Report%2005-23-2019.pdf, at 177 (emphasis added).

Q. What is Dr. Hausman's and Mr. Cavan's view regarding this timing issue?

A. Dr. Hausman suggests that notwithstanding the clear direction of the Rutgers study, consideration of PSE&G's modest proposal must await further lengthy proceedings.[6] Similarly, while acknowledging in detail the CEA requirements to conduct the initial storage study and the efforts undertaken by the Board, through Rutgers, to satisfy those requirements, Mr. Cavan chooses to focus on activities that the Board has not undertaken to date, as a reason to delay action on the potential identified by the Rutgers study.[7]

Q. Are these legitimate bases to delay action on CEF-ES?

A. Absolutely not. First, as noted above, the knowledge gained from implementing the utility-scale ESS projects proposed under CEF-ES will allow precisely the type of "learning from experience" regarding storage opportunities available at the distribution system level that is endorsed under the Rutgers study. Moreover, there is nothing to prevent the Board and all stakeholders from pursuing additional initiatives and conducting stakeholder proceedings in parallel with the commencement of CEF-ES, making use of the experience that PSE&G gains under this relatively modest program.

Q. Dr. Hausman and Mr. Cavan also testify that CEF-ES is somehow impermissible or inappropriate on legal and policy grounds. Can you comment?

A. Yes I can. Dr. Housman claims that the program is "not supported" by the utility's "statutory obligation to provide safe, adequate, and proper service at just and reasonable rates," and that there is no "statutory mandate" for the program.[8] In a similar vein Mr. Cavan, while noting that "PSE&G's objectives are laudable," expresses concern that "development and

[6] Hausman, at 32-33 (noting that despite the completed Rutgers study, the Board "has not yet initiated the [follow-up] proceeding mandated under N.J.S.A. 48:3-87.8(1) (d)" to achieve the CEA storage goals).
[7] Cavan, at 8-9 (noting that the Board has not yet hosted a stakeholder process in consultation with PJM, and has not initiated the stakeholder proceeding intended to follow-up the Rutgers study).
[8] Hausman, at 5.

ownership of ES solutions is not a natural extension of the traditional role of utilities", and that the CEF-ES subprograms would "distract PSE&G from its core functions as a regulated utility."[9]

Q. How do you respond to these concerns?

A. First, I note that Dr.Hausman's concern about "statutory obligations" and "statutory mandates" seems inconsistent with his simultaneous position that PSE&G is free to implement energy storage solutions "under its current regulatory authorization"."[10] I also note that over the past 18 years, while PSE&G has consistently provided reliable, award-winning electric service, it has also innovated and implemented non-traditional clean energy programs that have supported public policies, and has invigorated the clean energy economy for all stakeholders in New Jersey.[11] These programs have included Solar 4 All® (S4A), Solar Loan, and a suite of Energy Efficiency programs. These initiatives have not distracted PSE&G from its core mission of providing reliable, safe, and affordable energy to its customers.

Finally, I note that Dr. Hausman's extensive opinions about the impact of the utility's "statutory obligations" and "statutory mandates" on this proceeding are legal conclusions that neither Dr. Hausman nor I am qualified to reach. In this regard, like PSE&G rebuttal witness Karen Reif, I note that Rate Counsel's legal arguments will continue to be addressed in this matter by PSE&G's counsel. Further, I note that while Rate Counsel formally moved to strike the electric vehicle portion of CEF-EVES on legal grounds that were not accepted by the Presiding Commissioner, no similar motion was made to strike the energy storage portion of the program; the very first time Rate Counsel has raised these concerns is in Dr. Hausman's testimony, nearly

[9] Cavan, at 4, 6.
[10] Hausman, at 44.
[11] By way of example, PSE&G has been recognized by PA Consulting as the recipient of the ReliabilityOne™ Award for Outstanding Reliability Performance in the Mid-Atlantic Region for 18 consecutive years. ReliabilityOne™ Awards are given annually to the utilities that have achieved outstanding reliability performance and have excelled in delivering the most reliable electric service to their customers.

two years after CEF-ES was filed, and more than a year after the Board adopted the Rutgers study identifying, for example, "opportunities at the distribution system level" that can "help increase hosting capacity for decentralized solar PV on certain distribution systems," and recommending that capitalizing on these opportunities should be pursued, at least in part, through experiential learning. While PSE&G's attorneys will respond to Rate Counsel's and others' legal concerns, I am not aware of any actual basis to broadly preclude public utilities from the storage activity proposed in this filing, and as discussed further below, simply "keeping utilities out the market" on competitive grounds is unnecessary and would be inconsistent with clearly expressed state policy.

II. The Storage Portion of The CEF-EVES Program Is Reasonable And Necessary, And Should Be Approved In Its Entirety

Q. Please summarize the thinking behind PSE&G's energy storage proposal.

A. To meet the requirements set forth in the CEA, an energy storage program as filed under CEF-ES is reasonable and necessary as PSE&G seeks to move beyond traditional means and methods of managing the distribution system. The collection of subprograms proposed in this filing will help ensure that when energy storage applications become more widely adopted and cost competitive, PSE&G and a vibrant New Jersey energy storage industry will be well-positioned to effectively deploy ESSs in the appropriate applications, and allow unrestricted system access for renewables, as stated in New Jersey's Energy Master Plan. For example, by implementing the CEF-ES programs, PSE&G will gain a greater understanding of how and where to prudently deploy storage so that PSE&G will be prepared to integrate storage on its system when it is cost-effective with traditional technologies. This will help New Jersey become a center for energy storage jobs, and the network and economic development associated with this effort will yield benefits to the State that last far longer than the term of the CEF-ES Program.

Q. Please summarize the state of the energy storage industry as it relates to the CEF-ES filing.

A. The energy storage industry has experienced regulatory and market uncertainty throughout its growth around the world. In many electricity markets, ESSs are not yet permitted to provide many of the services they are technically capable of, limiting potential revenue streams and overall project economics. While there are efforts to reform these regulations at both the state, federal and RTO levels in the United States, there continues to be uncertainty and barriers to the market's growth. Performance of the ESSs in the CEF-ES Program will help to inform future state, federal and RTO policy with respect to the type of distribution system-level efforts proposed in this filing. In this way, the program can contribute to the establishment of industry standards around energy storage.

Q. Certain parties have expressed concern that approval of CEF-ES will harm competition and stifle innovation with respect to energy storage; is that correct?

A. Not at all; in fact, I believe the opposite is true. I will discuss some of the specific "competitive" issues raised later in this section. At the outset, however, it is important to recognize that today, the energy storage industry is reminiscent of the solar industry when PSE&G's Solar 4 All® (S4A) and Solar Loan programs were approved in 2008-2009. At that time, there were similar uncertainty and cost concerns regarding the viability of solar in New Jersey. Through federal and State policies, and PSE&G's active participation, New Jersey was rewarded with jobs, significant solar generation and reduction of greenhouse gases, and became a national leader in the solar industry.

PSE&G views its participation in energy storage as similar to its participation in the solar market. Under the S4A programs, the Company develops, competitively bids, owns, and operates solar facilities. PSE&G's S4A programs have not provided the utility an unfair advantage or

stunted the development of a solar industry in New Jersey. In fact, it has been quite the opposite. Since approval of the original S4A program in 2009, New Jersey's installed solar capacity has grown over 5,500%, making New Jersey a center for solar jobs and creating an ecosystem that has allowed a national solar market to grow.[12] As a small but active participant in the solar industry -- holding slightly less than 5% of the installed solar capacity in New Jersey -- PSE&G gained first-hand knowledge of the complexities of developing, installing, interconnecting, and operating a solar facility, enabling the utility to better serve the solar industry that has seen significant growth and innovation over the past decade.

Q. Coming back to the competitive issues mentioned by Mr. Cavan on behalf of the Market Participants, he testifies that PSE&G'S energy storage program will "stunt the competitive market" and give PSE&G "an unfair advantage over competitors.[13] Is that a legitimate concern?

A. No it is not. As filed, the 35 MW program constitutes approximately 6% and 2% of New Jersey's 2021 and 2030 energy storage goals of 600 MW and 2,000 MW respectively. PSE&G's filed capacity is small in comparison to the stated energy storage goals of New Jersey, and would not stunt growth or create an unfair advantage in a competitive energy storage market. In fact, just the opposite will occur. This Program will help make New Jersey a center for energy storage jobs, and the network and economic development associated with this effort will yield benefits to the state that last for longer than the term of the CEF-ES Program. Furthermore, the modest scale of this program will not create dependencies towards utility ownership, and there is no evidence that supports this concern.[14]

[12] NJ-OCE Solar Development Data. Per the New Jersey Office of Clean Energy's Solar Activity Reports web page and the "Installation Report", at the end of 2009, 56,490 kW of solar was installed in New Jersey, and as of August 31, 2020, 3,352,013 kW of solar was installed. Installed solar capacity in New Jersey has grown over 5,500% over the past 10 years.

[13] Cavan, at 6-7.

[14] See Schedule THRA-CEF-ES-1, e.g., Sunrun response to PS-SR-5.

Q. Will PSE&G's energy storage filing stifle innovative approaches in deploying the technology in New Jersey?

A. No. As stated above, PSE&G's proposed energy storage programs constitutes a small portion of the State's energy storage goals and are limited to solutions applied at the PSE&G distribution system level, where PSE&G has over a century of expertise in system needs and requirements, and an obvious interest in ensuring that storage is developed and implemented in a manner that protects and enhances the performance of the system. Furthermore, PSE&G will competitively bid to third party suppliers to provide energy storage solutions to meet the requirements of the program as filed. It is unrealistic to believe that these efforts will limit innovations in the energy storage market.

Q. Is there evidence in this case that PSE&G's storage program will spur the competitive market?

A. Yes there is. Mr. Barnes was clear on behalf of Sunrun that his "Bring Your Own Device" program, discussed further in section III below, is not being proposed "to the exclusion of any of the Company's specific proposed investments, but as a necessary component of any energy storage program that the BPU approves." Simply stated, there is more than enough room in the State's legally-mandated 2,000 MW storage market to absorb the 35 MW of ESS proposed under CEF-ES for the period 2021-2027, for the specific distribution system purposes described in the filing. PSE&G's participation in the energy storage market at the level proposed under CEF-ES, similar to what has happened in the solar industry over the past decade, will only stimulate the market, and enable the utility to better serve the energy storage industry.

Q. Is there any reason to believe that having PSE&G serve as the gatekeeper to interconnecting energy storage systems to the grid places third party participants at a disadvantage?[15]

A. No. PSE&G will continue to operate an open system accessible to any third party developer via established interconnection processes. Indeed, PSE&G has been involved in the solar market in New Jersey for some time, and there has never been any evidence of PSE&G restricting third parties from developing solar in NJ, or limiting the growth of the industry.[16]

III. The Alternative Storage Solutions Proposed By The Market Participants And Sunrun Do Not Negatively Impact The Case For CEF-ES

Q. Did intervenors in this case propose alternative solutions for the deployment of energy storage system?

A. Yes, intervenors Market Participants (MPs) and Sunrun both proposed alternative solutions for the deployment of energy storage systems.

The MPs, through their witness Peter Cavan, recommend that PSE&G establish a "Non-Wire Solution" ("NWS") alternative for the Distribution Deferral subprogram.[17] In a NWS process, according the MPs, PSE&G would take competitive bids from third parties for distribution deferral projects; competitors in the market would be free to propose solutions. As I understand the model, a winning bidder would be awarded a contract to construct, own, and operate energy storage systems to defer distribution system upgrades.

Sunrun, through its witness Justin R. Barnes, suggests that PSE&G incorporate in this program "a segment to utilize residential behind-the-meter ("BTM") solar-paired energy storage systems to provide grid services," which includes a straw program design based on programs deployed by other utilities. These programs are referred to as Bring-Your-Own-Device ("BYOD")

[15] Cavan, at 13
[16] See Schedule THRA-CEF-ES-1, PS-MP-PC-6.
[17] Cavan, at 11-12.

programs because they allow non-utility storage owners to participate under standard program terms with any qualifying storage device that can meet program requirements. Participating storage resources are compensated based on the performance of the enrolled devices in supplying the grid service they are signed up to perform. As noted above, Sunrun does not propose a BYOD program to the exclusion of any of the Company's subprograms as filed, but as an addition to the program that the Board should approve.[18]

Q. How do these alternative energy storage solutions compare with PSE&G's CEF-ES program?

A. The recommended programs are different, and do not address all the use cases and needs identified by PSE&G's subprograms.

MPs' NWS to address the Distribution Deferral use case in PSE&G's filing has been deployed by other utilities. However, these programs are new, and while PSE&G does not oppose this approach in principle, the results are anecdotal at this time, and this NWS proposal is not an adequate substitute for PSE&G's Distribution Deferral proposal. The fact is that we are very early in the development of larger scale storage that has measurable impacts on EDC distribution systems. Implementing ESSs for distribution deferral through the utility itself, under a program that is subject to Board oversight and annual Staff and Rate Counsel review, will ensure that these projects are executed in a prudent manner.

Q. How does Sunrun's proposal compare with the CEF-ES program?

A. Sunrun's program is entirely different than PSE&G's subprograms and does not address the specific needs identified in the CEF-ES filing. Sunrun's proposed program targets system-wide peak capacity reduction and generation capacity costs within a given service territory, and

[18] Barnes, at 3-4

will require multiple BTM solar-paired energy storage systems on a single circuit. Under the CEF-ES Distribution Deferral subprogram as filed, by way of contrast, PSE&G plans to install a single, relatively large (e.g., 1 MW / 4 MWh) ESS along multiple circuits that are most likely to see planning capacity violations during summer peak loads. Achieving comparable information and experience under Sunrun's proposal would require "250 to 500 individual residential" BTM solar-paired storage systems.[19]

Q. Mr. Barnes claims that his proposal is "a far more cautious approach to supporting energy storage deployment than what PSEG has proposed from the standpoint of ratepayer costs and risks because it is designed to enable non-ratepayer investment and limit ratepayer costs to the value of the services that are actually delivered." Is Mr. Barnes' proposal actually better for customers?

A. As compared with the CEF-ES solutions, it is inconceivable that the type of BTM program proposed by Sunrun could address the needs, or provide the type of distribution system information and experience, that will be provided by the Distribution Deferral subprogram, or any of the subprograms identified in the CEF-ES filing. In light of the degree of development of ESS technology, the utility's experience operating that technology, and the complexities that would be associated with implementing the type of "distributed storage" system that Sunrun has proposed, PSE&G believes that the CEF-ES solutions are simply more appropriate to meet current system needs, as well as to satisfy State policy supporting cost effective implementation of energy storage.

Q. What is PSE&G's ultimate position regarding these alternative solutions?

A. PSE&G does not oppose these alternative solutions in concept. However, for the purpose of incorporating storage into its distribution system, PSE&G believes the CEF-ES solutions should be prioritized, and development and deployment of the alternative solutions proposed by the

[19] See Schedule THRA-CEF-ES-1, Sunrun response to PS-SR-7.

Market Participants and Sunrun should be addressed at a later time, independent, and separate from this proceeding.

PSE&G believes an all hands on deck approach should be utilized to achieve New Jersey's energy storage goals. By approving PSE&G's energy storage program as filed will enable the utility to better integrate this versatile resource into the distribution planning process, and to subsequently incorporate alternative methods as suggested by Market Participants and Sunrun.

IV. Although A Cost-Benefit Analysis ("CBA") Is Not Required, PSE&G Submitted A CBA In Discovery Demonstrating That The CEF-ES Program Is Cost-Beneficial

Q. Did PSE&G calculate revenue offsets generated by the proposed energy storage systems?

A. Yes. The filing included estimated revenue offset for frequency regulation, energy output, and SRECs. Revenues generated by the proposed units for those items will offset the program costs to the benefit of customers. Revenue streams for frequency regulation, energy, and SRECs are shown in the filing in Schedule SS-CEF-ES-1 of Mr. Swetz's direct testimony, at page 2 of 2. Those revenue streams are also shown in PSE&G's response to RCR-POL-0013, and the supporting calculations and assumptions were included in the confidential workpaper attached to that discovery response.[20]

Q. Did PSE&G also develop a cost benefit analysis ("CBA") for the Energy Storage program consistent with the filing?

A. Yes. It is my understanding that a CBA is not required to be conducted for a pilot program like CEF-ES. Nevertheless, following the filing, PSE&G prepared a CBA using refreshed market data, and incorporating benefit streams in addition to the frequency regulation, energy, and SREC

[20] See Schedule THRA-CEF-ES-1, RCR-POL-0013.

revenues referenced above. That CBA, which was provided in response to request RCR-POL-014, demonstrated that the CEF-ES is cost effective.[21] Thus, Dr. Hausman's claim that the "benefits enumerated in the CBA are inconsistent with those provided in other discovery responses"[22] is inaccurate and misleading, ignoring both the positive CBA results provided in discovery and ignoring PSE&G's explanation of the distinction between the revenue offsets provided with the filing and the benefit streams included in the CBA.[23]

Q. Does this conclude your testimony at this time?

A. Yes it does.

[21] See Schedule THRA-CEF-ES-1, RCR-POL-0014. The confidential workpaper WP-CEF-ES-CBA.xlsx attached to that response, at the "CBA Results" tab, rows 105 to 113, columns E to G shows CBA results for the various CEF-ES subprograms ranging from 1.5 to 2.5 under the Societal Cost Test, and from 0.8 to 1.3 under the Total Resource Cost Test.

[22] Hausman, at 36.

[23] See Schedule THRA-CEF-ES-1, RCR-POL-INF-008 (explaining that the responses to RCR-POL-13 (revenue offsets provided with the filing) and RCR-POL-14 (CBA provided in discovery) were developed by two different consultants at different points in time, and that the CBA was prepared at a later date with refreshed market data, and included additional benefit streams).

QUALIFICATIONS
OF
TODD W. HRANICKA
DIRECTOR – SOLAR ENERGY

My name is Todd W. Hranicka and I am employed by Public Service Electric and Gas Company ("PSE&G" or "Company"). My title is Director - Solar Energy PSE&G. I have been employed by PSE&G since September 2012. Prior to my employment with PSE&G, I was Vice President at Vanguard Energy Partners, LLC, one of the east coast's largest solar construction firms. I have management and oversight responsibility for all aspects of the design and implementation of PSE&G's Solar Loan and Solar 4 All® Programs, including 3 MW-dc of solar plus battery storage projects. Currently, I am also leading Energy Storage and Electric Vehicle Implementation Planning for PSE&G.

EDUCATIONAL BACKGROUND

I have a Bachelor of Arts degree in History from the University of Delaware.

WORK EXPERIENCE

I have been employed by PSE&G for approximately eight years. Prior to joining PSE&G, I worked for Vanguard Energy Partners. As such, I have a broad background in solar construction, design, management, and operations and maintenance. I manage the PSE&G team that has successfully built 158 MW-dc of solar to date. Currently PSE&G is the utility leader in landfill/brownfield solar with 86MW-dc in-service. I also led the team responsible for developing PSE&G's first ever solar and battery storage project at Hopewell Valley Central High School in Hopewell, New Jersey that went in-service in 2015. The Hopewell system provides backup power for a warming/cooling station, emergency lighting and refrigeration in

the event of an extended outage. Additionally, my team developed four other solar and battery storage projects: one at Cooper Hospital in Camden, New Jersey that provides backup power for refrigeration of vital pediatric medicines; another at the Caldwell Wastewater Treatment facility in West Caldwell, New Jersey that works in conjunction with an existing onsite generator to supplement the backup power to the facility to protect against wastewater flowing into New Jersey's waterways; a solar and battery storage project located at the Pennington Department of Public Works garage in Pennington, NJ that will keep the facility operating during an extended outage; and lastly, the Highland Park solar and storage facility located on a municipal landfill and connected to a 4kV circuit in Highland Park, NJ that went in-service December, 2019. The batteries at the Highland Park facility will be used to reduce voltage fluctuations inherent to grid-connected solar systems due primarily to cloud cover and weather variability. The information gathered from the Highland Park system will enable PSE&G to better integrate renewable energy onto the electric grid in the future, allowing for more solar energy projects in New Jersey. For the past ten years, I typically attend Energy Storage International, Solar Power International, Smart Electric Power Alliance (SEPA) and PV America Conferences to take part in educational sessions, investigate new technologies, view demonstrations and generally increase my expertise in the field. I am an active member of SEPA and am a frequent speaker at industry events.

QUALIFICATIONS
OF
RAYMOND C. ALVAREZ
SR. DIRECTOR OF ASSET STRATEGY, TECHNOLOGY AND SYSTEMS

My name is Raymond C. Alvarez and I am employed by Public Service Electric and Gas Company ("PSE&G" or "Company"). My title is Sr. Director of Asset Strategy, Technology and Systems. I have extensive experience in operations engineering, construction and project management, and have been responsible for Electric Asset Strategy in NJ and associated capital investments since 2017.

EDUCATIONAL BACKGROUND

I graduated from Rutgers University in 1984 with a Bachelors in Electrical Engineering. In 1992 I received a Master's Degree in Electrical Engineering with a focus on Electric Power. I also participated in the Con Edison Account Executive Program and the PSEG Leadership Program to continue to enhance my career development. I am a licensed Professional Engineer in NY and NJ, a Certified Project Management Professional and have published multiple papers on Critical Infrastructure Management and Intelligent Substations.

WORK EXPERIENCE

From 1984 to 1998 I worked at Con Edison where I spent three years on two Engineering Development Rotation Programs where I spent time in Nuclear, Fossil, Electric Planning, Electric and Fossil Operations and Construction. At the completion of the rotation program I became a Watch Supervisor at Con Edison's East River Generating Station where I was responsible for the electric generation and steam send out for two fossil power plants. This included the management of bargaining unit personnel working 24x7 shifts. I then became a District Operator at Con Ed where I was responsible for the safe and reliable operation of the Distribution System in New York

City. This included running contingency analysis, being the tagging authority and work order operating authority. I moved into Project Engineering at Con Ed where I developed project scopes, designs, schedules and budgets for multiple transmission projects throughout the City of NY, and then into the Customer Service Group where I became the corporate liaison to clients at the executive level for the Investment Banking Sector, including executive client relationships, reliability analysis, deregulation support and emergency and technical response for the electric, gas and steam we supplied our customers.

In 1998 I left Con Edison and went to work for Cushman and Wakefield as the Manager of Critical Systems for the Lehman Brothers Account responsible for the development and management of the operation, operating budgets and infrastructure capital plans associated with all critical environments including datacenters, critical power and heating, ventilation and air-conditioning and fire protection systems at the World Financial Center Headquarters. In 1999 I was hired by Lehman Brothers and moved over to the owner side where I became the VP and Global Head of Critical Systems. In 2002 I left Lehman Brothers and moved to Jones Lang LaSalle a global real estate company where I was a Vice President responsible for the Critical Systems Practice for multiple clients including Bank of America and Deutsche Bank and eventually became the Americas Lead coordinating all Critical Systems Operations for the Company for the Americas. In 2007 I moved over to Skyscraper, a Facilities and Operating Engineering Company, where I worked as the Chief Operating Officer of the company responsible for multi-state operations of operations engineering, construction and project management.

I joined PSE&G in 2009 and started in Project Management, running transmission and distribution projects in the Bergen County area. Eventually I redesigned the project development and origination process to drive efficiencies in the scope, schedule and budget development. In

2012 I moved over to Project Engineering and was eventually promoted to a Senior Director where I was responsible for the cradle to grave project engineering of all transmission and distribution work. Since 2017 I have been the Senior Director of Asset Strategy, Technology and Systems where I am responsible for Electric Asset Strategy in New Jersey and for PSEG-LI, capital investments, Utility of the Future, Engineering and the Utility Energy Management System, which is used to monitor and operate the Bulk Power System.

PS-SR-5: Mr. Barnes' testimony at page 13, lines 15-19 states, "PSE&G's approach threatens to create a high degree of path dependency towards utility-owned, centralized NWA solutions and stymie the ability of competitive market (*i.e.*, non- utility) energy storage providers to deliver cost-effective solutions to meet the same grid needs." Has Mr. Barnes performed any studies or analysis, or is Barnes aware of any studies or analysis, demonstrating that a utility's ownership of Energy Storage Systems as proposed by PSE&G prevents or depresses third party energy storage providers' ability to participate in these markets, and that utility ownership has created a dependency towards utility-ownership for these services? If yes, please provide the studies, analysis, or reports and all workpapers or underlying documentation.

Response: Path dependency is created when an initial failure to consider all potential options for meeting a given need produces an outcome that constrains future consideration of alternatives. For instance, pursuing only utility-owned and operated storage without consideration of alternatives means that PSEG is not developing the expertise, capabilities, systems and program platforms to procure the same services from third-party providers. This means that opportunities for third party energy storage providers' ability to participate in these markets is depressed for the reasons described in Mr. Barnes' testimony states on page 13 lines 1-6 "PSEG's Distribution Deferral and Public Sector Peak Reduction subprograms effectively hardwire the "solution" as utility-owned energy storage of a certain size and placement without considering other combinations of resources, ownership arrangements, and other factors. In other words, these subprogram proposals lack the holistic, solutions-oriented focus central to the NWA framework."

See also the response to PS-SR-9 and Mr. Barnes' testimony in Section IIB starting at p. 16 for a discussion of why residential customers lack a mechanism for extracting grid service value from customer-sited storage.

IN THE MATTER OF THE PETITION OF PUBLIC SERVICE ELECTRIC AND GAS COMPANY FOR APPROVAL OF ITS CLEAN ENERGY FUTURE-ELECTRIC VEHICLE AND ENERGY STORAGE ("CEF-EVES") PROGRAM ON A REGULATED BASIS
Docket No. EO18101111

PSE&G DISCOVERY REQUESTS TO MARKET PARTICIPANTS

Date of Response: October 2, 2020

Witness: Cavan, Peter

PS-MP-PC-6

Peter Cavan's testimony at page 13, line 20-23 states, "If a utility is competing with third party entities, as well as serving as the gatekeeper to interconnection, it would have an incentive to favor its own projects and make it more difficult for its competitors to proceed with their projects." Has Mr. Cavan performed any studies or analysis, or is Mr. Cavan aware of any studies or analysis, regulatory investigations or regulatory agency orders demonstrating or finding that PSE&G or any other utility has limited access to third party developers seeking to connect Energy Storage Systems to the utility's electric distribution system? If yes, please provide the studies, analysis, reports, or orders and all workpapers or underlying documentation.

Response: No. PSE&G's proposed programs have not yet been approved so studies, analysis, investigations or orders on how PSE&G limited access to third party developers seeking to connect Energy Storage Systems to its system are not yet available. Due to restrictions on access to customer data, data that would demonstrate PSE&G favors its own projects would likely not be available to the Market Participants. Please see responses to PS-MP-PC-4 and PS-MP-PC-5.

PS-SR-7: Please reference Mr. Barnes' testimony at page 25, lines 3 to 11 regarding "enhanced resource diversity." Has Mr. Barnes performed any studies or analysis, or is Mr. Barnes aware of any studies or analysis, demonstrating that a collection of small individual separate resources operating in coordination can address a distribution circuit overloaded condition to defer investment? How many BTM residential systems would it take to achieve a 1 MW / 4 MWH energy storage system for a circuit? How would all these energy storage systems operate in unison and who would control them? What is Mr. Barnes' recommendation for how to ensure system reliability such that all the BTM residential systems could be installed in a manner that meets requirements of a distribution circuit?

Response: A study is not necessary to demonstrate that a collection of individual storage systems is more resilient against potential outages than a single centralized system. Assuming a standard unavailability rate based on the technology, the probability of multiple systems being unavailable at the same time will always be less than the probability that a single system would be unavailable because the probability of independent events is the product of the probability of each independent event.

The utilization of small individual resources to address distribution capacity needs is the basic foundation of the non-wires alternative (NWA) framework. California's Distribution Investment Deferral Framework (DIDF) is based on locational DER value demonstration projects conducted by each of the three major IOUs in the state as part of a broader distribution planning proceeding. California Public Utilities Commission D.18-02-004 adopting the DIDF can be accessed at the link below.

https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M209/K858/209858586. PDF

The number of individual BTM systems that would be required to reach the equivalent of a 1 MW/4 MWh centralized system would depend on the system installed. A typical residential storage system is likely to fall within the range of 2-4 kW based on a 4-hour energy requirement, which would translate to 250 – 500 individual residential systems. However, individual systems need not be entirely residential. For instance, larger commercial scale systems could also be procured for the same purpose. Furthermore, the amount of storage required should depend on the actual system need, not an arbitrary predetermined amount of centralized capacity.

As discussed at length in Mr. Barnes' testimony, system owners or an aggregator would operate the storage systems based on dispatch instructions from the utility, under operational parameters determined consistent with the system need. These operational parameters would be defined in the contract for services based on the identified grid need or needs.

Public Service Electric and Gas Company
Case Name: CEF-EVES
Docket No(s): EO18101111

Response to Discovery Request: RCR-POL-0013
Date of Response: 7/21/2020
Witness: Schmid, Michael
Program offsetting revenues

Question:
Please provide the Company's projections for the annual revenues from each of the "value stacking" revenue streams for each of its proposed energy storage ("ES") programs. Please provide all supporting documents, analyses, and workpapers in their native electronic format with formulas intact.

Attachments Provided Herewith: 1
RCR-POL_0013_WP-JLC-CEF-ES-1 - CONFIDENTIAL.xlsx

Response:
The table provides a summary of annual revenues developed for PSE&G by Navigant. The supporting calculations and assumptions are included in the attached confidential workpaper WP-JLC-EF-ES-1.xlsx is attached in its native electronic format with formulas intact.

Sub-Program	Frequency Regulation	Energy	SREC
Solar Smoothing	$11,860,216		
Distribution Deferral	$20,304,685		
Outage Management	$9,304,199		
Micro-grid	$3,221,032	$4,176,403	$5,114,017
Public Facility Peak Reduction	$4,977,701		

Public Service Electric and Gas Company
Case Name: CEF-EVES
Docket No(s): EO18101111

Response to Discovery Request: RCR-POL-0014
Date of Response: 7/21/2020
Witness: Schmid, Michael
Distribution Deferral: cost benefit analysis

Question:
Please provide any cost-benefit analysis performed by or on behalf of the Company for its proposed Distribution Deferral subprogram. Please provide all supporting workpapers in their native electronic format with formulas intact.

Attachments Provided Herewith: 1
RCR-POL_0014_WP-CEF-ES-CBA - CONFIDENTIAL.xlsx

Response:
The cost benefit analysis is provided in the attached confidential workpaper WP-CEF-ES-CBA.xlsx. The attached is in its native electronic format with formulas intact, and is unprintable in this format.

PSE&G is also pursuing this program in support of the State's goal of making New Jersey a national leader in the deployment of a clean energy economy. The State's goals were codified in the Clean Energy Law enacted on May 23, 2018 ("Clean Energy Law"). The Clean Energy Law set the State's energy storage goals at 600 MW of energy storage by 2021 and 2,000 MW by 2030. Zero carbon and low carbon generation resources are vital to maintaining a clean energy future, and energy storage will be an important resource New Jersey can use to accommodate low carbon, intermittent generation like offshore wind, solar, and distributed generation.

Public Service Electric and Gas Company
Case Name: CEF-EVES
Docket No(s): EO18101111

Response to Discovery Request: RCR-POL-INF-0008
Date of Response: 8/24/2020
Witness: Schmid, Michael
Financial Model Cost Clarification

Question:
Regarding the Company's response to RCR-POL-0013 and RCR-POL-0014:
a. Please tie or reconcile the figures found in the summary of annual revenues table provided in the written response to RCR-POL-0013 with the data provided in the workpapers. Please also reference exactly where the figures found in the summary of annual revenues table appear in the workpapers provided in response to RCR-POL-13.
b. Please identify where and explain how each of the data sources referenced in part (a) are incorporated in the CBA results found in the workpapers provided in response to RCR-POL-14
c. Please explain the basis for the any unidentified constants embedded in cell formulas found in the confidential workpapers provided in response to RCR-POL-13.

Attachments Provided Herewith: 0

Response:

a. Revenues for the subprograms can be found in the workpapers as follows:
Frequency Regulation (FR): the "Benefits by Month" tab, Column "F", rows 10 thru 41, provide the estimated FR revenues per subprogram. Naming conventions in the workpaper are slightly different than in the table in the response and filing. Please use the table below for the naming convention reconciliation.

Table Naming Convention	Workpaper Naming Convention
Solar Smoothing	Solar Enablement
Distribution Deferral	Distribution Deferral
Outage Management	Mobile Batteries for Contingency
Micro-grid	Community Microgrid
Public Facility Peak Reduction	BTM Customer Peak Management

Energy: the "Benefits by Month" tab, rows 162 thru 193, provide the estimated solar facility Energy revenues for the Microgrid subprogram. Total Energy revenue is provided in row 197.

SREC: in the "SREC Calcs" tab, the sum of row 258 provides the estimated solar facility SREC revenues for the Microgrid subprogram.

b. The revenue streams provided for part (a) were not incorporated into the CBA workpapers provided in response to RCR-POL-14. The workpapers provided for

responses to RCR-POL-13 and RCR-POL-14 were developed by two different consultants at different times. The CBA was prepared at a later date with refreshed market data, as well as an inclusion of greater quantities of benefits streams.

c. The confidential workpapers provided are the work product of a consultant that supported PSE&G with the Energy Storage filing. Pricing information was based on their research of the Energy Storage and solar markets, ranging from equipment suppliers and engineering firms. If there are specific constants where further clarity is needed, PSE&G can research those constants and provide additional clarity.

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

IN THE MATTER OF THE PETITION OF PUBLIC SERVICE ELECTRIC AND GAS COMPANY FOR APPROVAL OF ITS CLEAN ENERGY FUTURE – ELECTRIC VEHICLE AND ELECTRIC STORAGE PROGRAM ON A REGULATED BASIS

BPU Docket No. EO18101111

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
REBUTTAL TESTIMONY
OF
STEPHEN SWETZ
SENIOR DIRECTOR – CORPORATE RATES AND REVENUE REQUIREMENTS

October 16, 2020

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PUBLIC SERVICE ELECTRIC AND GAS COMPANY
REBUTTAL TESTIMONY
OF
STEPHEN SWETZ
SENIOR DIRECTOR – CORPORATE RATES AND REVENUE REQUIREMENTS

INTRODUCTION

Q. Please state your name, affiliation and business address.

A. My name is Stephen Swetz, and I am the Senior Director – Corporate Rates and Revenue Requirements for PSEG Services Corporation. My principal place of business is 80 Park Plaza, Newark, New Jersey 07102. My professional experience and responsibilities are described in Schedule SS-CEF-1, which was submitted along with my direct testimony.

Q. Have you previously submitted direct testimony in this proceeding?

A. Yes. On October 11, 2018, I submitted direct testimony on behalf of Public Service Electric & Gas Company ("PSE&G" or the "Company") in support of PSE&G's Petition requesting the New Jersey Board of Public Utilities ("BPU" or "Board") approve PSE&G's proposed Clean Energy Future – Electric Vehicle and Energy Storage Program ("CEF-EVES" or the "Program"). The defined terms in my direct testimony have the same meanings here.

Q. What was the purpose of your direct testimony in this proceeding?

A. In my direct testimony, I provided the details for the calculations of the Program's revenue requirements, the associated cost recovery methodology, and rate design for the CEF-EVES Petition filed with the Board. Specifically, I recommended that the Company establish a Technology Innovation Charge ("TIC") to be assessed to all customer classes on an equal cents per kilowatt hour ("kWh") basis to recover the costs of its Electric Vehicle ("CEF-EV")

program. My direct testimony also provided detailed schedules setting forth the projected revenue requirements, rates, and bill impacts over the Program's life.

Q. What is the purpose of your rebuttal testimony?

A. In my rebuttal testimony, I respond to certain assertions in the direct testimonies of witnesses on behalf of other parties concerning the Company's cost recovery and rate design proposals. Specifically, I respond to the testimony of:

(i) Ezra D. Hausman, David E. Peterson and Dante Mugrace on behalf of the New Jersey Division of Rate Counsel ("Rate Counsel");

(ii) William Erlich on behalf of Tesla, Inc. ("Tesla");

(iii) Kathleen Harris of Environment New Jersey, the Environmental Defense Fund, Natural Resources Defense Counsel and Sierra Club ("collectively the "Environmental Intervenors");

(iv) Jinga J. Shah on behalf of Electrify America, LLC ("Electrify America");

(v) R. Thomas Beach on behalf of EVGO Services, LLC ("EVGO"); and

(vi) Kevin George Miller on behalf of ChargePoint.

Q. Please summarize your rebuttal testimony.

A. As discussed more fully below, while Rate Counsel's witnesses broadly oppose the Company's proposals in these proceedings, the remaining witnesses generally support the goals of the Company's filing but propose changes to the rate mechanism that the Company proposes to effectuate the expansion of electric vehicles ("EVs") in the Company's service territory. In response, I first explain why Rate Counsel's witnesses' claims and recommendations are unfounded or unreasonable and should be rejected. I then address

various recommendations by other witnesses and explain why the Company's proposals represent a reasonable and balanced approach to encouraging the expansion of the EV market. As more fully discussed below, none of the witnesses presenting rate design recommendations in this proceeding has presented a persuasive basis for the Board to reject the Company's proposals in this case.

RESPONSE TO RATE COUNSEL'S WITNESSES

Q. What arguments do Dr. Hausman and Mr. Mugrace advance in support of their position that PSEG Shareholders should contribute to the funding of Electric Vehicle Sub-Program?

A. Dr. Hausman claims that increased adoption of EVs will lead to increases in kWh sales which would lead to greater revenues and profits, which would classify the proposed program as market development activities. He further states that in competitive markets, the costs for market development activities are typically absorbed by shareholders in anticipation of future profits. Mr. Mugrace reiterates and agrees with Dr. Hausman's claims that shareholders should fund some or all of the CEF-EV program.

Q. Do you agree that it would be reasonable to require shareholders to absorb a portion of the cost of funding the CEF-EV Program?

A. No I do not. Dr. Hausman fails to recognize that increases in distribution kW demand and kWh energy sales arising from the expanded use of electric vehicles will likely lead to a need for additional investments in distribution system infrastructure, such as adding capacity to sub-stations. This will impose costs on the Company that are incremental to the costs that will be recovered in the rates to be charged for this Program.

In addition, under the Company's new Conservation Incentive Program approved

recently by the Board in the settlement of PSE&G's CEF-Energy Efficiency Program ("CEF-EE"), revenue from increased usage per customer by existing customers above the levels set for each rate schedule in PSE&G's prior base rate case will be credited back to customers.[1] Therefore, only EV revenue from new customers will be incremental. This minor amount of incremental revenue from new customers between base rate cases would likely be offset by the capital costs associated with those required infrastructure investments noted above until new base rates are set in subsequent base rate cases.

Finally, over the long term, as a regulated company, PSE&G's return is set by the BPU and rates are reset in each base rate case on a cost-of-service basis so that the Company has an opportunity to earn its allowed return. Thus, over the long term, rather than creating a source for incremental profits, the revenues from service to electric vehicle customers, like all other revenues, will be used to offset the Company's overall cost of service, eliminating the Company's ability to realize increased profits from increased sales after each subsequent base rate case. Therefore, all other things being equal, the only result that would be achieved by adopting Rate Counsel's witnesses' recommendation that shareholders should be required to fund a portion the CEF-EV program is that the Company would not have a reasonable opportunity to earn its allowed return.

Q. How does Mr. Mugrace propose PSE&G recover the CEF-EVES investments?

A. Mr. Mugrace has proposed to have the Company recover all the proposed investments over ten years, similar to the recently approved CEF-EE Program. As indicated in my direct

[1] *See I/M/O the Petition of PSE&G for Approval of its Clean Energy Future/Energy Efficiency Program on a Regulated Basis*, Docket No. GO18101112 and EO10121113, Order Adopting Stipulation (September 23, 2020), at 16-17.

testimony the Company has proposed to recover the costs associated with utility depreciable assets over their respective book depreciation lives, which vary from 5 years to 40 years.[2] The costs associated with EV chargers, which will be owned by program participants, would be treated as a regulatory asset and amortized over ten years, in line with expected charger lives and consistent with Mr. Mugrace's recommendation.

Q. Why do you disagree with Mr. Mugrace's proposed single recovery period of 10 years?

A. Consistent with fundamental regulatory cost recovery principals, the Company proposes recovering investments in depreciable assets in accordance with the depreciation rates approved in the Company's last base rate case. The regulatory asset related to EV chargers owned by program participants, which is not directly covered under the Company's approved current depreciation rates, is proposed to be amortized over ten years which is consistent with the expected lives of the chargers.

Q. Rate Counsel witnesses Hausman (at 29) and Mugrace (at 9-11) assert that the costs of the EV program should be recovered solely from EV customers. Do you agree?

A. No. As explained by Company witness Karen Reif, adoption of this recommendation would result in rates to EV customers that are unlikely to encourage widespread participation in the EV market. As discussed by Ms. Reif, this result would unreasonably deprive the Company's customers and all other New Jersey residents of the benefits of improved air quality resulting from increased use of EVs.

[2] Swetz Direct Testimony, at pg 4. See also Schedule SS-CEF-EVES-1; RCR-RD-0009, which sets forth the current depreciation rates.

Q. In your experience, is it unusual for the Board to set a single rate across all customer usage for activities that promote societal benefits such as energy efficiency?

A. No. Both the legislature and the BPU have recognized that it is appropriate to assess the costs of activities that have the potential to create broad societal benefits to all customer classes. Indeed, the Board has specifically recognized in the recent Clean Energy Program proceeding that programs to promote the increased use of EVs should be funded through the broad-based Clean Energy Fund.[3]

Q. If the Company were to design rates that recovered the costs to serve electric vehicles solely from the EV owners/drivers, what would be the likely impact of the rates?

A. The likely impact would be that the State would be unable to achieve the goals for expansion of the electric utility market that are shared by the State of New Jersey and most of the participants in this proceeding. The main purpose of the CEF-EV program is to "jump start" EV adoption and help achieve the New Jersey Energy Master Plan "Net Zero" carbon emission goal by 2050. If all the costs for the EV program were collected from EV owners/drivers, including the high costs that would be incurred due to low utilization in the early stages of market penetration, the resulting rate would provide a greater barrier than current rates to EV adoption.

Q. Rate Counsel witness Peterson (at 7) asserts that PSE&G proposes to retain all revenues derived from EVES service until its next base rate case. Do you agree?

A. No I do not. Mr. Peterson misinterprets my testimony, which is that revenues that PSE&G receives from customers using Company-owned CEF-EV charging stations and from

[3] *See I/M/O The Clean Energy Programs and Budget For Fiscal Year 2021*, BPU Docket QO 20080539 (September 23, 2020).

participation in the PJM frequency market would be reflected in the calculation of the TIC as a cost offset for the CEF-EV Program.

Q. Rate Counsel witness Mugrace (at 18-19) recommends that PSE&G's administrative costs should be capped. Do you agree?

A. No. Given the uniqueness of these programs the administrative costs are uncertain at this time. Having administrative costs reviewed as part of an annual filing for prudence will ensure that only costs that are deemed prudent and reasonable by the BPU will be recovered by the Company.

Q. Rate Counsel witness Mugrace (at 20-21) recommends that PSE&G's weighted average cost of capital should be updated in future rate cases. Do you agree?

A. Yes. That is consistent with the Company's standard ratemaking practice.

Q. Rate Counsel witness Peterson (at 9) recommends that the Company should establish a separate tariff for EV service. Do you agree?

A. No. The cost of delivering electricity is primarily driven by the quantity and time of day it is consumed, not what the end use is. This is evident in the Company's non-residential rate design; all non-residential customers are treated the same, and only the maximum size and voltage at which they are served provides a basis to segregate them into separate rate classes. That is why the Company has proposed demand charge rebates to help overcome cost barriers to adoption of EVs while also showing customers the true cost of electricity.

RESPONSE TO OTHER WITNESSES

Q. Electrify America, LLC witness Jigar Shah (at 6) asserts that public charging stations should be exempt from paying the Technology Innovation Charge ("TIC"). Do you agree?

A. No. Similar to the Company's existing Societal Benefits Charge and Green Programs Recovery Charge, TIC charges should be generally non-bypassable, and should apply to every kWh consumed, as they benefit the entire State, not just specific customers. In addition, the participants in the programs funded by the SBC and PSE&G's Green Program Recovery Charge pay those charges as well. The TIC should apply to all kWh consumed.

Q. Chargepoint witness Miller asserts (at 32) that the Company's proposed "set point" subsidy ignores the root causes of unsustainable demand charges in PSE&G's Commercial and Industrial ("C&I") rates for DC fast charging customers. Do you agree?

A. No. Demand charges in PSE&G's C&I rates are cost-based and fairly allocate costs to customers based on how much they use and when they use it. The fact that low capacity factors that may be realized during the early implementation of DC fast charging service could result in electric bills with high $/kWh average rates is the reason the Company has proposed Demand Charge Rebates. The Company's proposal will help overcome this barrier to EV adoption and give DC fast charging customers time to increase their utilization factors to assist in lowering their average $/kWh electric rates without unreasonably modifying the Company's longstanding cost-based rate design.

Q. Mr. Miller further asserts (at 32) that PSE&G is inappropriately seeking to regulate the price of DC fast charging services. Do you agree?

A. No. PSE&G is not trying to regulate the price of DC fast charging service. PSE&G is rather trying to reduce cost barriers to early adoption of DC fast charging services. As

previously described, demand charge rebates will reduce customers' "dollars per kWh" cost during the initial 5 years of the EV program. As the customers' utilization increases, the demand charge rebate is a "self adjusting" subsidy that phases out once the customer's electric bill average rate is less than $0.40/kWh.

Q. Mr. Miller also claims (at 32) that PSE&G's proposal provides discriminatory relief from demand charges. Do you agree?

A. No. The purpose of the demand charge rebate is to incent new charging stations to be built to help facilitate EV adoption. As Mr. Reif stated in her response to discovery question DE-PSEG-0001[4], at current EV adoption rates, the goal of 1,400 public charging stations being available for public use by the end of 2025 as required in the Plug In Vehicle ("PIV") Act would likely be unattainable. While Mr. Miller appears to assert that it would be unduly discriminatory for PSE&G to fail to provide rebates to all program participants, I disagree. The Company's proposal is consistent with the goal of adding new program participants and reasonably designed to achieve that goal without providing benefits to customers who have not demonstrated a need for them.

Q. Mr. Miller recommends (at 36) that PSE&G should develop and file one or more C&I rate options that provide alternatives to traditional demand-based C&I rates. Do you agree?

A. No. The demand charge rebate is a non-discriminatory, self-adjusting mechanism to help reduce high $/kWh rate during periods of low utilization, which has been a significant barrier to EV adoption. Neither Mr. Miller nor any other witness has either provided a persuasive reason to require PSE&G to modify its demand rate structure or any meaningful

[4] See Schedule SS-CEF-EVES-1.

evidence that the proposed demand rebates will not accomplish the goal of assisting the electric vehicle market.

Q. Mr. Shah asserts (at 25) that the BPU should approve rates for investments in public electric vehicle charging infrastructure that are commensurate with, if not lower than, those for residential charging in order to create what he characterized as "equitable incentive for adopting electric transportation amongst those that have access to charging at home and those that do not." Do you agree?

A. No. I do not. The rates charged to residential customers (kWh energy only) and those assessed to commercial and industrial customers (kWh energy and kW demand) are significantly different for reasons that have nothing to do with EV charging. This case is not the proper forum to address these issues, which should be addressed in base rate cases. In this case the Company has proposed demand charge rebates for DC fast charging services to help mitigate cost barriers that will result from low load factor utilization of EV charging during the early stages of EV market development. The Company selected a proposed rebate set point that balances the interests in removing barriers to EV adoption with the interests of all customers who fund the rebate. The Company does not believe it is in the best interest of any market participant for the Company to arbitrarily reduce rates to levels that may not reflect the Company's cost of service to equalize rates that may be paid for EV charging among different classes of customers, as Mr. Shah appears to be suggesting.

Q. Tesla witness William Erlich (at 6) recommends that any target rate for the Public DC Fast Charging Program be set at the commercial customers' class average price of electricity or the commercial class average cost per kilowatt hour. Do you agree?

A. No. As described in my response regarding Mr. Shah's assertions, the Company selected a proposed rebate set point that balances the interests of removing barriers to EV

adoption with the interests of the customers who fund the rebates by holding them to the minimum level necessary to attract new EV customers. For instance, if the class average rate, which is currently about $0.13 per kWh, was used as the set point for the DC fast charger third party owned sites sub-program versus the proposed set point of $0.40 per kWh, the corresponding rebate funded from customers for the life of the Program would increase by $111 million, from $39 million to $150 million, or 290%.

Q. Mr. Erlich (at 7) recommends that a term-limited pilot mechanism should be adopted in this proceeding and that PSE&G should commit to designing a permanent EV rate after a six year pilot program period. Do you agree?

A. The Company has proposed a limit of five years on the demand charge rebate. This will provide time to increase utilization of charging stations and expand the use of electric vehicles. The main tenet of proper rate design is that rates should not discriminate based upon the customer's end use, but be based upon cost causation, which is mainly based upon quantity and when it is consumed. The Company will be monitoring the results of its EV program over the next five years and as the Company approaches the end of the program, it will determine, based on the results, whether and how to continue and/or modify the program.

Q. EVGO witness R. Thomas Beach (at 6) expresses a variety of concerns about the utility making judgments necessary to establishing a set point rate. Do you agree with his concerns?

A. The Company has proposed a demand charge rebate with a set point of a maximum electric bill rate of $0.40/kWh for five years. While the Company has suggested that it could change the set point rate, any such changes would be dictated by market conditions and directed at achieving the goal of expanding the use of electric vehicles.

Q. Mr. Beach recommends (at 10) a waiver or reduction of demand charges for five to ten years. Do you agree?

A. As I have stated previously, the Company has proposed a demand charge rebate with a set point of a maximum electric bill rate of $0.40/kWh for five years. Mr. Beach has provided no reason why ten years is necessarily more appropriate.

Q. Mr. Beach recommends (at 17) that the adopted rate structure should be available to all Electric Vehicle customers. Do you agree?

A. No. There are many factors that go into rate design, which include existing rate structures and metering technology as well as voltage served. The Company believes that its proposed program of demand charge rebates, off-peak rebates and the existing Residential Load Management ("RLM") rate schedule, which has time of use ("TOU") rates, are appropriate at this time to spark the development of the EV market in a reasonable manner. At the same time, it is not in any party's best interests for the Company to provide rebates or discounts to EV market participants that have not required them in the past or demonstrated any need for them in this proceeding.

Q. Environmental Intervenors' witness Kathleen Harris recommends (at 32) that PSE&G should be required to develop revised cost-based rates for C&I EV customers in lieu of short-term rebates. Do you agree?

A. No. Currently the Company's C&I rates are reasonably accurate in aligning rates to cost causation, especially for the Large Power and Light ("LPL") rate schedules that use kWh TOU rates to recover energy based costs, kW demand rates to recover local and system distribution delivery cost, and kW obligation rates to recover generation capacity and transmission costs. One of the main challenges currently facing EV adoption is during initial periods low utilization results in high electric $/kWh average rates. That is why the Company

has proposed demand charge rebates. From the Company's perspective, it is more appropriate to address the rate issue with rebates than to develop a new set of rates, which could result in higher rates than we have proposed with the rebate.

Q. Ms. Harris also recommends (at 31, 33) that PSE&G should look at other options for time of use ("TOU") rates. Do you agree?

A. Not currently. The Company currently has a number of TOU rate options available. As previously stated, a residential customer can select to be served under our TOU RLM rate schedule. Also, smaller C&I customers served under the Company's General Light and Power ("GLP") rate schedule can opt to be served under the "Night Use" special provision that can lower the cost of off-peak charging because it eliminates summer demand charges during "Off-Peak" hours (Weekdays 8PM to 8AM and all weekend). In addition all C&I customers can choose Basic Generation Service – Commercial and Industrial Energy Pricing ("CIEP") where they could possibly reduce their capacity, transmission and energy charges by avoiding charging during certain peak periods.

Notwithstanding the Company's current service offerings, if PSE&G's pending CEF-Energy Cloud ("CEF-EC") filing is approved, the Company may be able to implement rate design alternatives in future base rate cases.

Q. Does this conclude your testimony at this time?

A. Yes, it does.

Public Service Electric and Gas Company
Case Name: CEF-EVES
Docket No(s): EO18101111

Response to Discovery Request: RCR-RD-0009
Date of Response: 7/21/2020
Witness: Swetz, Stephen
Book Recovery

Question:
Refer to the tables shown in Mr. Swetz's Direct Testimony, pages 4 and 9. Please provide the source documents or analyses supporting the "Book Recovery" amounts shown on the schedule. In all cases do the Book Recovery amounts shown in the tables reflect currently authorized depreciation/amortization amounts approved by the Board? If not, please explain how the amounts were determined.

Attachments Provided Herewith: 0

Response:
The book recovery of the Make-Ready Infrastructure Investment, which includes distribution circuits, service drops, transformers, conductors, conduits, electric meters and breaker panels, were based on the composite book recovery period for all utility property at the time of the Company's filing. The Company's book recovery period for utility property has changed since the original CEF-EVES filing was submitted as a result of the conclusion of the 2018 base rate case. As a result, the book recovery used to calculate revenue requirements would use the latest authorized depreciation/amortization rates for the appropriate asset classes. The asset classes and approved depreciation rates are shown below.

FERC Asset Class Name	Depreciation Rate
LINE TRANSFORMERS	3.40%
METERS	9.90%
POLES, TOWERS AND FIXTURES	3.70%
UNDERGROUND CONDUCTORS AND DEVICES	1.70%

The Chargers and Battery are utilizing 10-year and 15-year lives, respectively, based upon the manufacturers estimated life. IT software is set to a 5 year life based upon expected obsolescence.

Inverters and Communication Equipment book recovery lives are equal to the manufacturers recommended life, consistent with the Company's experience in its existing Solar Programs. Solar Panels are equal to 20 years based upon the Board's decision in EO16050412 and Meter book recovery life is equal to 20 years to set equal to the Solar panel book life as in the decision in EO16050412.

Public Service Electric and Gas Company
Case Name: CEF-EVES
Docket No(s): EO18101111

Response to Discovery Request: DE-PSEG-0001
Date of Response: 7/21/2020
Witness: Reif, Karen
Residential Private Market Competition

Question:
Refer to Karen Reif's Direct Testimony, page 3.
(a) Why does PSE&G propose to subsidize and provide rebates to residential and other sector locations for EV charging infrastructure when a competitive market already exists to provide such solutions to consumers?
(b) What market data or other indicia of interest does PSE&G possess that supports PSE&G, a public utility, providing a competitive service that is currently being offered by non-utility third parties?
(c) Does PSE&G propose to provide financial support or incentives to residential homeowners whose BTM electrical systems does not support a Level 2 charger?

Attachments Provided Herewith: 0

Response:

a. PSE&G objects to the assumption in this request that a competitive market already exists to provide the level of EV infrastructure build-out that is required to help timely meet New Jersey's aggressive electrification of transportation goals. Notwithstanding and subject to this objection, PSE&G is proposing a public utility program to help support and accelerate electrification of transportation. To meet the PIV Act goals for EV adoption, the charging infrastructure in New Jersey needs to be increased substantially versus the current level. There has been no significant progress to date in the development of EV charging infrastructure in New Jersey, which continues to rank lowest in the density of public chargers relative to population among states participating in California's Zero Emission Vehicle (ZEV) partnership.[1]
b. Please see answer to (a.) above.
c. Yes, PSE&G proposes to support the cost of the EV charger and the installation thereof. This would include behind the meter (BTM) installation costs. The Company proposes to cap the rebate at $2,000 per installation, but retain the flexibility to adjust the cap in response to market trends on notice to Board Staff and Division of Rate Counsel.

[1] Data obtained from United States Department of Energy, Alternative Fuels Data Center, available at https://www.afdc.energy.gov/data_download and United States Census Bureau, State Population Totals and Components of Change: 2010-2019, available at https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html. Data obtained on April 22, 2020.

STATE OF NEW JERSEY
BOARD OF PUBLIC UTILITIES

In the Matter of the Petition of
Public Service Electric and Gas Company
for
Approval of its Clean Energy Future Electric Vehicle and Energy Storage ("CEF-EVES") Program on a Regulated Basis

BPU Docket No. EO18101111

REBUTTAL TESTIMONY
OF
TERRENCE J. MORAN
DIRECTOR OF ENERGY SUPPLY ACQUISITION AND OPERATIONS

October 16, 2020

PUBLIC SERVICE ELECTRIC AND GAS COMPANY
REBUTTAL TESTIMONY
OF TERRENCE J. MORAN
DIRECTOR OF ENERGY SUPPLY
ACQUISITION AND OPERATIONS

Q. Please state your name, affiliation and business address?

A. My name is Terrence J. Moran and I am the Director of Energy Supply Acquisition and Operations for Public Service Electric and Gas Company ("PSE&G" or "Company"). My principal place of business is 80 Park Plaza, Newark, New Jersey 07102.

Q. Please describe your responsibilities as Director of Energy Supply Acquisition and Operations?

A. In this position I have, among other things, the responsibility for PSE&G's energy supply functions inclusive of Basic Gas Supply Service, Basic Generation Service, Non-Utility Generation policy, Energy Supply Administration, Energy Settlements, and Retail Choice operations. Included in these responsibilities are the policies and operations related to data provision to Third Party Suppliers ("TPS"), the load settlement process, and policies related to retail choice (including customer billing options). My credentials are fully set forth in Schedule TM-CEF-EVES-1 of this testimony.

Q. Have you previously testified in proceedings before the New Jersey Board of Public Utilities ("Board" or "BPU")?

A. Yes. I have both submitted testimony and testified before the BPU in a number of proceedings that are identified in Schedule TM-CEF-EVES-1 of this testimony.

Q. What is the purpose of your rebuttal testimony in this proceeding?

A. The purpose of my rebuttal testimony is to address the Market Participants'[1] witness Brendan Donnelly's position that Supplier Consolidated Billing ("SCB") is required in order for suppliers to offer on-bill financing, and "if PSE&G is permitted to offer EV products and services,"[2] the Company should be prohibited from offering on-bill financing and instead should be required to implement SCB, in lieu of investments in its billing system to enable on-bill financing of EV products and services.

In summary, my response is that SCB: is not required for suppliers to offer on-bill financing; is not directly related to the Company's CEF-EVES proposal; and is complex and requires additional analysis, and is therefore more appropriately considered in a state-wide proceeding outside of this case. Further, the subject of consolidated billing in general has been thoroughly vetted over the past twenty years in retail access related processes involving many stakeholders. Any future consideration for SCB should be considered in that type of forum.

Q. Please summarize the Market Participants' SCB proposal?

A. Market Participants recommend that "if PSE&G is permitted to offer EV products and services … the Board should prohibit PSE&G from utilizing on-bill financing for EV products and services" and instead require PSE&G to modify its billing system and implement SCB. Mr. Donnelly states that "under SCB suppliers would issue a single, consolidated bill to their retail customers containing all of their charges, as well as PSE&G's distribution charges." Mr.

[1] The Market Participants' Direct Testimony is offered on behalf of Direct Energy Business, LLC, Direct Energy Business Marketing, LLC, Direct Energy Services, LLC, and Gateway Energy (collectively, "Direct Energy"), NRG Energy, Inc. ("NRG"), Just Energy Group, Inc. ("Just Energy") and Centrica Business Solutions. Donnelly Direct Testimony, at page 3.
[2] Donnelly, at 12.

Donnelly further claims that "if SCB is implemented by PSE&G and suppliers could offer customers on-bill financing for products and services, the Market Participants would be on equal footing with PSE&G on this issue."[3]

Q. Does the Market Participant's position on SCB put them on equal footing with PSE&G?

A. Actually, it does the opposite. The Market Participants state that they would be on "equal footing with PSE&G" if the Board were to prohibit the Company from offering on-billing financing and instead require the modification of its billing system to enable SCB – under which the "suppliers could offer customers on-bill financing for products and services."[4] Yet this recommendation would result in "unequal footing", and require PSE&G customers to pay for the implementation of billing system and process enhancements for the benefit of suppliers – while not being able to receive on-bill financing from PSE&G.

Q. On page 12 of his testimony, Mr. Donnelly states that "competitors do not have the option of offering on-bill financing for those same products and services." Is that accurate?

A. No. It is not clear to me why "competitors" could not offer on-bill financing for electric vehicle products and services, and issue bills to the customer for the related charges. I would also note that the products and services the Market Participants presumably seek to offer are not "commodity service", to which the subject of SCB is generally applicable and/or considered. If the competitor is a licensed TPS (and also providing commodity service), this is referred to as dual billing.

[3] Donnelly at 12-13.
[4] Donnelly at 12.

Q. Please describe the billing options that are available to TPSs and customers today?

A. TPSs currently have two options for billing: (1) dual billing, whereby each party, the TPS and the utility, issues its own bill to the customer, or (2) utility consolidated billing, where the TPS can include its charges and other information on the utility's bill to the customer. Under the utility consolidated billing option, TPSs send their charges to PSE&G for inclusion on the Company's bill to the customer, and they have the option of adding their logo and up to 50 rolling lines of text on the utility bill. TPSs may also include their own inserts in the utility bill. TPSs are paid for their submitted charges in 20 days. Electric charges are paid dollar for dollar, and gas charges are factored by a discount value that changes annually. In this process PSE&G assumes the receivable of the TPS.

Q. What is the Market Participants' position regarding the utilization of dual-billing to offer on-bill financing?

A. The Market Participants state that suppliers cannot use dual billing to offer on-bill financing, citing that customers "desire the convenience of a single bill", and "overwhelmingly have expressed a desire for simplicity." Donnelly also notes that a "dual bill creates confusion", and that "[c]ustomers cannot be expected to understand that they are required to pay two energy bills covering the same period of time from two separate energy companies."[5]

Q. If SCB is implemented, would it be possible that a PSE&G customer that receives a single bill for both gas and electric service from the Company could end up receiving two bills if they are served by a TPS offering SCB?

A. Yes, I believe that is possible. In their response to PS-MP-BD-13(e), the Market Participants note that in Alberta, which "is the only market where SCB is currently available

[5] Donnelly at 13.

for both electricity and natural gas services, suppliers serving customers with only one commodity bill only for the commodity service provided." In such a case it is reasonable to assume that such a customer would also then receive a separate bill from their utility for the commodity that the utility still provides (plus related delivery charges). The Market Participants also note that "Maryland is in the process of developing business rules and regulations to implement SCB."[6] In the proposed rules that the Maryland Public Service Commission ("MD PSC") Staff recently filed with the MD PSC, it was noted that for Baltimore Gas and Electric's ("BGE") combined gas and electric customers, most parties involved in the SCB working group supported the proposal that those customers "who select to have one commodity service provided by a supplier providing SCB service and another commodity provided by the utility or UCB supplier will receive two bills going forward." This means, MD PSC Staff continued, that "customers in BGE's service territory who receive a single bill today for both gas and electric may receive separate bills if the SCB provider does not sell the customer both commodities."[7] Therefore, though Mr. Donnelly emphasizes customers' desire for "the convenience of a single bill" and the potential confusion associated with receiving energy bills from two separate energy companies, a possible outcome of an implementation of SCB would be that customers receive multiple bills for utility service. This is seemingly counter to customers' "desire for simplicity,"[8] and is counter to the Market Participants' claim

[6] Schedule TM-CEF-EVES-2.
[7] September 22, 2020 Filing from MD PSC Staff to the MD PSC, Case 9461 Supplier Consolidated Billing. Detailed Business Processes, page 15.
[8] Donnelly at 13.

that SCB (and the need to consolidate billing) is required in order for them to offer on-bill financing.

Q. Do the Market Participants provide examples of other jurisdictions where SCB is available?

A. Yes. In their response to PS-MP-BD-13, the Market Participants reference Alberta (Canada), Georgia, Illinois and Texas as jurisdictions with SCB as a billing option. They also state that SCB is in development in Maryland. The Market Participants also note that SCB is the only billing option available for Texas electric customers and Georgia gas customers.[9] However, due to the unique nature of the market structures in these latter jurisdictions, where all retail suppliers bill and assume all customer-facing interactions (limiting distribution companies' direct interactions with customers), these references are not appropriate comparisons to use for New Jersey.

Q. The Market Participants state at page 14 that "EDECA clearly contemplates the provision of customer billing by licensed TPSs and gives the Board authority and direction to implement metering and billing functions through required proceeding." Is that accurate?

A. Without taking a position on the Board's statutory authority, I will note that based on my experience and work-responsibilities in the Company (which include ensuring areas under my charge are operating in compliance with BPU regulations), EDECA did not direct the Board to order that all customer account services ("CAS") be supplied by TPSs. Rather, the language of EDECA is clear that "some or all" services could be supplied by TPSs.[10] EDECA

[9] Schedule TM-CEF-EVES-2.

[10] N.J.S.A. 48:3-54 6(a), a subsection of the Electric Discount and Energy Competition Act ("EDECA"), enacted in 1999 required that the Board: "[i]nitiate a formal proceeding to investigate the manner and mechanics by which customers are afforded the opportunity to contract with the incumbent utility or an electric power supplier for customer account services and to establish the necessary standards for safety, reliability and testing for meters and information exchange protocols applicable

included a similar requirement for gas public utilities, with the difference being the required timing of a Board Order in the requisite proceeding.

Q. Did the Board initiate the required CAS investigative proceeding in accordance with the above-quoted language from the EDECA, and if so what was the outcome?

A. Yes. The Board initiated a CAS proceeding in the 2000 timeframe which resulted in a stipulation and Board Order dated December 22, 2000 ("CAS Stipulation and Order").

Q. What did the December 22, 2000 CAS Stipulation and Order contain in terms of billing options for PSE&G customers?

A. Among other things, the order required that PSE&G provide consolidated billing for customers of licensed gas or electric TPS by a date certain. The utility consolidated bills would include the TPSs' logo, contact information, supplier charges, one rolling page for TPS text, as well as an insert option for the residential customers of licensed gas and electric suppliers. Regarding SCB, where the TPS would bill the customer directly for its own charges and the utility's charges, the order enables bill-ready SCB, but only after the adoption "by the Billing Implementation Working Group, or adoption by the Board of Electronic Data Interchange ("EDI"), standards or other electronic data exchange protocols as may be required."[11] Additionally, the CAS Stipulation and Order required that for SCB, the TPSs would be responsible for meeting all applicable New Jersey Administrative Code ("NJAC") and Board-

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to both electric power suppliers and incumbent utilities that will permit customers to choose a supplier for **some or all** such customer account services. The board shall issue an order for providing customers the opportunity to choose a supplier for **some or all** customer account services not later than one year from the starting date of retail competition . . . and setting forth the manner, mechanics and standards for competitive customer account services." (bolded emphasis added).

[11] CAS Order at 4.

mandated formatting, notices and directives concerning utility customer bill information and utility tariffed delivery services.[12]

Q. Were business rules or EDI standards related to SCB ever adopted or proposed?

A. No. The development of business rules and EDI standards related to SCB would require a considerable time commitment and focus of the supplier community at-large, as the driving interest in this billing option.[13] However, following the CAS Stipulation and Order and subsequent implementation of utility consolidated billing, the supplier community did not make that commitment, and as a result SCB was never implemented.

Q. Did the CAS Stipulation and Order include a termination date?

A. Yes. Article 14 of the CAS Stipulation stated that "this Settlement and all of its terms herein shall continue in full force and effect until August 1, 2003, or upon the effective date of a superseding settlement and/or Board Order addressing the matters contained in this Settlement."[14]

[12] CAS Stipulation at 5.
[13] The Maryland stakeholder process for SCB that Market Participants note, for example, convened in October of 2019, met weekly, and the draft recommendations were just submitted to the MD PSC for evaluation on September 23, 2020, nearly a year later. *See* Schedule TM-CEF-EVES-2 (Market Participants' response to PS-MP-21); *I/M/O the Petition of NRG Energy, Inc., Interstate Gas Supply, Inc., Just Energy Group, Inc., Direct Energy Services, LLC, and Engie Resources, LLC for Implementation of Supplier Consolidated Billing for Electricity and Natural Gas in Maryland*, MD PSC Case No. 9461, Office of Staff Counsel - Report- Supplier Consolidated Billing Business Processes (filed Sept. 23, 2020).
[14] CAS Stipulation at 9.

Q. Did the Board investigate CAS issues after August 1, 2003 and/or issue subsequent CAS-related Orders? If yes, did any of these activities or Orders require implementation of SCB?

A. Yes, since 2003 the Board has further evaluated CAS issues numerous times, first in 2004, then again in 2011, and finally in 2013. In all cases, the Board did not require the implementation of SCB.

Q. Please explain the 2004 and 2011 evaluations and the outcomes related to SCB?

A. In 2004, the Board initiated a working group process to consider consolidated billing standards and the customer data card (from the CAS Stipulation and Order), and the working group was comprised of Board Staff, Rate Counsel, New Jersey's electric distribution and gas distribution utilities, approximately a dozen TPSs, and the Mid Atlantic Power Supply Association ("MAPSA"). The working group agreed to standards involving consolidated billing, including customer-eligibility for utility consolidated billing and communications and data exchange regarding the same, and reaffirmed that SCB need not be implemented.[15]

In early 2011, Board Staff created a working group, the "POR/PTC Working Group," to address "Purchase of Receivables" ("POR"), wherein the party providing consolidated billing assumes or purchases the account receivables of the non-billing party, and the Price to Compare ("PTC").[16] Over twenty suppliers, plus the Retail Energy Supply Association ("RESA") and the National Energy Marketers Association ("NEMA"), participated in the effort. Notably, RESA's members at the time included Market Participants Direct Energy

[15] *I/M/O The Electric Discount and Energy Companion Act of 1999 Customer Account Services Proceeding, Docket Nos. EX99090676 and EX94120585Y (N.J. B.P.U June 24, 2004)*
[16] NJBPU Notice of Working Group Meeting on POR and PTC, 2/8/11, Schedule - TM-CEF-EVES-3.

Services LLC, and Just Energy.[17] During the POR/PTC Working Group process, two TPSs argued for implementation of SCB, Infinite Energy d/b/a Intelligent Energy ("Intelligent Energy") and Reliant Energy Northeast LLC, a wholly owned subsidiary of NRG Energy ("Reliant Energy"). The POR/PTC Working group process did not culminate in modified rules related to consolidated billing or any related Board order.

Q. In the 2011 POR/PTC Working Group process, did Intelligent Energy and Reliant Energy provide arguments in support of implementing SCB similar to the arguments Market Participants cite in support of SCB in this proceeding?

A. Yes. In the 2011 working group, Intelligent Energy argued that SCB "is an appropriate step towards full unbundling, market transparency, and full customer choice."[18] Reliant Energy cited Texas as an example of a successful SCB model and highlighted key features of the Texas model as useful for enabling TPSs to advance customized products and services to customers.[19]

Q. When did the Board re-engage the working group discussions on consolidated billing, and what was the result with respect to SCB?

A. In February of 2013, Board Staff sent notice to the POR/PTC Working Group participants and other interested stakeholders via email setting forth Staff's proposal for modifications to POR and utility consolidated billing and requesting comments.[20] Despite the 2011 comments received from Intelligent Energy and Reliant Energy proposing SCB, Staff's proposal did not include a recommendation to implement SCB. Ultimately, the Board's review

[17] See RESA's February 8, 2011 Straw Proposal for POR in NJ, provided as Schedule - TM-CEF-EVES-4.
[18] Submittal by Richard F. Paez on behalf of Infinite Energy, d/b/a Intelligent Energy, provided as Schedule - TM-CEF-EVES-5.
[19] Comments of Reliant Energy Northeast LLC, Schedule - TM-CEF-EVES-6.
[20] Board Staff's Notice of Opportunity to Comment and their Utility Consolidated Billing / Purchase of Receivables Proposal. Provided to the POR/PTC Working Group on 2/25/13. This document is provided as Schedule - TM-CEF-EVES-7.

of Staff's 2013 POR proposal resulted in a Board Order issued on May 29, 2013 that directed certain modifications to the existing utility consolidated billing/POR programs.[21] The Order did not require implementation of SCB.

Q. Following the 2013 UCB/POR Board Order, has the Board Staff and/or a TPS advocated for the implementation of SCB?

A. Aside from the recent CEF-EE proceeding, I am not aware of any formal advocacy by Board Staff or a TPS since 2013.[22]

Q. How should the Board consider the Market Participant's renewed SCB proposal in this proceeding?

A. The Board should consider the current proposal through the lens of its historic considerations of the same issue. SCB has been considered numerous times by the Board and/or Board Staff since the implementation of EDECA over 20 years ago. In each of these cases, the Board considered SCB in the context of consolidated billing in general, and in a broader industry forum where all suppliers and distribution companies could present their positions and share their views and desires with respect to consolidated billing (UCB or SCB). However, as has been noted in this Rebuttal Testimony, each time consolidated billing has been considered, or in the case of the 2000 CAS Stipulation and Order when the implementation of SCB billing required a working group(s) to develop the requisite business

[21] *I/M/O The Board's Review of Utility Consolidated Billing and Purchase of Receivables Programs*, Docket No. EO13030236, dated May 29, 2013 (modification were directed in the following areas: customer eligibility for UCB; timing of payment of TPSs' charges to the TPS; process for returning customers that were receiving a UCB to dual-billing; provision of arrearage reports to TPSs that utilize UCB; the ability of distribution companies to discount payments to TPSs (for charges for customers on UCB) and/or charge UCB fees; and timing requirements for distribution companies to implement and/or modify their UCB/POR programs).

[22] In PSE&G's recent Clean Energy Future – Energy Efficiency ("CEF-EE") proceeding, BPU Docket Nos. EO1012113 and GO1810112, the stipulation approved by the Board on September 23, 2020 includes PSE&G's commitment to hold at least one stakeholder session to discuss competitive issues in the provision of EE, including SCB. The Market Participants are simultaneously making a similar request in PSEG's CEF-EC case, BPU Docket No. EO18101115.

and technical requirements in order for implementation to occur, the larger TPS community focused on the implementation and modification of UCB, not SCB. This has been the case here in New Jersey, and this UCB-centric focus is consistent with other jurisdictions that have implemented retail access.[23]

Q. If the Board wishes to entertain Market Participants' SCB proposal, what process and policy issues would need to be addressed?

A. Numerous process complexities and policy hurdles must be considered and overcome when implementing SCB, including the following:

- Accuracy:
  - TPSs would need a process to assure the accuracy of customers' utility distribution charges including consideration of the variety and complexities of the Company's tariff(s) for the billing of such things as net metering, community solar, equal payment plans, deferred payment arrangements,[24] time of use rates, and so on;
  - Would suppliers be calculating and presenting all charges, or would the utility still need to calculate its own charges and send them to the

[23] Outside of Alberta (Canada), Texas, and the few other jurisdictions referenced by the Market Participants, there do not appear to be a large number of jurisdictions that have embraced SCB as a billing option, as compared to UBC. This may be due to greater retail supplier interest in UCB, and/or it may reflect the challenges that exist with implementing SCB. Regarding the latter, there are numerous process-complexities and policy hurdles that must be overcome and considered when implementing SCB. Additionally, as noted above, the Texas market is inherently different than New Jersey's, and any reliance on Texas as a model for New Jersey on these issues appears misplaced, and should be tempered.

[24] Notably, TPSs would also need to have processes to quickly adapt to emergent situations, such as the COVID-19 pandemic, during which New Jersey's utilities rapidly altered collections and disconnect procedures and changed the parameters and qualifications of deferred payment agreements.

supplier solely for bill presentment? Related to this, how would errors be addressed?

- Regulatory Requirements:
  - Would TPSs' SCBs need to comply with all required existing bill presentment and customer notice requirements applicable to utilities' bills?
  - Would there be any new or additional requirements for SCB?
- Customer Service:
  - TPSs' call centers would have to be able to handle increased call volumes and presumably satisfy all regulatory and other customer service requirements on behalf of the utilities, including rules pertaining to customer inquiries, disputed charges and complaints;
- Disconnect for Non-Payment Policy and Procedures:
  - A policy determination would need to be made regarding the ability of a TPS that issues SCBs to direct distribution companies to disconnect customers for non-payment of bills, including supplier charges.
  - If permitted, TPSs would need to develop related practices.
- TPS Creditworthiness:
  - A policy determination would be required related to whether TPSs issuing SCBs should be required to meet incremental credit requirements to secure the payments due to the distribution utilities.

Related, rules and contractual terms will have to be established related to supplier default.

- Data Transfer protocols:
  - Uniform EDI (or other) transactions would need to be developed that incorporate the full breadth of utility billing calculation and bill presentment requirements – to insure that TPSs offering SCB present utility bill details accurately and completely – and to avoid Utility expense to build and support varied interfaces with different TPSs that offer SCB.
- PSE&G, as a combination Gas and Electric Distribution Company:
  - Would an electric TPS issue a SCB bill and purchase the receivable for PSE&G's gas and electric distribution charges as well as PSE&G's gas supply charges, in addition to the supplier's electric supply charges?
  - What process would be used for customers receiving gas and electric supply from different TPSs?
  - Would implementation of SCB result in PSE&G customers presently receiving a single bill for all charges to begin receiving two bills?
- Customer Eligibility:
  - Would customers on a deferred payment arrangement or those with arrearages be permitted to receive a SCB?
- Deposits:

- How will customers' existing deposits be treated, and what deposit rules will govern suppliers issuing SCBs?

- Customer Contracts:
  - How will TPS contracts with customers address SCB, including whether suppliers should be able to change billing options for existing customers?
- Purchase of Receivables rules related to SCB:
  - Policies would need to be developed for: timing of payment to the utility; payment posting hierarchy (including how deposits can be applied to charges due); whether a utility receives an arrearage back from a TPS; how utility arrearages will be tracked, including when customers switch billing methods or switch suppliers; TPSs' ability to charge late fees; and utilities' ability to continue providing customers equal payment plans.
- Marketing and Advertising:
  - What standards should apply to TPS SCBs?

This is but a partial listing of the issues that would need to be addressed when considering SCB, and consideration of these would need to include new or modified data transfer protocols to facilitate these changes. Though these issues are not insurmountable, they clearly illustrate the added complexity and likely expense of a SCB process – as compared to utility consolidated billing – and help explain why, after over 20 years of working group efforts, there has not been an earnest attempt or collective TPS interest in implementing SCB.

Additionally, it is also important to understand SCB's possible consequences to customers that receive both gas and electric service from PSE&G. As previously discussed, in markets where SCB is implemented or is being implemented for a combination gas and electric utility, it's possible that customers could end up receiving two bills for electric and gas service as opposed to a single (combined) bill, which is seemingly counter to the Market Participants' arguments against dual billing and the resultant "customer confusion"[25] that the issuance separate bills can cause. These issues also highlight the importance of insuring the overall market cost-benefit for all stakeholders is considered before any individual utility invests time and money in developing a structure that is being championed by a small segment of the supplier community in a single utility's proceeding.

Q. In addition to the procedural issues noted above, should the Board evaluate potential costs of SCB?

A. Yes. Consideration of modification of existing processes or implementation of SCB should take into account the issue of cost recovery and responsibility for costs. For example, during the 2011 evaluation, RESA provided a straw proposal for POR in New Jersey, arguing that incremental implementation costs to develop POR should be recovered only from those suppliers utilizing utility consolidated billing, and Reliant Energy endorsed this proposal.[26] A viable proposal for cost recovery should be required in connection with any subsequent modifications to utility consolidated billing, or for the full implementation of SCB if the Board chooses to pursue SCB as a third billing option for customers.

[25] Donnelly at 13.
[26] *Id.* at 36.

Q. What is your recommendation regarding Market Participants' SCB proposal?

A. The Market Participant's proposal is high level, and does not address many of the issues raised above. Moreover, the issue of SCB is unrelated to the issues to be decided in PSE&G's petition for approval of CEF-EVES, including whether PSE&G should be able to offer on-bill financing (as noted above, the Market Participants' argument that they "do not have the option of offering on-bill financing" is incorrect, as they can clearly issue their own bills to their customers, inclusive of financing charges). Further, the argument that SCB is required in order to avoid the confusion caused by separate bills is flawed, as customers may actually receive separate bills as a result of SCB when implemented by combination electric and gas utilities. I recommend, therefore, that SCB is not appropriate for consideration in this proceeding, and approval of the Company's CEF-EVES proposal should not be delayed by Market Participants' renewal of this issue. To the extent the Board or Board Staff wish to revisit SCB implementation, this should occur in a stakeholder proceeding where these issues can be fully developed and where a state-wide approach could be considered, as has occurred previously.[27]

Q. Does this conclude your testimony at this time?

A. Yes.

[27] I will note that I have made the same recommendation in my rebuttal testimony submitted on October 5, 2020 in PSE&G's CEF-EC proceeding wherein Market Participants have also renewed the SCB issue.

QUALIFICATIONS
OF
TERRENCE J. MORAN
DIRECTOR OF ENERGY SUPPLY ACQUISITION & OPERATIONS

My name is Terrence J. Moran and I am employed by Public Service Electric and Gas Company (PSE&G, the Company) as the Director of Energy Supply Acquisition & Operations. In this role, I have, among other things, the responsibility for PSE&G's energy supply functions inclusive of Basic Gas Supply Service, Basic Generation Service, Non-Utility Generation policy, Energy Supply Administration, Energy Settlements, and Retail Choice operations. Included in these responsibilities are the policies and operations related to data provision to Third Party Suppliers, the load settlement process, and policies related retail choice (including customer billing options).

EDUCATIONAL BACKGROUND

I have a Bachelor of Science degree in Industrial Engineering from the New Jersey Institute of Technology, and a Masters of Business Administration degree from Seton Hall University.

WORK EXPERIENCE

I have worked for PSE&G for roughly 30 years in various positions, as well as for three years in the competitive energy services industry. Prior to becoming

Director of Energy Supply Acquisition & Operations for PSE&G in 2015, I served as the Director of Energy Supplier Services since 2003, with the exception of 2012 and 2013 when I worked as the Director of Market Strategy and Development. My professional experience includes a broad background in rates, energy policy issues, energy markets, customer end-use technologies, and utility operations. Areas of expertise include retail access processes and policy, energy market operations, and energy analytics. I have served on the Executive Committee of the Retail Electric Quadrant in the North American Energy Standards Board (NAESB), and have been very active in retail energy market development since the 1990's, as an employee of both retail energy suppliers and PSE&G. I have previously prepared and presented testimony to the New Jersey Board of Public Utilities ("NJ BPU") on the subject on Net Metering policy, the Company's Solar-4-All Extension proceeding, the Company's Solar Loan III proceeding (and also testified before the NJ BPU in the latter two proceedings) and the Company's Clean Energy Future – Energy Cloud proceeding. Additionally, I have represented the Company in various working groups and forums at the NJ BPU, PJM and NAESB, including the annual BGS legislative hearings. I also previously served as an instructor in the Continuing Education Department at Bergen Community College, teaching courses on Sustainability and Alternative Energy and (energy) Economics.

IN THE MATTER OF THE PETITION OF PUBLIC SERVICE ELECTRIC AND GAS COMPANY FOR APPROVAL OF ITS CLEAN ENERGY FUTURE-ELECTRIC VEHICLE AND ENERGY STORAGE ("CEF-EVES") PROGRAM ON A REGULATED BASIS
Docket No. EO18101111

PSE&G DISCOVERY REQUESTS TO MARKET PARTICIPANTS

Date of Response: October 2, 2020

Witness: Donnelly, Brendan

PS-MP-BD-13

Please list all states and service terrories in which Supplier Consolidated Billing (SCB) is offered as a billing option, and please indicate in which of the the Market Participants presently issue consolidated bills. For each of these states and service territories, related to the SCB option:

a. Please provide documents or links to documents that include the relevant business rules for SCB, including the rules that specify requirements for bill presentment and compliance with applicable regulatory requirements.

b. Please indicate if the utility is required to disconnect customers for non-payment for charges that are included on a SCB, and indicate if this includes utility charges, supplier charges, or both.

c. Please indicate if the SCBs include all charges that the utilities bills its customers, or if there are any charges that suppliers were not required to include in their bills.

d. Please indicate if the utilities are required to calculate all of their own charges, or if the supplier calculates the utility's charges.

e. If a SCB is available in a combination electric and gas utility's service territory, and a supplier only sells one of the commodities to the customer, please indicate if the supplier that issues the consolidated bill is required to include all of the utilities charges on its bill, including the charges related to the commodity that the supplier does not provide to the customer.

f. If a SCB is available in a combination electric and gas utility's service territory, and a supplier includes its charges for one of the two commodities on a utility consolidated

bill, and another supplier enrolls the same customer for the other commodity but does so electing a SCB option, does the customer then receive two bills?

g. Please indicate if the supplier is responsible for all inquiries regarding billing, or if the utility still receives customer inquiries concerning its charges. Please also indicate how customers are informed as to which entity to call for charges on the SCB.

h. Please indicate how disputed utility charges are treated in regards to payment to the utility.

i. Please indicate if suppliers are required to post collateral to the utility in order to be eligible to offer SCB, and if so please provide the related credit requirements and rules.

j. Please indicate if suppliers are required to satisfy all bill presentment requirements that are required of utilities, including bill messages and inserts.

k. Please indicate how customers on Equal Payment Plans are treated, as well as customers with deferred payment plans.

l. Please provide an example copy of an SBC from each state or service territory.

Response:

a. Alberta: https://www.qp.alberta.ca/documents/Regs/2003_159.pdf
Texas: http://www.ercot.com/mktrules/guides/retail/current and Subchapter R of the PUCT's Substantive Rules at http://www.puc.texas.gov/agency/rulesnlaws/subrules/electric/Electric.aspx (e.g., PUC Subst. R. 25.479, 25.480, and 25.481)
Georgia: http://rules.sos.state.ga.us/GAC/515-7-6
Maryland: in development

b. Yes. In all three markets where SCB has been implemented, suppliers can direct the regulated utility to disconnect for nonpayment. In each market, suppliers purchase the receivables of the regulated utility, i.e., the utilities bill suppliers for the transmission and distribution charges associated with the customers' usage, and suppliers are responsible for paying the utilities' charges in full even if the customer does not remit payment to the supplier to cover those charges. Non-payment of electric service charges (both supply and delivery charges) are eligible for disconnection, per the disconnection rules of each jurisdiction. The utilities in these jurisdictions execute disconnections (and reconnections) as directed by suppliers.

c. All regulated utility charges are passed to suppliers for inclusion on supplier bills in these markets. In Texas, with the exception of non-bypassable utility

charges, a supplier could choose to not pass through certain utility charges to end-use customers. With that said, if a supplier passes through utility charges to end use customers, it must do so without mark-up.

d. Texas and Alberta are bill-ready, while Georgia is rate-ready. In Texas and Alberta, the utility passes through its delivery charges to the supplier for each point of delivery and the supplier combines those charges with its applicable charges (e.g., energy supply charges) and bills the customer accordingly. In Georgia, the utility passes the rate code and usage, and the supplier calculates the utility's charges, combines those charges with its applicable energy supply charges, and bills the customer accordingly.

e. Alberta is the only market where SCB is currently available for both electricity and natural gas services. Suppliers serving customers with only one commodity bill only for the commodity service provided. Maryland is in the process of developing business rules and regulations to implement SCB.

f. Alberta is the only market where SCB is available for both electricity and natural gas services. Subject to this clarification, yes, this is a possible outcome. Customers choose their suppliers and their billing options.

g. As the billing entity in each of these markets, the third party supplier has primary responsibility for answering billing questions. Suppliers routinely work with the utilities to answer questions, however they also have the ability to refer customers directly to the utilities. In Texas, suppliers do not generally refer customers to the utility unless there is a possible issue with the utility's equipment (e.g., customer believes their usage is being reported incorrectly, so the supplier assists the customer in getting in touch with the utility for a meter test).

h. Disputed utility charges: In Alberta, Georgia and Texas, the supplier has primary responsibility for addressing the customer's disputes regarding their bill. Suppliers are provided enough information from the utility to answer many, if not most questions. As noted above, in Georgia, suppliers calculate the utility charges and can answer questions about them. Customers in each market have the ability to escalate disputes to the respective regulatory agencies.

For example, the PUCT's rules provide for a process by which the supplier must address such disputes, as well as an escalation path for the customer to raise the issue with the PUCT if they are dissatisfied with the supplier's resolution. Please refer to PUCT Subst. R. 25.480 (Bill Payment and Adjustments), 25.481 (Unauthorized Charges), and 25.485 (Customer Access and Complaint Handling) for additional details: https://www.puc.texas.gov/agency/rulesnlaws/subrules/electric/Electric.aspx. In all markets, the supplier remains responsible for paying the utility's delivery charges even if the customer does not remit payment to the supplier to cover those charges.

Similarly in Alberta, the retailer is responsible for addressing disputes with customers regarding billing. If the customer and the utility retail service provider are unable to resolve the concern, or if the customer is dissatisfied with the resolution, they may contact the Utilities Consumer Advocate (UCA). The UCA has a mandate to educate and mediate for Alberta's residential, farm, and small business electricity, natural gas and water consumers, and to advocate for energy consumers. They can mediate disputes between customers and utility companies, including competitive retailers. The Alberta Utilities Commission also has jurisdiction and power of investigation over complaints regarding utilities and rates, through the Electric Utilities Act, the Gas Utilities Act, and the Public Utilities Act. However, this jurisdiction is limited to specific areas (mainly regulated utility rates, terms, and conditions). See Powers of Commission section 133 of the Electric Utilities Act.

i. Posting collateral with the utility: In Texas, suppliers are not required to post collateral with the utility. The Commissions' rules require a supplier to maintain certain financial standards (e.g., investment grade, letters of credit) to be able to provide service. In addition, the Electric Reliability Council of Texas (ERCOT) requires suppliers to post certain collateral in proportion to their total exposure.

In Alberta, suppliers are required to post security with the utility as outlined in the terms and conditions – see: (https://www.atco.com/content/dam/web/for-home/electricity/egbu-retailer-tandcs.pdf).

In addition, as outlined by ISO Rules, Section 103.3 Financial Security Requirements, market participants are subject to a financial review by the

Alberta Electric System Operator (AESO) which will determine if credit is required. (https://www.aeso.ca/assets/downloads/AESO-Credit-Procedure-Guide-2013.pdf).

In Georgia, suppliers post collateral with the utility according to the deposit requirements of the utility's tariff. See AGLC Tariff Section 3.21 Deposit of Security by Poolers 3.21.1. (https://atlantagaslight.com/-/media/Files/AGL/AGLC%20Tariff%20v0301017-1.pdf)

j. In Georgia and the competitive areas of Texas, utilities do not issue bills to end use customers. Accordingly, there are no "bill presentment requirements that are required of utilities" to which to compare a supplier bill to an end use customer. Suppliers are required to provide all bill messages/consumer communications as required by the regulatory agency in each jurisdiction. Those requirements are primarily related to emergencies and safety. For example, suppliers are required to include on their bills the regulated utility contact number for emergencies and outages, and in Georgia, suppliers must include a bill insert on safety each quarter, which is provided by the regulated utility to the supplier. Similarly, suppliers are not required to include any bill messaging/inserts for marketing or other purposes for the regulated utilities.

In Alberta, only a retailer may bill a customer unless (a) the retailer with the owner's consent authorizes the owner of an electric distribution system to charge customers directly under the owner's distribution tariff, or (b) the regulations made by Minister provide otherwise. Retailers are required to provide all bill messages/consumer communications as required by the AUC. (Outline in the Electricity Utilities Act, Regulate Rate Option Regulation (RRO); Default Gas Supply Regulation and Natural Gas Billing Regulation).

k. Suppliers are free to offer equal payment plans and deferred payment plans or alternative payment plans at their discretion and the Market Participants offer such plans in Alberta, Georgia and Texas.

In Texas, the PUCT has rules that govern the offering and structure of deferred payment plans. Those rules can be found at: https://www.puc.texas.gov/agency/rulesnlaws/subrules/electric/25.480/25.480.pdf ;

https://www.puc.texas.gov/agency/rulesnlaws/subrules/electric/25.498/25.498.pdf.

"Equal Payment Plans" are not a term use in the PUCT's rules for competitive retail electric service. However, average or level payment plans may be similar in concept and are required to be offered by a REP. Please refer to PUCT Subst. R 25.480(h) (linked above) for more information regarding such plans.

In Alberta, retailers are free to offer equal payment plans and deferred payment plans at their discretion. Many retailers offer budget payment or equalized payment plans. For Regulated rate providers and default supply customers the rules that govern payment plans are outlined in Regulate Rate Option Regulation (RRO) and Natural Gas Utility Service Rules (https://www.auc.ab.ca/Shared%20Documents/AltaGas-Natural-Gas-Utility-Service-Rules.pdf#search=payment%20plan).

l. See attached bill samples for Texas, Georgia and Alberta.

IN THE MATTER OF 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

PSE&G DISCOVERY REQUESTS TO MARKET PARTICIPANTS

Date of Response: 9/21/2020
Witness: Gibbons, Leah

PS-MP-21 Please list all states and service territories in which Supplier Consolidated Billing (SCB) is offered as a billing option, and please indicate in which of the the Market Participants presently issue consolidated bills. For each of these states and service territories, related to the SCB option:

a. Please provide documents or links to documents that include the relevant business rules for SCB, including the rules that specify requirements for bill presentment and compliance with applicable regulatory requirements.

b. Please indicate if the utility is required to disconnect customers for non-payment for charges that are included on a SCB, and indicate if this includes utility charges, supplier charges, or both.

c. Please indicate if the SCBs include all charges that the utilities bills its customers, or if there are any charges that suppliers were not required to include in their bills.

d. Please indicate if the utilities are required to calculate all of their own charges, or if the supplier calculates the utility's charges.

e. If a SCB is available in a combination electric and gas utility's service territory, and a supplier only sells one of the commodities to the customer, please indicate if the supplier that issues the consolidated bill is required to include all of the utilities charges on its bill, including the charges related to the commodity that the supplier does not provide to the customer.

f. If a SCB is available in a combination electric and gas utility's service territory, and a supplier includes its charges for one of the two commodities on a utility consolidated bill, and another supplier enrolls the same customer for the other commodity but does so electing a SCB option, does the customer then receive two bills?

g. Please indicate if the supplier is responsible for all inquiries regarding billing, or if the utility still receives customer inquiries concerning its charges. Please also indicate how customers are informed as to which entity to call for charges on the SCB.

h. Please indicate how disputed utility charges are treated in regards to payment to the utility.

i. Please indicate if suppliers are required to post collateral to the utility in order to be eligible to offer SCB, and if so please provide the related credit requirements and rules.

j. Please indicate if suppliers are required to satisfy all bill presentment requirements that are required of utilities, including bill messages and inserts.

k. Please indicate how customers on Equal Payment Plans are treated, as well as customers with deferred payment plans.

l. Please provide an example copy of an SBC from each state or service territory.

Response: SCB is the billing option in several competitive markets – including Alberta, Canada, Georgia, Illinois and Texas – and the Market Participants provide SCB in one or more of these markets, issuing more than 3 million bills per month. In addition, Ohio initiated a pilot program for SCB and Maryland is in the process of developing regulations, business processes and EDI/XML transactions to implement SCB as a billing option for both electricity service and natural gas service.

a. Alberta: https://www.qp.alberta.ca/documents/Regs/2003_159.pdf
Texas: http://www.ercot.com/mktrules/guides/retail/current and Subchapter R of the PUCT's Substantive Rules at http://www.puc.texas.gov/agency/rulesnlaws/subrules/electric/Electric.aspx (e.g., PUC Subst. R. 25.479, 25.480, and 25.481)
Georgia: http://rules.sos.state.ga.us/GAC/515-7-6
Maryland: in development

b. Yes. In all three markets where SCB has been implemented, suppliers can direct the regulated utility to disconnect for nonpayment. In each market, suppliers purchase the receivables of the regulated utility, i.e., the utilities bill suppliers for the transmission and distribution charges associated with the customers' usage, and suppliers are responsible for paying the utilities' charges in full even if the customer does not remit payment to the supplier to cover those charges. Non-payment of electric service charges (both

New Jersey Board of Public Utilities

Notice of Working Group Meeting
on
Purchase of Receivables and Price to Compare
February 8, 2011

Board Staff is creating a Working Group to address the following Energy Competition issues: 1. Purchase of Receivables (wherein the party providing consolidated billing assumes or purchases the account receivables of the non-billing party); and 2. Price to Compare (the utility price that shopping customers can use to evaluate offers from competitive suppliers).

Specifically, Staff seeks input on the following issues. Board Staff will modify this list as it deems appropriate as the working group progresses.

A. Purchase of Receivables:

Drop to dual billing: when this is done, how and when information on delinquent accounts is reported to TPSs, differences between gas and electric industry operations, etc...

B. Price to Compare:

1. Calculation and components of each distribution company's Price to Compare for each customer class;
2. Presentation of the current Price to Compare on customer bills;
3. Presentation of the Price to Compare data (current, historical and pending requests for changes) on distribution company websites.
4. Possible future amendments to the Board's Energy Competition Rules at N.J.A.C. 14:4-7.4 (a)4 and (b)2. These sections require that marketing materials targeting residential customers must include certain information. If the Price to Compare data on distribution company websites is expanded, should we consider modifying these requirements so that the marketing materials could include a link to these websites rather than the actual information?

The first meeting will be held as follows:

Date / Time: February 8, 2011 at 10:00am
Location: Board of Public Utilities – Newark Office, Board Hearing Room
Address: Two Gateway Center, Newark, NJ 07102
Call-In#: (866) 255-8320, Participant Code: 898759

If you wish to participate in this Working Group, please attend this meeting. If you are unable to attend in person, you may also call in to the meeting using the above phone number.

If you would like to participate in this Working Group but are unable to attend the first meeting in person or by phone, you may send an e-mail to energy.comments@bpu.state.nj.us stating that you would like to be a participant. Please include your name, title, company name, phone

number, and e-mail address and put “POR/PTC Working Group” in the subject. You will receive an e-mail back within 3 business days stating that your request has been received.

RESA[1] STRAW MAN PROPOSAL FOR POR IN NEW JERSEY

I. What is a Purchase of Receivables ("POR") program?

A Purchase of Receivables ("POR") program is a regulatory program coupled with utility consolidated billing, under which the local utility reimburses non-utility suppliers of energy commodity for their customer charges and assumes responsibility for the collection of the charges for commodity service from the non-utility supplier's customers. In the event that a customer of a competitive supplier does not pay charges owed for commodity service provided by the customer's supplier, the local utility has the same recourse it has where the utility is the provider of BGS commodity service to the customer, i.e., late fees and disconnection of service.

II. Why is POR an important feature of the New Jersey competitive retail market?

POR is an important tool to facilitate retail competition, particularly for those suppliers who choose to serve mass-market customers. In New Jersey, retail suppliers are at a competitive disadvantage compared to BGS service, in terms of uncollectible costs. Under New Jersey's current rules, only utilities can terminate electricity service to a customer that fails to pay its electricity supply charges. Because service termination is an effective collection tool, BGS service provided by the utilities has a competitive advantage over retail supply.

POR also helps mitigate the anticompetitive effects of improperly allocated uncollectible account expenses. Currently BGS supply prices do not reflect BGS-related uncollectible costs; however the electric distribution company is currently provided the unique opportunity to recover all uncollectible account expenses associated with the provision of BGS service in its non-bypassable distribution rates that all customers are required to pay. This cross-subsidization creates an unfair competitive advantage for BGS service because retail supplier offers must reflect this cost. Absent a properly structured POR mechanism to mitigate uncollectible account expenses for retail suppliers, these suppliers must account for the risk of uncollectibles in their offers. Therefore, a customer who shops is forced to pay for uncollectible account expenses twice—once to the utility through non-bypassable distribution rates for BGS-

[1] RESA's members include: Champion Energy Services, LLC; ConEdison *Solutions*; Constellation NewEnergy, Inc.; Direct Energy Services, LLC; Energy Plus Holdings, LLC; Exelon Energy Company; GDF SUEZ Energy Resources NA, Inc.; Green Mountain Energy Company; Hess Corporation; Integrys Energy Services, Inc.; Just Energy; Liberty Power; MXenergy; NextEra Energy Services; Noble Americas Energy Solutions LLC; PPL EnergyPlus; Reliant Energy Northeast LLC and TriEagle Energy, L.P.. The comments expressed in this filing represent the position of RESA as an organization but may not represent the views of any particular member of RESA.

related uncollectible costs, and again to its retail supplier as part of their competitive supply price.

III. Problems with the existing structure

The existing POR programs in New Jersey are not effective at creating a true, level playing field between retail suppliers and BGS service. This is because the current programs only require the utilities to purchase retail supplier receivables up until the point where a customer reaches 60 days in arrears for electricity commodity service, and 120 days in arrears for natural gas commodity service. After this point, the account is reverted to dual billing and the retail supplier assumes all risk of non-payment while the utility continues to collect uncollectible costs. As discussed above, since only the utility can terminate electricity service to a customer that fails to pay its electricity supply charges, the retail supplier is at a competitive disadvantage in terms of uncollectible costs. This fact is a primary deterrent in preventing retail suppliers who wish to use a POR program from participating in the current POR program in New Jersey.

Also, the current "60-day revert to dual billing" rule is not being properly implemented by some utilities. In some cases customers are being reverted to dual billing for retroactive periods which presents additional financial harm for suppliers.

IV. Proposals for POR improvements

- POR should be without recourse. The current "revert to dual billing" rule should be eliminated. The utility should purchase the accounts receivables for customers served under the utility consolidated billing option. The utility should pay the retail supplier regardless of whether the utility receives payment from the customer.
- For those suppliers who choose to use POR once the utility purchases the supplier's receivables, the utility should be free to pursue current collection practices for the purchased supplier charges, including service disconnection for non-payment. This ensures that overall uncollectible accounts expense is minimized for the benefit of POR customers by lowering the amount reflected in distribution rates.
- POR should be available to all customer segments, including residential, commercial and industrial customers.

- RESA supports the full and complete unbundling of generation related uncollectible account expense and other billing and customer care costs from distribution rates. Where unbundling has occurred, it is appropriate for the utility to charge suppliers using POR a discount rate to recover experienced, prudently incurred incremental uncollectible costs resulting from the POR program. RESA urges the Board to continue to take measures toward achieving this desired end-state, and emphasizes that other solutions discussed herein related to mitigating the unfair advantage currently placed on suppliers should be considered as this transition steps towards full unbundling.

- Until such unbundling occurs, however, suppliers utilizing POR should not be charged a discount rate. Without full unbundling, imposing a discount rate on suppliers using POR would force customers to pay for uncollectible costs twice: once to the utility through their non-bypassable distribution rates, and again to the supplier who would factor into its prices an amount to reflect the cost of the discount rate. It should be noted however, that a POR program cannot alleviate the unfair competitive advantage for customers not utilizing POR (i.e. those served through dual billing). Only full unbundling can rectify this competitive disparity.

- Any actual, incremental implementation costs to develop POR should be recovered only from those suppliers utilizing utility consolidated billing.

7001 SW 24 Avenue
Gainesville, FL 32607

RE: New Jersey Purchase of Receivables Proposal

To Whom It May Concern:

These comments are submitted by Infinite Energy, Inc., known as Intelligent Energy in the Northeast ("Infinite"), in reference to RESA's "Straw man Proposal for POR in New Jersey" distributed by email to the working group participants on February 9th.

Infinite serves many thousands of residential and small commercial customers in several retail markets, including New Jersey, New York, Texas, and Georgia. In Infinite's experience, a Purchase of Receivables (POR) program implemented in conjunction with Utility Consolidated Billing (UCB) is one of many possible steps towards the goal of unbundling and competitive restructuring. As RESA points out in their Straw man Proposal, under such a design customers are provided a greater array of choice while ensuring a level playing field for retail suppliers who choose to participate.

However, Infinite proposes that to be truly successful, any POR program should be fully reciprocal. In other words, customers should also be able to choose Supplier Consolidated Billing (SCB) under a POR or "Assumption of Receivables" arrangement wherein suppliers acquire the distribution company's receivables and bill for both commodity and delivery on a single Supplier bill. If properly designed and deployed in conjunction with a UCB/POR option, Supplier Consolidated Billing is an appropriate step towards full unbundling, market transparency, and full customer choice.

Such reciprocity allows for competitive billing – a hallmark of customer-friendly retail energy markets and a valuable option for customers who prefer single-bill models. Like many suppliers, Infinite has invested significant expense and experience in developing proprietary billing systems which our customers should be empowered to choose for their commodity and delivery charges.

Infinite appreciates the opportunity to participate in this conversation towards our shared goal of serving the interests of New Jersey's retail energy customers.

Respectfully Submitted,

Infinite Energy, Inc., d/b/a Intelligent Energy

Richard F. Paez
Regulatory Affairs

Dated March 16th, 2011
Gainesville, Florida

COMMENTS OF RELIANT ENERGY NORTHEAST LLC

Reliant Energy Northeast LLC. (REN), is a wholly owned subsidiary of NRG Energy, Inc., one of the nation's largest, most diverse power companies with over 24,000 MW of generation and subsidiaries that provide retail electricity in various states with competitive retail electricity markets. REN is currently licensed to sell retail electricity in New Jersey, Pennsylvania, Washington DC, Maryland, Delaware and Illinois. REN appreciates the opportunity to provide the New Jersey Board of Public Utility (NJ BPU) comments in the Price to Compare (PTC) and Purchase of Receivables (POR) working group forum

REN fundamentally supports POR and endorses the comments of RESA addressing that subject. In these comments REN addresses an important feature of competitive markets, retailer direct access to end-use customers through the billing process that should be considered by the BPU to maximize end-use customer benefits.

REN acknowledges the many steps taken by NJ BPU to foster the growth of a competitive retail electricity market in the State. New Jersey is in the enviable position of being able to research models that have been instituted around the country and evaluate, consider and adopt the approaches that have worked best. In so doing New Jersey can continue to develop retail competition and maximize benefits for consumers that a robust competitive market offers.

The Texas retail electricity competitive market, started in 2002, is a model worth observing as it is considered by many to be thriving and perhaps the most successful competitive market in the country. For example, currently Texas has approximately 113 number of certificated competitive retail providers selling to both C&I and residential customers.

To maximize the benefits of a competitive market, companies must be permitted access to the customers making decisions about the products and services they are purchasing. Customers choose products and services for any number of reasons; price, flexibility, brand name, expected service quality, to name a few. If the provider of the product and service does not have frequent access to the customer to differentiate what they are offering vs. a competitor's products, the customer will not have complete information on which to base a decision.

In Texas, retail electric providers maintain the ongoing relationship with the end-use customers. Retail electric providers market their products and services, field customer inquiries about their electricity usage and send customers their bills. The regulated transmission provider sends the retail electric provider the bill for transmission service, which must be paid by the retailer within the Commission approved time period, regardless whether the end use customer pays the retail electric provider. With this design the utility bad debt risk and operational costs are significantly reduced because the utility is agnostic as to whether the end use customer has paid. Additionally, absent the requirement to handle a majority of billing and general customer service inquiries the

overhead to support these operations is significantly reduced, resulting in lower overall utility costs that ratepayers must bear. The utility's overhead related to call center agents would be reduced and costs related to ever changing requirements to support billing requirements would be eliminated. Another significant cost savings would be the utility's reduced bad debt as retailers would be paying the utility's bills upon receipt, irrespective whether the end use customer pays the retailer. While this model increases bad debt exposure to the retailer, it is a necessary by product of true competition. This risk should lie with the entities that are competing with each other, not the regulated entity that is providing a tariffed service.

REN believes it is imperative to allow retailers, the entities best suited to provide end use customers with unique products and services tailored to meet individual needs, to have an on-going relationship with its customers. Absent frequent communication with the retailer via customer service, billing, etc. customers will only see competition as artificially limited by unnecessary restrictions. They will have less information upon which to base their purchasing decisions and the market is less likely to flourish as retailers won't have incentives to innovate in order to differentiate their products.

In Texas, retailers have the primary relationship with customers because the retailer, not the transmission provider, maintains the monthly touch point via the electricity bill to the end user. This arrangement allows retailers the opportunity to understand the unique needs of customers and tailor their services to meet those needs, or fear losing the customer to another competitive entity.

Direct access to the customer through the electricity bill is part and parcel of an overall model that has worked quite well in Texas. While a significant feature of that model helping to ensure customer benefits, direct billing from retailer to end-use customer requires concomitant features to work properly. With direct billing from retailers to end-use customers, retailers would be paying utilities for their transmission and distribution charges before being paid by the end-use customer. Therefore, retailers would assume the bad debt risk that utilities would otherwise have. This additional risk can only be assumed because competitive retailers do not have an obligation to serve nonpaying customers.

While there are many aspects of the Texas market that work together to create the vibrant retail market that exists in that state, REN appreciates the opportunity to provide insight as to how a key feature of that overall design is used to enable retailers to advance customized products and services to customers to ensure that the customer receives the full benefits of a competitive retail market.

REN appreciates the opportunity to provide the above comments and would be pleased to provide additional information about the Texas market or retail competition in general to help the BPU in any manner it believes appropriate as this Forum continues.

New Jersey Board of Public Utilities

Notice of Opportunity to Comment
on
Board Staff's Utility Consolidated Billing / Purchase of Receivables Proposal

In 2011, Board Staff created the Purchase of Receivables ("POR") / Price to Compare ("PTC") working group to address the following Energy Competition issues: 1. Purchase of Receivables (where the party providing consolidated billing (the distribution utility) assumes or purchases the account receivables of the non-billing party), and 2. Price to Compare (the utility price that shopping customers can use to evaluate offers from competitive suppliers).

Based upon the information that Board Staff has received from the participants in this working group and from the collaborative discussions, Board Staff intends to recommend modifications to the current utility POR mechanisms for consideration by the Board. Staff is requesting input from the working group participants and other interested stakeholders on Board Staff's Utility Consolidated Billing / Purchase of Receivables Proposal.

Board Staff's Utility Consolidated Billing / Purchase of Receivables Proposal is posted on the BPU website at http://www.state.nj.us/bpu/about/divisions/energy/porproposal.html. Comments and reply comments will be posted on this page after they are submitted.

Schedule:

Stakeholders submit comments:	March 11, 2013
Stakeholders submit replies to comments:	March 18, 2013
Optional stakeholder meeting (if needed):	Week of March 18, 2013
Target Agenda:	April 29, 2013

Comment Submission:

Please address comments to Kristi Izzo, Secretary. Please submit comments in electronic and hard copy format as follows:

- The electronic copy shall be submitted in Microsoft WORD format, or in a format that can be easily converted to WORD, by e-mailing it to the following e-mail address: energy.comments@bpu.state.nj.us. Please put the following in the subject field of the e-mail: "UCB/POR Proposal Comments" followed by your company or association name.
- The paper copy shall be delivered to:

  New Jersey Board of Public Utilities
  Kristi Izzo, Secretary
  44 South Clinton Avenue, 9th Floor
  P.O. Box 350
  Trenton, NJ 08625-0350

If you would like to be added to the POR/PTC working group service list, please send an e-mail to energy.comments@bpu.state.nj.us stating that you would like to be a participant. Please include your name, title, company name, phone number, and e-mail address and put "POR/PTC Working Group – New Participant" in the subject.