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File No.: 300135-70

September 4, 2020

VIA ELECTRONIC MAIL

Aida Camacho-Welch, Secretary
Board of Public Utilities
44 South Clinton Avenue
Trenton, New Jersey 08625

Re: **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

Dear Secretary Camacho-Welch:

Enclosed on behalf of Direct Energy Business, LLC, *et al.*, NRG Energy, Inc., and Just Energy Group Inc. (collectively, the "Market Participants") is the following Direct Testimony in this proceeding:

- Direct Testimony of Brendan Donnelly, with attached Exhibits, as to PSE&G's Proposed Electric Vehicle Subprograms; and
- Direct Testimony of Peter Cavan as to PSE&G's Proposed Energy Storage Subprograms.

Thank you.

Respectfully Submitted,

Christopher E. Torkelson

Christopher E. Torkelson

CET:
Encl.

cc: All Parties on Service List (via e-mail, w/ encl.)

BEFORE THE
NEW JERSEY BOARD OF PUBLIC UTILITIES

DIRECT TESTIMONY OF

PETER CAVAN

ON BEHALF OF
THE MARKET PARTICIPANTS

Docket No. EO18101111

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

Topic Covered:
Energy Storage Program

September 4, 2020

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.

A. My name is Peter Cavan. I am the Distributed Energy Policy lead for North America for Centrica Business Solutions NA. My business address is 11400 SE 8th St – Suite 360, Bellevue, WA 98004.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND.

A. I received my Masters in Management from the University of British Columbia, Canada in 2011.

Q. PLEASE PROVIDE A SUMMARY OF YOUR RELEVANT EXPERIENCE.

A. I have been working for Centrica Business Solutions, an affiliate of Direct Energy, since June 2017, in my current role responsible for Distributed Energy Policy. Prior to joining Centrica I was a Regulatory Strategy Manager at EnerNOC Inc, a leading demand response and distributed energy provider, and External Affairs lead (including regulatory affairs) at Pulse Energy, an energy efficiency software startup.

Q. WHAT ARE YOUR VARIOUS JOB RESPONSIBILITIES WITH CENTRICA PLC?

A. I look after regulation and policy for Centrica Business Solutions across North America. The bulk of my work involves policy issues at the federal, regional and state level affecting solar, storage, and demand response solutions for commercial and industrial customers. Specific to distributed storage those issues include Order 841 implementation in wholesale markets, the future treatment of distributed energy resource aggregations, and state support programs for energy storage, including demand response programs and direct incentives.

Q. HAVE YOU EVER PROVIDED TESTIMONY BEFORE THE NEW JERSEY BOARD OF PUBLIC UTILITIES ("BOARD" OR "BPU")?

A. I have not.

Q. ON WHOSE BEHALF ARE YOU PRESENTING TESTIMONY IN THIS PROCEEDING?

A. I am offering this Direct Testimony on behalf of Direct Energy Business, LLC, Direct Energy Business Marketing, LLC, Direct Energy Services, LLC, and Gateway Energy Services Corporation (collectively, "Direct Energy"), NRG Energy, Inc. ("NRG"), Just Energy Group Inc. ("Just Energy") and Centrica Business Solutions (collectively, the "Market Participants").

Q. PLEASE BRIEFLY DESCRIBE THE MARKET PARTICIPANTS.

A. Direct Energy, NRG and Just Energy, on their own or through affiliates and subsidiaries, operate as licensed third party suppliers, actively serving residential, commercial, industrial and institutional customers throughout New Jersey. As third party suppliers, Direct Energy, NRG and Just Energy sell electricity to retail customers in the service territory of Public Service Electric & Gas Company ("PSE&G"). These retail companies offer customers a range of electricity products, including 100% renewable, fixed price, and variable commodity offerings, some which come with value added incidentals like smart thermostats, travel rewards, etc. Collectively and beyond their role as third party suppliers, Direct Energy, NRG and Just Energy, or their affiliate companies, also provide other services to consumers, such as demand response programs, energy efficiency, solar PV, electric vehicle charging solutions, distributed energy investments, HVAC solutions, home energy audits, customer data analytics, home energy management services, smart thermostats and home water filtration. Centrica Business Solutions, an affiliate of Direct Energy, integrates localized energy solutions for businesses that leverage its energy insights, onsite generation and demand management responsibilities. The energy

solutions integrated by Centrica Business Solutions include solar, combined heat and power, energy efficiency, energy insight, demand response, power generation and energy storage. Offering innovative distributed energy solutions, Centrica Business Solutions enables organizations to improve operational efficiency, increase resilience and drive their business vision forward.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to address Public Service Electric & Gas Company's ("PSE&G's") Petition for Approval of its Clean Energy Future-Electric Vehicle and Energy Storage ("CEF-EVES") Program on a Regulated Basis ("CEF-EVES Petition"). In addressing PSE&G's CEF-EVES Petition, I will discuss the Direct Testimony of Jorge Cardenas. (Petition, Attachment 2). In my testimony, I describe the positions of the Market Participants on issues raised by the CEF-EVES Petition regarding PSE&G's proposal to advance five energy storage ("ES") subprograms in New Jersey.

The Market Participants strongly support the general policy objectives in the Petition to defer distribution system upgrades, ensure resilience of critical facilities, and peak reduction for public sector facilities in New Jersey. However, the Market Participants challenge PSE&G's proposal that the energy storage solutions be utility owned and operated. The ES products and services that PSE&G proposes to offer, such as microgrids and behind the meter battery storage, are currently available in the competitive market. PSE&G's request to offer energy storage solutions on a regulated basis is not in the best interest of ratepayers and should be denied.

Q. WHAT ARE THE MARKET PARTICIPANTS' PRIMARY CONCERNS WITH PSE&G'S PROPOSED ES SUBPROGRAMS?

A. The Market Participants are concerned about PSE&G controlling assets outside its core functions as a regulated utility. Deployment of microgrids, and other energy storage solutions, is not a natural monopoly function. PSE&G's proposal would allow it to offer ES solutions that are already available in the competitive market. If PSE&G's proposal is approved, it would provide PSE&G an unfair advantage through use of ratepayer funds to undercut participants in the competitive market, and lower the likelihood of innovative approaches being provided in New Jersey.

Q. BASED UPON YOUR REVIEW OF PSE&G'S PETITION AND MR. CARDENAS' TESTIMONY, DO YOU HAVE RECOMMENDATIONS?

A. Yes. First, I suggest that PSE&G amend its Petition to include additional competitive processes, consistent with the intent of the New Jersey Clean Energy Act.[1]

Second, I recommend that if PSE&G's Petition moves forward, that the Board direct that PSE&G establish a competitive process for distribution deferral battery projects. Establishing a competitive process whereby third parties may bid for distribution deferral projects would allow competitors in the market to propose innovative solutions.

Third, I describe why private ownership is a better model for ES development than utility ownership. I recommend that PSE&G remain focused on its core functions and limit its involvement in the competitive market. A competitive market already exists for energy storage solutions such as microgrids. Companies such as Centrica Business Solutions have deployed such solutions across North America and across the world.

[1] N.J. Stat. Ann. § 48:3-87.8.

Similarly, there is a rapidly growing market in New Jersey for the behind the meter battery storage, including at public sector facilities. Consequently, I recommend that PSE&G not be permitted to use ratepayer funds to gain an unfair advantage over other entities offering innovative ES products and services. To the extent that the Board desires to incent investment in microgrids and other energy storage solutions, it should do so through competitively neutral incentives, rather than favoring one market participant (the utility) over all others.

II. PSE&G's PROPOSED CEF-ES PROGRAM

Q. PLEASE DESCRIBE PSE&G'S PROPOSED CEF-ES PROGRAM.

A. PSE&G proposes to install 35 MW of energy storage capacity, with an investment of $109 million over a six-year period, and incur approximately $70 million in expenses through the balance of the 15 year life of the systems installed in the Clean Energy Future – Energy Storage Program ("CEF-ES Program"). (Petition, Attachment 2 at 2). PSE&G's CEF-ES Program proposes the following five subprograms:[2]

CEF-ES Subprogram	***Description***
Solar Smoothing	ESS used to smooth short-term changes in voltage due to intermittent generation
Distribution Deferral	ESSs that resolve forecasted overloads on the system
Outage Management	Deploy fleet of mobile ESSs for contingency resources during substation construction
Microgrids for Critical Facilities	Provide capital to support the development of microgrids
Peak Reduction for Public Sector Facilities	ESSs sited at public sector facilities and deployed to reduce peak demand

[2] Petition, Attachment 2 at 5.

By this filing, PSE&G seeks BPU approval of recovery of the revenue requirements associated with all of the CEF-ES costs.

Q. DOES PSE&G PROPOSE TO OWN THE ENERGY STORAGE SOLUTIONS, SUCH AS MICROGRIDS?

A. Yes. PSE&G proposes to ultimately own the ES solutions, such as microgrids, distribution deferral projects and mobile fleet of ES solutions.

Q. HOW DOES PSE&G PROPOSE TO RECOVER THE COSTS OF THE ENERGY STORAGE SOLUTIONS DEPLOYED THROUGH THE FIVE SUBPROGRAMS?

A. PSE&G proposes to fully recover all costs related to the five ES subprograms from distribution customers. PSE&G seeks Board approval of a new Technology Innovation Charge ("TIC") that has two components – a CEF-EV component ("CEF-EVC") and CEF-ES component ("CEF-ESC"). PSE&G proposes that both the CEF-EVC and CEF-ESC "be applicable to all electric rate schedules on an equal cents per kilowatt-hour basis." (Petition at 13). PSE&G also proposes to earn a return on its net investment. (Petition at 3, 9).

Q. WHY DOES PSE&G VIEW ITS PROPOSED RECOVERY OF COSTS FROM ALL CUSTOMERS AS APPROPRIATE?

A. PSE&G's Petition reflects that the purpose of the ES subprograms is to reduce greenhouse gas emissions, create "green jobs", launch the energy storage industry in New Jersey and make the electric grid more reliable, resilient and safe. (Petition at 2).

Q. ARE THOSE ADEQUATE JUSTIFICATIONS FOR PSE&G TO IMPLEMENT THE SUBPROGRAMS?

A. No. While PSE&G's objectives are laudable, utility development and ownership of ES solutions is not a natural extension of the traditional role of utilities. First, the subprograms would distract PSE&G from its core functions as a regulated utility. Second, the subprograms would stunt the competitive market, granting PSE&G an unfair

advantage over competitors. Third, there are many ES solution companies that operate in the competitive market that specialize in microgrids, behind-the-meter battery storage, etc. PSE&G's operation of the distribution system does not mean that it is well-suited to develop new technology and market innovative ES solutions to consumers.

III. DIRECTIVES IN THE NEW JERSEY CLEAN ENERGY ACT

Q. WHAT IS THE NEW JERSEY CLEAN ENERGY ACT?

A. The New Jersey Clean Energy Act ("Clean Energy Act") was adopted on May 23, 2018. The Clean Energy Act established new clean energy and energy efficiency programs and modified New Jersey's renewable energy portfolio standards.

Q. WHAT ENERGY STORAGE DIRECTIVES WERE IN THE CLEAN ENERGY ACT?

A. The Clean Energy Act directed the New Jersey Board of Public Utilities to submit a written report to the governor and the legislature concerning energy storage needs and opportunities in New Jersey on or before May 23, 2019.[3] More specifically, the Clean Energy Act directed that:

> …the Board of Public Utilities, in consultation with PJM Interconnection, L.L.C., the independent system operator, shall, together with stakeholders including but not limited to third party suppliers and electric public utilities, conduct an energy storage analysis and submit a written report to the Governor and, pursuant to section 2 of P.L.1991, c. 164 (C.52:14-19.1), to the Legislature concerning energy storage needs and opportunities in the State. In conducting this analysis, the board shall:
>
> (1) consider how implementation of renewable electric energy storage systems may benefit ratepayers by providing emergency back-up power for essential services, offsetting peak loads, and stabilizing the electric distribution system;
>
> (2) consider whether implementation of renewable electric energy storage systems would promote the use of electric vehicles in the State, and the potential impact on renewable energy production in the State;

[3] N.J. Stat. Ann. § 48:3-87.8.

> (3) study the types of energy storage technologies currently being implemented in the State and elsewhere;
> (4) consider the benefits and costs to ratepayers, local governments, and electric public utilities associated with the development and implementation of additional energy storage technologies;
> (5) determine the optimal amount of energy storage to be added in the State over the next five years in order to provide the maximum benefit to ratepayers;
> (6) determine the optimum points of entry into the electric distribution system for distributed energy resources; and
> (7) calculate the cost to the State's ratepayers of adding the optimal amount of energy storage….

N.J. Stat. Ann. § 48:3-87.8. The Board was also instructed to initiate a proceeding to establish a process for achieving the goal of 600 MW of energy storage by 2021, and 2,000 MW of energy storage by 2030.[4] The proceeding was to be initiated within 6 months of the written report.

Q. WHAT WAS THE BOARD'S RESPONSE TO THOSE DIRECTIVES?

A. The Board contracted with Rutgers University to conduct an analysis of energy storage and to assist with responding to the questions set forth in the Clean Energy Act.[5] Rutgers University held a stakeholder meeting to consult with knowledgeable parties and to enhance its analysis of the questions presented.[6] Rutgers University prepared a New Jersey Energy Storage Analysis Final Report dated May 23, 2019.[7] To my knowledge, the Board did not host a stakeholder process in consultation with PJM Interconnection, L.L.C. ("PJM") or draft the report in conjunction with stakeholders, such as third party

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4 N.J. Stat. Ann. § 48:3-87.8.d.

5 New Jersey Energy Storage Analysis Final Report, Responses to the ESA Elements of the Clean Energy Act of 2018, Rutgers, The State University of New Jersey (dated May 23, 2019), available at https://nj.gov/bpu/pdf/commercial/New%20Jersey%20ESA%20Final%20Report%2005-23-2019.pdf

6 *Id.*

7 *Id.*

suppliers. Also, to my knowledge, the Board did not initiate a proceeding to establish a process and mechanism for achieving the energy storage goals outlined in the Clean Energy Act within 6 months of the publication of the report.[8]

Q. WERE THE DIRECTIVES IN THE CLEAN ENERGY ACT FOLLOWED?

A. No. The Clean Energy Act clearly instructed the Board, in consultation with PJM, to conduct an energy storage analysis and prepare a report together with stakeholders, including third party suppliers. The stakeholder process was flawed because one meeting could not adequately provide time for stakeholder engagement on the plethora of issues surrounding ES, including utility involvement in ES. In addition, one meeting could not have provided the collaboration required for the stakeholders to prepare the report on a collective basis. Contrary to the directive in the Clean Energy Act, Rutgers University prepared the report, which was not crafted in a collaborative fashion.

Moreover, the Board has not yet initiated a proceeding to establish a process and mechanism for achieving energy storage goals, as directed by the Clean Energy Act. Governor Murphy's "Energy Master Plan" released in January 2020 noted that the Board "is preparing to establish a process and mechanisms to achieve the state's energy storage goals."[9]

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8 2019 New Jersey Energy Master Plan Pathway to 2050; available at https://d31hzlhk6di2h5.cloudfront.net/20200127/84/84/03/b2/2293766d081ff4a3cd8e60aa/NJBPU_EMP.pdf

9 *Id.*

Q. BASED ON THE FOREGOING, HOW DO YOU VIEW PSE&G'S PROPOSED ES PROGRAM?

A. I view the energy storage component of PSE&G's Petition as premature. PSE&G's Petition is premature as the Board has not yet held a meaningful stakeholder process[10] or initiated a proceeding to establish a process and mechanism for achieving the energy storage goals outlined in the Clean Energy Act.

Q. HOW SHOULD PSE&G MOVE FORWARD?

A. PSE&G should amend its Petition as it pertains to energy storage to ensure that principles outlined in the Clean Energy Act, such as using competitive processes, are more fully incorporated in to its proposal. If PSE&G is not amenable to amending its Petition to provide for additional competitive processes, the Petition should be withdrawn and reconsidered following the energy storage proceeding specifically directed in the Clean Energy Act. This approach would avoid any conflicting directives or objectives and ensure that the Board sets state-wide standards for energy storage.

The remainder of my testimony addresses the Market Participants' concerns with PSE&G's proposal and how ES projects could best be structured and implemented in New Jersey.

IV. <u>COMPETITIVE PROCESS FOR DISTRIBUTION DEFERRAL BATTERY PROJECTS</u>

Q. WHAT DOES PSE&G PROPOSE IN ITS DISTRIBUTION DEFERRAL SUBPROGRAM?

A. PSE&G proposes to develop and construct ES solutions in order to defer distribution system upgrades. (Petition, Attachment 2 at 10). To defer substantial overloads, PSE&G

[10] In light of the unprecedented challenges presented by the COVID-19 pandemic, the Board should reengage the stakeholder community to see if the assumptions and conclusions in the Rutgers University report are still valid.

proposes to deploy ES systems as supplemental capacity on the 13 kV and 4 kV systems. PSE&G anticipates that the ES systems will "help supplement the operating capacity of the substation transformer (which typically acts as the limiting factor on the system), thereby ensuring that demand can be met during peak periods during the deferral period." (Petition, Attachment 2 at 11).

Q. DOES PSE&G PROPOSE TO OWN THE ES SOLUTIONS IT DEVELOPS AND CONSTRUCTS?

A. PSE&G's distribution deferral subprogram is designed so that PSE&G would own and operate the ES solutions that it develops and constructs.

Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING PSE&G'S PROPOSED DISTRIBUTION DEFERRAL SUBPROGRAM?

Yes. I recommend that the Board direct PSE&G to establish a competitive process for distribution deferral battery projects. Establishing a competitive process whereby third parties may bid for distribution deferral projects (known more generally as "Non-Wire Solution" or NWS projects) would allow competitors in the market to propose innovative solutions. Designing the ideal process is too verbose for this testimony, but I recommend the following four guiding principles for the process:

1. Provide distributed energy resource ("DER") forecasts that ensure that non-wire solutions projects can be sited to take advantage of the distributed energy resources that homes and businesses are already (or will imminently) deploy.

2. Integrate NWS procedures into regular utilities processes so that they are not evaluated as a separate 'bolt-on'.

3. When designing a specific RFP, provide comprehensive, data-rich descriptions of the need being identified, and ensure that the performance attributes sought are performance-based rather than technology-specific (e.g. "reduce load on this substation by 4MW from 4-9pm EST every week day") so that innovative, multi-product approaches can be considered.

4. Provide clear evaluation criteria so that the metrics PSE&G will evaluate proposals on are transparent between bidders, PSE&G and the Board.

With the implementation of these principles, PSE&G should be positioned to smoothly move from identifying a distribution system need to selecting a NWS bidder in approximately six to nine months.

V. PRIVATE OWNERSHIP MODEL

Q. HOW DO UTILITY ES PROJECTS DIFFER FROM PRIVATE THIRD PARTY PROJECTS?

A. If a utility is permitted to recover costs associated with ES solutions that will only serve a subset of customers in its service territory, it can build infrastructure with limited risk to its shareholders, and is not fully incentivized to maximize the additional revenue streams (such as wholesale market participation) that may be available to the project. A utility ES project therefore leads to inefficient costs and risk allocation.[11] PSE&G will seek full cost recovery of its ES projects, plus a rate of return on its net investment. In comparison, a private third party entity must risk its own capital without cost recovery or a return from ratepayers, and is completely incentivized to design and deliver a project that maximized the multiple values it can provide to the customer, utility and wholesale markets. In the private sector, only customers that receive the benefits of ES solutions are at risk for bearing costs associated with ongoing operation and maintenance expenses, cost overruns and performance issues

If PSE&G is guaranteed full cost recovery from ratepayers, it will be more likely than a private third party entity to build ES, even if the project does not make economic

[11] PSE&G's unfamiliarity with operation and maintenance costs of battery storage systems is made in clear in its response to discovery request RC-INF-0001. In response to a request for a breakdown of the Equipment O&M Expense category to identify any ongoing IT expenses, PSE&G stated that it estimated the expense line item "due to PSE&G's unfamiliarity with running battery storage systems of the size proposed…." PSE&G Response to RC-INF-0001.

sense. Spreading the costs of the ES solution on all customers puts all customers at risk for bearing the ongoing operation and maintenance expenses, cost overruns and performance issues.

Q. IF THE BOARD ALLOWS PSE&G TO OWN ENERGY STORAGE SOLUTIONS, WILL IT HAVE AN ANTI-COMPETITIVE EFFECT ON THIRD PARTIES SEEKING TO DEPLOY ENERGY STORAGE SOLUTIONS IN NEW JERSEY?

A. Yes. There is a limited demand for ES solutions. If PSE&G is permitted to meet a portion of that demand with ratepayer subsidized projects, third party entities participating in the competitive ES solution market will suffer. If PSE&G's objective is to develop a robust market for ES solutions, it should design a program whereby it attracts multiple developers that compete to serve customers. A competitive process will produce innovative products in the most efficient and cost-effective manner possible.

Q. ARE THERE OTHER ANTI-COMPETITIVE RESULTS THAT WOULD OCCUR IF PSE&G IS PERMITTED TO RECOVER THE COSTS ASSOCIATED WITH ITS PROPOSED ES SUBPROGRAMS?

A. Yes. Third party entities operating in the ES market are typically required to work with the utility before and during the construction or installation of ES projects to ensure interconnection to the electric grid. The utility typically plays a role in determining the costs for interconnection, which can be substantial. 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. If PSE&G were permitted to serve as a competitor in the ES market and as the gatekeeper for interconnection, it would have an unfair competitive advantage.

Q. PLEASE DESCRIBE THE CURRENT AND NEAR-TERM STATE OF THE COMPETITIVE ENERGY STORAGE MARKET.

A. PSE&G witness Jorge Cardenas acknowledged that:

> The use of ESSs to reduce demand charges at facilities has become one of the fastest growing segments of the storage market. Large users of energy are shifting away from solely purchasing electricity from the grid to procuring a diverse suite of onsite technologies including energy storage, solar PV, energy management systems, and demand response. The rapid growth of distributed solar PV in recent years has helped drive the transformation to a more decentralized grid.

(Petition, Attachment 2 at 19). Jorge Cardenas is correct to note that demand charge management is one of the major driving forces behind energy storage deployment, the US annual market for which is due to grow from 523MW in 2019 to 7,300MW by 2025.[12] In New Jersey, the programs that will be designed to meet the state's legislative storage targets – 600MW by 2021 and 2,000MW by 2030[13] – will encourage further expansion of the competitive provision of energy storage to homes and businesses across New Jersey. These projects are being and will be delivered by national companies with a substantial New Jersey presence, such as the Market Participants, and made-in-New-Jersey startups that are eager to provide their solutions in a competitive market. Thus it is hard to understand why PSE&G's proposed programs are the necessary factor to "jumpstart" a New Jersey energy storage industry, as PSE&G asserts,[14] when utility ownership and operation has not been a major component of the impressive growth in distributed storage elsewhere, such as New York. New York had 706MW of energy storage deployed or

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[12] I obtained this information from Wood Mackenzie's Energy Storage Monitor at the following link: https://www.woodmac.com/research/products/power-and-renewables/us-energy-storage-monitor/

Although this report must be purchased, an executive summary is available at this link for free downloading. The graphs on pages 8 and 9 of the executive summary support this data.

[13] N.J. Stat. Ann. § 48:3-87.8.d.

[14] Petition at 2.

contracted by the end of 2019, which is 47% of its 2025 target of 1,500MW,[15] the vast majority of which will be owned by third-party developers or homes and businesses themselves.

Q. IS PRIVATE OWNERSHIP A BETTER MODEL FOR ES DEVELOPMENT THAN UTILITY OWNERSHIP?

A. Yes. Energy storage and other distributed energy solutions are best delivered by third party entities such as third party suppliers that offer market-based solutions rather than through a regulated utility. The key advantages to a private ownership model include: (1) customization of technology in an innovative way for customers; (2) the elimination of ratepayer risk; (3) preventing cross-subsidization of behind-the-meter investments by various customer classes; and (4) promoting robust competition to reduce costs and advance technological progress.

Q. WHO IS BEST SUITED TO OFFER ES PRODUCTS AND SERVICES IN NEW JERSEY?

A. Participants in the competitive market are best suited to provide the innovative ES solutions to consumers. Competitive market participants utilize their own capital to develop and market products and services. As technology evolves, as do consumer needs and desires. PSE&G's captive ratepayers should not bear the risk of monopoly utility investment in ES solutions.

VI. CONCLUSION

Q. DOES THAT COMPLETE YOUR DIRECT TESTIMONY?

A. Yes.

[15] https://www.transmissionhub.com/wp-content/uploads/2020/04/NYdpsReportApr12020.pdf (Executive Summary, p. ii, of State of Storage Report).

BEFORE THE
NEW JERSEY BOARD OF PUBLIC UTILITIES

DIRECT TESTIMONY OF

BRENDAN DONNELLY

ON BEHALF OF
THE MARKET PARTICIPANTS

Docket No. EO18101111

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

Topic Covered:
Electric Vehicle Program

September 4, 2020

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TABLE OF EXHIBITS

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, TITLE AND BUSINESS ADDRESS.

A. My name is Brendan Donnelly. I am the North American Regional Head of Product Management for Centrica Business Solutions. My business address is 194 Wood Avenue South #200, Iselin, New Jersey 08830.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND.

A. I received my Master's of Business Administration from the University of North Carolina – Kenan Flagler Business School in 2014. I received my Master's of Engineering Management from Steven's Institute of Technology in 2012. And I received my Bachelor's of Chemical Engineering from the University of Delaware in 2003. I am a Professional Engineer, holding active licenses in the States of New Jersey, New York and Pennsylvania.

Q. PLEASE PROVIDE A SUMMARY OF YOUR RELEVANT EXPERIENCE.

A. My tenure with Centrica and its affiliates dates back to 2004 while working for Direct Energy and Hess Energy Marketing (via acquisition). I have been working for Centrica Business Solutions, an affiliate of Direct Energy, since 2016, in various Product Management roles. While working for Direct Energy or Hess Energy Marketing my experience includes various business development roles, various project management roles, demand response operation roles, and process engineering roles.

Q. WHAT ARE YOUR VARIOUS JOB RESPONSIBILITIES WITH CENTRICA BUSINESS SOLUTIONS?

A. My current job responsibilities encompass running a team of professionals that are responsible for the strategy, evaluation, and development of new products and services

for the Centrica Business Solutions business unit. My team is also responsible for the lifecycle management and of Centrica Business Solutions' existing product set.

Q. HAVE YOU EVER PROVIDED TESTIMONY BEFORE THE NEW JERSEY BOARD OF PUBLIC UTILITIES ("BOARD" OR "BPU")?

A. I have not.

Q. ON WHOSE BEHALF ARE YOU PRESENTING TESTIMONY IN THIS PROCEEDING?

A. I am offering this Direct Testimony on behalf of Direct Energy Business, LLC, Direct Energy Business Marketing, LLC, Direct Energy Services, LLC, Gateway Energy Services Corporation (collectively, "Direct Energy"), Centrica Business Solutions, NRG Energy, Inc. ("NRG"), and Just Energy Group Inc. ("Just Energy") (collectively, the "Market Participants").

Q. PLEASE BRIEFLY DESCRIBE THE MARKET PARTICIPANTS.

A. Direct Energy, NRG and Just Energy, on their own or through affiliates and subsidiaries, operate as licensed third party suppliers ("suppliers" or "TPSs"), actively serving residential, commercial, industrial and institutional customers throughout New Jersey. As third party suppliers, Direct Energy, NRG and Just Energy sell electricity to retail customers in the service territory of Public Service Electric & Gas Company ("PSE&G") and the rest of New Jersey as well as in other States where competitive retail markets exist. These retail companies offer customers a range of electricity products, including 100% renewable, fixed price, and variable commodity offerings, some which come with value added incidentals like smart thermostats, travel rewards, etc. Collectively and beyond their role as third party suppliers, Direct Energy, NRG and Just Energy, or their affiliate companies, also provide other services to consumers, such as demand response programs, energy efficiency, solar PV, energy storage, electric vehicle charging

solutions, distributed energy investments, HVAC solutions, home energy audits, customer data analytics, home energy management services, smart thermostats and home water filtration. Centrica Business Solutions, an affiliate of Direct Energy, integrates localized energy solutions for businesses that leverage its energy insights, onsite generation and demand management responsibilities. The energy solutions integrated by Centrica Business Solutions include solar, combined heat and power, energy efficiency, energy insight, demand response, power generation and energy storage. Offering innovative distributed energy solutions, Centrica Business Solutions enables organizations to improve operational efficiency, increase resilience and drive their business vision forward.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to address Public Service Electric & Gas Company's ("PSE&G's") Petition for Approval of its Clean Energy Future-Electric Vehicle and Energy Storage ("CEF-EVES") Program on a Regulated Basis ("CEF-EVES Petition"). In addressing PSE&G's CEF-EVES Petition, I will discuss the Direct Testimony of Karen Reif. (Petition, Attachment 1). In my testimony, I describe the positions of the Market Participants on issues raised by the CEF-EVES Petition regarding PSE&G's proposal to advance four electric vehicle ("EV") subprograms in New Jersey.

The Market Participants support the general policy objectives in the CEF-EVES Petition to promote transportation electrification in New Jersey. However, they generally oppose the EV subprograms through which PSE&G seeks to own and operate EV Supply Equipment outside of the competitive market. Many of the EV products and services that PSE&G proposes to offer are currently available in the competitive market. PSE&G's request to administer and execute key elements of the proposed program to offer

competitive products and services on a regulated basis is not in the best interest of ratepayers and should therefore be denied in its current form.

Q. ARE YOU SPONSORING ANY EXHIBITS?

A. Yes. I am sponsoring Exhibits BD-1 through BD-4. Exhibit BD-1 compares New Jersey to other jurisdictions with regard to the ratio of public chargers to EVs in circulation. Exhibit BD-2 contains a New Jersey Public Electric Vehicle (EV) Charging Locator Map. Exhibit BD-3 contains a New Jersey Energy Service Area Map. Exhibit BD-4 provides information regarding Jersey Central Power & Light's Nissan LEAF Rebate.

Q. WHAT ARE THE MARKET PARTICIPANTS' PRIMARY CONCERNS WITH PSE&G'S PROPOSED EV SUBPROGRAMS?

A. The Market Participants are concerned about PSE&G potentially owning and operating/controlling/monetizing assets outside its core functions as a regulated utility. PSE&G's proposed subprograms appear to require ratepayers to fund EV infrastructure that is owned and operated by PSE&G as well as subsidize certain specialized services not necessary to provide safe and adequate utility services. This is troubling. PSE&G's proposal would allow it to offer EV products and services already available in the competitive market. If PSE&G's proposal is approved, it would provide PSE&G an unfair advantage through use of ratepayer funds and leveraging ratepayers-funded assets to undercut participants in the competitive market. PSE&G's regulated utility status also offers it access to customer data and on-bill financing, which are not currently available to participants in the competitive market.

Q. BASED UPON YOUR REVIEW OF PSE&G'S CEF-EVES PETITION AND MS. REIF'S TESTIMONY, DO YOU HAVE RECOMMENDATIONS?

A. Yes. My primary recommendation is that the Board ensure PSE&G remains focused on its core functions and limits its direct involvement in the competitive market where

PSE&G would use ratepayer funds to gain an unfair advantage over other entities offering EV products and services. The Market Participants are supportive of providing ratepayer-funded incentives to stimulate the EV charging infrastructure market so long as those incentives are directly disbursed to the end user and/or the competitive markets, thus reducing the $22M program and administration overhead proposed by PSE&G. This proposed approach allows for a more efficient use of ratepayers' monies. More specifically, I recommend that PSE&G limit its Make Ready investment to the distribution infrastructure up to the point of common coupling (i.e. the meter). I also advocate for direct incentives to be provided to project developers/customers/infrastructure owners for the civil and electrical work on the customer side of the meter. The administration and execution of the EV subprograms should be outsourced to third parties via a competitive bid process.

II. MARKET PARTICIPANTS' POSITIONS AND RECOMMENDATIONS

Q. PLEASE DESCRIBE PSE&G'S CEF-EVES PETITION IN BROAD TERMS.

A. In its CEF-EVES Petition, PSE&G proposes to invest approximately $261 million and incur approximately $103 million in expenses over a six-year period in the Clean Energy Future – Electric Vehicle Program. Under its proposal, PSE&G would implement the following four EV subprograms: (1) Residential Smart Charging; (2) Level 2 Mixed-Use Charging; (3) Public DC Fast Charging; and (4) Vehicle Innovation. As proposed by PSE&G, the subprograms would assess a new charge on PSE&G customers to fund the implementation of approximately 37,000 residential EV chargers for a cost of $93M, 2,200 Level 2 chargers for a cost of $39M and 450 Public DC Fast Chargers for a cost of $62M, 60 school bus chargers for a cost of $45M, plus $22M of overhead allocation, for a total cost of $261M over 5 years. By this filing, PSE&G seeks BPU approval of

recovery of the revenue requirements associated with all of the Clean Energy Future – Electric Vehicle Program costs.

Q. PLEASE DESCRIBE PSE&G'S EV PROPOSAL IN MORE DETAIL.

A. PSE&G's CEF-EVES Petition proposes a variety of incentives that involve the Company installing certain electric vehicle equipment/infrastructure, providing discounts on the cost of installing EV equipment/infrastructure for customers and offering customers the option to own the equipment/infrastructure or allow PSE&G to own and operate the equipment/infrastructure. Its proposals also include purchasing electric school buses, installing "make ready" equipment for customers' use, and other projects to electric vehicle fleets, provide rebates to encourage off-peak charging and to reduce the cost of charging.

Q. DO YOU HAVE ANY CONCERNS WITH THE DESIGN OF PSE&G'S PROPOSED EV SUBPROGRAMS?

A. Yes. The proposed EV subprograms are vaguely defined in certain areas, with open-ended potential structures for the programs that PSE&G could chose to pursue with little oversight and/or accountability. For example, it is unclear under which scenarios PSE&G would decide to own and operate Direct Current Fast Charging ("DCFC") equipment. It is also unclear the approach that PSE&G proposes in determining investment in infrastructure and/or new off-peak rate designs vis-à-vis usage of flexible charging solutions and/or energy storage to accomplish the same objectives.

Q. WHAT IS YOUR UNDERSTANDING OF THE CURRENT STATUS OF EV INFRASTRUCTURE IN NEW JERSEY?

A. As shown in Exhibit BD-1, the State of New Jersey has robust and growing competitive markets for EV and EV charging. Using the same data sources as Figure 3 in Ms. Reif's testimony, we observe in Exhibit BD-1 that, in New Jersey, the ratio of public chargers to

electric vehicles in circulation is 33% higher than California's, one of the most developed EV markets in the world. Moreover, with respect to DCFC, the New Jersey Department of Environmental Protection's ("NJ DEP") website indicates that 325 Public DC Fast Charger ports exist throughout New Jersey.[1] The NJ DEP states that its "NJ Public Electric Vehicle (EV) Charging Locator shows the location of the 79 DC Fast Charging outlets of over 300 locations" and that "[r]oughly 95% of the state is currently located within a 25-mile radius of a DC Fast Charger."[2] Furthermore, with the advancement in battery technology, the range of new mass-market battery-only EVs easily exceeds 200 miles.[3] A map of the current EV charging locations in New Jersey is provided in Exhibit BD-2.

Q. WHAT SUPPORT DID PSE&G PROVIDE FOR ITS CLAIM THAT IT IS WELL-POSITIONED TO RUN THE PROPOSED EV SUBPGORAMS?

A. PSE&G claimed that it is positioned to effectively implement the EV subprograms because it: (1) has established customer relationships; (2) has experience building electrical infrastructure and operating the distribution system; (3) can provide customers with on-bill repayments over an extended period of time at zero percent rates; and (4) can use EV charging data to improve grid planning and operations and develop effective rate designs. (CEF-EVES Petition, Attachment 1 at 10-11).

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1 NJ Department of Environmental Protection, Range Anxiety? – Not in New Jersey! There Are Many Options When it Comes to Charging, available at https://www.drivegreen.nj.gov/dg-charging.html

2 *Id.*

3 https://www.cnet.com/roadshow/news/every-electric-car-ev-range-audi-chevy-tesla/

Q. ARE THOSE ADEQUATE JUSTIFICATIONS FOR PSE&G TO IMPLEMENT THE SUBPROGRAMS?

A. No. PSE&G is not well-positioned to implement the subprograms based on a variety of considerations. First, the subprograms would distract PSE&G from its core functions as a regulated utility. Second, the fact that PSE&G has established customer relationships and could market competitive products and services with the imprimatur of a regulated utility does not mean that it is well-positioned to do so. It simply means that it would have an unfair advantage over its competitors in offering EV products and services. Similarly, PSE&G's ability to offer customers on-bill repayments would leave its competitors at a distinct disadvantage. In that same vein, PSE&G's ability to access and utilize usage data (not accessible to competitors in the EV space) to "develop effective rate designs" does not justify implementation of the EV subprograms. It is another example of how it would stunt the competitive market with an unfair advantage over competitors.

Third, experience building electrical infrastructure does not make PSE&G well-positioned to implement these programs. There are many infrastructure installation companies that operate in the competitive market that specialize in EV installations. Building and/or managing large scale utility projects is a different business model and skillset than performing civil and electrical construction work behind the meter. Such work is better suited and managed by local general contractors and EV Supply Equipment companies. PSE&G's operation of the distribution system does not mean that it is well-suited to develop new technology and market innovative products to consumers. In fact, my understanding is that PSE&G's status as a regulated utility prohibits it from entering this competitive space, as further described below.

Fourth, as shown in Exhibit BD-3, PSE&G's service territory covers a limited portion of New Jersey's footprint. Conversely, Market Participants and other third parties are active throughout New Jersey and, if incentivized to do so, could focus on providing charging services and facilitating electrification in areas and corridors inside and outside of PSE&G's service territory.

Q. WHO IS BETTER SUITED TO OFFER EV PRODUCTS AND SERVICES IN NEW JERSEY?

A. Participants in the competitive market are best suited to provide the innovative EV products and services to consumers. Competitive market participants utilize their own capital, rather than limited and currently strained ratepayer dollars, to develop and market products and services. As technology evolves, so do consumer needs and desires. PSE&G's captive ratepayers should not bear the risk of monopoly utility investment in competitive offerings. Participants in the competitive market are incentivized to offer products and services at prices that consumers will pay. The competitive market will ensure that customers receive the best price and value for desired products and services. Moreover, PSE&G's service territory covers a limited portion of New Jersey's footprint. A state-wide competitive market participant that is not limited by a jurisdictional service territory is in a better position to offer a consistent, equitable and fair EV offering to consumers in New Jersey.

A. <u>Data Access</u>

Q. PLEASE DESCRIBE PSE&G'S CLAIM AS TO WHY IT SHOULD ADMINISTER AND IMPLEMENT EV CHARGING SUBPROGRAMS BECAUSE IT CAN UTILIZE CUSTOMER USAGE DATA.

A. PSE&G claims that it should administer and implement the EV charging subprograms because it "can evaluate data collected in support of the Company's planning for

expected growth in EV load and development of effective rate design."[4] PSE&G claims that time-of-use rate design is a core utility function.[5]

Q. UNDER PSE&G'S PROPOSAL, WOULD PARTICIPANTS IN THE COMPETITIVE MARKET FOR EV PRODUCTS AND INSTALLATIONS, INCLUDING THIRD PARTY SUPPLIERS, BE PROVIDED ACCESS TO THE SAME CUSTOMER USAGE DATA?

A. No. Under PSE&G's proposal, stakeholders operating in the competitive market for EV products and installations would not be provided access to the same customer usage data.[6]

Q. WHAT IS THE SIGNIFICANCE OF THIS DATA TO PARTICIPANTS IN THE COMPETITIVE MARKET?

A. This data is critically important not only to engaging and educating customers about their electricity use, but also to developing individually tailored products, including time-of-use rates, and services designed to help consumers take control of their energy consumption.

Q. DO YOU HAVE ANY CONCERNS WITH PSE&G'S POSITION REGARDING ACCESS TO AND UTILIZATION OF CUSTOMER-OWNED DATA?

A. Yes. I disagree with PSE&G's claim that time-of-use rate design is a sole core utility function in a deregulated market. Competitive entities in the market, including the Market Participants, are in the business of developing products and services that include competitive time-of-use rates. PSE&G's access to customer-owned data should be limited to fulfilling its core functions as a regulated utility. An example of this would be utilizing the data to analyze distribution circuit capacity so that if residents or commercial

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4 PSE&G Response to Direct Energy, Set I, No. 7. See also CEF-EVES Petition, Attachment 1 at 10-11.

5 PSE&G Response to Direct Energy, Set I, No. 7.

6 PSE&G Response to Direct Energy, Set I, No. 7 ("PSE&G will not share data externally unless a customer has signed an agreement permitting PSE&G to do so.").

properties on a particular circuit adopt and install EV charging infrastructure, PSE&G can better predict when upgrades are necessary or respond to outages more quickly. It should not include time-of-use rates which are product offerings best suited to the competitive market. As PSE&G's proposal would not provide third party entities that offer EV products and installations with access to customer data, PSE&G would have an unfair advantage in offering electric EV products and installations. Additionally, EV-specific rates that aim at reducing the demand charges should be evaluated in a specific rate setting proceeding looking also at alternative and complementary options such as automated managed charging and/or energy storage.

B. <u>On-Bill Financing</u>

Q. ALONG WITH AFFORDING EQUAL ACCESS TO THE DATA BY THIRD PARTY ENTITIES, ARE THERE OTHER STEPS THE BOARD SHOULD TAKE?

A. Yes. In addition to providing third party entities equal access to customer data, it is also important for the Board to address PSE&G's proposal to provide on-bill financing for energy efficiency improvements, such as electric vehicle products and installations, in PSE&G's service territory. The Board should prohibit PSE&G from offering on-bill financing for energy efficiency improvements.

Q. WHAT IS ON-BILL FINANCING?

A. "On-bill" financing represents a range of designs that use a utility bill as a financial collection mechanism. On-bill financing is utilized to reduce the upfront costs for energy efficiency improvements and other products and services to the customer. This mechanism allows customers to invest in energy efficiency improvements and repay the funds through an additional charge on their utility bill. This tool provides a convenience

to utility customers that cannot currently be offered by suppliers offering similar products and services.

Q. WHAT DOES MS. REIF STATE IN HER TESTIMONY REGARDING ON-BILL REPAYMENTS (ESSENTIALLY, ON-BILL FINANCING)?

A. Ms. Reif cites PSE&G's ability to "provide customers with on-bill repayments over an extended period of time at zero percent rates" as a reason why PSE&G is well positioned to run the proposed EV subprograms. (CEF-EVES Petition, Attachment 1 at 10-11).

Q. WHY DO THE MARKET PARTICIPANTS OPPOSE PSE&G'S PROPOSAL TO PROVIDE ON-BILL FINANCING?

A. It would put PSE&G in an unfair competitive advantage if it were permitted to provide on-bill financing for EV products and services currently available in the competitive marketplace when its competitors do not have the option of offering on-bill financing for those same products and services.

Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING ON-BILL FINANCING?

A. Yes. If PSE&G is permitted to offer EV products and services currently available in the competitive market (which the Market Participants oppose), the Board should prohibit PSE&G from utilizing on-bill financing for EV products and services. Instead, any investments that PSE&G makes in its billing system should be designed to implement supplier consolidated billing ("SCB").

Q. WHAT IS SUPPLIER CONSOLIDATED BILLING?

A. 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. 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. The leveling of the playing field for issuing consolidated bills would address many of the Market Participants' concerns about PSE&G using ratepayer dollars to offer on-bill financing.

Q. WHY CAN'T SUPPLIERS USE DUAL BILLING TO OFFER ON-BILL FINANCING?

A. There are several reasons. First, customers desire the convenience of a single bill that includes all electricity-related charges. Choice is about giving customers what they want, and customers overwhelmingly have expressed a desire for simplicity. Second, dual billing creates confusion. Customers 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. While we like to think customers always understand the difference between supply and delivery, the reality is that a large number of them do not. And a customer who has any doubts about paying two separate bills is more likely to pay the bill from the monopoly utility that has always billed them before they pay a TPS – even though the customer chose that supplier. Third, dual billing does not address the inherent inequities of allowing the utility to be the only entity that is able to offer consolidated billing services. Such an imbalance creates the impression for customers that the utility is somehow superior, even though such an impression may be far from the truth. In short, dual billing is not a viable alternative for suppliers and they should be afforded the opportunity to offer a supplier consolidated bill.

Q. IS SCB PERMITTED BY NEW JERSEY STATUTE OR REGULATION?

A. On the advice of counsel, I understand that the Electric Discount and Energy Competition Act ("EDECA") required the Board to implement a proceeding to establish the provision of customer account services ("CAS") so that customers could choose electric and/or gas

suppliers to provide these services. EDECA defines CAS as "metering, billing, or such other administrative activity associated with maintaining a customer account."[7] 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 proceedings. While some steps have been taken to implement SCB, it is the Market Participants' understanding that electronic data exchange protocols still need to be developed. A Board decision in this matter directing SCB to be implemented is an appropriate resolution to the barrier that the utility consolidated billing model presents to the availability to innovative products from TPSs.

C. <u>Competitive Services</u>

Q. WHAT IS YOUR UNDERSTANDING OF WHAT THE COMPETITION LAW SAYS ABOUT ELECTRIC UTILITIES OFFERING COMPETITIVE SERVICES?

A. Section 48:3-55(a)(1) of EDECA[8] prohibits an electric utility from offering any competitive service to retail customers within New Jersey without the Board's prior express written approval and only in enumerated circumstances.[9] The Board is required to make certain findings before a utility may provide competitive services, including a determination that the competitive service does not interfere with the provision of regulated non-competitive services and that the rate charged for competitive service does not require subsidization through regulated rates.[10] EDECA was specifically designed to

7 N.J.S.A. 48:3-51.

8 N.J.S.A. 48:3-49 et seq.

9 N.J.S.A. 48:3-58.

10 N.J.S.A. 48:3-58.

"ensure that rates for non-competitive public utility services do not subsidize the provision of competitive services by public utilities."[11]

Q. WHAT IS THE SIGNIFICANCE OF THAT PROVISION OF THE COMPETITION LAW IN THIS PROCEEDING?

A. PSE&G's CEF-EVES Petition reflects that it plans to use the EV subprograms proposed in this proceeding to "jumpstart the electric vehicle industry." (CEF-EVES Petition at Par. 3). Similarly, Ms. Reif's testimony reflects PSE&G's objective to "support the widespread adoption of EVs…." (CEF-EVES Petition, Attachment 1 at 1). These statements reflect PSE&G's desire to promote the EV industry, an objective that is outside its core functions as a regulated utility in a functioning competitive market. Several of the subprograms proposed by PSE&G include products and services that are already being offered by third party suppliers and other entities in the competitive market. The installation of EV infrastructure and the charging of EVs are not functions of a public utility in New Jersey, and clearly fall under the definition of a "competitive service." The installation of EV infrastructure is not an enumerated "competitive service" that a regulated utility such as PSE&G may provide subject to Board approval.[12]

Q. PLEASE DESCRIBE ANY OTHER AUTHORITY THAT SUPPORTS YOUR POSITION THAT ELECTRIC VEHICLE INFRASTRUCTURE AND RELATED EQUIPMENT AND SERVICES IS A "COMPETITIVE SERVICE."

A. The New Jersey Legislature recently enacted the Plug-in Vehicle Act ("PIV Act") which sets goals and authorizes incentives to increase the use of PIVs in New Jersey. The PIV Act does not provide any role for regulated public utilities to invest in or subsidize EVs

[11] N.J.S.A. 48:3-50.

[12] N.J.S.A. 48:3-51.

or related infrastructure, equipment or services. It also makes clear that owning and/or operating EV infrastructure is not a public utility function.[13]

Q. ARE THERE UTILITIES IN NEW JERSEY OR IN OTHER JURISDICTIONS THAT HAVE TAKEN ON AN APPROPRIATE ROLE IN THE ELECTRIC VEHICLE EQUIPMENT/INFRASTRUCTURE INDUSTRY?

A. As shown in BD-4 Jersey Central Power & Light and its parent company First Energy have teamed up with Nissan and developed a cashback program to incentivize electric vehicle adoption. The Market Participants find this type of utility-private partnership laudable as it does not put undue burden onto ratepayers.[14]

Regulated utilities in New York and California have been supporting EV deployment through Make Ready programs.[15] More specifically and by way of example, Southern California Edison ("SCE") recently completed Phase 1 of the Charge Ready Pilot,[16] where it provided rebates ranging from 25% to 100% of the charger cost and supported installation via a Make Ready program covering the upfront cost and maintenance of transformer, service drop, meter, panel and conduits and wires up to the chargers. The program's budget was limited to $18.5M and provided rebates for deployments of 1,500 non-residential chargers across the multifamily, workplace and

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[13] Unless otherwise provided in Title 48 of the Revised Statutes, or any other federal or State law, an entity owning, controlling, operating, or managing electric vehicle service equipment shall not be deemed an electric public utility solely because of such ownership, control, operation, or management. The charging of a plug-in electric vehicle shall be deemed a service and not a sale of electricity by an electric power supplier or basic generation service provider pursuant to P.L.1999, c.23 (C.48:3-49 et al.). N.J.S.A. 48:25-10.

[14] https://www.firstenergycorp.com/content/dam/customer/get-help/files/PEV/files/FY20-August-LEAF-Flyer-NER-FirstEnergy.pdf

[15] Very limited utility-owned deployments have been allowed on an exception basis for utilities to develop market learnings. Per Ms. Reif's testimony, we understand that many of these pilots already took place at PSE&G and therefore we oppose incremental ownership of EV chargers by PSE&G.

[16] https://www.sce.com/sites/default/files/inline-files/Charge%2BReady%2BPilot%2BReport%2BSummary_Amended.pdf

public DCFC segments. By comparison, PSE&G's proposal involves 2,650 non-residential chargers for a total expenditure of $101M, or $38.2K/EV charging station vs $12.3K/EV charging station of the SCE pilot. No utility ownership was contemplated in the SCE pilot. The SCE pilot included participation in Demand Response programs, which we encourage the Board and PSE&G to consider, possibly with additional support for co-located renewable and/or flexible resources such as energy storage and solar PV. The Market Participants would support a Make Ready program similar to SCE's pilot program.

Q. WHAT IS NEW JERSEY'S 2019 ENERGY MASTER PLAN?

A. New Jersey's 2019 Energy Master Plan ("2019 EMP") establishes goals for clean energy and the reduction of greenhouse gas emissions. [17] The 2019 EMP directs the Board to work with electric distribution companies to develop plans to finance and implement distribution system upgrades required for expanded EV charging.[18]

Q. DOES THE 2019 EMP ENVISION UTILITIES SUBSIDIZING THE PURCHASE OF EVS OR THE ASSOCIATED EQUIPMENT?

A. No. The 2019 EMP does not envision or discuss electric distribution utilities subsidizing the purchase of EVs or the associated equipment, as proposed by PSE&G in this proceeding.

Q. DUE TO THE NATURE OF THE SUBPROGRAMS PROPOSED BY PSE&G, WHAT DO YOU RECOMMEND?

A. I recommend that the administration and execution of the EV subprograms be outsourced to third parties via a competitive bid process, with PSE&G administering the collection

[17] 2019 New Jersey Energy Master Plan, Pathway to 2050, available at http://d31hzlhk6di2h5.cloudfront.net/20200127/84/84/03/b2/2293766d081ff4a3cd8e60aa/NJBPU_EMP.pdf.

[18] *Id.* at 14, 176, 194.

and disbursement of ratepayer funds into the subprograms via a line item on PSE&G energy bills. The subprograms should be designed so that selected third parties handle investment in IT, education and outreach for the program.

III. CONCLUSION

Q. IN SUM, WHY DO THE MARKET PARTICIPANTS GENERALLY OPPOSE PSE&G'S EV SUBPROGRAMS?

A. The Market Participants oppose the program "as is", but are supportive of incentive programs for third parties to develop projects and infrastructure on the customer side of the meter. Third parties operating in the competitive market are more efficient and effective at promoting programs, acquiring new customers and developing projects. They also can provide state-wide coverage. While the New Jersey market for EV charging is relatively robust, the Market Participants agree that incentives are needed to achieve the goals of the 2019 EMP. However, for the reasons expressed herein, the Market Participants oppose PSE&G's proposed active participation in market development and recommend the Commission not approve the proposed program "as is".

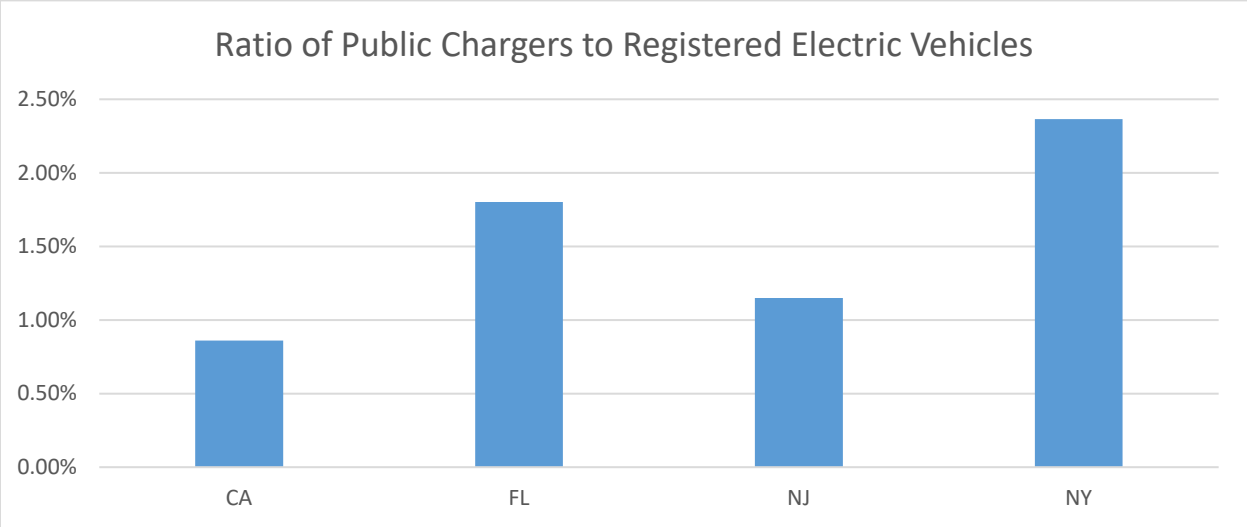
Q. WHAT ASPECT OF PSE&G'S PROPOSAL DO YOU NOT OPPOSE?

A. I do not oppose PSE&G installing "make ready" equipment on the utility side of the meter and providing incentives and/or programs for third parties to develop "make ready" infrastructure on the customer side of the meter. If PSE&G commits to a competitive model for performing work on the customer side of the meter, we are not opposed to allowing rate basing of the behind the meter Make Ready infrastructure.

Q. DOES THAT COMPLETE YOUR DIRECT TESTIMONY?

A. Yes.

Exhibit BD-1



State	Number of Public EV chargers	Population	# of registered plug-in electric vehicles	Ratio of public chargers per EV
CA	5771	39,512,223	670,000	0.86%
FL	1117	21,477,737	61948	1.80%
NJ	341	8,882,190	29658	1.15%
NY	1269	19,453,561	53646	2.37%

Exhibit BD-2

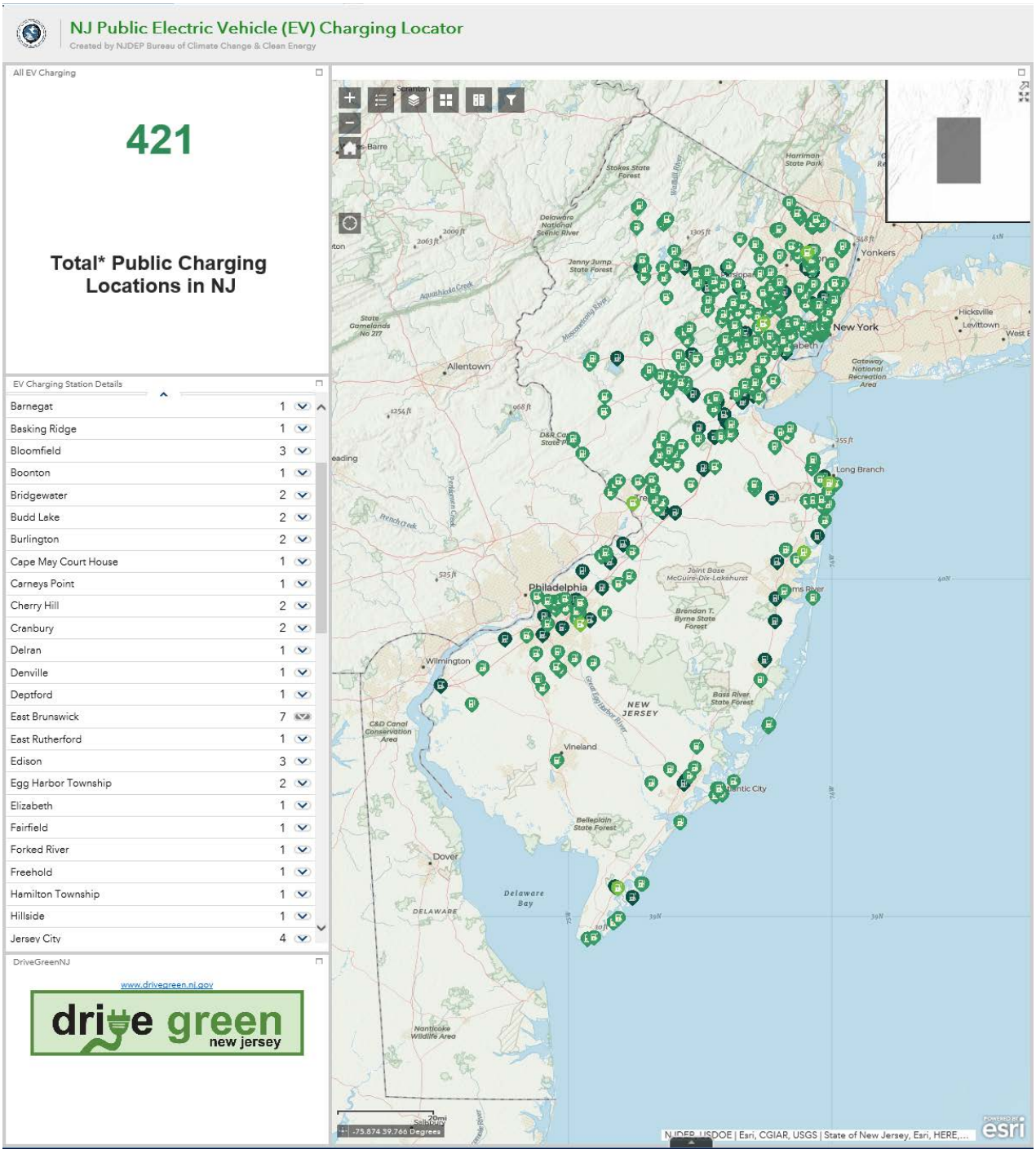

NJ Public Electric Vehicle (EV) Charging Locator
Created by NJDEP Bureau of Climate Change & Clean Energy
All EV Charging
421
Total* Public Charging Locations in NJ
EV Charging Station Details
Barnegat 1
Basking Ridge 1
Bloomfield 3
Boonton 1
Bridgewater 2
Budd Lake 2
Burlington 2
Cape May Court House 1
Carneys Point 1
Cherry Hill 2
Cranbury 2
Delran 1
Denville 1
Deptford 1
East Brunswick 7
East Rutherford 1
Edison 3
Egg Harbor Township 2
Elizabeth 1
Fairfield 1
Forked River 1
Freehold 1
Hamilton Township 1
Hillside 1
Jersey City 4
DriveGreenNJ
www.drivegreen.nj.gov
drive green new jersey
Philadelphia
New York
Allentown
Wilmington
Dover
Vineland
Yonkers
Long Branch
NEW JERSEY
DELAWARE
Delaware Bay
N.IDEP, USDOE | Esri, CGIAR, USGS | State of New Jersey, Esri, HERE,...
esri

Exhibit BD-3

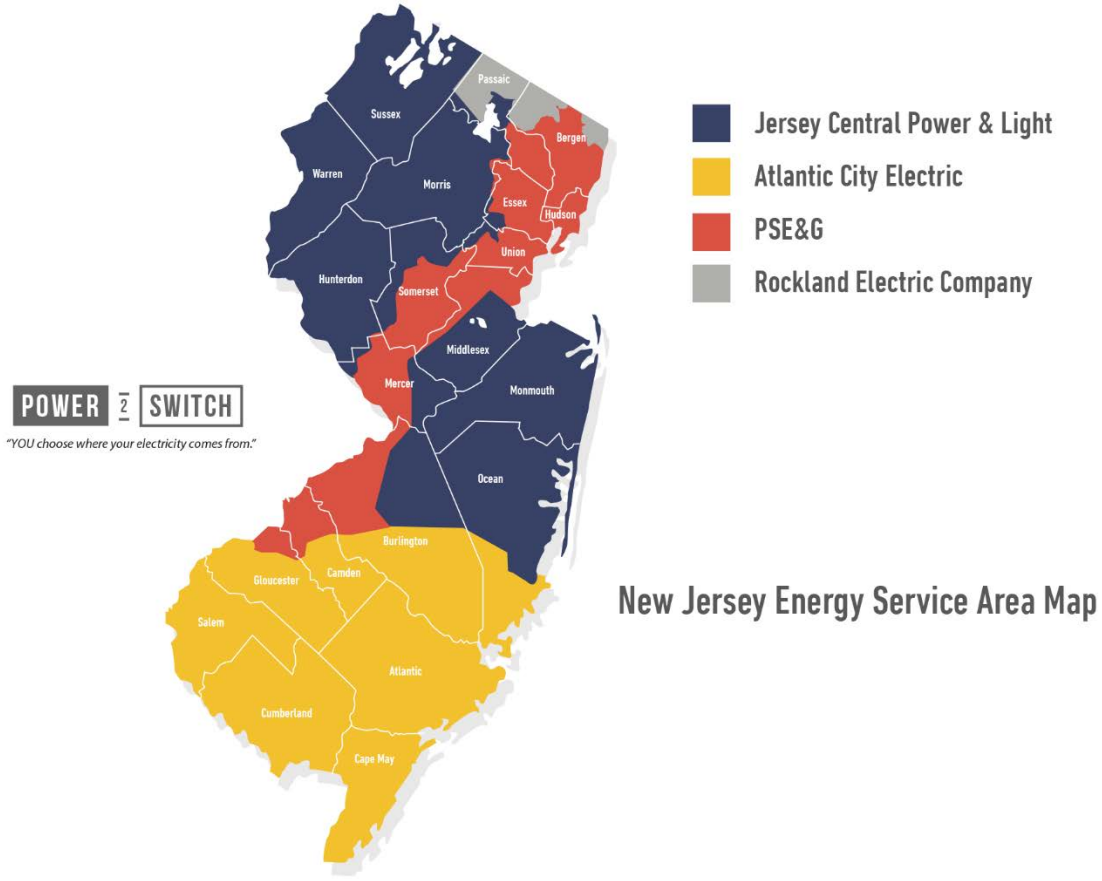
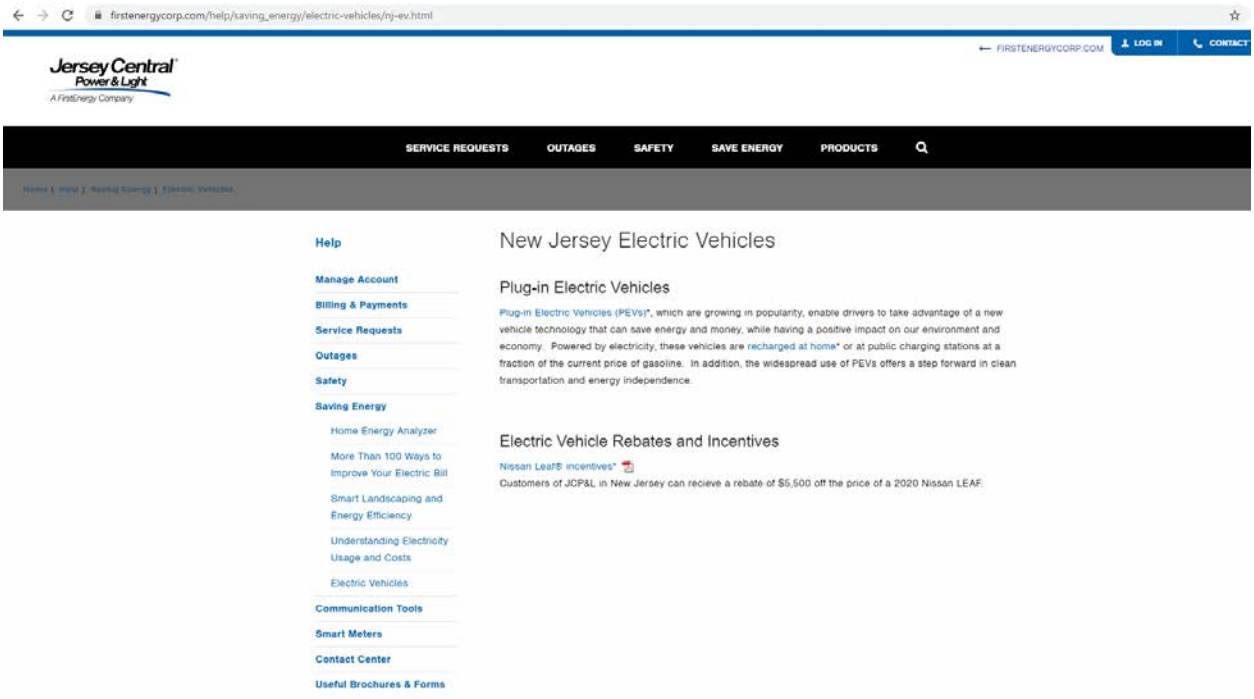

POWER 2 SWITCH
"YOU choose where your electricity comes from."
Passaic
Sussex
Bergen
Warren
Morris
Essex
Hudson
Union
Hunterdon
Somerset
Middlesex
Mercer
Monmouth
Ocean
Burlington
Camden
Gloucester
Salem
Atlantic
Cumberland
Cape May
Jersey Central Power & Light
Atlantic City Electric
PSE&G
Rockland Electric Company
New Jersey Energy Service Area Map

Exhibit BD-4


firstenergycorp.com/help/saving_energy/electric-vehicles/nj-ev.html
Jersey Central Power & Light
A FirstEnergy Company
FIRSTENERGYCORP.COM
LOG IN
CONTACT
SERVICE REQUESTS
OUTAGES
SAFETY
SAVE ENERGY
PRODUCTS
Help
Manage Account
Billing & Payments
Service Requests
Outages
Safety
Saving Energy
Home Energy Analyzer
More Than 100 Ways to Improve Your Electric Bill
Smart Landscaping and Energy Efficiency
Understanding Electricity Usage and Costs
Electric Vehicles
Communication Tools
Smart Meters
Contact Center
Useful Brochures & Forms
New Jersey Electric Vehicles
Plug-in Electric Vehicles
Plug-in Electric Vehicles (PEVs)*, which are growing in popularity, enable drivers to take advantage of a new vehicle technology that can save energy and money, while having a positive impact on our environment and economy. Powered by electricity, these vehicles are recharged at home* or at public charging stations at a fraction of the current price of gasoline. In addition, the widespread use of PEVs offers a step forward in clean transportation and energy independence.
Electric Vehicle Rebates and Incentives
Nissan Leaf® Incentives*
Customers of JCP&L in New Jersey can recieve a rebate of $5,500 off the price of a 2020 Nissan LEAF.


NISSAN
FirstEnergy
Nissan LEAF®
2020 LEAF S Plus shown
Up to $5,500 Nissan LEAF Cash Back[1]
Depending on Model Year