



PHIL MURPHY
Governor

SHEILA OLIVER
Lt. Governor

Handwritten: 4/9/18

State of New Jersey
DIVISION OF RATE COUNSEL
140 EAST FRONT STREET, 4TH FL
P.O. Box 003
TRENTON, NEW JERSEY 08625

RECEIVED
MAIL ROOM

APR 06 2018
STEFANIE A. BRAND
Director

BOARD OF PUBLIC UTILITIES
TRENTON, NJ

RECEIVED
CASE MANAGEMENT

APR 06 2018

BOARD OF PUBLIC UTILITIES
TRENTON, NJ

April 6, 2018

VIA HAND DELIVERY

Hon. Aida Camacho-Welch, Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

**Re: In the Matter of the Petition of Atlantic City Electric Company for
Approval of a Voluntary Program for Plug-In Vehicle Charging
BPU Docket No. EO18020190**

Motion to Stay

Dear Secretary Camacho-Welch:

Please accept this letter motion, original and ten copies, from the Division of Rate Counsel ("Rate Counsel") regarding the above-captioned matter.

We enclose one additional copy of this letter motion. Please stamp and date the extra copy as "filed" and return it in our self-addressed stamped envelope.

Handwritten: CMS
list copied

Tel: (609) 984-1460 • Fax: (609) 292-2923 • Fax: (609) 292-2954
<http://www.nj.gov/rpa> E-Mail: njratepayer@rpa.state.nj.us

Summary

On February 22, 2018, Atlantic City Electric Company (“ACE” or “the Company”) filed a petition (“Petition”), pursuant to N.J.S.A. 48:2-21, for approval by the Board of Public Utilities (“Board” or “BPU”) of a Plug-In Vehicle (“PIV”) charging program (“PIV Program”).¹ As set forth below and in ACE’s Petition, the proposed PIV Program is significant in size and rate impact. In addition, ACE’s PIV Program presents many significant unresolved policy questions which are presently being addressed in a stakeholder group proceeding convened by the Board. The Board convened the Electric Vehicle (“EV”) Stakeholder Group (“EV Stakeholder Group” or “EVSG”) to solicit input from stakeholders in order to assist the Board in the development of its EV policies.²

The EVSG is a comprehensive, structured, generic proceeding that is considering, among other things, the proper role of electric public utilities in the field of EVs and EV servicing. The EVSG is helping the Board develop policies for regulating the profound effects of electric vehicles on ratepayers and the entire electric utility industry. Rate Counsel submits that, since the Board has not yet decided the policy questions presented by ACE’s PIV Program, it is prudent to await the EV Stakeholder Group report and the Board’s guidance before addressing ACE’s Petition. ACE’s PIV Petition presumes that the Board will decide a series of fundamental questions in a certain way, thereby usurping the Board’s proper role in guiding this groundbreaking new industry. Addressing the ACE PIV Petition before deciding the basic EV rules of the road risks inconsistent outcomes and wasted resources. A stay will not prejudice ACE either, since ACE is one of the electric distribution utility (“EDC”) parties actively

¹ On March 26, 2018, the Board issued an Order retaining this matter at the Board, designating Commissioner Upendra J. Chivukula as the presiding officer, and setting deadline of April 13, 2018 for filing motions to intervene or participate.

² Transcript of Board Agenda Item 9B (August 23, 2017).

participating in the EVSG. No statutory or regulatory deadline is rushing the Board to decide this matter; in fact, the EV industry is just getting started. There is ample time to complete the EVSG process, to carefully map out the rules of the road and the lanes that the EV industry and the EDCs will travel. ACE is an important participant in that journey. Therefore, for the reasons set forth herein, Rate Counsel respectfully requests that the Board stay ACE's Petition for approval of its PIV Program and hold the matter in abeyance until the conclusion of the Board's EVSG process.

Background

ACE's proposed PIV Program consists of eight separate sub-programs extending over five years at a total cost of \$14.9 million. Petition, pp. 1-2. If approved, the eight sub-programs would install a total of 730 new EV chargers of all types. Petition, Appendix B, p. 1 of 5. The eight sub-programs are:³

Sub-program 1: Residential – Whole House Time-of-Use – Schedule “RS-PIV” Rate (single meter). This proposal would permit an unlimited number of qualified residential customers with PIVs to take service under a new “whole house” discounted rate tariff (RS-PIV tariff) - using re-programmed existing meters - that would incentivize PIV owners to shift their vehicle charging load to off-peak periods. Participating customers would shift their entire residential load to a new “RS-PIV” time-of-use rate. Since the number of participating customers is unlimited, and residential time-of-use rates are not currently offered in ACE's territory, the effect on ACE's load shape and revenue could be significant. While ACE does not seek to recover any costs associated with this subprogram, the Petition does not provide any estimate of its impact on ACE's revenue or rates.

Sub-program 2: Incentive Rates for Residential Customers with Existing, Installed Level 2 Chargers – Schedule “IR-PIV” Rate. This proposal would allow up to 100 residential customers with existing installed Level 2 chargers to have their chargers rewired to a second meter, under new rate schedule IR-PIV, which would allow the customer to take advantage of off-peak rates for charging, thereby encouraging charging during off-peak hours. The second meter would be installed at no charge to the participant. This subprogram has an estimated cost for ratepayers of \$415,000.

³ See Petition, pp. 8-15.

Sub-program 3: Discounted Level 2 Charging Stations for Residential Customers – Schedule “IR-PIV” Rate. This proposal, through new rate schedule “IR-PIV,” would provide partial subsidies for the installation of up to 300 Smart Level 2 charging stations for qualified residential customers on a first-come, first-served basis. The PIV Program will provide and install a Smart Level 2 in-home charger at a 50% discount off the cost of the Electric Vehicle Supply Equipment (“EVSE”), a 50% discount on associated installation costs and, for qualified customers, 12-month interest-free financing for the remaining installation costs. The customer would own the EVSE after participating for one year. The estimated cost of this subprogram is \$1.55 million.

Sub-program 4: Multi-family dwelling units (condominium/apartment buildings) with dedicated on-site parking, currently without an existing EVSE – Schedule “MFDUPIV” rate and installation of up to 50 Level 2 chargers. This proposal would provide 50% of the cost of the EVSE and 100% of the installation cost (less any applicable rebates) for up to 50 Smart Level 2 chargers for qualifying customers who own or operate condominium/apartment complexes. Participating customers could also apply for a Smart Level 2 charger from ACE at 50% off the purchase price, and the PIV Program would pay 100% of the cost to install the charger and associated EVSE. The projected cost of this subprogram is \$607,500.

Sub-program 5: Level 2 Charging Stations for Workplace Charging – Schedule “WPPIV” rate and installation of up to 100 Level 2 Chargers. This proposal would provide 50% of the cost of the EVSE for up to 100 Smart Level 2 chargers, for qualified customers who own or operate office buildings and garages. Participating customers can apply for a Smart Level 2 charger at 50% of the cost for the EVSE, and the customer would be responsible for its associated installation costs. The projected cost of this subprogram is \$465,000.

Sub-program 6: Public Charging Corridor Installation in New Jersey – 30 Direct Current Fast Chargers – Schedule “PC-PIV.” This proposal would provide for the installation of up to 30 DCFCs along main transportation corridors or in a community depot configuration within ACE’s service territory, at an estimated cost of \$3.6 million. ACE would own and maintain the EVSE.

Sub-program 7: Public Charging Neighborhood Installation in New Jersey – 150 Level 2 charging stations – Schedule “PC-PIV.” This proposal would consist of installing up to 150 Level 2 chargers at 150 “appropriate neighborhood locations” within ACE’s service territory. ACE would own and maintain the EVSE. The projected cost of this subprogram is \$2.25 million.

Sub-program 8: \$2 Million Innovation Fund. This proposal would establish an “Innovation Fund” of \$2 million from which “interested persons or groups could seek funding from the Company for innovative projects designed to further PIV

charging in the State and support electrification of the transportation sector.” The proposed incentives would be a monetary rebate, issued by ACE, of up to 50% of the cost of the project.

ACE proposes to recover the revenue requirement associated with the “residential-related” subprograms (subprograms 1 through 5) through residential class electric distribution rates following a normal base rate case proceeding. Petition, pp. 23-24. Costs categorized as Operations and Maintenance (“O&M”) and costs associated with capital assets would be deferred as regulatory assets, which would be subject to amortization and would also earn a return after incorporation into ACE’s rate base as a part of a subsequent base rate case proceeding. Petition, p. 23. The costs associated with the public charging stations (subprograms 6 and 7), offset by revenues received via the public charging rates, would be allocated by customer class per the allocations from ACE’s most recently approved base distribution rate case. Petition, pp. 23-24. ACE projects that its proposed rate recovery would result in a monthly bill increase of approximately 18 cents for a typical residential customer using 716 kWh per month. Petition, p. 23.

At its August 23, 2017 agenda meeting, the Board accepted the Regulatory Assistance Project’s (“RAP”) report on transportation electrification (“RAP Report”).⁴ The RAP Report recognized the many issues presented by EVs and recommended the establishment of a stakeholder process which would benefit from the viewpoints and insights of various interested parties and seek consensus on issues. RAP Report, pp. 4-5. The Board also established the

⁴ See I/M/O the Regulatory Assistance Project Electric Vehicle Infrastructure Report, “Getting From Here to There: Regulatory Considerations for Transportation Electrification”, BPU Dkt. No. EO17070748 (Transcript of Agenda Item 9B, August 23, 2017); see also The Regulatory Assistance Project, “Getting From Here to There: Regulatory Considerations for Transportation Electrification,” May 2017.

EVSG, and directed BPU Staff to report on its findings.⁵ Since then, the EVSG has convened several meetings and actively sought input from EVSG participants. Specifically, the EVSG Staff circulated three sets of questions seeking input from the EVSG participants on a wide range of issues related to EVs.⁶ Rate Counsel is a participant in the EVSG and anticipates that the responses to the questions presented by Staff will be considered by the Board in the development of guidelines and policies governing public utility involvement in the EV sphere. The EVSG's questions and participant responses addressed the same policy questions raised by ACE's proposed subprograms and cost recovery method, to wit, the scope of EDC involvement in EV-related activities and cost recovery for those activities. In addition to ACE, members of the EVSG include PSE&G and JCP&L, both of whom have moved to intervene in the ACE PIV Petition. The EVSG process is ongoing and a report on the EVSG proceedings has yet to be released.⁷

Argument

ACE's PIV Program filing presents the Board with significant policy issues which have yet to be resolved by the Board. These issues include the proper role of New Jersey's EDCs in a gamut of EV-related ventures, whether ratepayers should fund any EV-related business activities, as well as the role of competition in the EV market. Those issues substantially duplicate the issues under consideration in the EVSG.

The Board recognized the many potential effects on EVs on electric utilities and their ratepayers, and convened the EVSG. In its presentation at the agenda meeting where the Board approved the creation of the EVSG, Board Staff noted many of those questions:

⁵ Id.

⁶ The EVSG solicited comments via the EVSG participants' responses to three sets of questions: TASK 1 questions; TASK 2 questions; and TASK 1 Follow-up questions. See Attachment A.

⁷ As of this writing, a date has not yet been set for the next EVSG meeting.

[H]ow much of that [EV] infrastructure can be done beyond the meter. So infrastructure up to the meter is typical what the Board approves in rate cases. That's standard. But how beyond the meter that other states are starting to look at could be included in regulatory assets, up through the charging stations: Should they be able to own charging stations? Can they own charging stations? How do you deal with electric vehicles? Are they defined as energy efficiency within the statutes? What happens [to] customers, how do they get charged for actually charging electric vehicles?⁸

Each of these issues is raised by subprograms proposed by ACE in its PIV Petition, but they are also currently being addressed in the EVSG. The EVSG elicited comments from stakeholders - in the form of written answers to questions – which addressed these same issues.⁹

Furthermore, Board Staff noted the lack of clear statutory guidance in the area, requiring the Board to fill the gap:

[T]he statutes are not clear on electric vehicles. There's not a clear, yes, you can do this with electric vehicles or, no, you cannot do that with electric vehicles. So there are a number of inferences that you have to make within the statutes. So it's not clearly defined. It's not a technology when the legislature was putting together the utility statutes that was in place.¹⁰

Through the EVSG process, the Board will address these major policy issues and interpret its statutory authority to develop a comprehensive approach to the expansion of EVs in New Jersey.

Cautious consideration of the potentially disruptive effects of placing the energy needs of motor vehicles onto our electric grid also supports a stay. The energy demands and costs of EV charging are potentially enormous. Pursuant to certain provisions of the federal Clean Air Act,¹¹ New Jersey has adopted California's vehicle emission regulations, which commit New Jersey to require sales of zero emission vehicles to constitute 15.4% of total new car sales in the State by

⁸ Transcript of Board Agenda Item 9B (August 23, 2017).

⁹ The questions used by the EVSG to solicit written comments from EVSG participants are provided in Attachment A attached hereto.

¹⁰ Transcript of Board Agenda Item 9B (August 23, 2017).

¹¹ Section 177 of the Clean Air Act, 42 U.S.C. § 7507.

2025.¹² The RAP Report found that the proliferation of EVs has the potential to significantly increase electric demand and peak loads, adding stress and cost to the electric system. RAP Report, pp. 15, 18-19. The Board must decide who will pay the cost of providing the infrastructure for the EV segment of the transportation industry. Therefore, Board policies and guidelines are needed, early in the EV review process, to ensure the integrity of the electric grid and supply resources, foster competition, achieve cost-effective results, fairly allocate risks and benefits and protect the interests of ratepayers.

The structured approach of the EVSG process facilitates the input of many diverse stakeholders in an efficient manner, avoiding duplicative appearances and interventions in any number of EV-related filings by individual electric utility companies that would place even greater demands on the Board's resources. This is already occurring in the instant matter, where the other two major New Jersey EDCs have already moved to intervene. Separate proceedings for each EDC, before the Board maps out the EV rules, also would risk contradictory, inconsistent or disproportionate outcomes for different utilities and ratepayers around the state.¹³ More pertinently, the Board must resolve these fundamental policy issues, already being addressed through the EVSG process, to inform the Board's review of any utility's EV proposal. The EVSG process will guide the Board in setting forth comprehensive "rules of the road" for merging EVs into our electric system.

A stay of the ACE action is appropriate at this time. As the Supreme Court stated in Hackensack v. Winner, 82 N.J. 1, 32-33 (1980):

¹² See Petition, pp. 18-19.

¹³ Pending before the Board in this proceeding are Motions to Participate filed by electric distribution utilities JCP&L and PSE&G, dated March 30, 2018 and March 9, 2018, respectively. Each cited the potential precedential impact of the Board's ruling in this proceeding on their respective utilities and their customers.

Decisions have stressed that the policy considerations which support [these] judicial doctrines – namely, finality and repose; prevention of needless litigation; avoidance of duplication; reduction of unnecessary burdens of time and expenses; elimination of conflicts, confusion and uncertainty; and basic fairness – have an important place in the administrative field.

A stay would allow the Board to prevent needless and duplicative consideration of issues, avoid duplication of effort, reduce unnecessary burdens of time and expense, eliminate conflicting, confused and uncertain outcomes, and ensure basic fairness to all parties concerned with electrifying motor vehicles in New Jersey

Fundamental issues raised by ACE's PIV proposal are the proper role of New Jersey EDCs in EV-related activities; the role of competition and non-EDC businesses in the EV market; and which EV-related business activity, if any, should be funded by ratepayers. The equitable considerations in this latter point alone are significant, especially when many ratepayers in New Jersey cannot afford to pay utility bills or own a motor vehicle. Rate Counsel submits that the Board should carefully consider who will shoulder the costs, and reap the benefits, of serving the EV market in New Jersey. The Board previously decided that a stakeholder process will help it sort through these issues and ACE's PIV Petition should not interfere with that process.

The Board's policy decision on each one of these issues will profoundly affect, if not obviate, ACE's petition. If the EVSG process leads the Board to decide that competitive businesses and not the EDCs should market and install EV chargers, then most of ACE's proposed subprograms are moot because they would be outside the proper role of EDCs. If the Board decides that the proper role of EDCs in the EV industry is to ensure their distribution systems can manage the additional and changing load patterns resulting from EVs, then ACE's petition is moot because it has not proposed a structured assessment of EVs on the electric

system. If the Board decides that the transportation industry rather than utility customers should bear the costs of electrifying its own equipment and reducing its air emissions, then ACE's petition is moot because all of its subprograms would shift EV-related costs onto ratepayers. As a prudential matter, New Jersey administrative agencies will not consider issues that are moot or may become moot. See New York, S. & W. R. Corp. v. Dep't of Treasury, 6 N.J. Tax 575, 582 (Tax 1984), aff'd, 204 N.J. Super. 630 (App. Div. 1985) ("An issue is 'moot' when the decision sought in a matter, when rendered, can have no practical effect on the existing controversy."); Anderson v. Sills, 143 N.J. Super. 432, 437 (Ch. Div. 1976); Hackensack, 82 N.J. at 32-33.

There is considerable overlap between issues addressed in the EVSG and those presented by ACE's proposed PIV Program. Here, ACE proposes to entangle itself in the EV automobile "business" through a program that would include discounted electric rates for EV charging;¹⁴ rebates and discount financing for EVSE and EVSE installation costs;¹⁵ no charge for the installation of EV equipment for other qualifying customers;¹⁶ the ownership and operation of EV charging stations by ACE;¹⁷ and an "Innovation Fund" to support EV equipment-related research projects.¹⁸ The issues and policy questions presented by ACE's PIV Petition largely coincide with those under consideration by the EVSG. The foremost policy questions are the extent of public utility involvement, the role of new competitive EV enterprises, and who should pay for the costs associated with EV operation and ownership.

Products, fuels and services for motor vehicles are currently provided through the competitive markets, i.e. the automotive and petroleum industries. Merging such competitive

¹⁴ Petition, pp. 8-10.

¹⁵ Petition, pp. 10-12.

¹⁶ Petition, p. 11.

¹⁷ Petition, pp. 13-14.

¹⁸ Petition, pp. 14-15.

activities into the electric utility industry will cause enormous impacts on the EDCs, the electric grid and the New Jersey economy. ACE proposes to finance and install EV equipment and to provide rebates and subsidies for EV equipment owned by its customers.¹⁹ ACE also proposes to own and operate public EV equipment.²⁰ All of these activities could reasonably be considered as competitive ventures that could be undertaken by non-utility providers.

The Electric Discount and Energy Competition Act (“EDECA”; N.J.S.A. 48:3-49 et seq.) enacted in 1999, introduced competition to New Jersey’s retail electric market. The Legislature drafted EDECA to foster the role of competition “to deliver energy services to consumers in greater variety and at lower cost than traditional, bundled public utility service.” N.J.S.A. 48:3-50(a)(2). EDECA specifically carved out “competitive services” from the bundled utility service model and limited utility involvement in competitive services. EDECA defined “competitive service” as “any service offered by an electric public utility or a gas public utility that the [B]oard determines to be competitive ... or that is not regulated by the [B]oard.” N.J.S.A. 48:3-51. Here, electric vehicle recharging stations are not currently regulated by the Board. Where competitive non-utility providers are available to provide a service, EDECA discourages utility involvement, except in specifically defined circumstances, and requires prior Board approval. See N.J.S.A. 48:3-55. Whether vehicle recharging is a competitive service is an issue under consideration in the EVSG proceeding.

ACE also raises the fundamental issue of ratepayer funding of its proposed EV activities. In its Petition, ACE frames its PIV Program as a means to facilitate the electrification of the transportation sector in New Jersey. Petition, p. 6. ACE seeks to recover the net cost of the PIV Program from ratepayers. As proposed, ACE estimates the total cost of its PIV Program, to be

¹⁹ See Petition, pp. 10-12.

²⁰ See Petition, pp. 13-14.

recovered from ratepayers, at \$14,969,210. Petition, p. 22. However, Rate Counsel submits that the larger question that remains is whether New Jersey's public utility ratepayers – squarely within the public utility sector of the economy – should be asked to bear the cost of reducing the Green House Gas (“GHG”) emissions from the transportation sector of the economy through the electrification of motor vehicles. Rate Counsel submits that this question is best addressed in a generic policy proceeding, such as the pending EVSG process.

The EV principles established by the Board through the EVSG process are essential to guide all of New Jersey's EDCs. ACE's PIV Program petition “short circuits” the EVSG process and presents issues for which the EVSG has yet to achieve consensus and which the Board has yet to address in a comprehensive manner. As such, ACE's filing seeks to have the Board address a broad range of EV issues in an *ad hoc* manner, rather than in a comprehensive, reasoned manner that would provide needed guidance to all utilities and other stakeholders. Allowing the Board to address these issues before considering individual EDCs' *ad hoc* proposals would avoid the expense and effort of prematurely considering individual EDC proposals before the Board has mapped a comprehensive route toward facilitating motor vehicle electrification.

Further, staying the instant matter would not prejudice ACE. As noted in its Petition, ACE has been an active participant in the EVSG and is presenting its views of how the Board should address these important policy questions in that proceeding. This filing is also not subject to the time constraints of N.J.S.A. 48:3-98.1. The EV industry is in its infancy, with few EVs on the road today. Therefore, there is no rush to build out supporting infrastructure hastily. Hence, there is time for the EVSG process to run its course and take the time to get it right. Thus, because the critical elements of ACE's petition will depend on the Board's policy decisions on


the role of EDCs in the EV marketplace and any ratepayer responsibility for those costs, the Board should stay the ACE PIV petition until the EVSG process has concluded.

Conclusion

For all of these reasons, Rate Counsel respectfully requests that the Board stay ACE's Petition for approval of its PIV Program and hold the matter in abeyance until the Board can decide the direction for EV infrastructure upon conclusion of the pending EVSG process.

Respectfully submitted,

STEFANIE A. BRAND
DIRECTOR, DIVISION OF RATE COUNSEL

By: 
Kurt S. Lewandowski, Esq.
Assistant Deputy Rate Counsel

c: Hon. Upendra J. Chivukula, Commissioner (By Hand and electronic mail)
Service List (via electronic and regular mail)

ATTACHMENT A

EVSG Questions:

A. TASK 1 QUESTIONS (comment period closed on 10/16/17)

TASK 1 Q1: Do EVs fall under the definition of demand side management and energy efficiency as set forth at N.J.S.A. 48:3-51 and/or N.J.S.A. 48:3-98.1.d.?

TASK 1 Q2: Should owners and operators of EVSE that provide electric vehicle charging service be regulated as electric utilities? Are operators of EVSE reselling electricity or providing a charging service?

B. TASK 2 QUESTIONS (comment period closed on 11/30/17)

TASK 2 Q1: What goals for EV Infrastructure should be established?

TASK 2 Q2: What role should the Board, other government agencies; electric utilities, non-governmental organizations and the private market have in addressing EV/infrastructure adoption? Regarding electric utilities, please address: EV Grid integration; EV Rates (ToU, Demand Charges, etc.); and Role in EVSE [and/or] infrastructure, if any.

TASK 2 Q3: What is the present status of EVs and EV infrastructure in New Jersey?

TASK 2 Q4: What EV/infrastructure developments can be expected in the short/medium term under a Business as Usual scenario?

C. TASK 1 FOLLOW-UP QUESTIONS (comment period closed on 2/9/2018)

1 USDOE – AFDC Findings

TASK 1 Follow-up Q1.1 Are the analysis and findings of the USDOE AFDC and ANL accurate and supported by other independent analysis? Please cite why or why not.

TASK 1 Follow-up Q1.2 Should the NJBPU run the ARL GREET model for several different types of EV, ICE vehicles and other alternate fuel vehicles under different New Jersey driving conditions for various New Jersey electric generation mixes? Or not?

TASK 1 Follow-up Q1.3 If the Rutgers LESS energy efficiency evaluation shows favorable results for PEVs under NJ driving conditions and a NJ energy mix, how should that information be leveraged by the BPU to accelerate the pace of EV adoption in NJ? If not what actions should be taken by BPU?

2 Energy Efficiency

TASK 1 Follow-up Q2.1 Would an EV fueled by electricity from the current New Jersey electric generation sources be more efficient, less efficient or the same level of energy efficiency than the EVs noted in the ANL analysis? If so why? If not why not?

TASK 1 Follow-up Q2.2 Would an EV fueled by a New Jersey electric generation mix meet the definition of conserving energy in the definition for energy efficiency as set forth at N.J.S.A. 48:3-98.1? If so why? If not why not?

TASK 1 Follow-up Q2.3 Would an EV fueled by a New Jersey electric generation mix meet the definition of using less electricity or natural gas in the definition for energy efficiency as set forth at N.J.S.A. 48:3-98.1? If so why? If not why not?

3.0 Electric Systems Impacts

TASK 1 Follow-up Q3.1 What could be the expected percentage increase in electric energy attributable to EVs result in by 2025, 2030 and 2050?

TASK 1 Follow-up Q3.2 What could be the expected impacts and costs (positive and negative) on generation, transmission and distribution systems by the years 2025, 2030 and 2050?

4.0 Grid Integration, Demand Response and V2X (consisting of Vehicle to Grid (V2G), Vehicle to House (V2H), etc.

TASK 1 Follow-up Q4.1 What is the state of the technology that could allow the EV to be utilized as a demand response technology? What is the availability of the technology now and how/when will that availability evolve? What actions should NJBPU take to take advantage of the use of EVs as demand response technology? If not why not?

TASK 1 Follow-up Q4.2 V2X: Is the two way communication of the EV to the grid a commercially available technology or not? If so why? If not why not? What is the availability of the technology now and how/when will that availability evolve? What actions should NJBPU take and when to take advantage of the use of EVs in V2X technology?

TASK 1 Follow-up Q4.3 Could the EV electric customer access the energy markets directly, through an aggregator or Network Operations Center (NOC), through the electric utility or blockchain?

TASK 1 Follow-up Q4.4 If the EV could be utilized as a demand response technology in a two way communication with the grid, distribution and/or transmission, would the EV meet the definition of demand side management in N.J.S.A. 48:3-51? If so why? If not why not?

TASK 1 Follow-up Q4.5 What are the types and level of benefits to the grid of EVs in a demand response program and what would be the overall costs to develop and implement this program?

TASK 1 Follow-up Q4.6 If the EV could be utilized as a demand response technology, should the BPU consider changes to demand charges? If so why? If not why not?

TASK 1 Follow-up Q4.7 Should the BPU consider the use of telematics (such as Con Edison's SmartCharge New York program) in any demand response program and to address changes to demand charges. If so why? If not why not?

TASK 1 Follow-up Q4.8 If the EV is not using less electricity or natural gas per the definition for energy efficiency as set forth at N.J.S.A. 48:3-98.1 and the EV could be utilized as demand response for the EV to meet the definition of demand side management in N.J.S.A. 48:3-51, what could be the expected impacts on the grid for increased generation capacity by 2025, 2030 and 2050? What could be the level of costs and over what timeframe?

TASK 1 Follow-up Q4.9 If there is an increase in electric energy usage from the increase in EV but not a generation capacity increase because of demand response of EV what would the increase efficiency of the grid be in 2025, 2030 and 2050? If not why not?

5.0 Electric Vehicle Supply Equipment (EV Charging Station) State of the Competitive Market

TASK 1 Follow-up Q5.1 Is vehicle charging a fully competitive market across all market sectors (e.g. residential, public L2, public DCFC, low income communities and Multi Unit Dwellings)? If not which market sectors are not competitive and why not? Which market sectors are competitive? What is the business case for the EVSE industry and where does the business case fail?

TASK 1 Follow-up Q5.2 If the charging market sections are not competitive should the utilities be allowed to develop managed charging programs for the non-competitive charging market sections? If not why not?

TASK 1 Follow-up Q5.3 If the charging market sections are competitive should the utilities be allowed to develop managed charging programs for the competitive charging market sections? If not why not?

TASK 1 Follow-up Q5.4 If the utilities are allowed to develop managed charging programs is there a time limit or other criterion that should be imposed on this participation? If so what timeframe? Should any utility managed charging program have a sunset date?

TASK 1 Follow-up Q5.5 If the utilities are allowed to develop managed charging programs what guidelines should be developed for this participation? If not why not?

6.0 Utility Role in "Charge Ready"

TASK 1 Follow-up Q6.1 Should electric utilities engage in rate-based "Charge Ready" programs? What additional measures beyond Charge Ready are appropriate in non-competitive markets? Should utilities offer rebates on EV chargers or own/operate EV chargers in non-competitive markets?

7.0 Advanced Metering Infrastructure (AMI) - Smart Grid / Smart Meters

TASK 1 Follow-up Q7.1 What policies should the Board establish to take advantage of AMI, Smart Grid / Smart Meters with respect to the EV market?

TASK 1 Follow-up Q7.2 Would a utility managed charging program support and supplement any smart grid (SG) or automatic meter initiatives (AMI)? If not why not and what programs should be developed instead of AMI? If so what would be the level and value of the benefit to and from the AMI programs. If not describe why not and what would be the level of value in any other program?

**In the Matter of the Petition of
Atlantic City Electric Company
for Approval of a Voluntary
Program for Plug-In Vehicle
Charging
BPU Docket No. EO18020190**

Honorable Upendra J. Chivukula
Commissioner
New Jersey Board of Public Utilities
44 South Clinton Avenue
3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

Aida Camacho-Welch, Secretary
NJ Board of Public Utilities
44 South Clinton Avenue,
3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

Stefanie A. Brand, Esq., Director
Division of the Rate Counsel
140 East Front Street, 4th Fl.
P.O. Box 003
Trenton, NJ 08625

Felicia Thomas-Friel, Esq.
Division of Rate Counsel
140 East Front Street, 4th Fl.
P.O. Box 003
Trenton, NJ 08625

Kurt S. Lewandowski, Esq.
Division of Rate Counsel
140 East Front Street, 4th Fl.
P.O. Box 003
Trenton, NJ 08625

Brian O. Lipman, Esq.
Litigation Manager
Division of Rate Counsel
140 East Front Street, 4th Fl.
P.O. Box 003
Trenton, NJ 08625

Ami Morita, Esq.
Division of Rate Counsel
140 East Front Street, 4th Fl.
P.O. Box 003
Trenton, NJ 08625

Caroline Vachier, DAG
Division of Law & Public Safety
124 Halsey Street- 5th Floor
P.O. Box 45029
Newark, NJ 07101

Brian Weeks, Esq.
Division of Rate Counsel
140 East Front Street, 4th Fl.
P.O. Box 003
Trenton, NJ 08625

Alex Moreau, DAG
Division of Law & Public Safety
124 Halsey Street- 5th Floor
P.O. Box 45029
Newark, NJ 07101

Noreen M. Giblin, Esq.
Chief Counsel
NJ Board of Public Utilities
44 South Clinton Avenue, Suite 314
P.O. Box 350
Trenton, NJ 08625

Geoffrey Gersten, DAG
Division of Law & Public Safety
124 Halsey Street- 5th Floor
P.O. Box 45029
Newark, NJ 07101

Veronica Beke, DAG
Division of Law & Public Safety
124 Halsey Street- 5th Floor
P.O. Box 45029
Newark, NJ 07101

Sherri Jones
NJ Board of Public Utilities
44 South Clinton Avenue, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

Grace Strom Power
Chief of Staff
NJ Board of Public Utilities
44 South Clinton Avenue, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

Paul Flanagan
Executive Director
NJ Board of Public Utilities
44 South Clinton Avenue, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

Stacy Peterson
New Jersey Board of Public Utilities
44 South Clinton Avenue
3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

Andrea Hart
NJ Board of Public Utilities
44 South Clinton Avenue, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

Michael Hornsby
NJ Board of Public Utilities
44 South Clinton Avenue, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

Michael Winka
NJ Board of Public Utilities
44 South Clinton Avenue
3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625

Bethany Rocque-Romaine, Esq.
NJ Board of Public Utilities
44 South Clinton Avenue
3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625

Thomas Walker, Executive Director
NJ Board of Public Utilities
44 South Clinton Avenue
3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

Philip J. Passanante, Esq.
Assistant General Counsel
Atlantic City Electric
92DC42
500 N. Wakefield Drive
P.O. Box 6066
Newark, DE 19714-6066

Jackie O'Grady
NJ Board of Public Utilities
44 South Clinton Avenue
3rd Floor, Suite 314
P.O. Box 350
Trenton, NJ 08625-0350

Clark M. Stalker, Esq.
Atlantic City Electric Company
92DC42
500 N. Wakefield Drive,
P.O. Box 6066
Newark, DE 19714-6066

Robert S. Stewart
Manager, Smart/Grid/Technology
Pepco Holdings LLC – EP8022
701 Ninth Street, NW
Washington, DC 20068-0001

Roger E. Pedersen, Manager
New Jersey, Regulatory Affairs
63ML38
Atlantic City Electric Company
5100 Harding Highway
Mays Landing, NJ 08330

Lauren M. Lepkoski, Esq.
FirstEnergy Service Company
Legal Department
2800 Pottsville Pike
Reading, PA 19612-6001

Joseph F. Janocha
Pepco Holdings LLC – 92DC56
500 N. Wakefield Drive
P.O. Box 6066
Newark, DE 19714-6066

Peter R. Blazunas
Pepco Holdings LLC – EP9020
701 Ninth Street, NW
Washington, DC 20068-0001

Justin B. Incardone, Esq.
Associate General Regulatory Counsel
PSEG Services Corporation
80 Park Plaza, T5G
Newark, NJ 07102-4194

Bernard Smalls
PSE&G Services Corporation
80 Park Plaza – T5
P.O. Box 570
Newark, NJ 07102

Michele Falcao
PSE&G Services Corporation
80 Park Plaza – T5
P.O. Box 570
Newark, NJ 07102