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October 16, 2017

By Hand Delivery and Electronic Mail
Honorable Irene Kim Asbury, Secretary
NJ Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314
P.O. Box 350
Trenton, New Jersey 08625-0350

Re: New Jersey Board of Public Utilities Electric Vehicle Stakeholder Group Task 1 Questions: Comments of the New Jersey Division of Rate Counsel

Dear Secretary Asbury:

Please accept this original and ten (10) copies of Comments submitted on behalf of the New Jersey Division of Rate Counsel ("Rate Counsel") in connection with the above-captioned matter. Copies of the comments are being provided to all parties on the e-service list by electronic mail and hard copies will be provided upon request to our office.

We are enclosing one additional copy of the comments. Please stamp and date the extra copy as "filed" and return it in our self-addressed stamped envelope.

Thank you for your consideration and assistance.

Respectfully submitted,

STEFANIE A. BRAND
Director, Division of Rate Counsel

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FTF
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New Jersey Board of Public Utilities

Electric Vehicle Stakeholder Group

TASK 1 Questions

Comments of the New Jersey Division of Rate Counsel

October 16, 2017

The Division of Rate Counsel ("Rate Counsel") would like to thank the Board of Public Utilities ("BPU" or "Board") for the opportunity to present comments on the TASK 1 questions circulated at the September 26, 2017 stakeholder meeting. Policy considerations are presented first, followed by Rate Counsel's responses to the TASK 1 questions.

Policy Considerations

Before embarking on specific measures to facilitate electric vehicle ("EV") use, it is helpful to consider EVs in the context of the need for public utility regulation. Generally, regulated public utility service presupposes that the utility "product" (i.e. electricity, natural gas) is "consumed" by the utility customer at the point of service, a stationary customer. The nature of utility "product", whether it's electric or natural gas service, is such that it is necessary for the conveniences of modern living as well as necessary for the maintenance of the basic health, safety and welfare of the general public. Moreover, there are few, if any, reasonable substitutes for the public utility product. Furthermore, the provision of regulated public utility service is dependent on the use of public right of ways for infrastructure, such as wires and pipes on public land, through municipal franchises. Hence, the BPU governs the rates and terms of service for utility service as a regulated monopoly.

The design and development of the electric distribution grid and its regulation is premised on this monopoly service model. Historically, the focus of demand side management

and energy efficiency programs was on stationary utility customers who have no viable alternatives to utility service. Whether these measures encompassed lighting, refrigerators, or air conditioning, the focus is on on-site usage. Partly as a result of these programs and due to other more general economic factors, in recent years the electric load associated with traditional electric customers has trended downward. The anticipated proliferation of EVs has the potential to buck this downward trend in on-site electric usage.

EVs present a new, unique use of electric resources. In contrast to traditional utility service, electricity as vehicle fuel by definition serves a mobile (non-stationary) customer and ultimately reflects a personal decision regarding vehicle fuel. An EV is not tied in a monopolistic sense to a specific regulated public utility franchise by virtue of its mobility and its recognized status as using one of a number of alternative fuels for mobility.

However, electric vehicles constitute incremental demand which affects the regulated electric grid and, in turn, drives cost increases, all else equal. Initially, there might be some demand side management benefits attributable to EVs which will increase capacity factors for existing electric grid and generating resources, through possibly time-of-use pricing for charging or vehicle to grid technology. Yet, ultimately, additional electric grid and generating capacity will likely be required as more EVs are placed in operation.

[1] These demands and costs will increase incrementally with the anticipated proliferation of electric vehicles. As a matter of public policy, steps should be taken now to ensure that these

[1] See Regulatory Assistance Project report dated May 2017 for the BPU entitled "Getting From Here to There: Regulatory Considerations for Transportation Electrification" ("May 2017 RAP Report"), page 19.

incremental costs associated with EV use are incorporated in the costs borne by EV users, and not transferred to traditional electric public utility customers ("TECs"). [2]

The 2015 Update of the New Jersey Energy Master Plan recognizes the State's role in facilitating the use alternative fueled vehicles, such as EVs:

> The State must continue to expand its efforts to promote the use of alternative fuel vehicles. The State is committed to promoting and removing barriers to the development of infrastructure needed throughout the state to encourage heavy duty vehicle class conversion from expensive and polluting diesel fuel to less costly and clean natural gas (CNG and LNG). The State will continue to facilitate the infrastructure needed to support broader use of alternatively-fueled vehicles by fleet owners as well as individuals. The State will also promote new and cleaner in-state power generation and the improvement of our electric grid, which will be needed as the electric vehicle industry continues to grow on a state and national scale. The BPU and DEP are exploring programs they can develop and implement to enhance and expand the use of alternate-fueled vehicles.[3]

However, facilitating EV use is not without limits, particularly as it pertains to costs and the effects on competition.

Consider the disruptive effect if BPU-sponsored and utility-sponsored DSM and EE programs were extended to promote EVs. The use of existing EE and DSM programs to promote EV use would exacerbate the shifting of costs attributable to EV load to traditional electric utility customers. Captive traditional utility customers - without EVs - would be forced to fund programs to promote EV use. Furthermore, potential third party suppliers of EV recharging services would face competition from regulated public utilities with rates and rates of return guaranteed by the Board.

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[2] Furthermore, new legislation may be required to address the issues presented by widespread use of electric vehicles, such as the collection of a taxes for transportation infrastructure projects, which have generally been collected through gasoline taxes but would need to be extended to EV drivers who also use the State's transportation infrastructure.

[3] Update to the New Jersey Energy Master Plan, dated December 2015, p. 13.

Potential third party recharging providers include vehicle manufacturers, auto dealerships, gasoline retailers, convenience markets, food supermarkets, shopping malls, office building owners, parking lots, etc. There are no indications that such suppliers are not eager to serve the EV market. The introduction of electric utilities would adversely affect the natural development of this market.

Question 1: 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.?

As set forth above, EVs do not constitute traditional utility electric load, nor do they fit into the energy efficiency ("EE") and demand side management ("DSM") framework. Specifically, as discussed below, EVs do not fit into the EE or DSM programs addressed by N.J.S.A. 48:3-51 and/or N.J.S.A. 48:3-98.1(d).

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

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 and contained provisions for the funding of energy efficiency ("EE") and demand side management ("DSM") programs. More specifically, EDECA established a non-bypassable Societal Benefits Charge ("SBC") for all ratepayers to fund EE and DSM programs. N.J.S.A. 48:3-60(a). EDECA defines DSM as follows:

> "Demand side management" means the management of customer demand for energy service through the implementation of cost-effective energy efficiency technologies, including, but not limited to, installed conservation, load management, and energy efficiency measures on and in the residential, commercial, industrial, institutional, and governmental premises and facilities in this State. N.J.S.A. 48:3-51.

EDECA does not explicitly define "energy efficiency." However, contrary to the reasoning underlying the above provisions, the proliferation of electric vehicles would increase electric energy use and the demands placed on the State's electric distribution and generation resources. In fact, nowhere in EDECA are electric vehicles and their recharging mentioned.

Moreover, even taking an expansive view of the EE and DSM provisions of EDECA, SBC-funded electric vehicle recharging would likely run afoul of EDECA's provisions regarding competition. One of the State policies identified by the Legislature in drafting EDECA was to "[p]lace greater reliance on competitive markets, where such markets exist, 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). Further, EDECA factors competition into the evaluation of SBC-funded EE and DSM programs, as discussed below.

EDECA requires a periodic "comprehensive resource analysis" of energy programs. N.J.S.A. 48:3-60. EDECA defines a comprehensive resource analysis as an "analysis including, but not limited to, an assessment of existing market barriers to the implementation of energy efficiency and renewable technologies that are not or cannot be delivered to customers through a competitive marketplace." N.J.S.A. 48:3-51. Furthermore, EDECA sets forth the areas of review for the comprehensive resource analysis:

> The board shall make these determinations [regarding SBC-funded EE and SBC-related rates and programs] taking into consideration existing market barriers and environmental benefits, with the objective of transforming markets, capturing lost opportunities, making energy services more affordable for low income customers and eliminating subsidies for programs that can be delivered in the marketplace without electric public utility and gas public utility customer funding.... N.J.S.A. 48:3-60.

Here, aside from contributing incremental electric load, electric vehicle recharging is the type of electric service that lends itself to third-party-suppliers as a competitive service. It would not be

unreasonable to assume that the market value of the leading manufacturer of electric vehicles is indicative of the investor interest in the electric vehicle manufacturing and associated industries, including recharging facilities. Captive electric utility ratepayers should not be asked to fund a competitive venture through rates or SBC charges. Furthermore, the involvement of regulated electric public utilities would skew the market forces at play in the emerging electric vehicle market.

N.J.S.A. 48:3-98.1(d)

The New Jersey law known as the "RGGI Act" provides a carve–out from EDECA's regulatory framework favoring competition whereby electric utilities may "provide and invest in energy efficiency and conservation programs in its respective service territory on a regulated basis pursuant to this section, regardless of whether the energy efficiency or conservation program involves facilities on the utility side or customer side of the point of interconnection." N.J.S.A.48:3-98.1(a).

However, the "energy efficiency and conservation program" contemplated by the RGGI Act "means any regulated program, including customer and community education and outreach, approved by the [B]oard pursuant to this section for the purpose of conserving energy or making the use of electricity or natural gas more efficient by New Jersey consumers...." N.J.S.A. 48:3-98.1(d). The RGGI Act clearly envisioned a reduction of electric load as a result of EE and conservation programs implemented pursuant to its provisions. The RGGI Act's definition of "program costs" eligible for recovery includes "all reasonable and prudent costs incurred in developing and implementing energy efficiency, conservation... programs approved by the board pursuant to this section...[and] include ....a full return on invested capital and foregone

electric and gas distribution fixed cost contributions associated with the implementation of the energy efficiency, conservation,... programs.... N.J.S.A. 48:3-98.1(d).

The provision of electricity for EV use, by definition, does not conserve electric energy but, rather, increases the load placed on the State's electric grid and generation resources. This increased load placed on the State's electric system does not fall within the EE and conservation activities contemplated by the RGGI Act. Furthermore, any blanket categorization of EV recharging as an energy efficiency measure would ignore the relative efficiency of various EVs, if this activity was found to be an "energy efficiency" measures under the RGGI Act's provisions. In sum, EV recharging does not fall within the RGGI Act's definition of eligible programs.

Question 2: 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?

Viewed as a means to distribute energy in the broadest sense, the clearest analogy to an electric vehicle refueling station or kiosk is a traditional gasoline filing station or gasoline pump. Hence, the provision of electricity by electric vehicle supply equipment ("EVSE") operators for recharging electric vehicles should be viewed as a competitive service. This service can and should be provided by competitive third-party suppliers, much like gasoline fuel retailers, not as a service of regulated public utilities.

The Board has general supervisory and regulatory powers over public utilities in the State. See N.J.S.A. 48:2-13(a). In relevant part, the term "public utility" includes "every [entity] that now or hereafter may own, operate, manage or control within this State any ...electricity distribution... system, plant or equipment for public use, under privileges granted or

hereafter to be granted by this State or by any political subdivision thereof." In addition to offering service to the public ("for public use"), one of the factors in determining an entity's status as a public utility is its use of public right–of–ways and exclusive franchises granted by municipalities. See N.J.S.A. 48:3-87. Again, using the gasoline station analogy, it does not appear that electric recharging stations will require the use of public right-of- ways or the grant of a municipal franchise.

As noted above, 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. 8:3-51. Here, electric recharging stations are not currently regulated by the Board. To regulate EVSE operators as public utilities would go against the precepts of EDECA which seeks to foster competition in the energy field. EDECA instructs the Board to consider the following factors in determine whether a service is a "competitive service:" "evidence of ease of market entry; presence of other competitors; and the availability of like or substitute services in the relevant market segment and geographic area." N.J.S.A. 48:3-56. Here, the market values of EV manufacturers shows a willingness by private investors to invest in EVs and the presence of competitive service providers offering similar services works against a finding that the EVSE operation is not a competitive service. For all of the above reasons, EVSE operators should not be considered as public utilities.

If regulated utilities seek to become involved in EVSE operation, such activities should be relegated to activities that fit the monopolistic utility model of regulation, such as modifications to the grid necessary to adapt to greatly increased demand for recharging services. Any competitive services should be conducted by structurally separate unregulated affiliates and also subject to EDECA's provisions governing the provision of competitive services.

With respect to the second question, EVSE operators are selling electricity, not service. Much like gasoline, any viable sustainable model for electric vehicle recharging involves a retail price structure based on some unit of energy measurement. In the case of gasoline, the unit of sale is a gallon of gasoline as a proxy for energy content and in the case of EVs it is a kWh or some derivative thereof. It cannot be reasonably in dispute that electric energy is the foundation of the product provided by EVSE operators. While EVSE operators provide a time and place for recharging by the EV traveler, the ultimate product of recharging is electric energy. The process of recharging a modern electric vehicle requires no special skill. In fact, manufacturers of electric vehicles and charging station equipment pride themselves on the simplicity of their recharging processes.

However, whether EVSE operators are reselling electricity or providing a charging service is a distinction which might cause the EVSE operators to run afoul of current EDC tariffs. Generally, there are utility tariff prohibitions against sub-metering when electricity is resold for a profit.[4] Sub-metering typically refers to a situation where multiple parties take service from one meter yet billed separately by a non-utility entity, such as where renters in apartment building are billed for utility service by a non-utility landlord. Yet, even under a typical sub-metering scenario, the utility service is "consumed" on site. Furthermore, much like

[4] See, for example, PSE&G Tariff Sheets 27-28 (6/7/2010) and JCP&L Tariff Sheet 4 (1/1/2017).

conventional utility, service under sub-metering the underlying assumption is that there is no substitute for utility service and the underlying utility service is a monopoly service provided pursuant to a municipal franchise. Electric vehicle recharging departs from the traditional utility service model. Assuming *arguendo* the adoption of revisions to current electric utility tariffs to permit EVSE operators to resell electricity, a separate tariff for EVSE operators should be established for such customers so that the impact EVSE operation on the electric grid and supply may be assessed in terms of revenues, usage, and cost of service.

At this point, separate metering for EV charging is a significant first step to address EV proliferation. The best way to assess the effect of the proliferation of EVs on the electric infrastructure is through separate metering of the electricity used for electric vehicle recharging. This would implicitly entail a "but for" test to isolate the effects of EV recharging on the grid. That is, the metering should encompass vehicle recharging use only and, ideally, also measure time of use. The data provided by such metering will inform lawmakers, regulators, and all stakeholders in the formulation of policy and relevant law.[5]

[5] Separate EV metering would also facilitate the imposition of a user fees, such as road taxes, for EV use.