February 9, 2018

Mike Hornsby
Chief Project Development Officer
New Jersey Board of Public Utilities
Trenton, New Jersey

Subject: Comments of the Alliance for Transportation Electrification to the New Jersey BPU Electric Vehicle Infrastructure Stakeholder Workgroup

Dear Mr. Hornsby:

The Alliance for Transportation Electrification is pleased to submit the following comments to the Board of Public Utilities' EV Infrastructure Stakeholder Workgroup. The Alliance is a broad and diverse coalition of approximately 30 national utilities, electric vehicle supply equipment (EVSE) firms and organizations that support the acceleration of transportation electrification.

Of the many salient issues you raise in the December 20, 2017 questions, the Alliance's comments will primarily address the fact that infrastructure is generally being installed too slowly in relation to the projected introduction of multiple types of electric vehicles in the marketplace, thereby aggravating the infrastructure gap. The Alliance believes that utilities are well suited to address multiple examples of market failure in a more holistic way.

Market failures exist in several types of EVSE because of private sector demands for a rapid return on capital investment, particularly in certain types of charging such as DC fast charging. Also, several areas of the hard-to-reach EVSE

market such as multi-unit dwellings, and in general the low to moderate income class cannot be justified on a stand-alone commercial basis.

Utilities, on the other hand, can take the long view and use their strong balance sheets, low cost of credit, and expertise to make strategic investments that will, over time, benefit all ratepayers. There is no one-size-fits-all approach, but appropriate utility roles can include ownership of the make-ready portion of EVSE installations, ownership of EVSE itself, cost-effective rebates for EVSE infrastructure, as well as outreach and education to potential EV owners as well as automobile dealers.

Response to Questionnaire

In response to Question 5.1, vehicle charging is not a fully competitive market across all sectors. Generally speaking, nearly every sector is underserved in one way or another for the simple reason that the cost of installing infrastructure is high and the profit margins are minimal. Utilities can help by providing installation rebates for specific use-cases that will result in increased electricity consumption, preferably during off-peak hours. Alternatively, utilities may choose to provide the "make-ready" for EVSE, or in some cases even own and operate the EVSE where Commission rules allow it and it makes sense from a portfolio approach. There are scenarios ranging from disadvantaged communities to high-end multifamily dwellings to commercial truck fleets where the utility's involvement can make or break a deal.

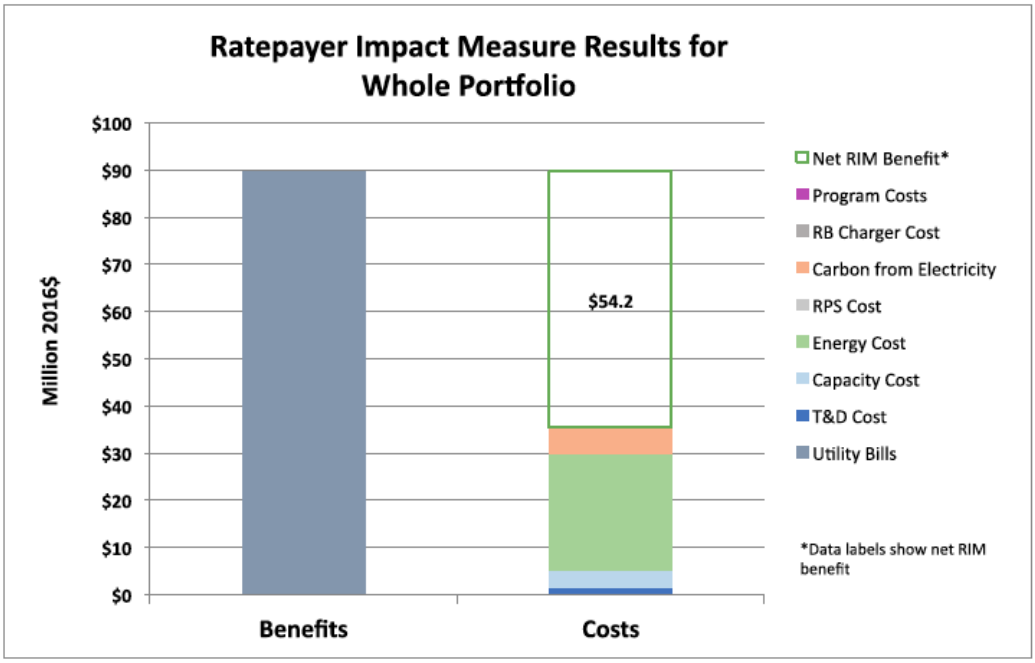
The business case for the utility, BPU, and ratepayers is simple: New load on the system, during hours of low utilization, will result in the collection of

incremental revenue that can be spread across the fixed costs of operating the distribution system, which puts downward pressure on rates and can be allocated to all customer classes based on a full revenue requirements analysis.

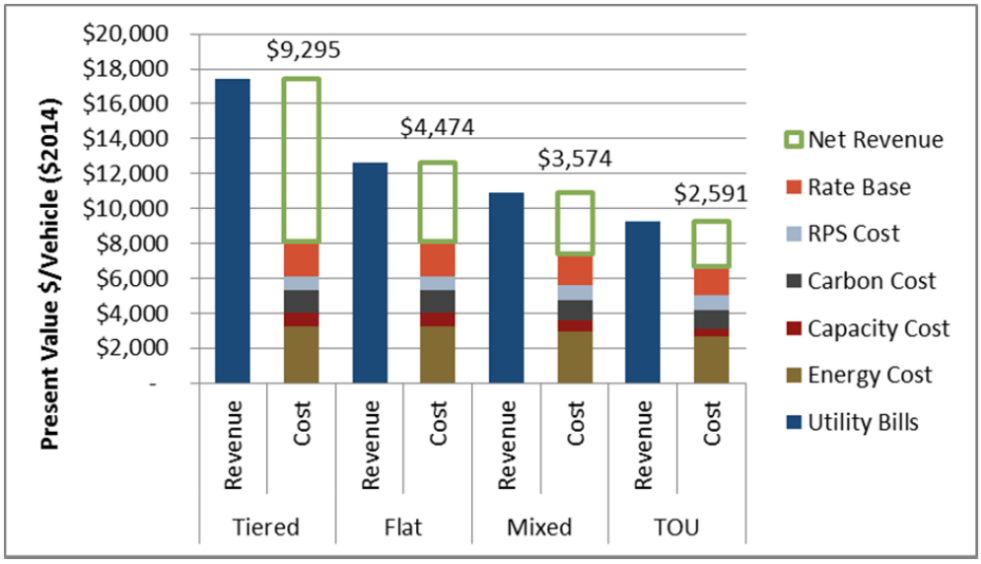
In California, ICF, in conjunction with Energy & Environmental Economics, conducted in-depth research and analysis and concluded that:

> The Ratepayer Impact Measure (RIM) shows that the utility bills PEV owners pay more than offset the costs incurred by the utility to deliver the electricity to charge the vehicles. From the utility customer perspective, revenues from PEV charging are a benefit and the resources expended to deliver electricity for charging are costs. Under each of four rates and charging load shape scenarios studied, additional revenue from PEV charging exceeds the marginal costs to deliver electricity to the customer, providing positive net revenues that put downward pressure on rates.[1]

The following two charts from the ICF report show net benefits both at scale and on a per-vehicle basis (benefits from the latter accrue to all ratepayers based on kWh consumption and therefore do not require large scale deployment to be realized).



[1] California Transportation Electrification Assessment, Phase 2: Grid Impacts, Oct. 23, 2014 (available at https://goo.gl/7hR8aS).



In short, more charging in more places will encourage people to drive more electric vehicles more miles, and this will create a virtuous cycle.

In response to Questions 5.1 and 5.2, utilities should be allowed to develop managed charging programs, but the distinction between competitive and non-competitive cannot necessarily be determined through a generic characterization such as the use case or type of charger. Instead, the question can involve factors such as projected usage, lack of single-user or unified site control (i.e., multifamily communities), and the magnitude of a utility upgrade necessitated by the installation. For example, in cases where a utility upgrade such as a new transformer or expensive work in a highly-developed or congested area makes a project non-economic, allowing the utility to place the capital expense in rate base and earn a return, could both make a project competitive and could provide benefits to other end users on that circuit.

In response to Question 5.4, time limits are not necessary and could have unintended consequences. We believe there is no justifiable reason to impose

artificial time limits at this time generally because electric vehicle charging is consistent with utilities' core function of providing reliable and affordable service to all customers over the long-term. Moreover, it is not necessary since the upfront cost of installing chargers will not change over time and because, as stated above, the provision of EVSE by the utilities with smart charging will provide ample system benefits for ratepayers.

General Principles

Transportation electrification is in the public interest

There is a clear policy case for transportation electrification, as it can offer operational savings to plug-in electric vehicle (PEV) drivers, support local industries in the state, reduce dependency on foreign oil, and provide significant environmental benefits to all New Jersey residents through reduced tailpipe emissions;

There is also a clear regulatory case for transportation electrification, since increased PEV adoption puts downward pressure on rates. Currently, the vast majority of vehicle charging takes place overnight at home, effectively utilizing excess distribution and generation capacity. Furthermore, given that PEVs can over time become intelligent storage assets, the electrification of transportation can build a resource for grid services over time.

Transportation electrification in New Jersey is lagging and barriers need to be addressed

- As the advancement of battery technology is bringing PEVs closer to price parity with internal combustion engine vehicles, auto and truck manufacturers ("OEMs") are bringing additional PEVs to market, increasing consumer interest.

However, consumer awareness and knowledge of PEVs, range anxiety, and charging infrastructure investment remain primary barriers to PEV adoption.

- New Jersey can address range anxiety by supporting the accelerated deployment of residential, workplace, and public charging infrastructure that provides equitable, reliable, and consistent access to electric transportation for riders and drivers.
- It is in the public interest to ensure key consumer protection principles like transparent pricing for PEV charging services and the use of open standards for communications and payment to ensure universal access for PEV owners to publicly available charging stations.
- The private investment committed to deploy charging equipment and services in New Jersey is not enough to close the infrastructure gap across the state (especially in underserved markets including multi-unit dwellings), so public and utility investments should be utilized to complement private funding sources to establish a foundational charging infrastructure in New Jersey. In other words, utility investments in this EV infrastructure can play an important role in both transforming the overall EVSE market and catalyzing other investments in partnerships or targeted, strategic approaches.
- New Jersey can improve customer understanding by empowering stakeholders (e.g., OEMs, utilities, and charging equipment manufacturers) to improve the customer journey - from initial consideration to ownership and operation – through education and outreach.

Utilities are uniquely suited to help

- As demonstrated across the country, utilities are uniquely suited to integrate PEV infrastructure in a manner that mediates system capabilities, costs, and future growth while maximizing system benefits for all customers.
- PEV load has unique characteristics, and utilities - particularly those with Advanced Metering Infrastructure ("AMI") - are well positioned to manage this flexible load with time-based rates, smart charging / demand response programs, and other innovative applications.
- Since utilities have an obligation to serve all customers under New Jersey state law and regulations of the BPU, they have the ability to fashion EVSE tariffs and programs under a portfolio approach that can allocate costs and benefits across various rate classes in a manner that serves the public interest.
- To accelerate the deployment of infrastructure to enable adoption of electric transportation, it is critical to appropriately leverage multiple funding sources – including utility investment seeking reasonable cost recovery - in a manner that complements a robust PEV charging market.
- Utilities can leverage established customer relationships to develop an informed market and engage in education and outreach programs, in partnership with others in the EV ecosystem, in order to enhance customer confidence in PEV technology.
- Utilities should proactively engage their regulators, consumers, and all stakeholders in developing rate designs and education and outreach programs that benefit all customers. The Alliance believes that a collaborative approach

that involves multiple stakeholders, and the relevant state agencies, is the most sensible way to accelerate progress in deployments of EV infrastructure.

Conclusion

In conclusion, because the EV industry is in its early stages, policy decisions and regulatory developments should maintain flexibility to enable utilities and other stakeholders to quickly respond to market developments.

Respectfully submitted,

Philip B. Jones, Executive Director

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