CHARGEVC
BETTER TRAVEL, STRONGER GRID.

Via electronic submission to emp.comments@bpu.nj.gov

October 12, 2018
TO: Aida Camacho, Secretary
New Jersey Board of Public Utilities
44 South Clinton Avenue, 3rd Floor, Suite 314, CN 350,
Trenton, New Jersey 08625

FROM: Pamela Frank, CEO
On behalf of ChargEVC
417 Denison Street
Highland Park, New Jersey 08648

RE: Comments on the 2019 State Energy Master Plan/Clean and Reliable Transportation

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Secretary Camacho:

Enclosed please find the comments submitted on behalf of ChargEVC, pursuant to the notice released by the Board of Public Utilities regarding the Energy Master Plan Stakeholder Meetings, dated September 12, 2018.

Thank You.

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INTRODUCTION

ChargEVC is a not for profit coalition of automotive retailers, utilities, technology companies, local governments, environmental, community, equity and labor advocates and manufactures. The coalition's work focuses on accelerating the transition to electrically fueled transportation in New Jersey. Based on research and analysis, including input from its members with expertise in the diverse segments relevant to market development, ChargEVC develops and advocates for program and policies that will accelerate market development. The program and policies recommended will deliver the broadest and deepest benefits to New Jersey.

The reason for formation of the coalition is awareness that the EV market is one of the most advanced clean transportation technologies available. A focused state effort can therefore leverage significant momentum that is emerging in the transportation industry and achieve significant progress on state goals, relatively quickly, with relatively minimal investment.

BACKGROUND

ChargEVC was launched in October of 2016. Over the two years, ChargEVC has completed a cost/benefit study (the Study) and roadmap (the Roadmap) for market development. These two documents are included as part of our formal written comments for the record.

The Roadmap recommends eight (8) program and polices that accelerate the electrification of transportation while the Study examines the costs and benefits of those programs and policies.

The majority of the EMP discussion points circulated to stakeholders are addressed by ChargEVC in the Roadmap and Study. Note that the analytical work upon which the Study was based was focused on the light duty fleet.

The next ChargEVC study, expected to be completed in the second half of 2019, will update data from that initial study (now nearly two years old), examine costs and benefits related to the electrification of the medium and heavy-duty fleet, examine localized air quality and emissions impacts, and the potential benefits of vehicle to grid technology.

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These written comments provided below supplement the oral testimony given at the EMP public stakeholder meeting by Pamela Frank, held on September 20, 2018.

COMMENTS

The opportunity for New Jersey:

The following are highlights regarding the opportunity for New Jersey. For a more complete discussion and details, please see the ChargEVC study.

- New Jersey is behind market leading EV states and therefore has untapped potential. Based on a comparison of New Jersey to these leading states that have achieved higher per capita penetration, investment in additional market development could reinforce natural growth by at least a factor of two.
- New Jersey is a major travel corridor connecting the northeast and mid-Atlantic. Given its relatively dense development, New Jersey has a unique opportunity to completely eliminate range anxiety, the most significant barrier to adoption of electric vehicles, with a focused initiative that seeds the market with high speed, publicly available and accessible charging stations.
- Adoption of electric vehicles in New Jersey is the most efficient and expedient way to clean our air and reduce carbon emissions– every electrically fueled mile is 69-79% cleaner than a mile fueled with petroleum (based on existing generation resources).
- Through appropriate market development program and policies, EV charging can be used to optimize overall grid loading and to reduce electricity costs for all, while also cutting the "fueling" costs for EV owners in half.
- Technology continues to progress, and the timing is right for a bold initiative as a wide variety of electric vehicles will be coming into the market over the next 12-36 months.

Public partnerships and public-private partnerships:

Innovation is needed regarding how state government works with the private sector, especially in an area as complex and multi-faceted as the electrification of our transportation system. Adequately preparing for this transition in a way that will ensure the broadest and deepest benefits for all will require state agencies to work in close

cooperation with each other. This calls for a different way of working than has existed in the "silo" configuration historically in place.

Innovation in the way that our public utilities work with private companies can create the right balance of competition, innovation and achievement of key policy goals. Additionally, the State should use the help (and the capital) that the private sector can provide. The State should consider where it can act to appropriately de-risk the environment for private capital to make investments that will expedite this transition.

Urban focus:

There are areas in New Jersey that have suffered disproportionate air quality impacts from transportation related emissions. Our urban centers, particularly those that surround our ports, suffer from disproportionate air quality impacts, especially on the hottest summer days when ozone forms. While it is true that all New Jersey will benefit from cleaner air as we displace petroleum fueled vehicles, we must focus efforts and resources in the areas of our state that experience the worst impacts. This means electrification of buses, trucks and drayage around our ports, in addition to the electrification of public transit and encouraging electrically fueled ride-sharing services and other ways to move people and goods around our urban areas.

Most impactful programs and policies:

The Roadmap published September 13, 2017 has eight program and policy recommendations. Please refer to the Roadmap for more detail. Below, we highlight six "must do" initiatives for the short term.

- Set goals and clarify authorizations;
- Eliminate range anxiety with the development of the Essential Charging Public Network;
- Address the affordability gap through a rebate program for electric vehicles;
- Ensure widespread "Right to Charge" policies that provide routine charging where needed, responsible grid integration, optimization of benefits through managed charging programs, ensuring that all buildings are EV ready, and support of kilowatt-hour pricing;
- Ensure electrification reaches all communities equally (transit, ride shares, fleets);
- Build awareness through outreach and education.

Costs and benefits:

Below, we highlight several findings from the Study through 2035. The Study, as previously mentioned, only focused on the light duty fleet and did not consider any potential vehicle to grid costs and benefits. The study considered the cost of the eight program and policy recommendations and studied the related benefits in several areas – impacts on electricity customers, impacts on EV owners and impacts related to carbon emissions reductions. Please see our Study for the complete list of benefits provided in more detail.

- Net savings for all utility customers: Utility customer savings exceed costs by a factor of 1.99 through 2035, with annual savings averaging $156M. This results in a net savings over $2.9B by 2035.
- Net savings for EV owners: Through a reduced cost of fueling and maintenance, putting two EVs into the garage of an average New Jersey household creates more than $1900 per year of additional disposable income through 2035. This results in a net savings of over $8.4B through 2035.
- Carbon benefits: Reduced carbon emissions total $2.3B through 2035.

CONCLUSION

Given this unprecedented opportunity, ChargEVC recommends that the 2019 Energy Master Plan focus leveraging the large, immediate and cost effect impact of vehicle electrification as a clean transportation strategy.

We appreciate the opportunity to contribute to the 2019 Energy Master Plan.