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

September 16, 2019
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
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RE: Comments on the 2019 Draft State Energy Master Plan

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 August 21, 2019.

Thank You.

INTRODUCTION & BACKGROUND

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 coalition was formed in 2016 in response to technological progress that makes the EV market one of the most advanced clean transportation technologies available capable of delivering broad and significant benefits to all the people in New Jersey. **A focused state effort can leverage significant momentum emerging in the transportation industry and achieve significant progress on state goals, relatively quickly, with relatively minimal investment.**

Over the last several years, ChargEVC has completed a cost/benefit study (the Study) and roadmap (the Roadmap) for market development. The Roadmap recommends eight (8) programs and policies that accelerate the electrification of transportation while the Study examines the costs and benefits of those programs and policies.

These two documents are included as part of our formal written comments for the record.

These written comments provided below supplement the oral testimony given at the EMP public stakeholder meeting by Pamela Frank, held on July 17, 2019.

COMMENTS

In no order of priority, we offer the following comments on the Draft Energy Master Plan:

Agreement with electrification of the transportation sector as a top line strategy:

We are pleased to see this listed as one of the seven strategies for achieving the State's goal of "100% carbon-neutral electricity generation and maximum electrification of the transportation and building sectors." It makes sense that this should be a primary strategy for several reasons: a) transportation is such a significant part of the State's greenhouse gas footprint; b) EV solutions for many use cases already exists and EV technology continues to mature rapidly; and c) the fact that so many New Jersey citizens, businesses and governmental entities can help

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make this transition happen through their vehicle purchase choices (a coordinated state strategy will more fully help realize the potential of multi-sector initiatives).

Additionally, and notably, electrification of transportation touches every subsequent strategy listed, and it is integral and necessary to achievement of the State's goal. As described in our oral testimony on July 17, 2019 below are examples of how Strategy #1, Electrification of the Transportation Sector, touches the other six strategies.

STRATEGY 2: Accelerating deployment of renewable energy (RE) and distributed energy resources (DERs) will necessitate changes to the distribution system; including opening circuits that are currently constrained. Revisiting the current interconnection processes will be necessary TODAY in order to appropriately plan for and accommodate increasing penetration of RE, DER, charging infrastructure and the anticipated increased load from this transition to electric vehicles (EVs). This will also entail thoughtful exploration of rate designs that align the growth of RE, DER, EVs and fairly compensates utilities.

STRATEGY 3: Maximizing energy efficiency and conservation and reducing peak demand rely on how and when electric vehicles will interact with the grid. EVs represent a significant step forward with respect to the efficient use of energy to enable mobility. These gains are multiplied further with respect to electrification of public transit, which will need to be an explicit area of focus for the State. Further, the ability to manage how EV charging occurs, especially in residential settings, will be crucial to reducing peak demand in addition to bringing many other benefits to our energy system and to the ratepayers.

STRATEGY 4: Reducing energy use and emissions from the building sector: Delivering on this strategy will make use in part of the emerging V2G technology. Where a company or municipality has a fleet of trucks or cars, that fleet becomes an extension of a building's energy management system – taking electricity and/or delivering electricity at opportune times that align with the use of the vehicles.

STRATEGIES 2&5: Modernizing the Grid and Utility Infrastructure is necessary for increased EV, RE and DER penetration.

STRATEGY 6: Support Community Energy Planning and Action in low and middle income (LMI) EJ Communities. We need pilot projects today. That means the EVs and infrastructure to support their operations. Strategic use of settlement funds, including VW's remaining $7M allocation, should be directed to DCFC in ways that will help residents who don't own cars or who have cars but don't have access to on-site parking. Properly sited DCFC assets

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will help the growing electric bus, taxi, and ride-hailing/car-sharing services that can serve these communities.

STRATEGY 7: Expand the Clean Energy Innovation Economy: Electric mobility offers plenty of opportunity for innovation. NJ, located in the center of the East Coast is also part of one of the largest transportation markets in the country. We encourage development of electric transportation technology and business incubators to help advance the field and make New Jersey the hub of EV related economic activity for the east coast.

Electrification of NJ Transit

New Jersey Transit stands out as the only major transit agency in the country that has not pledged to electrify its bus fleet. This needs to be articulated as a clear goal for the agency with near and longer term targets. Further, there must be close coordination between government agencies and utilities in order to ensure a path to electrification that ensures safe, affordable and reliable service for New Jersey riders. New Jersey Transit cannot accomplish this by itself. Innovation in financing, procurement and public private partnerships should be pursued that can enable this transition to happen sooner than later. Further, New Jersey needs to identify dedicated sources of funding for investments in clean transportation, such as the Regional Transportation and Climate Initiative (TCI).

New data to justify strong and timely action

The most recent data and analysis for New Jersey continues to substantiate the significant opportunity for New Jersey in accelerating market development.

PEV results over the last two years have been encouraging in NJ, despite the lack of strong market development policies, which demonstrates the natural interest NJ consumers have in electric vehicles. NJ is fertile ground for fast and widespread EV adoption. The strong empirical evidence of consumer interest in EVs has been confirmed at both the national level and through studies specific to NJ. In a new poll released by the Union of Concern Scientists and Consumer reports (July 2019), a sample of national respondents indicates that 5% of prospective car buyers will definitely buy an EV within the next two years, while an additional 31% would consider it. Looking specifically at the attitudes of New Jersey consumers, a recent survey by Eagleton done for the New Jersey Climate Change Alliance (April 2019), 50% of respondents said they will buy a new car within the next five years, and 38% of that group (19% of the respondents) said they would consider buying an EV for their next purchase (2% of this group reported already having an EV, consistent with EV registration statistics).

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There were six states that had stronger sales growth in 2018 (over 2017) than NJ. These states have all implemented strong market development policies, especially regarding: a) establishment of goals; b) authorizing and aligning agency action; c) addressing the need for charging infrastructure (of various types); d) addressing affordability issues (especially with vehicle rebates); and e) improving consumer awareness. As noted above, NJ has significant natural interest in EVs, but the state has done little to capitalize on this opportunity compared with other states that are demonstrating stronger growth. We believe NJ has significant untapped potential to increase EV sales through improved policies that leverage latent consumer interest.

EV actions in states with strong 2017-2018 EV sales growth[1]

	Agency Action	Infrastructure: Utility Programs	Infrastructure: Other Programs	Vehicle Rebate Program
New Jersey	✓		✓	
Massachusetts	✓	✓	✓	✓
Maryland	✓	✓	✓	
Georgia	✓	✓	✓	
Florida	✓	✓	✓	✓
Texas	✓	✓	✓	✓
Illinois	✓	✓	✓	

These market developments are especially critical NOW: to achieve the 2025 goals, NJ will need sustained strong sales even as other market factors begin to slow EV adoption. In particular: a) the federal tax credit is declining for the most popular vehicles, which for many consumers is essentially an increase in EV pricing and; b) scarce EV inventory is being directed to only the strongest markets, limiting sales regardless of consumer demand. Strong and clear policy action is needed now to counteract the emerging drag imposed on EV sales due to the reduced availability of the federal incentive, and to attract strong inventory allocation to NJ.

[1] Data collected from the U.S. Department of Energy's Alternative Fuels Data Center (https://afdc.energy.gov/laws/state)

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Public charging infrastructure, especially DC fast charging, is especially critical for sustained EV market growth since this is a primary barrier for future EV buyers. At the current time, NJ ranks 15th in the country on the number of DCFC outlets in place to support its EV population (NJ has half the DCFC outlets per 1000 EVs as the average of the top five states). This implies that NJ has insufficient number of charging outlets available for the CURRENT number of EVs on the road, and absent significant infrastructure build out, this problem will get worse as the EV population grows. Ensuring additional DCFC capacity will ensure that the existing EV population has the public charging infrastructure required, while simultaneously addressing the perceptions of potential EV buyers regarding the lack of public fast charging.

In June, the administration announced that $7 million of the Volkswagen settlement funds will be dedicated to fast charging infrastructure; the state should work expeditiously to ensure that the first round of DC fast charging funding is released by latest the end of Q1 2020

Strong and timely action required to capture full economic opportunity as market leader

As detailed in the ChargEVC Roadmap published September 13, 2017, 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; this needs to be built out as soon as is practical;
- Address the affordability gap through a rebate program for electric vehicles; with a dedicated multi-year funding source that ensures rebate program continuity;
- 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 advances equity (transit, ride shares, fleets);
- Build awareness through outreach and education.

The opportunity for New Jersey is significant given a) road vehicles are the largest segment of GHG emissions in the state; b) EVs are available now, and deliver substantial reductions (70-80% fewer emissions per vehicle mile), c) there are demonstrated policies that expand and accelerate adoption that New Jersey has not pursued; and d) there is a strong net benefit to making market development investment.[2]

[2] Net benefits are substantiated either at a broad level (as measured through a societal cost test that considers all costs and benefits), or more narrow tests that consider potential program investments. See ChargEVC study for more details: http://www.chargevc.org/documents/electric-vehicles-in-new-jersey-costs-and-benefits/

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Key outcomes for New Jersey include:

- EV adoption reduces utility rates;
- the fuel and maintenance cost savings experienced by EV drivers returns a lot of disposable income to NJ families; and
- both those economic benefits are in addition to significant environmental advancements that have strong public health impacts.

Pilot projects that focus on urban electrification, VTG and electric autonomous vehicles

New Jersey needs to initiate pilot projects today that focus on the following areas:

1. Rural and urban electrification – Separate and apart from electrifying our Transit system, New Jersey needs to encourage pilot projects to test electric ride share/car share models with the accompanying fueling infrastructure and targeted incentives to make charging and utilizing those fleets an economically viable proposition. Cities should be made "fleet ready" with ample DC fast charging to prepare for electrified ride share.
2. Port electrification – The electrification of trucks and drayage around our ports in recognition that the air in port communities is disproportionately more toxic as compared to the rest of the state.
3. Vehicle to grid – New Jersey should encourage pilot projects that test out V2G technology as this offers additional benefits that may help offset public investments.
4. Electric autonomous vehicles – With autonomous vehicles under development and being tested in several early markets, New Jersey needs to establish its own pilot programs to test this technology and signal New Jersey as a hub for this emerging technology.
5. Load management programs – New Jersey should test time varying rates, off-peak discounts, direct management of EV loads by central entity, e.g., transit operator, utility.

Public partnerships, public-private partnerships and utility involvement:

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

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consider where it can act to appropriately de-risk the environment for private capital to make investments that will expedite this transition.

Further, the state's utilities can also play a key role by offering rebates, other incentives and innovative rate structures to help accelerate and grow this market.

Integration of Energy and Transportation Planning with Land Use and Housing Planning

The draft EMP prioritizes achieving "100% carbon-neutral electricity generation and maximum electrification of the transportation and building sectors." Our towns and cities *by law* must engage in land use and housing planning but there is no such legal requirement with respect to energy and transportation planning. While we have laws with goals related to the achievement of 100% carbon-neutral electricity generation (i.e. Global Warming Response Act;[3] The Clean Energy Act[4]), achieving the goals has been frustrated due to the inability of the State and local governments to integrate energy and transportation planning with land use and housing planning.

As an example, 1.2.1 (identify opportunities to reduce vehicle miles traveled (VMT)) lists several potential actions to reduce VMT, several of which are worthwhile, such as micro-mobility and the associated infrastructure investment. However, the lack of coordination on planning that creates the streets that can support this type of travel will be a significant hurdle to implementation. As a first step, energy and transportation/mobility planning should be required by local governments. With the required energy and transportation planning, municipal land use law would likely evolve to encourage walkable and bikeable communities, bike and scooter sharing, Jitney services and community EVs as the draft EMP suggests.

While the transit section notes the importance of improving the quality of service of rail and of improving bus coverage, it doesn't address the specific strategies to reduce VMT. Reliability is important, but in order to replace motor vehicle trips with transit trips the transit agencies must provide more service on existing lines – for example, providing more frequent bus service through dense, developed corridors. This would have a greater impact on increasing transit trips than investing in coverage out into suburban areas with low density.

We also raise concern regarding 1.2.2 (accelerate the implementation of the Transit Village Program). This by itself will not affect statewide land use patterns nor deliver the needed GHG

3 N.J.S.A 26:2C-37
4 Clean Energy Act P.L.2018, c.17.

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reduction goals. The program has been successful in promoting development around train stations, but its geographic extent and pace of implementation is insufficient to reach GHG goals. It also receives funding levels that will not change program impact in any meaningful way as the draft Transportation Improvement Plan (2020-2023) does not increase program funding levels ($1,000,000 annually) for the duration of the plan.

Rather than rely on the Transit Village Program to deliver meaningful GHG reductions, the State should consider a strategy that recommends land use changes promoting the use of transit, biking and walking. Other strategies could include the implementation of Complete Streets policies and ordinances – related to 1.2.1, congestion pricing, and revisions to land use restrictions. The State should review the specific targets that have been adopted and engage with NJDOT in setting future targets that meet the goals of the EMP.

Ultimately, our energy use is inextricably linked to land use policy. Therefore, the State must consider all the ways to integrate energy and transportation planning with land use and housing planning. This needs to be done in a way that does not place unreasonable burdens on local governments.

CONCLUSION

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

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

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