

TO: SHERRI L. GOLDEN, BOARD SECRETARY, BOARD OF PUBLIC UTILITIES
FROM: PAMELA FRANK, CEO, CHARGEVC-NJ
DATE: JUNE 12TH, 2024
RE: 2019 NEW JERSEY ENERGY MASTER PLAN (DOCKET NO. QO24020126)

Dear Members of the Board,

ChargeVC appreciates the opportunity to provide written feedback on the 2024 New Jersey Energy Master Plan (EMP), specifically focusing on Strategy 1: Reducing Energy Consumption and Emissions from the Transportation Sector. Although we focus on this Strategy, our insights and recommendations are relevant across many of the EMP strategies, particularly those that speak to grid readiness. **Grid readiness stands as a central and key focus point for the majority of the strategies in the EMP.**

ChargeVC-NJ is a not-for-profit trade association focused on accelerating the transition to electric transportation in the state. Founded in 2016, the organization has been at the forefront of state-based research and advocacy to accelerate the adoption of electric vehicles (EVs) and enhance the infrastructure to support them. We bring decades of public policy, energy, and market experience and a willingness to explore new solutions and processes that will expedite this important transition.

We offer the following detailed insights and recommendations to guide the state's thinking on EVs and the updates to its Energy Master Plan.

1. GRID READINESS

As New Jersey progresses towards an electrified transportation sector, the grid's readiness stands as a central and pressing concern with impacts across multiple aspects of energy infrastructure. The anticipated exponential increase in load due to EV adoption, along with other beneficial electrification, such as heat pumps, necessitates immediate and proactive measures to prepare the grid. By 2045, projections indicate that approximately 20 TWh of electricity will be required for vehicle charging, representing about 27% of the state's total electricity consumption in 2022.

Our analysis suggests that the grid can handle this increased load – with the potential for lower rates due to the increased volume – but only if clear and intentional action is taken to ensure that outcome. Being ready depends on being proactive, which underscores the urgent need for robust planning and investment in upgrading and expanding grid infrastructure to handle the additional load, ensuring reliability, and preventing bottlenecks. Importantly, to be fiscally prudent and responsible and ensure all ratepayers benefit from this transition (even those that do not drive electric vehicles), the State must ensure the grid is ready before such problems emerge. A focus on Grid Readiness will also address other urgent needs, such as addressing the need to open additional solar interconnection capacity.

Ensuring Grid Readiness means doing things differently than in the past since the grid now faces new and unprecedented challenges. We recommend that the EMP include clear and specific provisions to initiate the necessary planning and investment follow-through.

2. EFFECTIVE INTEGRATION OF ENERGY STORAGE TO SUPPORT EV CHARGING

Effective integration of energy storage solutions that are optimized for and explicitly targeted to EV charging is an effective strategy for enabling effective charging infrastructure investment and avoiding grid power availability (or load impact) constraints. Specific and flexible EV-storage policies and programs are crucial and necessary to ensure this strategy is widely adopted in the market – including storage on both the utility and customer side of the meter.

Energy storage can provide the necessary flexibility to balance load and supply, mitigate peak demand, and enhance grid stability, particularly as EV adoption grows. In addition, in some cases, EV charging that is optimized using storage can avoid significant costs and power-access delays that could slow down electrification, especially in the fleet segment. Storage deployed in this way can ensure that projects move quickly and at lower operating costs, but at a strategic level, it can buy us time to allow grid infrastructure investments to be made. Storage targeted at EV charging can also avoid project development delays, reduce both interconnection (and upgrade) costs and peak load charges, and mitigate grid impacts, making it a triple-play priority for explicit inclusion in the EMP.

3. MEDIUM HEAVY-DUTY ELECTRIFICATION DELAYS

There is an urgent need to address the persistent and long-standing delays in implementing policies and programs that support electrification in the medium and heavy-duty vehicle segments (MHDVs). Given their substantial contribution to emissions, it is essential to accelerate their transition to electric power, especially given the State’s recent adoption of the ACT framework. Developing targeted utility programs and financial incentives specifically for MHDV utility make-ready” costs will be critical in overcoming barriers to their adoption. Many fleet operators are actively considering MHDV electrification, but there are barriers related to power access and charging infrastructure costs. These costs can be significant due to the clustering of high-power charging common in the fleet segment, and costly utility upgrades are frequently required. Interconnection has now become the choking point that is limiting fleet and MHDV electrification – and these impacts are already being felt in the market.

In addition, the continued delays in developing utility MHDV programs could lead to dangerous territory. Fleet operators are already encountering difficulties in getting their electric trucks on the road quickly due to charging barriers. [This situation is now stimulating interest in behind-the-meter power from natural gas](#), which significantly undermines our emissions goals and sequesters those vehicles from the benefits of a cleaner grid over time. “There is never a better permanent solution than a temporary fix,” as the saying goes. Such delays, if not addressed proactively, can take us down the wrong road and undermine the benefits expected from widespread EV adoption.

4. PROACTIVE DEVELOPMENT OF BIDIRECTIONAL CHARGING

Developing bidirectional charging technologies requires proactive policies and programs, including vehicle-to-building (V2B) and, eventually, fully grid-interactive vehicle-to-grid (V2G) systems. Bidirectional charging can provide significant benefits by allowing EVs to act as energy storage units that can supply power back to the grid or buildings during peak demand periods, enhancing grid stability, serving as emergency backup power, and improving the integration of renewable energy. Implementing policies that support the development and deployment of bidirectional charging infrastructure will be critical for maximizing the benefits of EV integration. Utility pilot programs can help demonstrate the benefits and scalability of V2B and V2G systems.

The Governor's office convened a meeting on bidirectional charging several years ago. The consensus among those in attendance was that focusing on electric school buses would be a good place to start. However, we have seen no action in this important area since that meeting.

5. POLICY AND PROGRAM ALIGNMENT

New Jersey has set a statutory goal of putting 330,000 EVs on the road by the end of 2025. As of the end of 1Q24, there were 167,801 EVs on the road in New Jersey. Significant actions have been taken to incentivize the adoption of EVs, including:

- Sales tax exemption for the purchase of an EV, enacted in 2004.
- Enactment of the EV Law in January 2020, which set statewide goals for EV adoption and charging infrastructure installation.
- Per the EV law, establishing an EV rebate program, known as Charge Up New Jersey (CUNJ).
- Adoption of Advanced Clean Cars II (ACCI), requiring vehicle manufacturers to bring more EVs into the state, culminating in 100% of new vehicle sales being electric by 2035.
- Investing Regional Greenhouse Gas Initiative (RGGI) proceeds to incentivize the build-out of charging infrastructure and provide vouchers for medium- and heavy-duty vehicles.

While these incentives have helped to bolster the EV market, we are very concerned about recent actions taken by the Murphy administration that—at best—send mixed signals and, at worst—hinder the effectiveness of the incentives and slow down EV adoption. If the State is going to offer incentives, those dollars should be ensured to work at best and be of the highest use to drive EV adoption and not be frustrated by the state's own actions.

Consistency in programs and policies across state departments is imperative to achieving goals and ensuring public dollars are spent wisely. Specifically, the State has taken concerning actions in the following areas:

- a. Governor Murphy announced the phasing out of the sales tax exemption for EV sales over the next three years. The sales tax exemption is currently a leading factor driving strong EV sales in New Jersey.

- b. Passage of a law that establishes a new annual \$250 EV fee, increasing to \$290 by 2028, with four years required as an upfront payment at the time of purchase. Thus, those purchasing or leasing a new EV will have to pay over \$1,000 upfront.
- c. The underfunding of the CUNJ EV rebate program, which results in its shutting down within several months of its opening each year, causing confusion for consumers.
- d. Proposed reductions in CUNJ EV rebates – by as much as half - with no proportional price decreases in electric vehicles to warrant such a reduction, and in the face of limited availability of the Federal Tax Credits due to local content requirements.

Vehicle affordability remains a primary barrier to widespread EV adoption. These actions already compound the unfavorable status of the federal EV tax credit over the next several years. In addition, these actions occur right at the time when the market is transitioning away from early adopters to more mainstream customers. These mainstream customers (for any adoption of new technology, not just EVs) require more encouragement than early adopters to make the transition to a new technology.

The EMP is a place to come together on strategy. However, if execution is lacking, all the planning and strategizing will not deliver our goals. Such actions as these work against us right at the time when we need to commit to a significant ramp-up of EV adoption to achieve our short- and long-term climate change goals.

6. REFRESH AND EXPANSION OF EXISTING UTILITY LDV AND PUBLIC CHARGING PROGRAMS

Building on the learnings from initial programs, there is a need to refresh and expand existing utility programs for light-duty vehicles (LDVs) and public charging infrastructure. This includes optimizing program designs based on past performance and robust stakeholder feedback.

For example, programs that encourage off-peak residential charging are particularly important, as they can help manage demand and reduce stress on the grid. Strong support for such programs will be critical in promoting EV adoption and ensuring that charging habits align with grid capabilities. Additionally, utility make-ready programs and commercial EV rates support private investment to deploy further charging infrastructure.

While many of these programs exist in the state today, it is crucial to make timely updates to programs and make extensions to reflect changes in the marketplace. Developing an effective state EV policy is iterative. This necessitates a comprehensive strategy and analysis that considers market developments, all the costs and incentives associated with EVs, how they interact, AND the flexibility to make mid-course corrections when market conditions warrant.

7. STRATEGIC FOCUS ON PUBLIC-DCFC BUILD-OUT

A continued, expanded, and sustained strategic focus on the build-out of public DC fast charging (DCFC) infrastructure is necessary to address a primary barrier to EV adoption: the perceived lack

of public charging. The release and effective follow-through on National Electric Vehicle Infrastructure (NEVI) funding is critical to achieving this goal. New Jersey is lagging over half the country, which has already solicited, evaluated, or awarded applications. There is an opportunity to do better with execution, as previously mentioned, and efficient execution must be a priority. We must ensure that funds are allocated efficiently and that projects are completed on schedule. NEVI will help strengthen public confidence in the availability of charging infrastructure in the state. For best practices on NEVI implementation, see the following best practice guide.¹ However, while NEVI is an existing source of funding that can enhance charging on major travel corridors, that isn't the only action needed. We recommend that the EMP include an explicit focus on public DCFC build-out to serve all sectors of the EV market.

CONCLUSION

ChargEVC's tagline is "Better Travel, Stronger Grid." We want to remind everyone what "Stronger Grid" means. It signifies not only the resilience and reliability of our electrical grid but also the benefits that come from a well-integrated and optimized system.

As EV adoption grows, a stronger grid will support better travel through reliable and widespread charging infrastructure, improved grid management, and sustainable energy practices.

We want to bring attention to a critical point we made in our comments six years ago when ChargEVC wrote the first set of Energy Master Plan comments, a point which is still relevant today: **the significant increase in electricity usage has the potential to reduce costs for all consumers by spreading fixed grid costs over a larger customer base.** Studies have supported this, and now we have real-world results. We can now confirm that higher adoption of electric vehicles can lead to reduced costs for all consumers, not just EV drivers. This underscores the importance of preparing the grid and supporting our utilities' efforts to improve it.

We believe the above recommendations will help New Jersey achieve its clean energy and transportation goals. ChargEVC strongly supports ongoing efforts to decrease energy usage and emissions from the transportation sector. We appreciate the opportunity to share these comments and look forward to working with the Board of Public Utilities to refresh the state's Energy Master Plan.

¹ https://site-assets.evgo.com/f/78437/x/397c44faa2/connect-the-watts_nevi_best-practices-for-charging-infrastructure.pdf.