**STATE OF NEW JERSEY**
**BEFORE THE BOARD OF PUBLIC UTILITIES**

| | | |
|---|---|---|
| **IN THE MATTER OF MEDIUM AND HEAVY DUTY ELECTRIC VEHICLE CHARGING ECOSYSTEM** | ) | **Docket No. QO21060946** |

# COMMENTS OF THE ALLIANCE FOR TRANSPORTATION ELECTRIFICATION (ATE) ON STRAW PROPOSAL FOR THE MEDIUM AND HEAVY DUTY ELECTRIC VEHICLE CHARGING ECOSYSTEM

## Introduction

The commercial medium and heavy duty (MHD) EV market is poised for rapid expansion; and unlike the light duty market, which has evolved one consumer at a time with each charging location requiring relatively little electric capacity, the MHD market will bring multiple vehicles clustered at individual sites requiring large amounts of electricity often simultaneously. The Alliance for Transportation Electrification (the Alliance or ATE)[1] is quite optimistic about the prospects for transportation electrification (TE) in New Jersey, and the Straw Proposal is an excellent start. Our overarching theme is that MHD fleets will go where policy incentives are robust, not overly complex, and efficiently administered with a predictable regulatory framework. New Jersey is competing with many other states which offer both incentives and a framework beyond that which is contemplated in this Straw Proposal. Accordingly, we urge the Board primarily to be less prescriptive, to simplify and streamline its proposed framework, and to increase the value of incentives.

[1] ATE is a 501(c)(6) non-profit corporation; the organization engages with regulators and policymakers at the State and local government levels to remove barriers to EV adoption and to encourage the acceleration of EV infrastructure deployment with a particular emphasis on open standards and interoperability. We consist of nearly 60 industry members that include electric utilities, auto and bus manufacturers, EV charging infrastructure providers, and related trade associations and other non-governmental organizations (NGOs). We have been actively engaged in each of the Board's various EV charging proceedings since their inception.

Comments and Responses to Questions Presented in Straw

**Issue 1:** How to address quasi-public fleets (*i.e.*, buses contracted by NJ Transit or other local governments, transportation hubs.)

**Response:** The Straw provides that EDCs may provide up to 100% incentives for Make-Ready for charging infrastructure for public fleets. In response to the request for comment on how to address quasi-public fleets, our guidance to the Board is to adopt a two-part test.

- Part 1: The primary purpose of the EVSE must be to charge vehicles used in service to the public.
- Part 2: The EVSE must be installed on property owned by a governmental entity (*e.g.*, state or local government, transit agency, school district).

We believe any individual situation that passes this test will comply with the goal the Board seeks to achieve, namely to support electrification of vehicles serving the public.

A vehicle that passes Part 1 arguably is deserving of a Make-Ready incentive. But the Board understandably wants the Make-Ready incentives to be used for as long as possible, giving rise to the inquiry about quasi-public vehicles (which we interpret to mean contracted vehicles). The particular use of the vehicle at one point in time alone is not specific enough to exclude investments which may fall out of public use. But the second half of our proposed test, which is that the EVSE be installed at a site which is owned by a public entity, will provide the necessary certainty that the sunk investment cost will be dedicated for public use even if contractors may change over time.

**Issue 2:** Staff proposes that "primarily operating" within such a municipality be patterned off the requirements of NJEDA's NJ Zero Emissions Incentive Program ("NJ ZIP"), which requires that at least 50% of the vehicle miles traveled over the course of a three year compliance period take place within the Overburdened Municipality in Phase 1 of the program. This would account for the situation where the depot itself may lie outside the affected municipality, but where a substantial

portion of the vehicle miles are within the Overburdened Municipality. Staff seeks comment on whether this proposed definition adequately captures the need to focus on electrifying MHD vehicles and fleets congregating in Overburdened Municipalities and whether additional steps should be taken to harmonize this program with NJ ZIP requirements.

**Response:** This is an area where the Alliance feels that the Straw Proposal, while well intentioned, is being overly complex and detailed in a structure that may lead to unforeseen outcomes not in the public interest. ATE disagrees with the Straw's proposal to limit funding to Overburdened Municipalities (OBMs) as opposed to Overburdened Communities (OBCs), and we believe that New Jerseyans in all OBCs should have an equal opportunity to benefit from this program. But we also believe sites outside of both OBMs and OBCs can provide great benefits to the State, and for this reason we recommend the Board provide sufficient flexibility for EDCs to provide incentives to deserving properties located in any OBC, as well as select properties not in OBMs or OBCs.

Regarding the requirement that 50 percent of the vehicle miles traveled (VMT) be recorded in an Overburdened Municipality in a three year compliance period, we suggest that this metric will be administratively challenging for a fleet (using private fleet charging depots) to comply with and for the Board (and the EDCs and stakeholders) to monitor. Moreover, restricting incentive recipients' geographic footprint will put recipients in a position to turn down business that might bring their vehicles outside the designated area, and we believe this restriction would have the counterproductive result of penalizing businesses which operate in OBCs.

We understand that the funds available for infrastructure incentives are limited, and that the Board has an interest in applying various criteria such as OBMs vs OBCs and mileage limitations which will filter potential applicants. But, in this case at least, we believe all OBCs should be eligible, and that the Board should be receptive to a wide array of potential locations for charging infrastructure. Therefore, the Alliance believes that the EDCs in conjunction with stakeholders,

including BPU Staff, should collaborate in a working group to develop other criteria for evaluating and ranking applications.

In justifying our position that all OBCs should be eligible, we look first to New Jersey law. New Jersey's groundbreaking Environmental Justice Law, N.J.S.A. 13:1D-157, signed by Governor Murphy in 2020, required NJDEP to evaluate the contributions of certain facilities to existing environmental and public health stressors in overburdened communities when reviewing certain permit applications. The agency has done so in a precise and acceptable way that could be adopted by reference by the Board. We encourage the Board to adhere to this definition and not seek to modify or re-interpret it either in an Order or by policy guidance.

In the alternative, we recommend the Board include any community which qualifies under the White House's "Climate and Economic Justice Screening Tool," the purpose of which is ensuring that the benefits of programs are reaching communities that are overburdened by pollution and historic underinvestment. This tool was developed by the White House Council on Environmental Quality (CEQ) because, according the CEQ Chair Brenda Mallory, "Every community, regardless of zip code, should have clean water to drink, healthy air to breathe, and protection from extreme climate events. . . . The Climate and Economic Justice Screening Tool identifies communities that have faced historic injustices and have borne the brunt of pollution so we can ensure they're some of the first to see the benefits of climate action."[2]

In conclusion on this point, we believe all OBCs are equally deserving of infrastructure incentives, and that to the extent decisions must be made about allocating resources those decisions should be based on the projects and not whether an OBC happens to be located in a cluster of other

[2] "Biden-Harris Administration Launches Version 1.0 of Climate and Economic Justice Screening Tool, Key Step in Implementing President Biden's Justice40 Initiative," White House News Release issued Nov. 22, 2022 (https://www.whitehouse.gov/ceq/news-updates/2022/11/22/biden-harris-administration-launches-version-1-0-of-climate-and-economic-justice-screening-tool-key-step-in-implementing-president-bidens-justice40-initiative/). The tool itself is available at https://screeningtool.geoplatform.gov/en/#3/33.47/-97.5.

OBCs. Both of the tools described above would avoid prioritizing one OBC over another, offer bright-line standards defined by experts, and thereby ensure that charging infrastructure is appropriately targeted according to a widely recognized standard.

**Issue 3:** To ensure that the program actually has the intended effect, Staff proposes that the EDCs' share of distribution system upgrade and Make-Ready costs covered for a given Private Fleet Charging Depot be capped at $200/kW of charger capacity.

**Response:** Based on market costs for construction, ATE believes the $200/kW incentive is not high enough to ensure adequate interest by MHD fleet and private sector EVSE infrastructure developers. We note the large percentage of projects in New York which are enrolled at the 90 percent incentive level, which is $667 in Con Ed and $367 elsewhere; moreover, feedback from developers is that many who will build with the 90 percent incentive will not do so with the 50 percent incentive. For this reason, we encourage the Board to adopt an incentive closer to the 90 percent levels in New York.

As an alternative (or perhaps as a complement) to a hard cap based on specific kW or MW capacity, the Board may consider directing the EDCs to develop sliding scales or other considerations such as per-project caps.

We also recommend the Board convene a stakeholder meeting in twelve months to assess the level of interest and consider increasing the incentive if market response does not meet the Board's expectations. As stated before, the private sector will be looking for stable and predictable regulatory frameworks, including the ability to iterate and change when circumstances warrant, as they seek to deploy investment capital.

**Issue 4:** To aid in the adoption of this new technology, this Straw proposes that each EDC be directed to develop a mechanism to mitigate demand charges associated with EV charging in the early days of adoption. . . . This Straw also seeks input on use-based rates for various sectors of

MHD charging.

**Response:** While we recognize that the demand charge problem may be temporary until public and fleet EV charging station utilization increases, EDCs have recognized this challenge and have proposed and implemented alternative rate designs in many states to mitigate demand charges, with Commission approvals, in this early stage of market development. We expect that there likely will not be uniformity across each of the New Jersey EDCs due to the differences in geographies, distribution topologies, and cost-of-service studies. But, we encourage the Board to consider more than one approach, recognizing that each EDC and each company's service territory is unique.

In general, we highlight for the Board four categories of alternative solutions that should be considered for either temporary or more permanent demand charge relief, as needed in particular use cases and situations.

1. Short-term Mitigation of Demand Charges: Either waive or apply a discount to demand charges for a defined period of time to support commercial EV fast charging station deployment to address a market gap. Waiver or discounts on demand charges would be applied on a pre-established schedule, but we recommend that Commissions institute a mid-point review to determine the appropriate timing for continuing or removing the rate support. Another option is to reduce demand charges but increase energy rates to offset some of the utility revenue lost from reduced demand charges.
2. Cost-Based Rates without Demand Charges: Some utilities already offer rates to commercial customers that specifically target low load factors and do not include demand charges. But most of the time, the rates are limited to customers without very high peak demand. So these rates might, for example, be available to Level 2 chargers or the lowest power levels for DC fast chargers, but not for fast charging at higher power levels.
3. Rates with Embedded Demand Charges: While demand charges have proven to be an

effective means of allocating fixed costs that customers impose on the system, there are rates for some use cases that can reflect cost of service without direct assessment of demand charges. One rate offering along these lines that has been offered by utilities is a subscription rate whereby the demand charge is incorporated into a monthly subscription charge based on the load characteristics of the customer.

4. Targeted Incentives that Vary with Site Utilization: In this case, the level of load factor, which is a proxy for station utilization, would determine the amount of incentive or discount. Demand charges increase as utilization of the charging station increases, avoiding the need to create a new rate or transition to a different rate over time.

We bring to the Board's attention a demand charge structure that the Massachusetts Department of Public Utilities recently approved, according to which there will be a ten-year period during which separately metered DC fast charging will be charged a base distribution demand and energy charge, both of which will operate on a sliding scale (*i.e.*, as load factor increases, the demand charge increases and the energy charge decreases). Rates are structured as follows:[3]

(1) a 100 percent demand charge discount for customers with load factors between zero percent and five percent;

(2) a 75 percent demand charge discount for customers with load factors between five percent and ten percent; and

(3) a 50 percent demand charge discount for customers with load factors between ten percent and 15 percent.

[3] Petition of Massachusetts Electric Company and Nantucket Electric Company, each d/b/a National Grid, for approval of its Phase III Electric Vehicle Market Development Program and Electric Vehicle Demand Charge Alternative Proposal, D.P.U. 21-91, at 206-209 (Dec. 30, 2022).

Customers with a 15 percent or greater average load factor over a twelve-month period would not be eligible to receive a demand charge discount for that year.

The Department acknowledged that "EV charging station developers need price certainty to evaluate the economic viability of their investment decisions, and that if the [demand charge alternative] rate term is too short, it could deter investment in public EV charging stations or result in over-investment in public EV charging stations within communities where EV adoption is rapidly growing at the expense of other communities where investor returns may not be as quickly realized."[4]

With regard to the duration of the demand charge alternative, which was contested, the Department favorably noted that other jurisdictions, including Arizona, California, Illinois, and Oregon, have approved the use of ten-year terms for time-limited EV rates.[5] For these reasons, the Department found that "a ten-year term for the [demand charge alternative] rates strikes an appropriate balance between the need for price certainty and stability for EV charging station developers and [Massachusetts'] transportation electrification and 2030 decarbonization goals."[6]

**Issue 5:** Staff recognizes that many large light-duty fleets have similar energy requirements as smaller MHD fleets. Staff seeks information on where that threshold should be – is it in the number of light duty vehicles that need to charge at once, or at some energy capacity threshold?

**Response:** ATE agrees with Staff that light duty vehicles, particularly commercial light duty vehicles, need to charge just as heavier MHD vehicles (measured by gross vehicle weight, or GVW) need to charge. In fact, some of the commercial light duty fleets may include Class 2 light duty trucks (either 2(a) or 2(b) which can be accommodated in the parking stalls of typical public

[4] Id. at 248-249.
[5] Id. at 250.
[6] Id.

consumer EV charging stations). The traditional lines between various classes of vehicles and types of fleets are blurring, which, in our view, calls for more flexibility and less prescriptive measures in a dynamic marketplace.

In these early days of EV charging, we believe that regulatory efforts to prevent any particular vehicle from using a compatible charger will be counterproductive. Instead, we believe the Board would be reasonable to rely on the locations of chargers to influence which vehicles utilize them. For example, due to the space requirements needed for MHD vehicles and design of parking stalls, we anticipate that such charging will occur in light industrial areas or parking lots which may deter the typical light duty consumer EV driver due to distance from amenities, perceived safety issues, or other factors. Other means of differentiating consumer stations from commercial stations include business rules established by individual station operators such as reservations (which would favor commercial drivers with predictable duty cycles) and pricing plans that favor frequent users.

In short, we advise the Board to not impose its expectations, but rather to allow the EDCs and their customers to creatively develop practices and procedures that will result in the most efficient utilization of the infrastructure regardless of vehicle size.

**Issue 6:** Whether EDCs also should be authorized to perform last resort functions to ensure equitable distribution of EVSE.

**Response:** The market for EV charging, particularly in the MHD / commercial fleet sector, is massive and capital intensive, not to mention geographically dispersed. We therefore view a clear need for investment by EDCs to complement private sector investment, and this need extends to ownership and operation without the need to first determine whether a site is "last resort." The purpose of EDC investment is to spur the market and send a market signal that New

Jersey is "open for business" and receptive to EVs.

Now, not later, is the time for EDCs to develop appropriate programs to fill certain market gaps in New Jersey. We stress that not all EDCs may have the same needs, and so the Board should not necessarily require all EDCs to develop such programs; rather, the Board should establish a broad framework under which an EDC may elect to file a proposal, including prompt cost recovery for EDC-owned and operated infrastructure.

**Issue 7:** Whether Make-Ready costs would only be available if the entity agrees to abide by managed charging restrictions.

**Response:** As a general matter, ATE believes in sound economic principles to encourage adequate supply while recognizing scarcity in setting just and reasonable rates for electricity, as set forth in the Bonbright principles. The Straw provides that the receipt of Make-Ready funds will be contingent on "managed charging" but the Straw does not specify how this will be implemented. Similar to demand charges, there are different type and degrees of managed charging. For example, passive managed charging is essentially a time-of-use price signal, whereas under active managed charging the utility or a third party actually reduces the amount of energy provided to the customer. Both of these types of programs can be designed with various degrees of management:

- In the case of passive management, the price differential between on and off peak can be small or large. Large differentials will obviously cause a greater influence, but the Board should keep in mind that the primary purpose of charging infrastructure is to charge vehicles, that project economics rely on high utilization (*i.e.*, the more hours a charger can be in service the more incremental revenue it will produce), that vehicle owners care only about being able to drive their vehicles, and that making charging complicated and

expensive, particularly in these early days, will deter EVs in New Jersey.

- Active management, where power is reduced during certain events, is similarly disruptive and can cause similar problems as discussed above in the context of passive management.

We do not take a position here on implementation or program design specifics, but we urge the Board to allow each EDC to develop a framework that makes the most sense for their particular distribution system and customer mix. We urge the Board to signal to the EDCs that it is not prejudging this important issue, and that flexibility at this time is the best approach to success. As is the case with so much of EV charging, there is no one-size-fits-all solution and we look forward to the innovations the EDCs bring forward in both rate design (passive) and more active managed charging technologies.

**Issue 8:** Staff is seeking feedback on a modified "shared-responsibility" model for MHD charging infrastructure that promotes appropriate roles for both EDC and private investors as well as private efforts to drive MHD adoption.

**Response:** Our response to this topic will address each of the following components identified in the Straw:

- EDC responsibility for Make-Ready: The Straw Proposal's discussion of the "Shared Responsibility" model recommends against utility ownership of infrastructure beyond the Make Ready in all but the fewest cases. We believe that this recommendation to broadly exclude utilities from owning and operating EVSE misses a prime opportunity to facilitate robust and reliable infrastructure for the benefit both of the distribution grid and customers. Indeed, foreclosing the ability of the EDCs, should they desire, to participate fully in the early development of the market will reduce overall investment to the detriment of the consumer welfare and the public interest. The Alliance fundamentally

believes in a "hybrid approach" to market development in these nascent stages including both the EDCs and the non-utility providers, recognizing that the overall market size is substantial and will grow even more significantly in the near future.

- ATE supports the creation of an EDC-Industry Working Group to address concerns regarding appropriate time varying rates, demand charges, and other technical assistance to address complicated interconnection, local generation and storage, potential wholesale market participation, and other technical issues related to the MHD EV ecosystem.
- As discussed above, ATE urges the Board to allow EDC investments in Overburdened Communities and select other locations rather than only in Overburdened Municipalities.
- With regard to the request for comment on emerging high-powered DC fast charging infrastructure and compatibility with existing lower-powered DC chargers, as with other matters ATE advises the Board to refrain from dictating specifics such as power levels or plug types. Instead, the Board should allow the EDC-Industry Working Group to determine the appropriate specifications and retain the flexibility to support different infrastructure over time. Ultimately each EDC should propose their own parameters in compliance filings with the Board.

**Issue 9**: Technical planning support for private entities seeking to establish proprietary ecosystems for their fleets and for private entities seeking to establish public fast charging sites that exceed 500kW.

**Response:** ATE supports EDCs providing technical planning support for private entities seeking to establish proprietary ecosystems for their fleets and for private entities seeking to establish public fast charging sites that exceed 500kW. To support customers who seek to identify sites for MHD electrification, we propose the Board allow EDCs to develop internal capabilities such as

studying commercial and industrial areas likely to attract electric MHD vehicles. This would be followed by developing load forecasts based on low, medium, and high electrification scenarios including early-stage engineering studies covering potential work such as substation and feeder upgrades. Other important information includes identifying upgrades likely to be needed and which require long lead times for design, permitting, and construction, as well as procuring certain key electrical equipment which is in short supply. Finally, EDCs may identify a interest from customers in being guided in evaluating various sites based on capacity availability and potential upgrade costs; we appreciate that such information may not rise to the level of formal New Service Applications and conditions may well change during a preliminary study, but overall we believe that advising customers on the attributes of specific locations on the distribution system is a task EDC are best positioned to satisfy among all the players in the EV ecosystem..

**Issue 10:** Ownership, maintenance, and operation of the charging station.

**Response:** While the Straw specifies the responsibility for ownership, maintenance, and operation is with the site owner property manager, or EVSE company, the Straw is silent on metrics and expectations around reliability. We note that the U.S. Department of Transportation, in its Notice of Proposed Rulemaking for the National Electric Vehicle Infrastructure (NEVI) program proposes an uptime requirement of at least 97% with certain caveats. Recognizing that there is much debate about the "right" number, as well as how to measure uptime and oversee compliance, we nonetheless believe there is value in the Board expressing at least an expectation about uptime and reliability. Compared to light-duty vehicles, in fact MHD fleets have more stringent requirements for uptime and reliability since they operate according to defined schedules, routes, and delivery schedules with little room for error.

Next Steps and Conclusion

We appreciate the considerable effort that Staff has made in developing the Straw Proposal. While the Straw Proposal is an excellent starting point, we believe that the outcome will benefit from certain changes discussed above which include:

1. Quasi-public fleets: Charging infrastructure installed on government-owned property, which charges a vehicle used to serve the public, should be eligible for incentives.
2. Incentives should not be limited to Overburdened Municipalities; incentives should be available for Overburdened Communities as well as select sites not located within an Overburdened Community.
3. Incentives should exceed $200/kW, and total incentives to individual projects should be considered.
4. Demand charges should be imposed in a manner which meets the needs of EDCs and all customers, as well as site hosts during times that utilization may be too low to support traditional demand charges.
5. The Board should not try to limit EVSE users to specific vehicle or customer types.
6. EDCs should be authorized, at their election, to own and operate EVSE without a specific "Last Resort" designation.
7. Managed charging should be defined to include both passive and active management, and the Board should allow flexibility in how charging management is implemented.
8. With regard to shared responsibility, EDCs should be authorized to own and operate EVSE.
9. EDCs should be authorized to provide technical assistance to public and private fleets.

10. The Board should explore appropriate metrics to document uptime of EV charging infrastructure which receives EDC investment funding.

The Alliance for Transportation Electrification looks forward to continued collaboration among all stakeholders to advance transportation electrification and help New Jersey achieve its climate and transportation electrification goals.

Dated January 24, 2023

Respectfully submitted,

*Philip B. Jones*

Philip B. Jones
Executive Director
Alliance for Transportation Electrification
phil@EVtransportationalliance.org

*Michael I. Krauthamer*

Michael I. Krauthamer
Managing Director, EV Advisors, LLC
Senior Advisor, Alliance for Transportation Electrification
michael@EVadvisors.com