

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

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IN THE MATTER OF STRAW PROPOSAL)	
ON ELECTRIC VEHICLE)	Docket No. QO20050357
INFRASTRUCTURE BUILD OUT)	
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**COMMENTS OF
THE ALLIANCE FOR TRANSPORTATION ELECTRIFICATION (ATE)
ON STRAW PROPOSAL ON ELECTRIC VEHICLE
INFRASTRUCTURE BUILD OUT**

Introduction

Range anxiety for current and future electric vehicle (EV) drivers remains by most surveys the major obstacle to faster EV adoption in all states of the country. Vehicle manufacturers are poised in the near future to offer a slew of electrified vehicles across multiple drivetrains and vehicle types including SUVs and light trucks, and overall projections for New Jersey and the Mid-Atlantic states are positive. The Alliance is quite optimistic about the prospects for transportation electrification (TE) in New Jersey because of the sheer number of vehicles, the amount of traffic, high gasoline costs, low air quality, and time spend in traffic.

We recognize the challenging economic climate today, but we believe this is only a short-term pause in the trajectory toward much higher rates of electrification in the near and medium future in New Jersey. But without dramatic action, including turnkey charging solutions from Electric Distribution Companies (EDCs), today’s severe shortage of charging infrastructure in New Jersey will prevent the state from achieving its ambitious transportation electrification goals as well as its overall climate goals. We urge the Board to take an approach more aggressive than outlined in the Straw Proposal, and also to approve expeditiously the TE plans currently pending.

Unless the Board adopts an “all hands on deck” approach, the best case scenario is that

the state's infrastructure gap will continue as customers purchase electric vehicles and cannot find convenient places to charge; a more likely outcome is that the lack of convenient and ubiquitous charging will discourage customers from buying EVs at all. Due to the lack of adequate infrastructure as a result, the State's ambitious goals in both policy and legislation (S. 2252) of 330,000 light-duty vehicles registered by 2025 and 2 million by 2035 will likely fall by the wayside and, accordingly, the state's climate and clean air goals will not be achieved.

ATE believes that, in these still early days of the electric vehicle industry, it is essential for EDCs to offer, alongside the private sector, creative and economic solutions. The Straw Proposal centered on Make Ready is a good start, yet it can be improved by:

- Being less prescriptive;
- Allowing EDCs (in conjunction with the market) to make calculated business decisions in an evolving industry without the risk of post hoc review;
- Allowing a portfolio approach to kick start all segments of the market (under the "market transformation" concept) including EDC ownership of EV service/charging equipment (EVSE) in this nascent stage; and
- Addressing medium and heavy-duty vehicle electrification.

We believe that utility investments in such infrastructure (defined as make-ready investments on both sides of the meter, including ownership and operation of EVSE) should be considered as part of distribution grid assets and should be regarded as a core utility function as this grid transformation occurs. The framework for investments contemplated in the Straw Proposal is substantial, and utility ownership of EVSE that is not subject to undue constraints will provide a solid foundation upon which utilities, non-utility service providers, and others in New Jersey can build a future of equitable access of all to cleaner air and zero-emission vehicles.

Background

The Alliance for Transportation Electrification (ATE) is a 501(c)(6) non-profit corporation; we engage with policymakers at the State and local government level across America to remove barriers to EV adoption and to encourage a collaborative and open approach to accelerate the deployment of EV charging infrastructure, support an appropriate utility role by complementing the private market, and promote interoperability and open standards in all parts of the EV charging ecosystem. Our members include about 50 organizations including many utilities, automobile and bus manufacturers, EV charging infrastructure providers and network operators, and related trade associations.

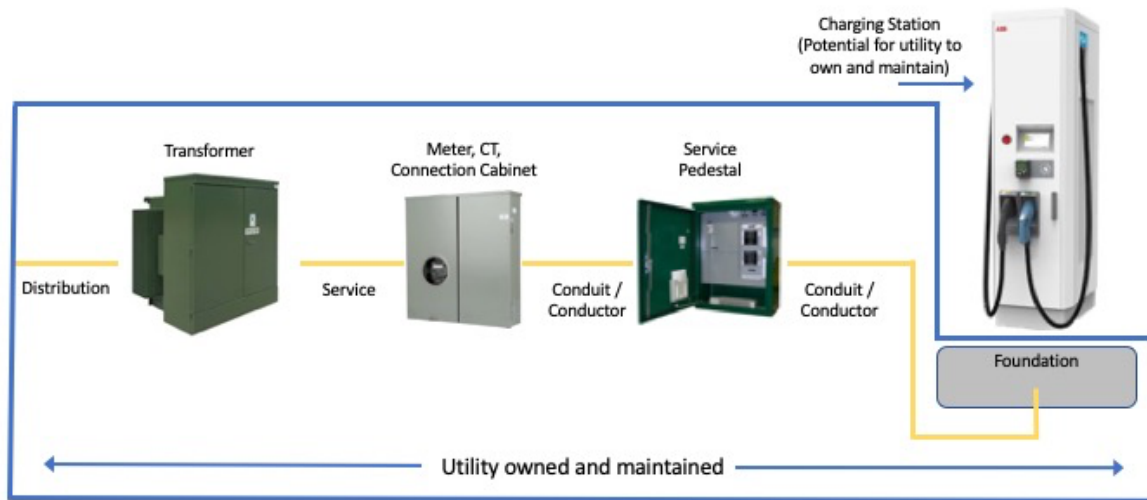
Our goals are to engage with state commissions and other agencies to remove barriers to EV adoption by encouraging a collaborative and open approach to accelerate the deployment of EV charging infrastructure, support an appropriate utility role by complementing the private market, and promote interoperability and open standards in all parts of the EV charging ecosystem.

Discussion

“Charger Ready,” where EDCs can do the work necessary to make a parking spot ready for EVSE, including on private property, is an excellent start, and is necessary although insufficient to meet the state’s goals. While the “Shared Responsibility” approach is logical in theory, in practice the evidence is clear that private capital alone is insufficient to address New Jersey’s overall and significant needs. Providing utilities the option to offer a 100 percent turn-key solution works elsewhere and will enhance the likelihood of achieving New Jersey’s goals.

The Straw Proposal, at 7, envisions an ecosystem in which the infrastructure leading up to, but not including, the EVSE is owned and operated by EDCs as “an extension of EDC

responsibility” on which the EDCs will earn a return. We agree that EDCs should be authorized to own and operate Charger Ready infrastructure, and we further believe that utility ownership and operation should be extended, at the customer’s option, to include the EVSE as well, as illustrated below.



States around the nation have grappled for years with the appropriate role of utilities in a wide range of contexts, and indeed there is no one size fits all. In several cases, states have allowed the utility to own and operate EVSE as means to accelerate market transformation, while at the same time supporting and complementing a private market. It should be apparent to all that the need for infrastructure here in New Jersey is urgent and this shortage necessitates an “all of the above” approach, including a portfolio of options developed by the EDC that includes a variety of roles for EVSE infrastructure firms including as partners and vendors.

The Straw Proposal’s discussion of the “Shared Responsibility” business model for ownership, maintenance, and advertising of EV infrastructure, 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 misses a prime

opportunity to facilitate robust and reliable infrastructure for the benefit both of the distribution grid and customers. Indeed, foreclosing the option of the EDCs to participate fully in the early development of the market will lower “competition” with the EVSE infrastructure firms 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.

New Jersey clearly has established, through policy and law, the priority of reducing greenhouse gas emissions and promoting transportation electrification; the Board possesses the clear authority to take whatever measures it deems necessary; the goals here are ambitious and the Board’s approach must reflect the opportunity to not let the past get in the way of the future.

Any TE framework should be in furtherance of New Jersey reaching its ambitious goals. We note that unlike in many other states, where responsibility or even the imperativeness of TE may be debatable, that is most certainly not the case in New Jersey especially given the recent passage of S. 2252, “An Act concerning the use of plug-in vehicles.” For that reason, the Board should not take anything off the table. We urge the Board to take a long-term view as it does with other critical infrastructure and assets being deployed in the electric grid in New Jersey. We encourage the Board to consider all ownership models because the time required for site development, financing, interconnection with the EDCs, and ultimate payback are not short at this early stage of market development.

There is an extreme lack of charging infrastructure in New Jersey. And this is not 2012, when the question of whether the private sector would step in sufficiently was an open question. California had the benefit of addressing this issue long ago, when the California Public Utilities

Commission (CPUC) expressed the crowding out concern and prohibited the state's utilities from investing in EVSE. Following several years of wholly inadequate activity by the private sector, even in the country's most successful EV market, the CPUC in 2014 completely reversed its position¹ and now has about one billion dollars of utility investments in TE infrastructure approved, with several large cases still pending and under review. Yet even California continues to experience a shortage of infrastructure.

The need for EDC investment is more critical now than ever given the financial devastation facing private landlords due to the pandemic. Specifically, many tenants are not paying rent, and this is starving landlords of the financial resources required to maintain and improve their properties. The result is that landlords are conserving what little cash they have, if any, and investing primarily in basic repairs and maintenance that are essential to the continued operation of their facilities. Whatever happens with the pandemic, it will be a long time before commercial landlords resume discretionary spending.

If the theory behind a make ready framework is to leverage private capital with EDC funding, that leverage has evaporated. And with the exception of Electrify America and Tesla, plus recipients of Volkswagen Appendix D funding, little to no private capital is being broadly invested at scale due to the nascency of the EV market. We recognize that 100% support by EDCs may result in fewer overall installations because the investment per location will increase slightly, but we believe that the product will be more reliable, provide better value to consumers, and will result in far more infrastructure overall.

There is simply little to no appetite in the private sector to invest in putting steel in the

¹ Decision 14-12-079, Rulemaking 13-11-007, Application of San Diego Gas & Elec. Co. (U902E) for Approval of its Electric Vehicle-Grid Integration Pilot Program (Dec. 18, 2014).

ground today, but the need for infrastructure is great. Others agree, even in markets considered to be hotbeds of EVs and EV charging. For example, in a California Public Utilities Commission proceeding on transportation electrification, San Diego Gas & Electric recently quoted Greenlots (which is making the same case in other states such as North Carolina) to make the following points:²

- “[T]he private market alone cannot provide and is not providing an equitable and adequate level of attention to and investment in charging infrastructure to support drivers and EV purchasing decisions;”
- A “competitive market in the deployment of public charging infrastructure is aspirational, and is unlikely to arise prior to the adoption of a critical mass of electric vehicles” because “fundamental economics simply don’t support sufficient private investment to adequately grow the infrastructure market to support current and future drivers and their adoption decisions . . . in the absence of a sufficiently large number of consumers;” and
- “A significant amount of [the] limited private market development is likely supported by public funds, and in some cases is a product of legal settlements.”

We concur with this assessment of the overall state of the current capital markets and its appetite for additional funding of third-party investments in charging infrastructure, especially during this recession and Covid-19 pandemic.

Customers want choices and protections, and those should include the traditional private sector as well as innovative offerings from EDCs.

We further urge the Board to consider the broader issues of consumer preferences, and

² Opening Comments by San Diego Gas & Electric Company, Rulemaking 18-12-006 (March 6, 2020) at 8-9 (<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M328/K765/328765800.PDF>).

that some consumers and host sites may want the utility to assist with the installation and operation of such equipment including repairs and ensuring adequate uptime. This is precisely what happened in Minnesota, where Xcel last year introduced its Residential EV Pilot Service³ under which Xcel provides, installs, and maintains smart Level 2 chargers; customers have the option of paying for the installation up front or over time on their electric bill, and energy (renewable or standard) is offered at a substantial discount during off-peak hours (\$0.04/kWh vs \$0.17-\$0.21/kWh on-peak). Three quarters of participants opted to pay for the charger over time, a benefit that is virtually unheard of in the private sector. The offering was nearly fully subscribed within two days, and ultimately proved to be so popular that the waiting list exceeds the number of authorized participants by a factor of 3 to 1 despite the fact that all of these customers could, if they chose, purchase an EVSE on-line or from a big box retailer and hire an electrician. According to Xcel's annual report on EV charging,⁴ enrollees saved an average of \$2,196 in upfront costs and \$12.45 per month or \$149.40 per year in energy costs. We believe this model would be highly successful in New Jersey for all types of EV charging, including not only for DC fast at retail and along corridors, but also for Level 2 in single family homes, workplaces, and multifamily communities.

Also, a consumer may wish to switch from one network operator to another during the life of such EVSE if he or she is dissatisfied with the service or cost of the existing provider. If properly designed with a pre-qualified list of hardware providers following an RFI or RFP, a

³ Rate Codes A80, A81

(https://www.xcelenergy.com/staticfiles/xn/Regulatory%20&%20Resource%20Planning/Minnesota/Me_Section_5.pdf).

⁴ Xcel Energy, Compliance Filing, Residential Electric Vehicle Charging Tariff (June 1, 2020) (https://www.edockets.state.mn.us/EFiling/edockets/searchDocuments.do?method=showPoup&documentId={004B7572-0000-C89B-8D21-87DA93D2C7B7}&documentTitle=20206-163660-05&userType=public)).

utility role that includes ownership of EVSE will provide consumers with more choice from a trusted source of information on electricity and the distribution grid.

Simply put, a more robust role, including utility ownership as an option (with the burden of proof to demonstrate cost-effective investments and Board oversight), will provide the following advantages: avoiding vendor lock-in, allowing the utility to demonstrate new approaches perhaps with a vendor on a turnkey basis, and achieving scale more quickly in meeting the estimated demand.

Limiting EDCs to the role of Provider of Last Resort (POLR) is premature; moreover, the need for infrastructure statewide is such that EDCs should be permitted to offer complete service in all areas.

The Straw Proposal sets up a framework (at 11-12) in which EDCs would own and operate EVSE only in locations referred to as “Equity Areas.” We have seen this concept elsewhere, including most recently in New York in the DPS Staff proposal. Yet we suggest this is not a simple undertaking because the term has a wide range of meanings based on the community generally and also based on individuals within the community. We certainly agree with the position that diversity is important in transportation electrification, including in areas of economic need as well as communities of color, DACs (disadvantaged communities), and rural communities. Accordingly, we support EDC ownership and operation of EVSE in such locations, but we would be remiss if we did not point out the fact that nearly the entire state today lacks an adequate amount of EV infrastructure across all geographies and use cases.

The Straw Proposal defines the trigger for EDC ownership of EVSE (at 11) as markets “not sufficiently mature to build EVSE on a purely merchant basis.” We believe this is a false dichotomy between the EDCs and the EV infrastructure companies, since significant market

gaps or failures exist across all of New Jersey. As for the theory that EDC-provided make-ready will, by itself, entice sufficient private investment, there is insufficient evidence to prove this hypothesis.

New Jersey currently has fewer than 19,000 fully electric vehicles and not even 12,000 plug-in hybrids, for a total of barely 30,000 vehicles that are electrified at all (not even one-tenth of the Governor's goal for 2025). While this number is unfortunately extremely low, it actually can be compared to the very low number of non-proprietary EV charging stations. According to the U.S. Department of Energy Alternative Fuels Data Center, today there are merely 103 CCS direct current (DC) fast charging plugs⁵ at 53 locations, and 67 CHAdeMO DC fast charging plugs⁶ at 45 locations. Maryland, by contrast, which is home to a third fewer people than New Jersey, has approximately double the public DC fast charging infrastructure, with 180 CCS plugs at 92 locations and 168 CHAdeMO plugs at 94 locations. While infrastructure in both mid-Atlantic states remains scarce, it is clear that New Jersey faces a significant challenge to build out its EV infrastructure to meet market demands.

Given that charging infrastructure must be in place before customers will purchase EVs, which by definition means the market for EV charging will be nascent and the business case will be poor at the outset, there is no reason to expect that the private sector will be acting any time soon even with make-ready funding. Costs such as operating a network, call centers, technicians, and maintenance are not trivial in the early days while the market develops but such costs are a prerequisite for the market to develop. To the extent the Board seeks comment on a sunset date,

⁵ CCS is the DC fast charging format for nearly all fully electric vehicles other than Tesla and Nissan.

⁶ CHAdeMO is the format that is used primarily by Nissan and Mitsubishi (although Mitsubishi today offers only a plug-in hybrid), and generally may be used by Tesla with an adapter.

it is altogether premature to be having that discussion at all, let alone to consider setting one as close as 2025. Instead, we urge the Board to allow a much more robust role for the EDCs over at least the next five or ten years, recognizing that it has the authority to re-assess with the EDCs and stakeholders at that time and adjust market terms and the role of the EDC when the market is more mature.

EDCs can ensure successful EVSE deployment while supporting the private sector; moreover, responsible stewardship of ratepayer resources dictates ongoing involvement with all aspects of the network including the EVSE.

As stated in our introduction, we believe that the make-ready investment approach outlined in the Straw Proposal provides a good foundation for further development, but this model will not be a panacea for the long-term needs of New Jersey. New Jersey will continue to experience a deficit of charging due to longstanding reluctance by the private market to step in and deploy infrastructure, as evidenced by the very small number of developers (particularly for DCFC) and the overall inadequate number of plugs (both DCFC and Level 2).

Instead, the Board should consider a more robust role for EDCs, including an ownership model with a turnkey approach with qualified vendors, as being an important accelerator of EV charging infrastructure in the state. It is important to keep in mind that, in the case of EV charging, at least, EDC ownership does not generally displace the private sector.

- With regard to hardware, EDCs do not build their own EV chargers, they buy from the same suppliers as any other developer.
- With regard to software, EDCs elsewhere partner with an existing platform, typically either through co-branding or under a white label arrangement.
- Of the existing networks, most have been known to partner in some fashion with EDCs.

- Even in design, engineering, and construction, EDCs typically support the local economy because they hire local vendors and labor (union labor, in many cases). EDC control of a project from end-to-end therefore is likely to benefit the local economy and ensure a streamlined process.
- Once stations are operational, we have every reason to believe that EDCs will establish prices for charging that reflect current market conditions in New Jersey and ensure price competitiveness with other charging service providers as well as relative to traditional petroleum fuels.

Moreover, if ratepayer funds are invested, logic dictates that the EDC retain the opportunity to be involved with the resulting infrastructure to ensure continuous and reliable utilization. Other jurisdictions have discovered that EV charging stations that were built in the last decade, often with government grants and incentives, are not well maintained and experience poor uptime and availability. Obviously, there can be reliability issues with all the various business models and charging infrastructure. But especially with ratepayer funding for these investments, the utility would retain the primary responsibility for maintaining this distribution infrastructure, subject to the oversight and accountability of the Board.

At the very least, the Board possesses the ability to require customers utilizing make-ready infrastructure to adhere to pro-competitive policies such as avoiding vendors who seek to lock in customers to hardware with no real-world ability to change service providers.

OCP (Open Charge Point Protocol) should be required for all EVSE connected to EDC-funded infrastructure.

We are aware of reluctance by some stakeholders to support EDC ownership of EVSE. While we urge the Board to recognize that EVSE is considerably different from other energy

products because EVSE is expensive and complicated and therefore highly suitable for deployment by EDCs, even if the Board does not agree with the ownership question, the Board should require the EDCs to require certain conditions for open design and architecture in RFPs with potential vendors who will bid on the hardware to be connected to the make-ready investments.

Insisting on basic and unobjectionable principles such as open standards and interoperability is the type of basic consumer protection that the Board was created to provide. Examples of best practices include requiring customers who benefit from a utility make-ready to be required to install hardware and software that is compliant with prevailing standards such as OCPP (which enables EVSE to be ported from one service provider to another) and Open Charge Point Interface (OCPI, which enables customers on one network to use chargers of another network). As the global technology company Siemens articulated recently in a New York Public Service Commission proceeding, interoperability produces three beneficial results: (1) lower costs to customers; (2) lowered risk of stranded assets; and (3) customer choice and avoided vendor lock-in.⁷

By way of brief background, OCPP is a protocol, or a language, by which charging hardware communicates to the network operator. When both hardware and software are compliant with OCPP, they speak the same language; this means that any OCPP charger can talk with any OCPP network. In the absence of an open protocol for communications, however the customer or host site may be locked in to a single vendor if OCPP is not required or if

⁷ New York Electric Vehicle Supply Equipment and Infrastructure Technical Conference and EV Readiness Working Group (Docket No. 18-E-0138) (April 7, 2020). Presentation of Chris King, SVP of Policy and Regulatory Affairs, Siemens eMobility, at 9 (<http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={369DBCAC-E362-4061-A7DC-786DBFE3D9FE}>).

contractual restrictions are put in place.

Consistent with our pro-open standards position above, we point out that there are significant market participants who do not adhere to open standards in practice. We also observe that there are relatively few market participants today, and the firm with the dominant market share is able to unreasonably restrict new competitors, mostly by locking its existing non-OCPP hardware (much of which was paid for with federal, state, local, or utility funds) to its own network. The Board should be aware of these realities in the nascent and development charging market among network management systems, and insist on only OCPP certified hardware and software in connection with future deployments. We acknowledge that Commissions do not have the authority and expertise to set standards for hardware and software in the EV ecosystem, and they are best left to professional bodies and associations (such as IEC, IEEE, SAE, and several others). At the same time, we urge the Board to use its authority to require EDCs to consider fully interoperability and emerging protocols and standards as utility RFPs are issued to vendors, recognizing that ratepayer funds are being expended in the public interest.

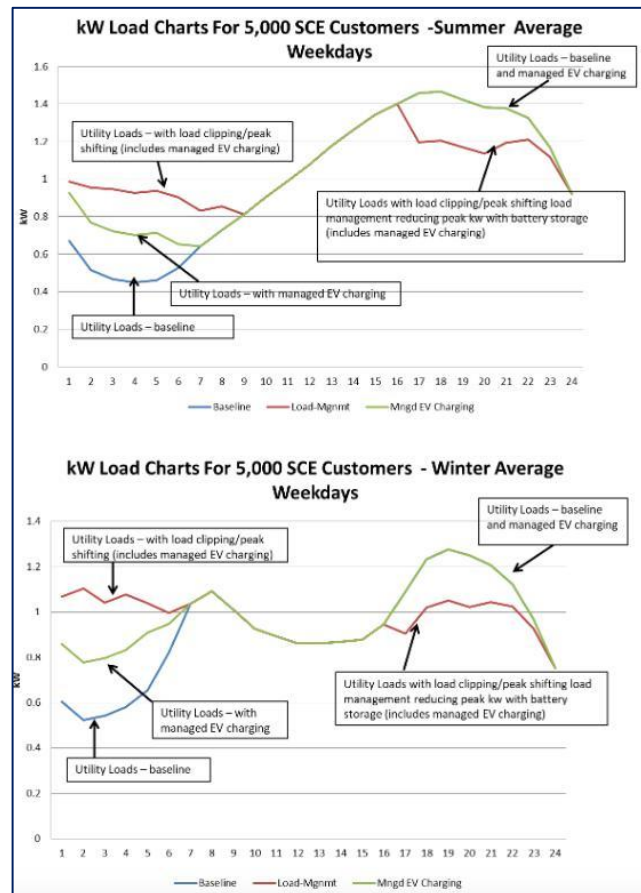
To be clear, it is ATE's firm position that hardware that is connected to make-ready infrastructure be officially certified by a recognized independent third party as compliant with the then-prevailing version of OCPP (testing procedures are described on the webpage of the Open Charge Alliance, www.openchargealliance.org). Moreover, customers must possess the contractual right to direct any participating network operator to turn over control of chargers to another service provider. Only these provisions will protect customers, by allowing them to choose from a range of private network providers.

EDC control of EVSE adds value by utilizing EVs as distributed energy resources.

One study of Southern California Edison (SCE) customers⁸ found that EV batteries used as a “virtual power plant” can shift the entire residential peak load to nighttime hours by using energy stored in batteries during the day and managing charging at night with EV market penetration of only 10 percent. Moreover, annual net savings were \$560/EV customer.

Smoothing the EDC’s load reduces all customers’ costs because peaks require additional power plants to be dispatched; when plants are dispatched only during peaks, the annual cost must be covered during a relatively small number of hours, which results in higher electricity prices for everyone.

The finding that a small EV market share can completely clip the residential peak (see charts at right) and save participants \$560/year even after paying for overnight charging has long been suspected but the study provides credible evidence. This important study highlights savings that help lower the overall total cost of owning an EV. Meanwhile, for non-EV customers, lowering the system peak reduces the cost of electricity and supports the case for utilities investing in EV charging infrastructure.



⁸ Available at http://www.maisy.com/SCE_EV_Virtual_Power_Plant.pdf.

Board Staff seeks comment (at 9) on the subject of cost recovery. Based on our experiences in many states across the country, we advise the Board that cost recovery should be viewed through the lens that EV charging is different from traditional investments; therefore, the Board should consider the broad based benefits that EV charging infrastructure delivers to the entire state, including participants and nonparticipants, and take a flexible approach erring on the side of not second-guessing investments that are made in good faith.

At this early stage of market development, a traditional detailed cost-benefit analysis (CBA) should not be a requisite for program development and approval by the Board, particularly for early-stage pilot programs. Instead, the Board should, over time and through a stakeholder process, start to assess the appropriate CBA to utilize as transportation electrification achieves greater scale in New Jersey in accordance with S. 2252 and its climate goals. Each of the traditional CBA tests has some positive aspects but also substantial limitations when it comes to measuring the costs and benefits of TE. Regardless of which model is adopted, as with other aspects of TE implementation the Board should not be overly prescriptive in specifying which CBA should be used by an EDC in this early stage of development.

We suggest that the Board consider the framework proposed by EPRI in its proposal to create a new solution – a cross between a Total Resource Cost (TRC) and Societal Cost Test (the latter of which takes into account the environmental externalities, among others). This new approach is called the Total Value Test (TVT), which was published in August 2019.⁹

The Total Value Test refines current analytical approaches to evaluating cost-effectiveness of demand-side programs and expands their application to include any type of electrification initiative, in any economic sector. The Total Value Test takes a broad view of the

⁹ Available at <https://www.epri.com/#/pages/product/3002017017/?lang=en-US>.

potential costs and benefits of electrification, which is necessary given its cross-sector impacts. The Total Value Test was developed based on best practices for evaluating the cost-effectiveness of demand-side programs, a review of the literature critiquing those methods, and interviews with 15 experts on electrification and cost-effectiveness frameworks.

Key considerations when applying the Total Value Test include:

- Developing defensible methods for quantifying “non-energy” costs and benefits.
- Accounting for the ability of the proposed electrification initiatives to satisfy established policy objectives.
- Defining the “boundary” of the test in a meaningful way (for example, does it take a utility-specific view, a state-level view, or a broader perspective?).

A report on the Total Value Test conducted by The Brattle Group includes 26 different categories of potential costs and benefits and includes case studies that highlight practical applications of the Total Value Test..

Rapid growth is expected in the medium and heavy-duty vehicle sectors; because electrifying these fleets will play an outsized role in decreasing pollution, immediate engagement is essential because the market responds to incentives.

The transportation sector is the largest source of greenhouse gas (GHG) emissions in the United States, emitting more pollutants than even the power sector (the transportation sector is accounting for a growing percentage of all GHG emissions primarily because the power sector is reducing GHG through actions such as retiring coal plants and running cleaner gas plants). In recognition of this new reality, local communities and governments are increasingly focused on reducing GHG emissions from trucking because of the attendant benefits for local air quality.

According to an analysis conducted by Atlas Public Policy,¹⁰ though, the cost competitiveness of procuring electric vehicles was determined primarily by the presence of two key elements: low cost charging and vehicle incentives. EV procurements which did not include these elements were almost categorically non-competitive in the scenarios analyzed.

The Alliance believes there was an emerging consensus expressed at the workshop and in various stakeholder comments that the Straw Proposal should be extended beyond the light-duty vehicle market to the rapidly growing and technologically dynamic medium and heavy duty markets. We urge the Board to act as quickly as possible in this area because demand for electric trucks and buses (both transit and school) exceeds supply, so they are going to the cities and states where the costs and challenges are lowest. New Jersey has the potential to be a significant hub for electric trucks and buses due to the state's population, industrial and logistics base, and proximity to key markets.

We understand that the Board does not regulate transit agencies such as New Jersey Transit (NJT) or the trucking and logistics sectors, but it is the regulated EDCs that will soon be providing the fuel for the transportation sector. For example, New Jersey Transit recently published a Strategic Plan (NJT 2030),¹¹ which explains that NJ Transit is currently developing a roadmap towards electrification and will, within the next two years, create an electrification master plan to detail the stages of fully deploying battery electric buses. NJ Transit has already conducted preliminary studies of bus garage electrification and is preparing to deploy a pilot. Furthermore, the statutory goals in S. 2252 for electrification of NJT buses are clear, starting

¹⁰ Assessing Financial Barriers to Adoption of Electric Trucks (Feb. 2020) (<https://atlaspolicy.com/wp-content/uploads/2020/02/Assessing-Financial-Barriers-to-Adoption-of-Electric-Trucks.pdf>).

¹¹ NJT 2030: A 10-Year Strategic Plan (June 2020) at 57-58. Full report available at https://njtplans.com/downloads/strategic-plan/NJT_2030-A_10-YearStrategicPlan.pdf.

with 10 percent in 2024 to full electrification to be achieved in 2032. While these may appear to be aspirational in nature, they are written in to the statute and will require substantial upgrades to the existing infrastructure and significant coordination with the EDCs, vendors, neighborhoods, and local governments to achieve these goals.

This and efforts by others are the start of a major transformation in both transportation and power, and the Board and EDCs rightfully should be leading the conversation. Competition for attracting these companies and jobs, however, will be strong, so we urge the Board to act quickly along with other state agencies to create supportive regulatory and policy measures for the entire state.

Education and Outreach Activities (E&O) are essential for widespread transportation electrification, and EDCs have a vital role to play along with other stakeholders.

Education and outreach are essential in this time that is as complicated as confusing as it is transformative and beneficial. Customers, for the most part, generally know very little about EVs or EV charging. Not surprisingly, most national surveys indicate that the fundamental lack of consumer awareness about basic “EV 101” information such as vehicle types, plug standards, and location of charging stations (even in advanced states like California) is one of the largest barriers to greater EV adoption.

As with certain other aspects of the Straw Proposal, the subject of education and outreach has been covered in other states. We encourage the Board to give EDCs wide latitude in both the approach and the content of performing this important service and allow for recovery of the costs. While issues such as distributed energy resources and how EV charging affects the grid are important to energy workers, most customers are just now learning where the starting line is. They need to learn the direct benefits *to them* of owning an EV, as well as the benefits to the

environment. One might think that automakers should shoulder this responsibility, but to date their success in this area has proven to be mixed, at best. EDCs and their customers, on the other hand, along with every creature that breathes air and suffers from atrocities such as PM2.5 in the EDC's service territory, stand to benefit from transportation electrification.

The Alliance believes that the utilities are well positioned to carry out a robust E&O function by their extensive relationships with their customers and serving as an "energy advisor" on other advanced energy services and programs. Accordingly, we urge the Board to allow the EDCs to propose reasonable budgets to be funded out of rates in order to allow them to engage in this outreach activities, such as organizing ride-and-drive events, enhancing web portals that provide timely information on EVs and charging, and other activities. We trust that customers are smart and well informed and will use these web portals and utility-provided information, along with other sources of information from auto dealers, EV web sites, and auto OEMs in order to make informed decisions.

Next Steps and Conclusion

We appreciate the considerable effort that Staff has made in developing the Straw Proposal. The Alliance looks forward to continued collaboration among all stakeholders to advance transportation electrification and help New Jersey achieve its climate and transportation electrification goals. While the Straw Proposal is a good starting point, we believe that some significant changes need to be made before final approval by the Board that should be focused on some of the following key outcomes:

1. The Board should adhere to its timetable for the submittal of TE Plans by the EDCs to the Board by the end of December 2020, with the submittal of program designs in the following April. At the same time, the Board should review under current (pre-Straw

Proposal) guidelines the pending proposals for EV infrastructure from the two EDCs and rule on them expeditiously in parallel fashion. They differ from the Straw Proposal, but valuable learnings can be gleaned by allowing them to proceed.

2. EDCs should be permitted to offer customers the option for the EDC to own EVSE along with the make-ready on the customer side of the meter together with the utility side of the meter as set forth in the definition of “charger ready”
3. All EV charging hardware and all charging network platforms connected to EDC-funded make-ready must be compliant with the prevailing version of OCPP (currently ver. 1.6);
4. The Board should encourage and approve EDC investments in furtherance of electrifying medium and heavy-duty vehicles;
5. The Board should allow EDCs to invest in robust education and outreach for purposes of making customers aware of the benefits they will enjoy from driving electric vehicles;
6. The Board should design a regulatory review process that allows some flexibility and iterative design so that the EDCs, EV infrastructure firms, and others can review the progress and state of the market in regular stages, while still maintaining adherence to regulatory principles and the public policy and statutory goals of New Jersey.

Dated June 17, 2020

Respectfully submitted,

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