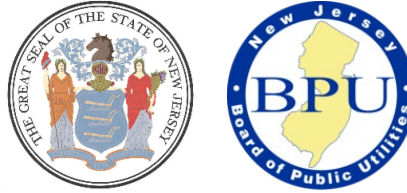


State of New Jersey  
Governor Philip D. Murphy  
Lt. Governor Sheila Y. Oliver



Joseph L. Fiordaliso  
President

Mary-Anna Holden  
Dianne Solomon  
Bob Gordon  
Dr. Zenon Christodoulou  
Commissioners

Board of Public Utilities



[www.nj.gov/bpu/](http://www.nj.gov/bpu/)

## NOTICE<sup>1</sup>

### IN THE MATTER OF MEDIUM AND HEAVY DUTY ELECTRIC VEHICLE CHARGING ECOSYSTEM

#### [Docket No. QO21060946](#)

Pursuant to the Open Public Meetings Act, N.J.S.A. 10:4-6 et seq., the New Jersey Board of Public Utilities (“NJBP” or “Board”) hereby gives notice and invites all interested parties and members of the public to participate in a virtual Stakeholder Meeting regarding the development of a Medium and Heavy Duty (“MHD”) Electric Vehicle (“EV”) Charging Ecosystem for New Jersey. The draft Straw Proposal for the MHD EV Charging Ecosystem (“Proposal”) is [included in this Notice](#).

The Proposal expands upon the Medium and Heavy Duty Straw Proposal released in June 2021 (“June 2021 Proposal”), [which can be found here](#). The June 2021 Proposal sought to address larger light-duty fleet charging, as well as the charging of MHD vehicles, as the energy needs and uses of those vehicles are closely aligned. NJBP Staff held several technical panels and stakeholder meetings shortly after publication of the June 2021 Proposal. This Proposal strives to further refine the June 2021 Proposal, taking into account stakeholder input and further advancements in policy surrounding MHD EVs. The Proposal includes the following additions to the June 2021 Proposal:

- The Proposal adds private fleet charging depots located in or primarily operating in Overburdened Municipalities to those eligible for Make-Ready Incentives. (page 3)
- The Proposal adds technical and planning support for private entities that establish public fast charging sites that exceed 500kW in order to plan ahead for the roll-out of National Electric Vehicle Infrastructure (“NEVI”) funds and larger charging banks. (pages 4 & 5)
- Private Fleet Charging Depots eligible for Make-Ready funding would be required to meet stringent standards to ensure that they either are located in, or primarily operate in, at least one Overburdened Municipality. (page 13)
- Staff is proposing that Make-Ready incentives should only be available to Private Fleet Charging Depots that (1) are located or primarily operate in Overburdened Municipalities; (2) are displacing existing fleet vehicles, rather than bringing new vehicles into already Overburdened Municipalities; and (3) agree to participate in a managed charging program that directs most charging to off-peak periods. (page 16)
- The Proposal adds Fast Charging sites over 500kWH to those eligible for technical assistance. (page 19)

A Stakeholder Meeting regarding the Proposal will be held at the following date and time, and in the following manner:

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<sup>1</sup> Not a paid legal advertisement.

## STAKEHOLDER MEETING

**DATE:** January 17, 2023  
**TIME:** 1:00PM  
**LOCATION:** Zoom Virtual Webinar  
**REGISTER:** [https://us06web.zoom.us/webinar/register/WN\\_eLdMMtuaQPe\\_SrqQjdRcww](https://us06web.zoom.us/webinar/register/WN_eLdMMtuaQPe_SrqQjdRcww)

After registering, you will receive a confirmation email containing information about joining the webinar.

Please note that this meeting will be conducted virtually. You must register for the meeting before attending at least 48 hours prior to the scheduled date. Stakeholders and members of the public are invited to participate by utilizing the link or dial-in information provided in the registration confirmation email and may express their views. In order to encourage full participation, please submit any requests for needed accommodations, such as interpreters and/or listening assistance, 48 hours prior to the above hearing to the Board Secretary at [board.secretary@bpu.nj.gov](mailto:board.secretary@bpu.nj.gov).

Questions on this stakeholder process may directed to [EV.Programs@bpu.nj.gov](mailto:EV.Programs@bpu.nj.gov).

### Comments

**The Board is also accepting written and/or electric comments.**

All public comments should be filed under [Docket No. QO21060946](#). **The deadline for comments on this matter is 5:00 p.m. EST on January 24, 2023.** Please submit comments directly to the specific docket listed above using the "Post Comments" button on the Board's [Public Document Search](#) tool. Comments are considered public documents for purposes of the State's Open Public Records Act. Only public documents should be submitted using the "Post Comments" button on the Board's [Public Document Search](#) tool. Any confidential information should be submitted in accordance with the procedures set forth in N.J.A.C. 14:1-12.3. Due to the COVID-19 pandemic, certain rules requiring paper submissions have been temporarily waived. In addition to hard copy submissions, confidential information may also be filed electronically via the Board's e-filing system or by email to the Acting Secretary of the Board. Please include "Confidential Information" in the subject line of any email. Instructions for confidential e-filing are found on the Board's webpage. <https://www.nj.gov/bpu/agenda/efiling/>. Written comments may also be submitted to:

**Carmen D. Diaz**  
Acting Secretary of the Board  
44 South Clinton Ave., 1<sup>st</sup> Floor  
PO Box 350  
Trenton, NJ 08625-0350  
Phone: 609-913-6241  
Email: [board.secretary@bpu.nj.gov](mailto:board.secretary@bpu.nj.gov)

Dated: December 22, 2022



Carmen D. Diaz  
Acting Secretary

## **New Jersey Electric Vehicles Infrastructure Ecosystem – Medium and Heavy Duty Straw Proposal**

### **I. Introduction**

The Board is continuing to work to build out an equitable, reliable electric vehicle (“EV”) Ecosystem (“EV Ecosystem”) infrastructure. In 2020, the Board established minimum filing requirements (“MFRs”) for light-duty publicly accessible charging. The utility programs that resulted from those MFRs will increase access to EV charging in community locations, workplaces, and multi-unit dwellings (“MUDs”), address obstacles to adoption, and provide valuable data on residential and commercial use.

Board Staff (“Staff”) acknowledges that light-duty and personal-use vehicles are only one part of the transportation sector. This Straw will address larger light-duty fleet charging, as well as the charging of MHD vehicles, as the energy needs and uses of these vehicles are closely aligned.

MHD trucks and buses account for only 4% of all vehicles on the road, but are responsible for nearly 25% of transportation sector greenhouse gas (“GHG”) emissions. In New Jersey, there are approximately 500,000 MHD vehicles. These trucks and buses are also major contributors to emissions of nitrogen oxides, particulate matter, and air toxins. These vehicles are a problem for lower-income communities of color that are often located near freight corridors, ports, and distribution centers, and, as a consequence, are disproportionately exposed to harmful pollutant levels.

In 2020, New Jersey joined 15 other states and jurisdictions in signing a Memorandum of Understanding (“MOU”) coordinated by the Northeast States for Coordinated Air Use Management (“NESCAUM”) committing to electrify all MHD vehicles sold by 2050 (“NESCAUM MOU”).<sup>2</sup> The NESCAUM MOU builds on the success of the existing 2013 multi-state Zero Emissions Vehicles (“ZEV”) MOU for light-duty vehicles. Key provisions of the NESCAUM MOU include:

- A commitment by the NESCAUM MOU signatories to work collaboratively through the ZEV Task Force to develop and implement a comprehensive multi-state action plan;
- A goal to make 30% of all MHD vehicle sales MHD EVs by 2030, and a goal to reach 100% MHD EV sales by 2050;
- A 2025 mid-term review of the interim sales target to respond to unforeseen market developments and make adjustments as needed; and
- A commitment by the 2020 MOU Signatories to lead by example by purchasing MHD EVs for public fleets.

The interim sales targets were based on total cost of ownership parity with fossil-fueled vehicles; product availability; and research California conducted as part of its recently adopted Advanced Clean Trucks rule. Over 80 electric truck models are commercially available today across nearly all size classes, and more than 150 models are expected to be commercially available by 2023. In every class, industry analysts

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<sup>2</sup> [Multi-State Medium- and Heavy-Duty Zero Emission Vehicle Memorandum of Understanding, nescaum.org, https://www.nescaum.org/documents/mhdv-zev-mou-20220329.pdf](https://www.nescaum.org/documents/mhdv-zev-mou-20220329.pdf) (last visited Nov. 23, 2022).

project total cost of ownership parity with their diesel or gasoline counterparts will be achieved by 2030 without financial incentives, in many cases by 2025.

To make progress towards these goals, the New Jersey Department of Environmental Protection (“NJDEP”) adopted an Advanced Clean Truck Rule as part of its comprehensive strategy to reduce greenhouse gas emissions and short-lived climate pollutants.<sup>3</sup> This will help New Jersey to achieve its goal set forth in the State’s Global Warming Response Act to reduce emissions by 80% below the State’s 2006 baseline by 2050.<sup>4</sup> Manufacturers are required to sell zero-emission trucks as an increasing percentage of their annual sales in New Jersey from 2025 through 2035. By 2035, zero-emission truck sales would need to be 55% of Class 2b to 3 truck sales, 75% of Class 4 through 8 straight truck sales, and 40% of truck tractor sales.

The Board is committed to Governor Phil Murphy’s stated goal of having 330,000 light-duty EVs registered in New Jersey by 2025. This goal was further clarified and expanded to related goals in the 2019 Energy Master Plan (“EMP”), which called for, among other things:

- Increased EV adoption in NJ Transit’s fleet;
- Increased clean transportation options in low- and moderate-income and environmental justice communities, particularly Overburdened Municipalities, as defined by the Board;
- Industry partnerships to develop incentives to electrify Medium- and Heavy-Duty vehicle fleets;
- Reduced congestion and idling;
- Exploring policies to accelerate adoption of EVs and alternative fuels in the transportation sector;
- Supporting electrification of diesel-powered transportation and equipment at transportation hubs and airports; and
- Supporting a diesel truck buy-out program.<sup>5</sup>

To move toward the goals listed above, Staff developed a Straw Proposal released on June 30, 2021 and held several technical panels and stakeholder meetings shortly thereafter. This Straw Proposal strives to further refine the June 30, 2021 Straw Proposal, taking into account stakeholder input and further advancements in policy surrounding MHD EVs. Staff recognizes that New Jersey needs to create a comprehensive EV Ecosystem that provides both light-duty and MHD EVs with public access to charging infrastructure on travel corridors and at workplaces. This must be done in partnership with stakeholders, including New Jersey companies, employers, property owners, electric distribution companies (“EDCs”), and investors. Many of the issues that this Straw Proposal seeks to explore include questions about who should construct, own, operate, and pay for the MHD network necessary to make New Jersey a national leader in the adoption of electrified MHD fleets and the build-out of an MHD EV Ecosystem.

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<sup>3</sup> See N.J.A.C. 7:27-31.1 to -31.4 (advanced clean trucks program) (hereinafter “Clean Truck Rule”); see also N.J.A.C. 7:27-33.1 to -33.7 (fleet reporting requirements).

<sup>4</sup> See N.J.S.A. 26:2C-38.

<sup>5</sup> 2019 New Jersey Energy Master Plan: Pathway to 2050, at 70 to 75, 83, 85, [NJ.gov, https://nj.gov/emp/docs/pdf/2020\\_NJBPU\\_EMP.pdf](https://nj.gov/emp/docs/pdf/2020_NJBPU_EMP.pdf) (last visited Nov. 23, 2022) (hereinafter “EMP”).

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. The Straw seeks to address the following components of a MHD Charging Program:

1. Roles and Responsibilities of Utilities and Non-Utilities:

- EDCs would be responsible for the wiring and backbone infrastructure necessary to enable a robust number of MHD Make-Ready locations throughout the State, serving publicly-accessible MHD charging depots, publicly accessible and/or public-serving fleets and Private Fleet Charging Depots located in or primarily operating in Overburdened Municipalities;
- Electric Vehicle Service Equipment (“EVSE”) Infrastructure Companies, site owners, and industries using private capital would be primarily responsible for installing, owning and/or operating, and marketing MHD EVSE to customers;
- An EDC-Industry working group would be created 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 as related to the MHD EV EcoSystem.

2. Funding of the MHD EV Ecosystem, which builds on the shared responsibility model as laid out in the Light-Duty EV Ecosystem minimum filing requirements:

- EDCs will invest in, and earn on, the wiring and backbone infrastructure necessary to prepare MHD Make-Ready locations that are publicly accessible MHD charging depots, public-serving fleets, or Private Fleet Charging Depots located in or primarily operating in Overburdened Municipalities;
- EDCs would have the ability to own and operate EVSE in specified circumstances, as further described in Section IV of this Straw Proposal, if adequate adoption of charging for MHD vehicles and light-duty fleets does not occur; and

EVSE Infrastructure Companies would expect to see returns from their sales of electric charging equipment and services, as well as enabling grid services.

3. Technical standards and rate designs that encourage the electrification of MHD vehicles and larger light-duty fleets through:

Implementation of managed charging programs so that MHD charging is incented to occur during off-peak periods to maximize availability of existing infrastructure and put downward pressure on distribution rates;

Implementation of demand charge solutions for publicly-accessible depot charging;

Support for the necessary charging infrastructure, which must be capable of supporting the emerging High-Powered DC Fast Charging standards while maintaining compatibility with existing lower-powered DC chargers;

Technical and planning support for private entities seeking to establish proprietary EV Ecosystems for their fleets and for private entities seeking to establish public fast charging sites that exceed 500kW; and

The development and expansion of MHD vehicle charging rates that encourage the use of battery storage and the capability to charge and discharge specific EVs at certain locations and times, such that grid flexibility services are possible from the vehicle battery.

4. Funding of the technical and planning support necessary to electrify all MHD fleets utilized by:

- Government agencies;
- Public-serving institutions like transportation hubs, airports, and mass-transit providers;
- Private Fleet Charging Depots; and
- Private entities seeking to establish public fast charging sites that exceed 500kW.

Staff is keenly aware of the need to move expeditiously toward a low-carbon future and of the critical role successful EV policies will play in meeting New Jersey's long-term emissions targets and EV adoption goals. Staff acknowledges that as we continue to work to define the appropriate level of ratepayer investment in this sector, New Jersey continues to move policies forward to encourage transportation electrification, including the NESCAUM MOU and the newly adopted Clean Truck Rule.

Staff anticipates that coordinated planning around MHD vehicle electrification as part of a generic docket will be more expeditious than addressing these same policy issues in isolated EDC filings. This proceeding seeks to encourage uniform treatment and standard footprint solutions in all EDC territories, which should greatly accelerate commercial scaling. Using a generic docket also ensures a consistent statewide approach to the electrification of the MHD EV Ecosystem, which is critical to the health of New Jersey residents and the successful fulfillment of New Jersey's EV adoption goals.

The Board's consideration of these and other generic policy issues will proceed in parallel with its evaluation of EV-related filings from individual EDCs and ultimately result in a faster development of a successful EV Ecosystem. To that end, Staff has included a partial list of additional information sought from the EDCs in Section IV.E. of this Straw Proposal.

This Straw Proposal is intended to provide an opportunity for stakeholder feedback. Instructions for providing that feedback can be found in the last section of this Straw Proposal. Capitalized terms used but not defined shall have the meaning set forth in Section II (Statutory Authority – Background on Terminology).

## II. Statutory Authority

On January 17, 2020, Governor Murphy signed P.L. 2019, c. 362<sup>6</sup> into law, which included an extensive set of new goals for a comprehensive EV Ecosystem throughout New Jersey. Among other things, the EV Act calls for at least 330,000 EVs registered in New Jersey by December 31, 2025 and at least 2 million EVs registered in New Jersey by December 31, 2035. The EV Act gives the Board broad authority to “adopt policies and programs to accomplish the goals established pursuant to” section 3 of the EV Act.

The EV Act also includes specific EV Ecosystem goals, including requiring publicly-accessible charging infrastructure as follows:

- The installation of at least 400 DC Fast Chargers and 1,000 Level Two publicly-accessible chargers installed across New Jersey by December 31, 2025.
- The DC Fast Chargers located on travel corridors must be capable of delivering a minimum of 150kW of charging power, and be no more than 25 miles apart.
- By December 31, 2025, at least 15% of MUDs must have a combination of Level One, Level Two, or completed Make-Ready parking spaces.
- By December 31, 2025, 20% of all franchised overnight lodging establishments shall be equipped with EV charging for routine EV charging by guests of the establishment.
- By December 31, 2025, at least 25% of State-owned non-emergency light-duty vehicles shall be plug-in EVs.
- By December 31, 2035 and thereafter, 100% of State-owned non-emergency light-duty vehicles shall be plug-in EVs.
- By December 31, 2024, at least 10% of the new bus purchases made by the New Jersey Transit Corporation shall be zero emission buses.
- The percentage of zero emission bus purchases shall increase to 50% by December 31, 2026 and to 100% by December 31, 2032 and thereafter.
- By December 31, 2020, NJDEP, in consultation with the Board, shall establish other goals for vehicle electrification and infrastructure development that address MHD on-road diesel vehicles and associated charging infrastructure, similar to the State goals for light-duty vehicles, and consistent with the technology and plug-in EV markets for those vehicle types.<sup>7</sup>

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<sup>6</sup> L. 2019, c. 362, § 1 (codified at N.J.S.A. 48:25-1 to -11), (“EV Act”).

<sup>7</sup> N.J.S.A. 48:25-3.

In addition, Governor Murphy joined 15 other states and the District of Columbia in signing the NESCAUM MOU, committing to work collaboratively to advance and accelerate the market for MHD EVs, including large pickup trucks and vans, delivery trucks, box trucks, school and transit buses, and long-haul delivery trucks (big-rigs). The goal of the MOU is to ensure that 100% of all new MHD vehicle sales be zero emission vehicles by 2050, with an interim target of 30% zero-emission vehicle sales by 2030.

At the end of 2021, New Jersey adopted the Clean Truck Rule, which requires manufacturers to sell ZEV trucks at an increasing percentage of their annual in-state sales between 2025 and 2035. By 2035, in-state truck sales would need to meet the requirement that ZEVs comprise 55% of Class 2b to 3 truck sales, 75% of Class 4 through 8 straight truck sales, and 40% of truck tractor sales.

Furthermore, the EV Act clarifies that the “charging of a plug-in electric vehicle shall be deemed a service and not a sale of electricity by an electric power supplier or basic generation service provider,”<sup>8</sup> which allows EVSE Infrastructure Companies to charge for charging services either on a per-kWh basis or on a time basis, without subjecting these chargers to unnecessary regulation.

Finally, the EV Act provides the Board with the authority to utilize Societal Benefit Charge (“SBC”) funds to effectuate programs to provide funding for “energy efficiency, plug-in EVs, and plug-in EV charging infrastructure, as well as Class I renewable energy<sup>9</sup> programs that provide environmental benefits above and beyond those provided by standard offer or similar programs” in effect as of the effective date.<sup>10</sup>

## **Background on Terminology**

Staff proposes to adopt the following terminology for discussing MHD EV infrastructure and the electrified MHD charging experience, many of which are based on the EV Act as implemented through the Minimum Filing Requirements for Light-Duty, Publicly-Accessible Electric Vehicle Charging Order dated September 23, 2020.<sup>11</sup> Capitalized terms used but not otherwise defined in this document refer to these definitions. Staff welcomes comment on these terms, as well as suggestions for other items that should be included on this list:

- “Demand Charges” are an existing feature of many rates whereby large users of the electric system pay for their contribution to the fixed costs of operating the electric system. In most cases, Demand Charges are set at a customer’s peak annual usage.
- “EDC” refers to an electric distribution company that the Board regulates.
- “EV Ecosystem” or “Ecosystem” refers to all physical equipment necessary to charge a vehicle (light-, medium-, or heavy-duty), which includes the EVSE (i.e., “charging station infrastructure”),

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<sup>8</sup> N.J.S.A. 48:25-10.

<sup>9</sup> Class I renewable energy sources include solar, wind, fuel cells powered by renewable fuels, geothermal, wave, tidal, methane gas from landfills and qualified digesters, a biomass facility, provided that the biomass is cultivated and harvested in a sustainable manner or qualified hydroelectric power. See N.J.S.A. 48:3-51.

<sup>10</sup> N.J.S.A. 48:25-7.

<sup>11</sup> In re Straw Proposal on Electric Vehicle Infrastructure Build Out, 2020 N.J. PUC LEXIS 364 (Sept. 23, 2020).



the Make-Ready portion of the electrical system, and distribution upgrades on the utility-side of the meter and any customer-owned support equipment needed for reliable, resilient, and cost effective ongoing operation of the charging services.

- “EVSE Infrastructure Company” refers to an entity using private capital to deploy EVSE (i.e., “charging station infrastructure”). An EVSE Infrastructure Company cannot be an EDC, affiliated with an EDC, or an entity controlled by an EDC, unless otherwise approved by the Board.
- “Electric Vehicle Service Equipment” or “EVSE” means the equipment, including the cables, cords, conductors, connectors, couplers, enclosures, attachment plugs, power outlets, switches and controls, network interfaces, and point of sale equipment and associated apparatus, designed and used for the purpose of transferring energy from the electric supply system to a plug-in EV. EVSE may deliver either alternating current (“AC”) or direct current (“DC”) electricity consistent with fast charging equipment standards. “EVSE” is synonymous with “Charging Station Infrastructure.”
- “Fleet” refers to a group of vehicles owned or operated by a single entity, serving a specific purpose, with defined roles or tasks.
- “Government Entity” means a customer that is a State entity, school district, county, county agency, county authority, municipality, municipal agency, municipal authority, New Jersey public college, or New Jersey public university.
- “Heavy-Duty Vehicle” means any motor vehicle having a manufacturer's gross vehicle weight rating greater than 14,001 pounds, except passenger cars, designed primarily for transporting persons or property. Examples include city transit buses, mobile cranes, cement mixers, refuse trucks, and tractors designed to pull refrigerated trailers, dry vans and other equipment.
- “High-Powered DC Fast Charger” means EVSE that provides at least 150 kW of direct current electrical power for charging a plug-in EV through a connector based on fast charging equipment standards, and which is approved for installation for that purpose under the National Electric Code through an Underwriters Laboratories Certification or an equivalent certifying organization.
- “Last Resort” refers to locations that have not generated private investment interest for a minimum of 12 months after an EDC program has begun for Overburdened Municipalities, or 18 months for other areas. EDCs may petition the Board to own and operate MHD-specific EV charging stations in these areas after those timeframes.
- “Light-Duty Vehicle” means any motor vehicle weighing less than 10,000 pounds, except trucks with two or more axles or with six or more tires. Light-duty vehicles are further divided between vehicles classified by federal emission control regulations as either passenger cars or trucks.<sup>12</sup>

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<sup>12</sup> See United States Dep’t of Energy, *Vehicle Weight Classes and Categories*, U.S. Department of Energy, [energy.gov, https://afdc.energy.gov/data/10380](https://afdc.energy.gov/data/10380) (last visited Nov. 23, 2022).

- “Light-Duty Fleet” refers to a group of light-duty vehicles, as defined above, which perform a specific function to transport goods or people. These are noted to perform similar functions and have comparable service patterns to MHD Fleets.
- “Make-Ready” means the pre-wiring of electrical infrastructure at a parking space, or set of parking spaces, to facilitate easy and cost-efficient future installation of EVSE, including, but not limited to, Level Two EVSE and DC Fast Chargers. “Make-Ready” includes expenses related to service panels, junction boxes, conduit, wiring, etc., necessary to make a particular location able to accommodate EVSE on a “plug and play” basis. “Make-Ready” is synonymous with the term “Charger Ready.”
- “Make-Ready Map Proposal” is a proposal from an EDC which pre-identifies areas that are suitable for MHD Level Two or DC Fast Charging without a need to upgrade the grid.
- “Medium-Duty Vehicle” means any motor vehicle which weigh between 8,501 and 14,000 pounds, including trucks with two or more axles or with six or more tires. Medium -duty fleet vehicles are further divided between vehicles classified by federal emission control regulations and serve a specific function that is pre-determined by the fleet owner or operator.<sup>13</sup> Examples include box trucks, firetrucks, and school buses.
- “MHD EV Ecosystem” or “Ecosystem” refers to all of the physical equipment necessary to charge a MHD vehicle, which includes the EVSE (i.e., “charging station infrastructure”), the Make-Ready portion of the electrical system, as well as distribution upgrades on the utility-side of the meter and any customer-owned support equipment needed for reliable, resilient, and cost effective ongoing operation of the charging services.
- “Network Interoperability” is the continuous ability to send and receive data among the interconnected EV charging networks, providing the quality level expected by the customer without any negative impact to the sending and receiving networks. Interoperability refers to the compatibility of key system components—vehicles, charging stations, charging networks, and the grid—and the software systems that support them, allowing all components to work seamlessly and effectively.
- “Operational” means a charging location that an EVSE Infrastructure Company would be required to maintain and promptly fix, in accordance with industry standards, in the event of malfunctioning hardware or software that would impede the use of the equipment by a consumer.
- “Overburdened Municipality” is a municipality that has over 50% of its population living in an Overburdened Community Census Block as defined by the New Jersey Department of Environmental Protection pursuant to New Jersey’s Environmental Justice Law, N.J.S.A. 13:1D-157; and the municipality has either (i) over 35% of the population living under 200% of the poverty level according to U.S. Census 2019 ACS data; or (ii) the municipality is categorized as “distressed” according to the New Jersey Department of Community Affairs (“DCA”) based on their score using the DCA’s Municipal Revitalization Index score (a score of 50 or higher means the municipality is “distressed” under the DCA’s Municipal Revitalization Index criteria). A list

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<sup>13</sup> See ibid.

of eligible Overburdened Municipalities is available on the Board's website at: <https://njcleanenergy.com/commercial-industrial/programs/community-energy-plans>.

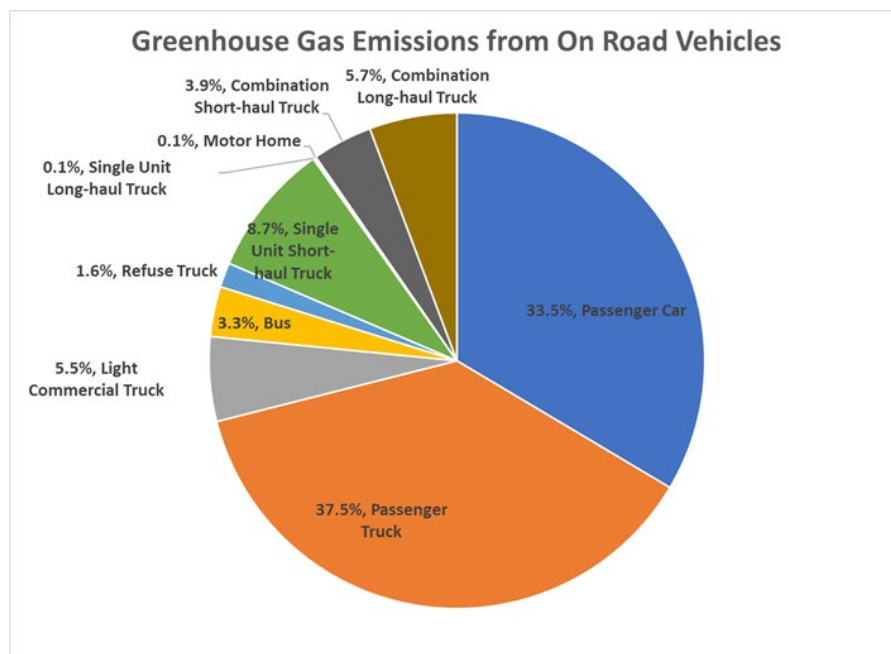
- “Port” is the energy-dispensing circuit that terminates to a standard coupler through conductive or wireless methods of the charging station that connects to the EV, defined as the number of simultaneously operable connectors at the rated power.
- “Private Fleet Charging Depots” refers to a charger or bank of chargers that is available to MHD vehicles which are not Publicly-Accessible MHD Charging or Public-Serving MHD Charging locations. Such chargers are owned and operated by a site owner, property manager or management company, or EVSE Infrastructure Company and enrolled in a managed charging program approved by the Board.
- “Proprietary charging connector” is defined as a charging connector that is incompatible with vehicles that utilize a “standard connector port” as defined in this section.
- “Public Fleets” are those vehicle fleets that are owned and operated by a government entity.
- “Publicly-Accessible MHD Charging” refers to a charger or charger bank that is available to MHD vehicles that the public can utilize on a drive-up, subscription, or scheduled basis. Such chargers are owned and operated by a site owner, property manager, or management company, EVSE Infrastructure Company or, in limited cases as approved by the board, an EDC.
- “Public-Serving MHD Charging” refers to a charger or bank of chargers that is utilized by a government entity light-duty fleet or government entity MHD vehicles or a light duty or MHD fleet that offers public transportation. This includes, but is not limited to, NJ Transit, buses that serve NJ Transit routes, school buses, and other para-transit vehicles.
- “Site owner and operator” means site host, property manager, the utility customer of record, an EVSE Infrastructure Company, or an EDC with Board approval that is responsible for installing, owning, operating, and maintaining EVSE on the premises. The site host may or may not be the same entity as the station operator.
- “Smart charging station” is defined as a charging station that is capable of collecting charging data and has a network connection capable of conveying that data to the cloud.
- “Standard connector port” is defined as a port that meets the non-proprietary technical specifications of Combined Charging System (“CCS”) and Charge de Move (“CHAdEMO”) connectors for DC Fast Charger stations and J1772 connectors for Level Two charging stations.
- “Total project cost” refers to the combined costs of the Make-Ready, Installation, Charger, permitting, and required signage costs for a project.
- “Transportation Hub” means a place where passengers and/or cargo are exchanged between vehicles and/or between transport modes.

- “Travel Corridor” means frequently used public roads in the state, as designated by NJDEP, which shall include, but need not be limited to, the Garden State Parkway, the New Jersey Turnpike, the Atlantic City Expressway, federal interstate highways, and the subset of federal or state roads which collectively support the majority of long distance travel through and within the state as well as the majority of daily travel by local drivers.

### III. Objectives Underlying this Straw Proposal

In developing this document and its recommendation governing the preferred business model, Staff took note of the extensive research around the need to rapidly transition the State’s transportation sector, including the following:

- Transportation fuels account for approximately 40% of CO<sub>2</sub> emissions in the State today, the largest single sector of carbon emissions. MHD vehicles make up one third of those emissions.
- The pollutant PM<sub>2.5</sub> disproportionately produced by this class segment of legacy vehicles harms urban communities due to the concentration of emissions.
- New Jersey cannot meet its ambitious clean energy goals or its goal of reducing CO<sub>2</sub> emissions 80% below 2006 levels by 2050 unless it can electrify its transportation sector, as shown in the following chart:



- Vehicle electrification reduces the cost of meeting New Jersey’s 2050 targets. Conversely, failing to electrify the vehicle fleet increases the cost of decarbonization from 2035 to 2050 by an average of \$1.6 billion per year, according to the research underlying the EMP.

- NJDEP’s 80x50 Report calls for an 80% reduction in emissions by 2050.<sup>14</sup> One of the report’s strategies calls for the State to “[i]dentify regulatory, funding and financing mechanisms to convert MHD vehicles to electric, renewable biodiesel and hydrogen fuel sources.”<sup>15</sup>

As noted in the EMP, affordability of EV infrastructure is also critically important. To keep these efforts affordable, this Straw Proposal follows the framework laid out in the EMP that New Jersey should seek to:

- Attract private capital into the EV infrastructure sector and substitute shareholder dollars for ratepayer capital wherever possible;
- Minimize the risk of ratepayers paying for stranded EV infrastructure investments, so that ratepayers do not bear the risk that charging station infrastructure, or EVSE, becomes technologically obsolete or is simply never utilized at a high level, through strategic mapping, strictly limiting utility investment, and encouraging private investment; and
- Design EV infrastructure policies that are fair to both EV-driving ratepayers and non-EV driving ratepayers, to ensure that the benefits of EVs are shared by all ratepayers.

In developing the recommendations in this Straw Proposal, Staff conducted an extensive review of best practices across the country, including reviews of utility programs, legislation, MOUs, and rate structures in California, Maryland, New York, Washington State, Massachusetts, and others. This Straw proposes that New Jersey adopt a modified “shared responsibility” model for MHD-specific EV infrastructure that promotes appropriate roles for both the EDC and private investors, discussed in more detail below.

#### **IV. Program Elements**

##### **A. A Modified “Shared-Responsibility” Business Model for Ownership, Maintenance, and Advertising of MHD EV Infrastructure**

Staff recommends a modified “shared responsibility” model for the deployment of a MHD EV Ecosystem, building on the model used for light-duty EV rules. For MHD, Staff recommends that EDCs invest in (and earn on) the wiring and backbone infrastructure necessary to enable a robust MHD EV Ecosystem and that the private sector own, operate, and advertise the EVSE. Although the assumption is that private investors will typically install, operate, and market the charging stations, assigning responsibility for Make-Ready sites across the state takes advantage of existing EDC expertise and existing infrastructure.

Staff proposes that the cost of EVSE be generally borne by private investors, with recourse to ratepayer funds only where the EDC acts as owner/operator of Last Resort i.e. when investment in EVSE is not occurring, or is not occurring in specific geographic areas. EDCs shall continue to bear the burden of demonstrating that any investments made to serve such areas are reasonable, prudent, and that rate recovery of such investments is appropriate.

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<sup>14</sup> [New Jersey’s Global Warming Response Act 80x50 Report](#), at v, [nj.gov](#), [nj-gwra-80x50-report-2020.pdf](#) (last visited Nov. 23, 2022).

<sup>15</sup> [Id.](#), at xi.

The policies laid out in this Straw consider the investment time horizon and the likely risks of various segments of the MHD EV Ecosystem and attempts to apportion responsibilities in a way that represents each partner's expertise and risk appetite. For example, the EDCs have deep experience in delivering electricity and operating distribution infrastructure; therefore, it makes sense to prioritize EDC involvement in Make-Ready sites. In many ways, Make-Ready sites look like an extension of the distribution system and mimic the utility's ownership of meters on customer-owned land.

This Straw proposes that the EDCs do the work necessary for Make-Ready for MHD charging for those vehicles that are accessible to or that serve the public, and socialize the costs associated with this work. Vehicles that are accessible to or serve the public include, but are not limited to, government fleets, NJ Transit fleets, school buses, and other paratransit vehicles.

In addition, this modified Straw introduces the concept of a Private Fleet Charging Depot, which would allow for ratepayer funding of the Make-Ready infrastructure necessary to support MHD vehicles that are owned by private entities or part of private fleets. Private Fleet Charging Depots eligible for Make-Ready funding would be required to meet stringent standards to ensure that they are located in or primarily operate in Overburdened Municipalities. Socialization of Make-Ready costs would only be available if the entity agrees to abide by managed charging restrictions that put downward pressure on rates, as discussed in more detail below.

In contrast, the portions of the MHD EV Ecosystem that are likely to become obsolete the fastest are the EVSE. Staff expects that as technology changes, there is significant risk associated with this rapid pace of technological change, particularly with respect to networking hardware and payment systems, and the software tied to this equipment. This risk is appropriately assigned to the private sector. Further, while the EDCs may have a role to play as the providers of Last Resort, they have no particular expertise in maintaining, marketing, or operating EVSE. EVSE Infrastructure Companies and commercial entities, on the other hand, specialize in providing these and other similar services.

Through this distribution of responsibilities, this Straw seeks to attract private capital into the MHD EV market while reducing the risk that ratepayers are left responsible for stranded costs, *and* including a strong incentive for the EDCs to participate as full partners in the expansion of the system. Further, by allowing the EDCs to build-out (and earn on) the Make-Ready infrastructure, and also undertaking effective rate design reform, Staff believes that this approach will reduce the total cost outlay for EVSE Infrastructure Companies and improve the likelihood of a robust market response. This fulfills the goal of substituting non-utility, investor-supplied capital for ratepayer capital wherever possible, particularly in portions of the EV Ecosystem that may change with time or, in some cases, may never be utilized at a high level.

#### 1. Proposed EDC Role in the MHD EV Ecosystem

The EDCs play several indispensable roles in the EV Ecosystem under the shared responsibility model for MHD infrastructure, including the four key roles detailed below. This Straw proposes that the EDCs would request recovery of their investments and other costs through a traditional rate case, the SBC, or any other applicable rate recovery mechanism authorized by statute or regulation. EDCs should be permitted to seek recovery of their costs associated with the first four items listed below. The EDCs would need to seek recovery of the administrative costs associated with owning and operating MHD charging

infrastructure only in a Last Resort role, and this recovery is discussed separately below. Specifically, under the Shared Responsibility model, the EDCs would be responsible for:

- Performing any upgrades on the utility-side of the meter necessary to accommodate charging station infrastructure and the anticipated increase in load on the distribution system caused by the rapid expansion of the MHD EV Ecosystem;
- Wiring various locations upon request by an EVSE Infrastructure Company, an operator of a MHD fleet, or a state, local, or municipal entity, with priority given to sites which serve publicly-accessible and/or public serving fleets, in a process consistent with the “Make-Ready definition;”
- Providing technical assistance to public and private fleets, as well as public fast charging sites of 500 kW or more, to ensure that MHD and public charging is well-planned and appropriate to fulfill the needs of the fleet and the public. Such planning should address timing and size of charging, incorporation of storage to reduce grid impact and ensure resiliency, and address any interconnection issues that may arise; and
- Developing hosting maps that identify where to prioritize Make-Ready sites for potential MHD charging depots, as well as identify locations where charging infrastructure can be located so as to meet the requirements of the EV Act while avoiding lengthy and costly distribution upgrades.

Finally, should the EDCs be authorized to perform any Last Resort function to ensure equitable distribution of EVSE for MHD vehicle charging, which may include use cases such as public charging depots, the EDCs may recover the associated costs in the same manner proposed above.

To recover the costs identified above, this Straw proposes that the EDCs must make an adequate showing that the costs are reasonable and prudently incurred, and that such investments are otherwise appropriate for recovery through the rate recovery mechanism proposed by the EDC.

## 2. Proposed Role for Private Investment and EDCs for Public Fleets

Given the proven detrimental impacts of emissions disproportionately experienced by Overburdened Municipalities, particularly from MHD vehicles, moving towards EV adoption for public transit in these areas must be a top priority. As indicated in the EMP, pollution from transportation resulted in \$4.6 billion in public health and climate costs to New Jersey residents in 2015, due to the intensity of MHD emissions in urban areas because of population density and increased truck and bus use in those areas.<sup>16</sup> The physical and monetary costs of emissions in Overburdened Municipalities, particularly in urban settings, require ratepayer investment to ensure that EV adoption’s positive impacts are distributed equitably across the state. Overburdened Municipalities are more likely to access public and quasi-public transportation options and are more likely to have greater exposure to emissions from MHD vehicles in general. To ensure access to electrified transportation itself and equitable access to the benefits of electrification and to the positive impact they have on decreasing emissions, EDCs may provide up to 100% incentives for Make-Ready for charging infrastructure for public fleets, prioritizing those fleets serving urban and Overburdened Municipalities. The ownership, maintenance, and operation of the charging station must be

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<sup>16</sup> EMP at [59].

done by the site owner, property manager, or EVSE Company. Staff also seeks input on how to address quasi-public fleets (i.e., buses contracted by NJTRANSIT or other local governments, transportation hubs, etc.).

### 3. Proposed Role for Private Investment and EDCs for Private Fleets

The proven detrimental impacts of emissions on Overburdened Municipalities, discussed in the previous section, also makes moving towards EV adoption for private MHD fleets critical and supports requiring ratepayer investment in Private Fleet Charging Depots, on a limited basis. This proposal represents a change from the initial Straw proposal which allowed for EDCs to provide Make-Ready incentives only for Publicly-Accessible and Public-Serving MHD Charging locations. However, Staff is convinced that partial socialization of private fleet depots located in or primarily operating in Overburdened Municipalities is critical to meeting the Governor’s commitment to improving environmental conditions in the communities struggling under the legacy of disinvestment and discrimination. A number of commenters pointed out that private depot operators are a primary source of pollution in these communities, and that unless the Board acts to promote adoption of electrification technologies, the MHD effort will have limited impact on the communities most adversely effected by truck pollution.<sup>17</sup>

To ensure that ratepayer investments are appropriately targeted, Staff is proposing that Make-Ready incentives should only be available to Private Fleet Charging Depots that (i) are located or primarily operate in Overburdened Municipalities; (ii) are displacing existing fleet vehicles, rather than bringing new vehicles into Overburdened Municipalities; and (iii) agree to participate in a managed charging program that directs most charging to off-peak periods.

#### i. Definition of “Located in or primarily operating in” Overburdened Municipalities

Staff recognizes the over-representation of MHD vehicles in Overburdened Municipalities. In order to target relief from the negative impacts of concentrated MHD vehicle operations in these communities, Staff seeks to target vehicles that are either located within the geographic footprint of an Overburdened Municipality, or primarily operate within an Overburdened Municipality. As a general matter, Staff believes that Make-Ready funding should be directed to Private Fleet Charging Depots that have the greatest impact on reducing emissions (and the negative health effects thereof) in the affected municipalities, but also recognizes that electrifying a depot located just outside of an Overburdened Municipality can have significant positive health effects if the associated vehicles traverse the affected municipality.

To accomplish this, 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

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<sup>17</sup> As noted in the EMP, EV adoption for the transportation sector will have a significant impact on the health of New Jersey residents. According to a 2016 American Lung Association report referenced in the New Jersey EMP, “Clean Air Future: Health and Climate Benefits of Zero Emission Vehicles,” pollution from motor vehicles resulted in \$4.6 billion in public health and climate costs to New Jersey residents in 2015.



Overburdened Municipalities and whether additional steps should be taken to harmonize this program with NJ ZIP requirements.

ii. Avoiding Additional Concentration of MHD Vehicles in Overburdened Municipalities.

Staff further recommends that the Board prioritize funding for private fleets that are converting existing emitting vehicles to clean vehicles, rather than those simply placing additional MHD vehicles into Overburdened Municipalities. Staff requests comment on how best to target funding to fleet depot operators that are converting existing fleets to non-emitting vehicles, but proposes to require that ratepayer funding only be made available to those entities who commit to reducing the vehicle miles traveled within Overburdened Municipalities associated with *emitting* vehicles by at least 25 percent, as measured on an annual basis, within two years.

iii. Participation in Managed Charging Programs.

Staff proposes that EDCs should cover up to 50% of Make-Ready for qualified Private Fleet Charging Depots provided that the sponsoring entity agrees to participate in a managed charging program. Staff notes that MHD charging can put downward pressure on average customer rate if the charging takes place primarily during off-peak hours (i.e., overnight).<sup>18</sup> This is because MHD vehicles pay for the electricity and distribution services they consume, which provides the EDC with access to an additional stream of revenue. Thus, the additional revenues help offset the costs of any Make-Ready funded under this initiative and put downward pressure on retail rates, while adding only nominal additional distribution system and Make-Ready costs.

By extension, enabling private fleets to use greater numbers of MHD EVs likewise leads to lower rates for all ratepayers, so long as the charging occurs at off-peak times that increases average system utilization. Consequently, investments in MHD EV Make-Ready improvements that facilitate MHD EV use by private fleets encourages beneficial electric charging practices, can be structured in such a manner that it does not place additional cost burdens on EDCs from either an electricity supply/capacity or a demand/distribution and reallocation infrastructure perspective, and financially benefit all ratepayers.

Under a managed charging construct, given that MHD EV charging generally occurs overnight, at the same base location, this increase in electricity consumption would not place additional burdens on the grid during peak demand periods, even in mixed-use areas where residential areas are located near MHD EV fleet charging areas. As a result, this off-peak charging mitigates against and eliminates the concern that the grid would be heavily loaded as a result of MHD EV charging during times of high electricity demand, including peak load periods.

Existing empirical evidence proves out the ratepayer benefits described above. For instance, a Synapse Energy Economics analysis found that the deployment of approximately 250,000 electric vehicles in California increased both Pacific Gas & Electric and Southern California Edison's respective net revenues by hundreds of millions of dollars over the 2012-2017 period, even after accounting for the costs of

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<sup>18</sup> Staff recognizes that in certain jurisdictions, particularly those with large amounts of solar generation, "off-peak" times can shift from overnight to day-time hours. While this is not currently the case in New Jersey, Staff proposes to allow the EDCs the flexibility to propose different hours should the need arise.

expanding the grid.<sup>19</sup> This increase in utility net revenue from EV charging was then returned to all ratepayers in the form of lower rates, and thus put significant downward pressure on rates for California’s electric ratepayers.

A separate report by M.J. Bradley & Associates (the “MJB&A Report”) likewise found that deploying EVs in New Jersey, including MHD EVs, could save electric ratepayers tens of millions of dollars.<sup>20</sup> Specifically, the report found that in a scenario in which approximately 223,000 MHD EVs were deployed by 2040 in New Jersey, annual savings to ratepayers would total \$45.6 million.<sup>21</sup> Those annual savings would then increase to \$81 million in 2050, when approximately 442,000 MHD EVs are projected to be on New Jersey roadways.<sup>22</sup> According to the MJB&A Report, that \$81 million in reduced electricity costs “could save the average New Jersey household \$16 per year and the average commercial customer \$69 per year on their electricity bills.”<sup>23</sup>

To ensure that the program actually has the intended effect, Staff proposes that the EDC’s 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. This approximately matches the incentive provided by New York’s MHD incentive program, at the 50% level. Staff seeks feedback on this proposed cap and cost-sharing requirement.

Further, Staff proposes that any entity seeking Private Fleet Charging Depot funding would be required to abide by a managed charging program for at least 90% of its charging needs and no more than a 10% increase in their on-peak instantaneous demand, both measured on an annual basis. Under this Straw, each EDC would develop a proposal on how to best enforce these requirements, potentially including retroactive assignment of demand charges, disconnect switches, or other physical or financial means of enforcing the managed charging program. Additionally, in order to avoid unnecessary grid upgrades, this Straw proposes that each EDC study the electrical impacts of the proposed projects in a manner that incorporates the restrictions set forth in any approved managed charging program.

The EDCs should provide technical assistance, including the development and hosting of customer-accessed fleet planning and modeling tools, to private fleets interested in EV adoption to ensure adequate charging infrastructure is planned for and incorporated into the grid. Additionally, Staff does not propose

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<sup>19</sup> See Jason Frost et al., Electric Vehicles are Driving Electric Rates Down, synapse-energy.com (Feb. 2019), <https://www.synapse-energy.com/sites/default/files/EVs-Driving-Rates-Down-8-122.pdf>. (hereinafter “Synapse Study”).

<sup>20</sup> See Dana Lowell et al., M.J. Bradley & Assocs., New Jersey Clean Trucks Program: An Analysis of Zero-Emission Medium- and Heavy-Duty Trucks on the Environment, Public Health, Industry, and the Economy 5 (2021), <https://www.ucsusa.org/sites/default/files/2021-10/nj-clean-trucks-report.pdf> (“NJ Clean Trucks Report”).

<sup>21</sup> See *id.* at 26 (projecting 233,366 MHD EVs in use by 2040 in the “100 x 40 ZEV” scenario); see also *id.* at 18 (“Under the 100 x 40 ZEV scenario, utility net revenue is projected to be . . . \$45.6 million in 2040 . . .”).

<sup>22</sup> See *id.* at 26 (projecting 441,671 MHD EVs in use by 2050 in the “100 x 40 ZEV” scenario); see also *id.* at 18 (“Under the 100 x 40 ZEV scenario, utility net revenue is projected to be . . . \$81 million in 2050.”).

<sup>23</sup> *Id.* at 19.

EDC incentives for private-owned fleet vehicles, but notes that the New Jersey Economic Development Authority (“NJEDA”) currently provides these incentives through its NJ ZIP Program.

#### 4. Proposed Role for Private Investment and EDCs for Publicly Accessible MHD Charging

Understanding that a significant portion of MHD vehicles are independently owned and operated, and that investment in charging for one MHD vehicle is cost prohibitive, there is a need to provide publicly accessible MHD charging for those vehicles and for vehicles that may need to charge along their routes. This charging may or may not be co-located with private MHD vehicle charging, but is open to the public either by appointment, subscription, or on a first-come, first-served basis. To ensure equitable access to electrified transportation and to the positive impact electrified transportation has on emissions, EDCs may provide up to 100% incentives for Make-Ready for charging infrastructure for publicly accessible MHD charging sites. The ownership, maintenance, and operation of the charging station must be done by the site owner, property manager, or EVSE Company.

Additionally, this Straw recommends that, comparable to the requirements of the Light-Duty program, each EDC develop a demand charge program that addresses the unique needs of MHD vehicle charging. As noted in the context of the Light-Duty program, charging infrastructure may not see use in the nascent days of adoption, which has the potential to create burdensome demand charges that may slow adoption of these critical technologies. Staff acknowledges that tariff demand charges remain a hurdle to private investment and will require each EDC to propose its own method to address demand charges concerns, and those solutions should:

- Incorporate managed charging solutions, either through hardware or software that promotes off-peak charging;
- Adoption of on-peak demand charges that ensure a rapid recovery of Make-Ready infrastructure funded by ratepayers if the user elects to charge during peak periods;
- Ensure that charging should remain competitive between publicly and privately held assets, but also with liquid fuels on a per-mile-traveled basis to the best extent possible, and if utilizing a benchmarking method, the utility should explain how the benchmark promotes savings against a publicly accessible fuel index; and
- If a temporary solution such as set-point or waivers is utilized, that solution must show meaningful reductions over a length of time and include a sunset provision.

#### 5. Proposed Role for Private Investments and EVSE Infrastructure Companies

Under the shared responsibility business model, private capital would be used as the primary means of funding EVSE. EVSE Infrastructure Companies would be expected to earn their revenues in the marketplace through the sale of charging services, which may include grid flexibility services that would offer valuable balancing or capacity resources that may help offset the fixed investment cost hurdles.<sup>24</sup>

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<sup>24</sup> EVSE Infrastructure Companies could charge customers either based on the time of charging or the amount of electricity the customer consumes. The EV Statute clarifies that neither option subjects the EVSE Infrastructure Company to regulation as a seller of electricity or as a public utility. See N.J.S.A. 48:25-10.

Private investment would be the primary mechanism for deploying privately held fleet charging across the state and be chiefly responsible for:

- Determining where charging can be sited to maximize accessibility in conjunction with their own market research and the EDC's hosting maps; and
- Requesting that the identified sites be Make-Ready by the EDC.

#### 6. Proposed EDC Role for MHD Vehicle and Fleet Planning Services

Investment in charging for a small number of MHD vehicles or for a fleet of light duty vehicles is a costly and complicated endeavor that also has a significant impact on the grid. The EDCs can play a unique role in helping MHD and fleet operators to develop their electrification adoption plan to ease the cost of investment and manage grid impact. This proposal is designed to enable the EDCs to work with Publicly-Accessible, Public-Serving Fleets, Private Fleets and any Fast Charging sites over 500kWh to properly site charging locations, plan for fleet and charging growth, and determine when and if additional grid support is needed. This Straw does not propose to allow for EDC ownership of Private Fleet Charging Depot infrastructure, as there are different equities involved in having utilities own or operate charging infrastructure that primarily or exclusively serves a private entity; provided however that nothing in this straw is intended to prevent EDCs from electrifying their own fleets on a comparable basis with other corporate entities.

#### 7. Proposed Process for Areas of Last Resort

Limiting or eliminating potential stranded investment by EDCs in Make-Ready locations is an important component in the development of a robust and equitable EV Ecosystem, and this Straw generally advocates for the private investment of EVSE. However, there may be situations in which the market does not adequately respond to provide publicly accessible or public-serving charging in a geographically equitable manner. Staff considers that the Board may need to develop these "areas of last resort" provisions for approval of EDC expansion if adequate adoption of charging for MHD vehicles and light-duty fleets does not occur.

#### 8. Proposed Role of Storage and Renewable Energy

Staff proposes to direct each EDC to adopt programs that accommodate co-location of MHD vehicle charging with energy storage devices, renewables, or other distributed energy resources (collectively, "load-modifying technologies"). To promote adoption of these load-modifying technologies, Staff proposes that developers may elect one of these options to lower the cost of adopting load-modifying technologies:

- To interconnect to the EDC system based on its net energy demand, after considering any load-modifying technologies, subject to the EDC's right to physically limit service to the modified level; or
- Allow a project developer to request that the EDC evaluate the Make-Ready and distribution system upgrade costs without the load-modifying technologies and provide up to the "but for" level of funding for the project, including all load-modifying technologies.

Both of these proposals are aimed at allowing developers of MHD vehicle charging initiatives to receive any cost savings associated with their investments without transferring the costs or risks of those investments to ratepayers.

However, this Straw does not propose to create a separate incentive structure for MHD vehicle charging paired with load-modifying technologies, or to require ratepayers to subsidize those technologies. This Straw does however envision allowing projects to utilize both storage and MHD make ready incentives as appropriate. While Staff agrees with commenters that co-location of MHD charging infrastructure may provide benefits, the Board already has extensive programs that support deployment of such technologies. Staff does not believe that it would be inappropriate to, for example, allow the EDCs to fund, operate, or own load-modifying technologies.

#### 9. Proposed role of federal and state funding

This Straw proposes that public funding be limited to no more than 90% of the total cost of an installation or projects, including through rebates or other direct incentives at the time of installation. Program participants will be required to disclose if they are seeking public funding as a condition of participation. The numerator of the 90% calculation will be the sum of public funding available from the combination of:

- Any Federal funding;
- Other State, any other Government entity, or New Jersey Clean Energy Program incentive funding; and
- Incentives provided as part of an approved MHD charging program.

The denominator of the calculation will include any Make-Ready costs paid for by the EVSE, charger costs, and the costs of any installation, permitting, and any required signage. If it is determined that an installation or project would be funded through more than 90% rebates or incentives, then the EDC shall reduce incentive funding to bring the total rebates and incentives under 90% of the total project costs.

#### **B. Process for Approval of Make-Ready Sites**

Under this Straw Proposal, the EDCs would be the entities primarily responsible for Make-Ready upgrades. EDCs would perform the Make-Ready upgrades upon request from a site owner, EVSE Infrastructure Company, or a State, local, or municipal entity, and would include both site-specific upgrades and any distribution system upgrades. The EDC would be entitled to request recovery of such upgrade costs through rates.

After receiving such a request, the EDC would have 12 months to install Make-Ready infrastructure. Staff anticipates that any delay greater than 12 months would result in reduced EDC earnings on that portion of the Make-Ready infrastructure, unless an appeal is granted by the Board. Staff requests comment on how this should be handled. In addition, the private third party that wishes to invest in EVSE at a particular location has several options:

- The EVSE Infrastructure Company could request that the EDC begin Make-Ready work;

- The EVSE Infrastructure Company could elect to take over an existing Make-Ready site that is currently identified by the EDC as unused on a first-come, first-served basis; or
- The EVSE Infrastructure Companies could finance the cost of Make-Ready for the site itself.

In sequencing all Make-Ready requests, the EDC would prioritize Make-Ready locations that are identified as priorities by a series of criteria which seek to provide the greatest public benefit, including those that will provide greater access to electrified transportation to the general public and, in particular, to Overburdened Municipalities. However, if using an EDC-funded Make-Ready site (i.e., electing Option #1 or #2 above), the EVSE Company would be required to accept certain performance requirements. The EVSE Infrastructure Company would be required to:

- Commit to installing the EVSE within a period of time from when the Make-Ready is installed (Staff proposes an initial 12-month period, with up to two (2) six (6) month extensions);
- Commit to keeping the Make-Ready site Operational<sup>25</sup>;
- Commit to utilizing managed charging for a significant portion of its charging;
- Commit to returning Make-Ready infrastructure back to the EDC for redeployment in the event that the EVSE Infrastructure Company no longer wishes to maintain EVSE at that location, fails to meet the performance criteria as discussed below, or ceases its commercial operations; and
- Commit to network interoperability and data sharing with the EDC in order to ensure proper management of the load and general grid needs due to the high-anticipated draw at a site meant for MHD vehicle charging.

### **C. Ensuring Equitable Distribution of EVSE**

This Straw seeks to ensure equitable geographic diversity, particularly with respect to ensuring a viable EV Ecosystem in low-income, urban, and environmental justice communities, referred to collectively as Overburdened Municipalities, or along designated evacuation routes.

In particular, this Straw focuses on Overburdened Municipalities that may be identified as suitable locations for emerging EV mobility options – including electrified transit buses, mobility-on-demand, electric car sharing services, and local delivery fleets. Staff specifically requests comment on (1) how to identify and address unique transit opportunities in Overburdened Municipalities, (2) how local fleet investment would improve environmental and health factors, and (3) how to best utilize EV technology for expanded transportation options.

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<sup>25</sup> Staff notes that “operational” is not intended to require an unrealistic level of up-time, however, EVSE Infrastructure Companies would be required to maintain and promptly fix malfunctioning locations in accordance with industry standard practices.

In addition, Staff is aware that the electrification of public transit, specifically New Jersey's transit buses, would reach the greatest number of New Jersey communities. Staff is seeking comment on the best mechanisms to invest in public transit to promote equity in EVs and their benefits.

#### **D. Rate Reforms Designed to Encourage Adoption of Electric MHD Vehicles**

This Straw proposes rate reforms designed to encourage rapid deployment of EV Infrastructure for MHD vehicles across the state. These reforms center on addressing concrete problems, including:

- Ensuring that demand charges applicable to MHD charging are not an obstacle to investment in MHD EV adoption; and
- Ensuring that each EDC offers a voluntary time-of-use rate for MHD EV charging that rewards consumers that elect to charge during off-peak periods.

This Straw also proposes that each EDC ensure that the commercial and industrial rates associated with chargers are reasonable. Staff notes that many new advanced charging technologies, such as DC Fast Chargers, have a large instantaneous draw, which can create large demand charges, particularly in the MHD sector. This problem is expected to be particularly acute in the early days of EV adoption, where some stations may have relatively few monthly charging sessions over which to recoup a high demand charge.

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 methodology may include an EV charging rate, or a rebate methodology that ensures that the effective \$/kW-hour rate (i.e., the demand charge averaged over the number of kW-hours used in a given month added to the standard \$/kW-hour rate) remains below a specified "set point." This Straw requests feedback on the best manner in which to achieve demand charge reductions. Staff anticipates that the actual level of the set point would be agreed to by the EDCs in conjunction with interested stakeholders and then filed with the Board for review and consideration. The Straw anticipates that the set point would be benchmarked so that EV charging remains below the equivalent cost of diesel or gasoline on a per-mile traveled basis. Alternatively, an EDC could elect to waive a percentage of a station's demand charges for the first five (5) years of a station's operations, with the right for low utilization stations (i.e., those where the station is used less than 25% of the hours in a given month) to seek a five (5) year extension. This Straw also seeks input on use-based rates for various sectors of MHD charging.

This Straw would require that each EDC offer a time-of-use rate for MHD Fleet EV chargers designed to reward customers who charge during periods where electricity is less expensive. Managed charging can avoid the incurrence of large additional fixed costs that could occur if most vehicle charging were to take place during peak or super-peak hours. Each EDC proposal should focus on keeping metering costs low and ensuring that the program is open to customers on a non-discriminatory basis.

#### **E. Other Policy Considerations and Minimum Filing Requirements for the MHD Sector**

In addition to the other aspects of this Straw Proposal, Staff seeks other information necessary to ensuring an expeditious and consistent deployment of MHD EVs in New Jersey. This Straw proposes that the EDCs will include (or update, as applicable) the additional information discussed below in their MHD EV filings

and long-term EV plans, ~~and further proposes to direct all EDCs file MHD EV plans and proposed MHD EV programs by February 28, 2023, with implementation dates commencing no later than September 1, 2023.~~ Such filings would include the following information (Staff notes that this list is not comprehensive and does not include all relevant information necessary to review and approve such filings):

- While it is clearly defined that MHD charging would be used by MHD Vehicles, 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?
- Specific citation to and discussion of the statutory authority for any rate recovery proposals associated with EDC deployment of infrastructure required to serve Make-Ready locations and EVSE, whether owned by the EDCs or third parties.

## **F. Stakeholder Process and Schedule for Comments**

A stakeholder session will be held on January 17, 2023.  
Comments are due on January 24, 2023 at 5 pm.

Please submit comments directly to the specific docket listed above using the “Post Comments” button on the Board’s [Public Document Search](#) tool. Comments are considered “public documents” for purposes of the State’s Open Public Records Act and any confidential information should be submitted in accordance with the procedures set forth in N.J.A.C. 14:1-12.3. Confidential information may also be submitted via email to the Acting Secretary of the Board. Written comments may also be submitted to:

### **Carmen Diaz**

Acting Secretary of the Board  
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