Rockland Electric Company Comments on
New Jersey Electric Vehicles Infrastructure Ecosystem 2021 –
Medium and Heavy Duty Straw Proposal
Docket No. QO21060946

I. Introduction

Rockland Electric Company (RECO or the Company) submits these comments on the New Jersey Board of Public Utilities' (Board) New Jersey Electric Vehicles Infrastructure Ecosystem 2021 – Medium and Heavy Duty Straw Proposal (Straw Proposal).[1] RECO supports the Board's efforts to establish a framework to guide the development of a robust electric vehicle (EV) infrastructure system to help the State achieve its EV goals.

The Company's comments set forth below support the proposal for a make ready framework for medium and heavy duty (MHD) EVs, with roles for both the electric distribution companies (EDCs) and third-party developers. The Company provides recommendations to strengthen this framework, so that EV infrastructure investments are placed on a level playing field with other utility investments and appropriate cost recovery is provided. The Company encourages the Board to provide flexibility in this framework, so that both EDCs and developers can react to changing market conditions. The EV Ecosystem envisioned by Board Staff extends beyond public serving charging stations and will include private fleet charging, a critical component to achieving the State's clean energy targets. The Company emphasizes the importance of appropriate and sustainable rate design that maintains the current cost-causation principles that provide signals to customers to use energy at times that benefit the grid and in a manner that does not exacerbate future infrastructure needs to support new load. Finally, the Company notes that EDCs are well positioned to offer Fleet Assessment Services to MHD fleet owners and operators who are interested in transitioning to an EV fleet. Throughout this document, the Company's use of the term "fleet" includes light-, medium- or heavy-duty vehicles.

The Company recognizes the need for all communities to avail themselves of the benefits of the State's clean energy goals and supports an equitable distribution of an EV Ecosystem – both for MHD EVs and light duty EVs. Focus on Overburdened Communities – including low income communities and those most impacted by air pollutants and greenhouse gas emissions – can offer benefits not only in air quality but also in job creation with appropriate program development. In developing any goals or policies, the State must consider both their benefits and costs, with the costs undertaken in a way that minimizes the bill impacts on all customers, and in particular low-income customers, who spend a higher proportion of their income on utility costs.

[1] *I/M/O Medium and Heavy Duty Electric Vehicle Charging Ecosystem*, Docket No. QO21060946, New Jersey Electric Vehicles Infrastructure Ecosystem 2021 – Medium and Heavy Duty Straw Proposal, revised September 15, 2021.

EV integration will play an important role in reducing greenhouse gas emissions, improving public health, and reducing the climate impact of transportation. RECO looks forward to participating in the development and establishment of this critical initiative.

II. EDCs Play an Important Role in Encouraging MHD Make Ready Investment

The Company supports the modified "shared responsibility model" contained in the Straw Proposal. EDCs have a critical role to play in achieving the State's EV goals and greenhouse gas emission reduction targets. It is important to have adequate chargers for both light-duty and MHD EVs to reduce range anxiety and support increased EV adoption.

EDC Role

The modified shared responsibility model, which builds on the model used for light duty EV charging, includes the EDCs' responsibility for making the required upgrades to accommodate EV supply equipment (EVSE),[2] defined as "make ready,"[3] and ability to treat that infrastructure similarly as traditional infrastructure capital investments. Charging infrastructure that qualifies for make ready treatment is publicly accessible or available to EVs that serve the public, the latter which can be located on private property.[4] Electrifying private fleets can result in decreased air pollutants, and is necessary to address ambitious climate goals. Consequently, charging infrastructure for private fleets should be eligible to receive incentives at this early stage of market development. The Company supports a make-ready approach wherein the EDC: (1) provides utility side equipment up to and including the meter; and (2)the EVSE Infrastructure Company, customer or other third party is eligible to receive financial incentives for customer-side investments after the meter, up to and including the charger.

Utility-side investments under the Make Ready Program include those investments and incremental costs for providing service up to the utility meter. Such investments may include the installation of a pad mounted transformer or circuit/distribution system upgrades needed to accommodate the additional customer load. The Company recommends that these utility-sided investments are capitalized, similar to how other utility sided investments are treated for rate

[2] The Straw Proposal (p. 6) defines EVSE as:

> [T]he 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 or direct current electricity consistent with fast charging equipment standards. "Electric Vehicle Service Equipment" is synonymous with "Charging Station Infrastructure."

[3] The Straw Proposal (p. 7) defines "Make Ready" as:

> [T[he pre-wiring of electrical infrastructure at a parking space, or set of parking spaces, to facilitate easy and cost-efficient future installation of Electric Vehicle Service Equipment, 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 Electric Vehicle Service Equipment on a "plug and play" basis. "Make-Ready" is synonymous with the term "Charger Ready."

[4] Straw Proposal, pp. 10-11.

making purposes, except Make Ready upgrades should not be subject to earnings, or revenue, tests as set forth in utility tariffs.

Customer-sided investments include expenses related to equipment located after, or behind, the electric meter up to the charger itself. This type of equipment includes, for example, service panels, junction boxes, conduit, and wiring necessary to make a particular location able to accommodate EVSE on a "plug and play" basis. The utility should have the ability to provide incentives for any customer-sided investments for EV chargers that are publicly available, support fleets that serve the public, or support private fleets. The customer[5] will own the equipment and be solely responsible for its operation and maintenance. The utility will not own or operate any customer-sided equipment.

The Company supports a Make Ready program that provides incentives for utility-sided infrastructure over and above its existing tariff rules on extensions of utility service under N.J.A.C. 14:3-8 et seq.[6] Altering the model for a particular technology opens the door to all other technologies seeking similar treatment. A program that provides incentives after the extension rules are applied maintains a level playing field for all customers seeking service, minimizes confusion to the EDCs and third parties that would need to determine which set of rules apply, and does not change the ultimate financial outcome to the third party seeking to avail itself of incentives.

The Company acknowledges the importance of a participant maintaining performance requirements to remain eligible for the Make Ready program. As noted in the Straw Proposal,[7] timely installation of EVSE, operational requirements, managing charging in a manner that is beneficial to the grid, and data sharing are critical to cost-effectively deploy and operate charging stations, as well as to gather lessons learned to inform future programs and strategies necessary to meet the State's clean energy goals. Beyond operational data gathered from chargers, the Company supports the development of a common, single source for statewide fleet EV adoption data managed by an independent third-party, which all stakeholders can reference to determine performance as MHD programs are implemented. Such a source would be an important tool to support all stakeholders in understanding development of programs and monitoring the evolving EV landscape.

The Company supports establishment of an EDC-Industry working group to address issues regarding non-publicly accessible MHD EV Ecosystem infrastructure, such as interconnection, local generation and storage, and other technical issues. Given the infancy of the market for renewables and storage coupled with EV charging stations, as well as the assets' potential participation in wholesale markets, it is premature to develop standards and requirements to address these concerns. As technology, markets, and projects develop, these topics are better suited for discussion as part of a working group within the context of evolving regulatory, economic, and technological changes.

[5] RECO refers to customer ownership for ease of drafting but recognizes that different models may contemplate a different third-party ownership. Customer ownership will not include utility ownership.
[6] Straw Proposal, p. 12.
[7] Straw Proposal, p. 15.

The Company acknowledges the importance of hosting capacity maps to assist third parties in assessing potential MHD charging sites. RECO's hosting capacity maps have provided this information since December 2020. These maps can be leveraged as part of an EDC fleet assessment service, as discussed in more detail below.

Cost Recovery

The Company supports flexibility for the cost recovery criteria applicable to Make Ready investments, including flexibility regarding the location of the investment and selection of the site, without focus on what constitutes a "priority" site. This will allow EDCs to adapt to changing market conditions and consumer behavior. In addition, as the Straw Proposal notes, there may be investments that occur on private property but can be eligible for cost recovery, so long as they support charging EVs.

The Company agrees with the Straw Proposal's assertion that the EDCs can recover in base rates the costs of infrastructure upgrades installed by the EDC to make a site Make Ready. This should include allowing a return at the level authorized by the Board in an EDC's most recent base rate case. Moreover, the EDCs will incur costs of incentives paid pursuant to a Make Ready program or costs incurred in fleet assessment programs that provide technical assistance to public and private fleets to advise fleet owners of charging alternatives, including for deployment of chargers, understanding of rate structures, and available managed charging solutions. These costs should be recovered via a surcharge, such as the Societal Benefits Charge, including a return at the level authorized by the Board in an EDC's most recent base rate case.

If the EDC takes longer than 12 months from the date of a request to make a site Make Ready, the Straw Proposal contemplates 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.[8] This reduction places EV infrastructure investments on a different footing than other EDC investments and could discourage investment in Make Ready Infrastructure. Application of different returns on equity (ROEs) that are tied to specific programs, investments, or portions thereof, is an inappropriate practice whether within or outside of a rate case. The Board recognized as much in its Order Directing the Utilities to Establish Energy Efficiency and Peak Demand Reduction Programs.[9]

Rather ROEs should be considered and determined holistically within the confines of the rate case process. Adjustments to an EDC's ROE outside of a utility's rate case circumvents the rate case process that involves expert witnesses, on behalf of the utility, Division of Rate Counsel and other stakeholders, who rely on their technical expertise to develop and establish an EDC's ROE. The Company's investment strategy and its access to capital is based on the total risk component of the Company's portfolio of projects and programs. The risk of varying ROEs can compromise the Company's access to capital and ability to secure lower financing to the benefit

[8] Straw Proposal, p. 14.
[9] *I/M/O of the Implementation of P.L. 2018, c. 17 Regarding the Establishment of Energy Efficiency and Peak Demand Reduction Programs*, BPU Docket No. QO19010040, Order Directing the Utilities to Establish Energy Efficiency and Peak Demand Reduction Programs (dated June 20, 2020) (p. 26).

of its customers. Disallowing or reducing an EDC's return on a portion of the Make Ready infrastructure will serve to discourage EDC investment in Make Ready infrastructure. Therefore, any attempt to alter the cost recovery of these investments, regardless of the reason, should be disallowed.

Further, it is inappropriate to penalize an EDC for project delays which may be driven by market and customer conditions that are outside of the EDC's control. To make a site ready, there is significant back and forth with multiple stakeholders to complete the design and ultimately construct the project. Stakeholders may involve site hosts, developers, EVSE Companies, electrical contractors, and municipalities – all responsible for a piece of the iterative process to design, permit and construct a project. Project delays may be driven by any of the stakeholders listed, at multiple points of the project lifecycle, which may be out of the Company's control.

EDCs should have flexibility in the development of EV programs in order to encourage and support EV adoption based on the customer demographics and particular service territory of each EDC, while cognizant of the bill impacts to all customers. Board review and approval of EV program components and rate recovery for those components is critical to the EDC's implementation of an EV program. Without approval, the EDCs risk negative impacts to their financial health and implementation of programs that may not align with Board Staff's current priorities.

The Straw Proposal states that EDCs shall continue to bear the burden of demonstrating any investments made are reasonable and prudent, and that rate recovery of such investments is appropriate.[10] An EDC's installation of Make Ready equipment at the request of a third party should be deemed reasonable and prudent - sufficient to support cost recovery of such investment and should not be dependent on external factors such as the ultimate performance of the charging station, the performance of the EVSE Infrastructure Company, or other impacts to the EV market such as those resulting from the ongoing COVID-19 pandemic. To do so could discourage investment in EVSE infrastructure at this early stage of building out New Jersey's EV Ecosystem and puts EV investments on a different footing relative to other investments (*e.g.*, infrastructure to support deployment of distributed generation, where the investments do not depend on the project's developer or customer actions).

Allowing for an after-the-fact review and appeal process produces an uncertain climate for the EDC and reduces the EDC's ability and incentive to support this clean energy initiative. A more appropriate process is to include discussion of the technical requirements for siting and interconnection of charging stations as part of the Straw Proposal's recommended EDC-Industry working group. This group can foster collaboration and analyze and evaluate both the current climate for charger deployment and consider changing market conditions. Development of this type of process will encourage efficient deployment of chargers more effectively than the penalty provisions envisioned in the Straw Proposal.

[10] Straw Proposal, p. 12.

III. Importance of Appropriate Rate Design

It is important to provide a holistic approach to advance EV adoption in New Jersey and rate design is an integral component of a successful strategy to meet the State's goals. Appropriate and sustainable rate design approaches should preserve signals to customers to use energy at times that benefit the grid, thereby reflecting cost-causation principles. Further, rate design should include near-term incentive programs, such as those to offset operating costs without diluting the price-signals inherent in rates, that encourage early installation of EV chargers and adjust as the economic viability of chargers becomes more self-sustaining and require less external financial support. These incentives should be developed to preserve the current demand rate structure.

The Company recognizes that in the near term, the business model for EV chargers may be strained due to low utilization. To assist in the early years, a transitional form of relief may be appropriate to help support the initial deployment of charging stations while recognizing the bill impact of this financial support on all ratepayers. Maintaining an EDC's cost-based rate structure is foundational to allocating costs based on the costs to provide service to a customer class. Moreover, offering technology-specific rate design is not sustainable in future years as new technologies emerge and existing ones evolve. Rather a transitional incentive or similar program can help to kick start a new technology's business model while deployment of that technology ramps up. The current rate structure, coupled with an operating cost relief-oriented incentive program, should be the starting point for all programs developed to assist customers in the early years of charger ownership.

To encourage beneficial charging and active participation by end users of the chargers, an EDC can offer positive managed charging incentives. EV charging, in particular for MHD vehicles, has the potential to contribute significantly to the peak load, as compared to other customers. By offering carefully developed incentives for charging at beneficial times, an EDC will encourage optimal customer behavior. Use of transitional incentives, such as those for operating cost relief, provides an EDC with the flexibility to adjust programs as technologies and charger usage evolves. Deployment of ever-increasing numbers of EV fleets will positively impact the business model for publicly accessible MHD chargers, thereby decreasing the need for positive incentives. Similarly, transitional incentives can encourage beneficial behavior by private fleet owners that can continue in the future and become part of their operational model.

While demand charges may pose a hurdle to some installations such as those without active load management systems or attendant storage to offset "peaky load shapes," in the early years of EV charger deployment, the importance of maintaining the current underlying demand rate structure cannot be overstated. Utility investments in infrastructure are driven by customer demand, and not by usage. EV charging stations, like other commercial customers, are charged rates that are mainly demand-based and designed to recover the costs of serving their demand. Demand charges provide appropriate price signals to encourage efficient customer and utility investments. In other words, customers are encouraged to take actions to promote charging of EVs in ways that benefit the grid and thereby all customers. Technology solutions, such as energy management systems that mitigate demands at EV charging stations, could include

pricing structures for EV drivers that can help to manage EV charging station demands through decisions related to when to charge. The charging station's adoption of staggered charging will also help to manage those demands. In addition, fleet owners and drivers can be educated to plan their trips and charge during off-peak hours as practicable

Customers are encouraged to take actions and make investments that improve the efficiency of the delivery system so these actions and investments benefit not only that individual customer, but all customers on the system. Therefore, to encourage beneficial behavior, further achievement of the State's EV goals, assist EV charger and fleet owners in the near term until EV adoption and charger utilization increases, and minimize the bill impact to all ratepayers, the Company recommends a transitional operating cost relief incentive in lieu of changes to the actual demand rates.

The Straw Proposal provides that methodologies to reduce demand charge hurdles "may include an EV charging rate, or a rebate methodology that ensures that the effective $/kW-hour rate … remains below a specified 'set point'."[11] The Company recommends an incentive-based approach instead of a set-point approach. Ultimately the proxy used to define the set-point (*e.g.*, the equivalent cost of diesel or gasoline on a per-mile traveled basis*)* is a moving target. A pre-defined incentive reduces uncertainty driven by low utilization. In addition, the Straw Proposal states that 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 … to seek a five (5) year extension."[12] As previously discussed, an incentive is more appropriate than waiving demand charges. The latter results in revenue collection risk while an incentive allows the Company to continue to collect revenue, subject to an agreed upon end date for the incentive program.

Fleet assessment services, as discussed below, can help customers to understand the rate impacts of EV charging, as well as other actions they can take to minimize these costs. For example, technological solutions which may include energy management systems that mitigate demands at EV charging stations can be implemented. These may include pricing structures for publicly accessible EV chargers to help manage EV charging station demands. In addition, staggered charging may help to manage those demands, and fleets and drivers can be educated to plan their trips and charging during off-peak hours as practicable.

Further, EDC-initiated active load management can be a useful tool to help maintain reliability of the grid. A more dynamic utility initiated active load management program would benefit customers who are flexible and can reduce load during urgent grid needs. Such incentives could be available for commercial customers that host private or publicly available chargers for MHD EVs, or LDV fleets, and would be a function of EV load (as compared to the entire load for the site). This type of program may be premature but exemplifies the types of programs that EDCs can develop and offer to help fleet owners and charger owners manage the costs of owning and operating EVs and / or chargers while also providing benefits to the grid.

[11] Straw Proposal, p. 16
[12] Id.

It is important that measures adopted by the Board send appropriate price signals from the outset, so EV charging stations are designed and actively encouraged by policy to incorporate demand management practices and technologies, as well as price structures for EV drivers, in order to use the grid in an efficient manner.

IV. Technical and Planning Support for Electrification of MHD Fleets

In addition to an EDC's hosting capacity maps, an EDC can provide technical and planning support for the electrification of both public and private fleets, in the form of a Fleet Assessment Service (FAS). A FAS would primarily offer customers a site analysis and a rate analysis and would also provide information on available incentives, the impact of fleet charging on the grid, and ways to mitigate this impact through siting and managed charging methods. Assistance with site analysis would be based on the maximum power draw of the electrified fleet under consideration to determine if the local distribution system can accommodate the increased load. The rate analysis would be tailored to each fleet location, and the fleet owner would be informed of all rate options available, as well as a reasonable range of costs it may expect based on the fleet's charging behavior.

V. Emerging Standards for DC Fast Chargers (DCFC) and Other Chargers

The Company supports a minimum standard for DCFCs and other chargers that are eligible for Make Ready program incentives. Given the evolving landscape for chargers and the development of ever-increasing higher-powered chargers, the Company recommends that an upper limit on defining the amount of kW that a charger is able to provide may stifle deployment of newly-developed technologies in New Jersey. Rather, by setting a minimum level of kW, the chargers that will be incented are those that can meet the needs of MHD EVs. By allowing for this flexibility in participating chargers, the State can achieve its electrification goals more quickly.

VI. Charging Stations Coupled with Renewables and Energy Storage, and Vehicle to Grid Potential

Pairing renewables and storage with EV charging stations has the potential to provide value to EV and charger owners and the grid while furthering the State's clean energy goals. Co-location of storage with EV chargers may provide a useful tool that is worth exploring – particularly as it may provide benefits to the grid for grid reliability and managing load. In addition, pairing of renewables and/or energy storage with EV chargers may support managed charging programs.

Nevertheless, this model is still in its infancy and requires time to understand the economics and address all of the surrounding concerns. An example of such uncertainty involves the interrelationship of Solar Renewable Energy Credits (and their successors), potential incentives offered in the upcoming energy storage proceeding, and incentives provided through an EV Make Ready program. These incentives should be structured so as to encourage co-located resources, without double counting unique value streams. In addition, the interconnection requirements and standards may need additional review and development, for

example to address the circumstances requiring a separate meter. Given the nascency of this type of deployment and the unresolved questions, and in light of the storage proceeding envisioned in the Energy Master Plan, the pairing of these assets with EV chargers is better suited for an EDC pilot program. The pilot program framework will allow for control of the deployment parameters, development and testing of hypotheses, and the gathering of lessons learned which can be used to inform future programs and / or deployments.

Additional questions arise relating to whether these technologies can be co-located with only DCFCs or also Level 2 chargers, whether the charger and additional technologies must be separately metered, and the impact on any managed charging programs offered by the EDC. Moreover, Vehicle to Grid (V2G) technology is still developing and may not be ready for participation in an EDC EV program. Rather, the Company recommends that V2G is more appropriate for an EDC pilot program to gather lessons learned on beneficial impacts to the grid, the control and visibility needed by the EDC to manage benefits and avoid detrimental impacts, and the interconnection standards required.

VII. Conclusion

The Company welcomes the opportunity to work with Board Staff and stakeholders to further the State's clean energy goals and targets to electrify the transportation sector. Developing programs and policies that: (1) support an EV Ecosystem with roles for the various parties, including EDCs, State agencies, and private parties; (2) provide appropriate support for EV and EV charger owners and operators; and (3) address equity in the roll out of an EV Ecosystem - all while minimizing the bill impact to ratepayers - is critical to achievement of a clean energy future.