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June 26, 2023

Hon. Michelle L. Phillips
Secretary to the Commission
New York State Public Service Commission
Empire State Plaza Agency Building 3
Albany, NY 12223-1350

RE: Case No. 23-E-0070: Proceeding on Motion of the Commission to Address Barriers to Medium- and Heavy-Duty Electric Vehicle Charging Infrastructure.

Dear Secretary Phillips,

Attached for electronic filing in the above-referenced matter, please find reply comments on behalf of ChargePoint, Inc. Please let me know if you have any questions.

Respectfully,

/s/ Matthew Deal
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Attachment
CC: All parties (via DMS)

I. Introduction

On June 5, 2023, ChargePoint, Inc. ("ChargePoint") submitted initial responses to the Order Initiating Proceeding and Soliciting Comments issued the New York Public Service Commission ("Commission") in Case No. 23-E-0070. ChargePoint appreciates the responses submitted by various utility, industry, fleet operator, and environmental stakeholders to support the rapid deployment of charging infrastructure for electric medium and heavy duty vehicles (MHDVs). We respectfully offer these reply comments for the consideration as the Commission and Department of Public Service Staff ("DPS Staff") consider appropriate measures to accelerate the buildout of MHDV charging infrastructure in this proceeding.

In summary, ChargePoint's reply comments find:

- This proceeding should establish a framework for proactive utility investment.
- The utilities should report energization timelines and take specific actions to reduce energization bottlenecks, including enabling "desktop reviews" of MHDV sites and pre-purchasing equipment such as transformers and switchgear.
- Advanced load management (ALM) is not a substitute for proactive utility investment, but it may help support customers accelerate EV charging deployment despite site constraints.
- V2G technology is not mature enough to be considered in short-term planning.
- Requirements for OCPP and Service Level Agreements (SLAs) are unnecessary to ensure interoperability and reliability.

ChargePoint notes that many of these recommendations may also be applied to light-duty vehicles (LDVs) and that fleet operators often have a mix of light, medium, and heavy duty vehicles that they refuel on-site using similar or adjacent infrastructure. Though the focus of this proceeding is MHDVs, this proceeding should consider how policy recommendations for MHDVs may be carried over to support LDVs as well.

II. This proceeding should establish a framework for proactive utility investment.

The Joint Utilities' comments present a framework to identify expected MHDV loads, leverage existing grid capacity, and establish investment plans to build new capacity ahead of customer need. Although the market for electric MHDVs remains nascent, the concentrated high power demands of widespread MHDV electrification will appear quickly in New York. This proceeding is the appropriate venue to consider new regulatory mechanisms to enable proactive investments to avoid bottlenecks in energization that disrupt the state's ability to meet its transportation electrification goals. ChargePoint broadly supports the Joint Utilities' proposal to both establish make-ready incentives through a full-scale MHDV Program and establish a robust grid planning and regulatory process to prepare to serve load ahead of customer need. A successful framework for proactive utility investment should consider the following:

a. Proactive utility investment should prioritize depot charging in the short term.

The Joint Utilities observe that public fast charging hubs at truck stops, depot charging sites, and depot sites that serve multiple fleets are all use cases that can benefit from proactive planning.[1] ChargePoint agrees, but notes that several stakeholders, including but not limited to the Alliance for Clean Energy New York ("ACENY")/Advanced Energy United[2], Daimler Truck North America ("Daimler")[3], and Sierra Club/Earthjustice[4], identified depot or "return to home" charging as low hanging fruit for MHDV electrification based on vehicle availability and predictable duty cycles. Comments provided by ConEdison illustrate the framework for anticipatory investment within the depot context for one site in the East Bronx that may exceed 56 MW of load by 2036.[5]

Because the demand for depot charging will likely grow faster than other MHDV use cases in the short term and it will be relatively easy to identify "no regrets" sites that are good candidates for anticipatory investment, it would be prudent to focus early implementation of a new proactive investment framework on depot charging. As discussed in ChargePoint's initial comments and echoed by many commenters, a depot-first strategy is more likely to garner "early wins" and directly support the large-scale electrification of MHDVs, which in turn accelerate electrification for more challenging use cases (i.e., long haul trucking) and smaller, less sophisticated fleets. Efforts to identify expected MHDV loads may also consider "hybrid" sites where anticipatory utility-side upgrades support depot charging co-located with public charging hubs.

b. Proactive utility investment should not predetermine where public MHDV charging hubs appear.

While public fast charging hubs for MHDVs may benefit from proactive planning in the medium and long term, the market for this type of charging is nascent. It is ChargePoint's understanding that anticipatory infrastructure must be built with a granular forecast of where load will appear, which is harder to pinpoint for corridor-style charging hubs due to the number of factors that might make a site appropriate as a charging hub. For example, charging operators of public DCFC for light-duty vehicles select sites based on real estate considerations, nearby amenities, corridor throughput, and expected utilization, among other factors. Because charging hub operators for MHDVs will likely be third-party operators (as they currently are for light-duty DCFC), ChargePoint cautions against a "top-down" approach in which the Joint Utilities predetermine the location of public MHDV charging hubs by virtue of their decision to build anticipatory grid infrastructure.

For example, National Grid's comments cite a 2021 study with Hitachi Energy that relied on the utility's manual evaluation of online map services and satellite imagery to identify fleets, estimated fleet vehicle counts, and then utilized that data to develop similar probabilistic distributions of individual fleet schedules and charging profiles.[6] ChargePoint believes this type

[1] Joint Utilities Initial Comments at 13.
[2] ACENY and Advanced Energy United Initial Comments at 6.
[3] Daimler Trucks North America Initial Comments at 4.
[4] Sierra Club and Earthjustice Initial Comments at 7.
[5] ConEdison Initial Comments at 4.
[6] National Grid Comments at 6.

of analysis may *supplement,* but should not *replace,* direct engagement with fleet customers, charging providers, and site owners to identify fleet electrification plans and appropriate depot and public charging hub locations. To inform selection of anticipatory grid infrastructure for public charging hubs, it would be helpful to create a stakeholder group, including, at minimum, the NY State Department of Transportation, the Joint Utilities, and electric vehicle service providers (EVSPs), to jointly locate and triage appropriate locations for public MHDV hubs. The Renewable Energy Transmission Initiative (RETI) in California, a statewide planning collaborative with dozens of stakeholders to identify best practices for transmission construction in California, may serve as a good model for how to structure stakeholder engagement for MHDV hub selection.[7]

c. The framework for proactive investment should be transparent and address challenges with queue management.

In the context of anticipatory investment for depot charging, the Joint Utilities' decisions on which sites receive proactive investment will affect which fleets can electrify in the near term and which must wait until it is "their turn." Selection and prioritization of anticipatory investment is an important decision that should be careful to avoid unfairly advantaging some customers' ability to electrify their fleets over others. ChargePoint encourages robust engagement with fleet operators and stakeholders to ensure anticipatory investment meet customers where they are at as they prepare to invest in the acquisition of EVs and charging infrastructure.

It Is important to note that one of the issues with the existing Make Ready Program[8] is *a lack of transparency and challenges with queue management,* both of which would present significant issues to the implementation of a transparent and fair framework for proactive investment. Within the light-duty make ready program, it is often unclear where a project stands in the interconnection queue, how long site review, design, construction, and energization will take, what criteria determine whether a project moves forward, and how much incentive funding a project will receive. Within the Make Ready Program Midpoint Review, DPS Staff recommended the formation of a new working group to address the difficulties associated with interconnection applications and administration.[9] ChargePoint recommends that policy efforts to improve transparency in the funding application and interconnection queue from the LDV working group carry over to the development of a proactive investment framework for MHDVs.

d. Contribution in Aid of Construction (CIAC) policies and MHDV make ready program administration should be consistent statewide across all utility service territories.

[7] https://reti.databasin.org/
[8] 18-E-0138, Order Establishing Electric Vehicle Infrastructure Make-Ready Program and Other Programs (July 16, 2020).
[9] 18-E-0138, Department of Public Service Staff Electric Vehicle Make-Ready Program Midpoint Review and Recommendations Whitepaper (March 1, 2023) at 26.

Several stakeholders, including the Joint Utilities[10], Metropolitan Transit Authority ("MTA")[11], and ABB[12], identified inconsistent interconnection policies as a barrier to electrification. Eliminating interconnection barriers should be addressed through this proceeding, both by making cost-share policies consistent across service territories and by ensuring that processes to review and approve interconnection applications are streamlined. The following information should be made available to potential program participants online to improve program application and the process of applying for interconnection:

- Contact information for a single point of contact for EVSE projects (with EVSE expertise);
- Checklist of all items that must be submitted as part of an initial "desktop review," or a preliminary review that confirms a project is feasible before a full interconnection application is submitted;
- Checklist of all items that must be submitted as part of full interconnection application;
- If offering a make-ready program, detailed program requirements, information on eligible costs, and application instructions; and
- Average interconnection timelines, as measured from submission of full application to site energization.

e. The Commission should consider spreading the costs of anticipatory utility-side infrastructure statewide.

Walmart[13] identifies a need to revise CIAC policies to support customers' ability to proceed with cost-effective charger deployment. CIAC policies determine how utility-side upgrade costs are split between the customer requesting the upgrade and the utility, which recovers its costs from ratepayers. Because many customers are likely to eventually benefit from anticipatory upgrades, there is a tension between traditional CIAC policies, in which the utility determines the appropriate portion of costs that should be borne by a single customer, and anticipatory investments to support MHDV electrification.

The comments of National Grid point out that much like utility systems, transportation corridors are networks, and large-scale charging infrastructure located at truck stops and service areas may support the electrification of vehicles that drive across the state, including through disadvantaged communities.[14] In other words, the public benefits of charging hubs and depots are not confined to a single utility service territory. In addition to a new CIAC policy to identify the appropriate cost share between a single customer and the utility, it may be appropriate to consider a new model for cost recovery that shares the utility's portion of costs statewide.

[10] Joint Utilities Initial Comments at 19.
[11] MTA Initial Comments at 2.
[12] ABB Initial Comments at 3.
[13] Walmart Initial Comments at 12.
[14] National Grid Initial Comments at 13.

This proceeding should investigate the benefits spreading the costs of anticipatory utility-side upgrades to support MHDV electrification across all utility customers statewide, regardless of the service territory the charging hubs are located. For example, the costs of new transmission lines are shared by customers statewide, regardless of the utility service territory the transmission infrastructure is physically located, because new transmission benefits all customers, and the benefits of building transmission are not confined to one service territory. Likewise, transportation corridors with hubs for MHDV charging are networks that will support the movement of people and goods across the state. A change to a "statewide shared funding" model for anticipatory utility-side upgrades would allow large MHDV charger projects to proceed faster than is currently possible with CIAC policies, as well as spread the costs of infrastructure buildout across a larger group of customers, limiting potential rate impacts in a single service territory.

III. The Commission should direct the utilities to report energization timelines and take specific actions to reduce energization bottlenecks.

Many stakeholders, including but not limited to the Joint Utilities[15], EDF[16], MTA[17], and Daimler Trucks North America ("Daimler")[18], acknowledged the disparity between the relatively short (6-9 month) timeline for vehicle acquisition and the long (12-24+ month) timeline for site energization as a cause of multiyear delays for MHDV electrification. This is a significant pain point for transportation electrification as customers will expect fast interconnection to support their transition to EVs. In addition to the need for a framework for proactive planning, ChargePoint agrees with ABB[19] and MTA[20] that it is necessary to track and set targets to reduce the average timeline for transportation electrification projects from application to energization.

Staff's Whitepaper should set in motion a process to establish interconnection targets, monitor performance of these targets through reporting requirements, and require that utilities address and promptly resolve issues that are contributing to delays. This effort would act as a good accountability metric if the Joint Utilities are authorized to proceed with anticipatory utility-side investments, as energization timelines should shorten over time if the utilities prepare and build load capacity ahead of when it is needed. Though the focus of this proceeding is MHDVs, tracking and reporting energization timelines should be broadened to accelerate timelines for LDV electrification as well. Notably, the California Public Utilities Commission (CPUC) recently directed California utilities to aim for a 125-business-day energization timeline for transportation electrification projects from site design approval to site energization, as well as to record timeline data for each step of the energization process and report the cause of delays.[21]

[15] Joint Utilities Initial Comments at 5-6.
[16] EDF Initial Comments at 7.
[17] MTA Initial Comments at 5.
[18] Daimler Initial Comments at 3.
[19] ABB Initial Comments at 3.
[20] MTA Initial Comments at 3.
[21] CPUC Resolution E-5247 (December 15, 2022) available at:
https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M500/K043/500043680.PDF

In addition, the following actions may reduce bottlenecks for MHDV site energization:

- **Anticipatory acquisition of equipment.** This proceeding should establish an incentive for the Joint Utilities to place advance orders for switchgear and transformers before formal interconnection applications are submitted. This equipment often has a 12-18 month lead time due to supply chain constraints, so it would be best to start procurement early. The Joint Utilities can anticipate an increased demand for bottlenecked equipment based on the overall growth of the EV market and the scale of their anticipatory investments.
- **Desktop reviews**. A full interconnection application represents a significant amount of work for a site host and a utility. Getting initial feedback from a utility on the feasibility to build a site, before a formal interconnection application is submitted, helps fleet customers and developers identify whether a project is likely to move forward. Desktop reviews cull infeasible projects from going through the extended design and interconnection application process, reserving complete application reviews for projects that are feasible. Offering desktop reviews may also give the Joint Utilities an opportunity to engage with fleet customers and collect more information on which they can base their anticipatory investments.

Based on ChargePoint's experience in New York, wait times for a utility's confirmation that a site is buildable can exceed a year on its own, not accounting for any of the other time-consuming steps to site energization, including design approval, permitting, and construction. ChargePoint anticipates that as grid capacity becomes more constrained, customers will increase their volume of requests for desktop reviews to determine whether a site is feasible before submitting a complete formal interconnection application. There must be a process in place for the Joint Utilities to quickly assess if a site is feasible before processing a full interconnection application. By contrast, the absence of a fast and efficient desktop review may lead to congestion in the interconnection application process, as infeasible projects clog the project pipeline, deplete utility engineering/design resources, and slow all other projects down. Desktop reviews should quickly provide:

- Confirmation of grid capacity;
- Location of point of connection/the potential length of conduit run needed for the site;
- Any required transformer and/or utility line upgrades; and
- Rough, non-binding cost estimate.

ChargePoint also supports the ideas offered by ABB to establish a more transparent, efficient, and faster interconnection process, including: offering partial service until upgrades are complete to provide full service; dedicated teams to review EVSE interconnection requests; and performance metrics for processing, responding, and resolving EVSE interconnection requests.[22]

IV. Advanced load management (ALM) is not a substitute for proactive utility investment, but it may help support customers accelerate EV charging deployment despite site constraints.

[22] ABB Initial Comments at 3.

Commenters largely agreed regarding the potential of advanced load management (ALM) to minimize overbuilding of the system and reduce infrastructure costs. ChargePoint would like to clarify that though ALM has potential to reduce overbuilding of the system in the long term and deliver benefits to both the system and customers in the short term, ALM is not yet a substitute for infrastructure buildout or anticipatory investment in utility-side infrastructure.

a. Utilities should quantify the impact of ALM on reducing infrastructure costs in response to upcoming EV Phase-In Rates and Commercial Managed Charging Programs.

On January 19, 2023, the Commission issued an *Order Establishing Framework for Alternatives to Traditional Demand-Based Rate Structures* in Case 22-E-0236.[23] The Demand Charge Order provided directives for immediate and long-term relief from demand charges for public and fleet EV customers. By 2024, the Joint Utilities will offer an EV Phase-In Rate and a Commercial Managed Charging Program (CMCP), which are intended to balance the need for demand charge relief and establish price signals that encourage efficient utilization of the grid. The EV Phase-In Rate will have both a time-of-use (TOU) energy charge and a demand charge. The CMCPs will include peak avoidance incentives and per-kWh off-peak charging incentives.

With these rates and programs in place, fleet customers will receive price signals that encourage peak shaving and shifting EV load to off-peak times. Tools for ALM, including charging management software, are available to fleet operators now to respond to the price signals that will be established by both the EV Phase-In Rate and the CMCP. Though the potential for ALM to reduce infrastructure costs is significant, it is important to consider that not all fleet operators will have the same level of operational flexibility to respond price signals sent by the EV Phase-In Rate and the CMCP due to the operational constraints of managing a fleet of working vehicles. As the MTA noted, "Meeting schedules with the currently limited range of electric vehicles often means limited flexibility in charging times and the need for highly predictable access to charging infrastructure."[24]

For this reason, ChargePoint echoes the Joint Utilities point that "More experience is needed before managed charging program impacts can be broadly considered firm enough to reduce upfront infrastructure needs for all customers."[25] As the Joint Utilities proceed with designing and implementing the rates and programs in the Demand Charge Order, the Commission should consider how to quantify reduced infrastructure needs associated with the EV Phase-In Rates and CMCP programs.

[23] Case 22-E-0236, Proceeding to Establish Alternatives to Traditional Demand-Based Rate Structures for Commercial Electric Vehicle Charging ("Demand Charge Order")
[24] MTA Initial Comments at 3.
[25] Joint Utilities Initial Comments at 33.

b. ALM should be used as a tool to help customers overcome site capacity constraints to accelerate charger operations in the short term.

Though it is challenging to quantify how ALM will reduce upfront infrastructure needs for customers, ALM does have short-term applications that may support accelerated deployment of EV charging infrastructure. Non-infrastructure (i.e., software) solutions are a powerful tool to help fleet customers energize a portion, if not all, chargers with some constraints while utility-side upgrades are in process. ALM may provide the following near-term benefits:

- Peak shaving - The customer sets a maximum charger curtailment percentage that determines how much charging load should curtail to balance higher demand charges while still ensuring EVs receive needed power. Fleet managers are incentivized to consider peak shaving to limit the monthly per-kW peak and reduce electricity costs to fuel their fleet.
- Load balancing - In capacity constrained sites, customers can utilize ALM for load balancing to prevent overloading and reduce the need for costly and time-consuming electrical panel upgrades. Load balancing can also be helpful to partially energize sites where additional capacity is needed but not available. If a customer is waiting on a multi-year utility-side upgrade, they may be able manage load on site to utilize existing capacity in the meantime to energize a portion of needed chargers.

Additionally, ChargePoint agrees that utility-owned storage assets may be appropriate as an interim solution to provide capacity where the grid is constrained and upgrades will take many years.

V. V2G technology is not mature enough to be considered in short-term planning.

Comments by Environmental Defense Fund (EDF)[26], Ninedot[27], and Nuuve[28] support the use of V2G in short-term planning considerations. However, ChargePoint agrees with the comments of Powerflex[29], Joint Utilities[30], and Daimler[31] that V2G is <u>not</u> at a sufficient level of maturity to impact short-term planning considerations. ChargePoint is not opposed to V2G technology and supports its application in use cases where it makes sense. However, it is important to ensure that the desire to realize possible benefits of V2G technology does not inadvertently hinder New York in achieving its transportation electrification goals. Commenters largely agree that the pace of traditional utility-side upgrades will be a significant barrier to the deployment of MHDVs charging infrastructure if unaddressed; it would be exceptionally risky to the state's electrification goals to

[26] EDF Initial Comments at 30.
[27] Ninedot Initial Comments at 3.
[28] Nuuve Initial Comments at 2.
[29] Powerflex Initial Comments at 7.
[30] Joint Utilities Initial Comments at 32.
[31] Daimler Initial Comments at 8.

consider V2G into planning in the short-term by underbuilding in anticipation that V2G will fill the gap, and not have the benefits materialize as anticipated.

As noted by Nuvve, bidirectional DCFCs currently present higher equipment costs, higher infrastructure costs, and require more complex site energization than traditional charging infrastructure.[32] As we work diligently to install more chargers across the state to support MHDV electrification, the Commission should focus this proceeding on efforts that *lower* costs for fleet operators and continue to study the potential benefits of V2G in the medium- and long-term.

a. V2G may not make sense for all MHDV use cases.

The comments of Nuuve[33] and Vehicle Grid Integration Council/New York Battery and Energy Storage Technology Consortium ("VGIC/NY-BEST")[34] list several examples of V2G pilot programs as evidence that V2G is commercially viable to consider in short-term planning. However, pilot programs to demonstrate technical viability in small scale applications do not provide evidence that fleet operators will embrace V2G technology. Ninedot[35] speculates that "bi-directionality and V2G capacity will become the norm in all EVs and charging systems." On the contrary, comments by fleet operators such as the MTA[36] in this proceeding indicate that customers are focused on minimizing the cost and operational complexities of electrifying their fleets, which at this time, does not seem to be compatible with the additional costs and challenges of V2G projects. In addition, vehicle OEMs such as Daimler have presented concerns regarding battery degradation, additional costs of V2G technology in fleets' total-cost-of-ownership calculations, and fleet utilization rates as barriers to V2G in the near term.[37]

Besides school bus fleets, which were identified as high-potential for V2G by several commenters, it remains unclear which MHDV fleet use cases will have the operational flexibility to adopt V2G to the extent that it affects capacity and infrastructure planning. For example, MTA reports that a typical transit bus operates 10–12 hours per day and EV bus models require at least 6–7 hours to fully charge at conventional charging scenarios. [38] Tight operational schedules, which are generally common in MHDV fleets, may create challenges for managed charging, which are likely carry over and be more complex for V2G. ChargePoint encourages the Commission to collect more information regarding appropriate applications of V2G for MHDVs before considering V2G in short-term infrastructure planning.

b. V2G, V2H, and other applications of bidirectional charging have varying technical requirements and do not all necessarily translate to avoided infrastructure costs.

[32] Nuuve Initial Comments at 3.
[33] *Id.*
[34] VGIC/NY-BEST Initial Comments at 6.
[35] Ninedot Initial Comments at 3.
[36] MTA Initial Comments at 7.
[37] Daimler Initial Comments at 8.
[38] MTA Initial Comments at 3.

The comments of EDF describe the potential grid benefits and the resiliency benefits of V2G applications.[39] While there are many possible applications of bidirectional charging, it is important to note that different applications of bidirectional charging (such as vehicle-to-grid, vehicle-to-building, and vehicle-to-load) require different communication protocols, charger hardware, and interconnection infrastructure at the site level. A site prepared for use a school bus as backup power in a blackout may not necessarily be equipped for V2G. Therefore, V2G should not be considered as a substitute for infrastructure in utility planning until there is greater agreement on the services bidirectional-capable MHDVs should and will provide.

VI. Requirements for OCPP and Service Level Agreements (SLAs) are unnecessary to reduce the risk of stranded assets and ensure reliability.

a. OCPP

EDF[40] and Powerflex[41] propose that sites receiving utility support for charging infrastructure be required to install chargers compliant with the latest version of Open Charge Point Protocol (OCPP). EDF supports its recommendation by asserting that OCPP is necessary to mitigate the risk of stranded assets in the event an EVSP goes out of business or a fleet operator abandons a site where infrastructure has been installed. Though ChargePoint appreciates the intent to minimize the risk of stranded assets, blanket requirements for OCPP for MHDV program participants are not likely to achieve this goal.

OCPP is an international open-source protocol to enable communication between EVSE hardware and the charging network on which it operates. OCPP was developed by the Open Charge Alliance, which means it is voluntary and there is no nationally recognized standards body that has adopted it. ChargePoint urges the Commission to avoid mandating the use of protocols such as OCPP that have not yet undergone the rigorous evaluation of a standard-setting entity such as National Institute of Scientific Instruments (NIST), SAE International (formerly the Society of Automotive Engineers), or the International Organization for Standardization (ISO). Further, open-source protocols such as OCPP are intended to evolve to offer advanced features, improve customer experience, and strengthen cybersecurity as technology improves over time, particularly in an industry as fast-moving as EV charging. It is important to recognize that newer versions of OCPP, such as Version 2.0.1, are not necessarily backwards compatible with the versions that preceded it, such as Version 1.6. As standards improve and change, it is incorrect to assume their adoption guarantees interoperability in the future, and so establishing requirements for the latest version of OCPP is not sufficient or necessary to mitigate the risk of stranded assets.

Moreover, compliance with OCPP does not ensure that make ready infrastructure will be utilized by another operator if a fleet abandons a futureproofed site. In this regard, it would be more effective for the Commission to utilize CIAC policies to ensure customers invest some of their own

[39] EDF Initial Comments at 30-31.
[40] *Id.,* at 34-35.
[41] Powerflex Initial Comments at 8.

capital and have some "skin in the game" to minimize the risk of over-building, as discussed in the comments of Walmart.[42]

b. Service Level Agreements (SLAs)

ABB[43] proposes a program requirement for SLAs, claiming that they are "essential for maintaining the highest levels of uptime." While ChargePoint agrees that charger uptime is of utmost importance to MHDV fleet operators to reliably fuel their vehicles, a requirement for SLAs would be an unnecessarily prescriptive mandate for chargers serving MHDV fleets. Fleet operators that own and operate chargers "behind the fence" to serve their own vehicles may be fully capable of self-maintaining EV charging equipment. Because chargers are critical to their business operations, a fleet operator is highly incentivized to ensure chargers will reliably fuel their vehicles and would only be constrained by an SLA requirement within a utility-funded MHDV incentive program.

Likewise, a regional fueling provider may prefer to hire their own crew to maintain their charging equipment, rather than utilize the services offered by their hardware provider. For this reason, an SLA requirement may prevent a good actor from maintaining their own facilities, or at the very least, add unnecessary costs to charger deployment. For public charging hubs that may serve many different vehicles and fleets, requirements for SLAs are not the most efficient way to ensure reliability. It would be more effective for the Commission and DPS Staff to consider outcome-oriented policies, such as minimum uptime requirements, because they provide flexibility to site hosts, network operators, and hardware manufacturers to pursue solutions that achieve the target uptime at lowest cost. Before setting any specific uptime or reliability requirements, the Commission should look to learn from and align with the implementation of uptime standards established by the National Electric Vehicle Infrastructure (NEVI) Program.[44]

[42] Walmart Initial Comments at 9.
[43] ABB Initial Comments at 4.
[44] *See* https://www.federalregister.gov/documents/2023/02/28/2023-03500/national-electric-vehicle-infrastructure-standards-and-requirements