STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

Proceeding on Motion of the Commission Regarding Electric Vehicle Supply Equipment and Infrastructure	)))	Case 18-E-0138

INDICATED UTILITIES' PETITION REQUESTING ELIGIBILITY CHANGES TO MEDIUM- AND HEAVY-DUTY PILOT

The Medium- and Heavy-Duty Make-Ready Pilot Program (MHD Pilot) encourages eligible vehicle operators to electrify their fleet by providing incentives that reduce the cost of electrification. The New York State Public Service Commission (Commission) has previously revised[1] the eligibility criteria for the MHD Pilot, which increased participation in some areas. But the MHD Pilot continues to see limited applications and MHD charging deployments. To increase participation, further New York State's climate goals, and advance the Commission's goal of gathering information for a full-scale MHD Make-Ready Program, the Indicated Utilities[2] respectfully request that the Commission open eligibility for customer-side cost incentives to projects using shared hub models, projects located outside Disadvantaged Communities (DACs),[3] and projects without a voucher incentive.

I. MHD PILOT STATUS AND NEED TO EXPAND ELIGIBILITY

To date, the MHD Pilot has seen limited participation. In the first three years of the program, there was only one participant.[4] In 2023, the Commission authorized customer-side cost incentives for projects at publicly accessible locations or projects in DACs that participate in

[1] Case 18-E-0138, Proceeding on Motion of the Commission Regarding Electric Vehicle Supply Equipment and Infrastructure (EVSE & I Proceeding), *Order Approving Midpoint Review Whitepaper's Recommendations with Modifications* (November 16, 2023) (2023 Order).
[2] The Indicated Utilities are Central Hudson Gas & Electric Corporation (Central Hudson), Consolidated Edison Company of New York, Inc. (Con Edison), Niagara Mohawk Power Corporation d/b/a National Grid (National Grid), and Orange and Rockland Utilities, Inc. (O&R).
[3] New York State Energy Research and Development Authority (NYSERDA), Disadvantaged Communities Map, available at https://www.nyserda.ny.gov/ny/Disadvantaged-Communities.
[4] Limited participation was largely because only utility-side costs were eligible for incentives. EVSE & I Proceeding, *Joint Utilities' Comments Regarding Make-Ready Program Mid-Point Review* (October 3, 2022), p. 9.

qualifying voucher incentive programs.[5] Subsequently, the Commission allowed customer-side incentives for charging sites directly adjacent to or partially located in DACs.[6] After these modifications, applications increased by 2.5 times, but only from 8 to 20 applications. The Indicated Utilities still have used only one percent of their budget to date.[7]

MHD Pilot participation remains low because barriers to participation remain. For example, many vehicle classes and use cases for MHD battery-electric vehicles have not yet reached total cost of ownership (TCO) parity with internal combustion engine vehicles, a prerequisite for electrification for many fleets.[8] In addition, the stringent eligibility requirements for customer-side incentives have limited participation[9] - 31 applications for approximately 640 plugs were withdrawn or not submitted after the applicant was informed it was ineligible for customer-side incentives.[10] Had those projects been eligible, there would have been more than twice as many MHD Pilot applicants and more than six times as many plugs committed or installed to date.

II. PROPOSED UPDATES TO MHD PILOT ELIGIBILITY

Expanding customer-side cost incentives can help alleviate economic barriers and spur MHD electrification to support New York's ambitious policy goals. Indeed, the light-duty vehicle Make-Ready Program[11] has demonstrated that broader access to incentives can create the appropriate level of market support to spur the development of a robust charging network and

[5] EVSE & I Proceeding, 2023 Order, pp. 97-101. The current list of qualifying voucher programs includes: New York Truck Voucher Incentive Program (TVIP), New York School Bus Incentive Program (NYSBIP), NYC Clean Truck Program (NYCCTP), EPA Clean School Bus Program (EPA CSB), and EPA Clean Heavy Duty Vehicles Program (EPA CHDV) (https://jointutilitiesofny.org/ev/make-ready/mhd-pilot-program).
[6] EVSE & I Proceeding, *Order Approving Modifications to Make-Ready Program* (September 20, 2024).
[7] Given the lack of MHD Pilot participation to date, the Indicated Utilities suggest the Commission also consider having Department of Public Service Staff work directly with utilities on future changes to MHD Pilot eligibility criteria as may be appropriate.
[8] According to a 2024 McKinsey & Company report, "zero-emission trucks have a TCO disadvantage of up to 40 percent." "The Bumpy Road to Zero-Emission Trucks," (published September 13, 2025) Available at: https://www.mckinsey.com/industries/automotive-and-assembly/our-insights/the-bumpy-road-to-zero-emission-trucks#/.
[9] For Con Edison projects, 90 percent of early MHD Pilot applications only used customer-side costs and did not require utility-side cost coverage. In the Con Edison territory, if customers accept the utility's proposed upgrade plan, there is no utility-side cost to the customer, and thus such customers would receive no incentives from the MHD Pilot program without customer-side cost coverage.
[10] This estimate likely represents only a subset of customers who are not eligible or decided not to submit because it is based on utility tracking of engagement with potential participants. Additional potential participants may not begin engagement with the utility if they know they are not eligible for customer-side cost incentives.
[11] Joint Utilities Electric Vehicle Make-Ready Program, https://jointutilitiesofny.org/ev/make-ready.

adoption of electric vehicles.[12] The Commission should expand the availability of customer-side incentives to projects using shared hub models, projects located outside DACs, and projects without a voucher incentive.

1. Expand Eligibility for Shared Hub Models to Overcome Barriers

The Commission should allow shared charging hubs—sites that provide charging to more than one fleet—to receive customer-side cost incentives. Based on customer feedback and experience in other areas across the country, shared hubs can address many electrification barriers fleets may experience in the transition to zero-emission vehicles (ZEVs). These barriers include (i) financial challenges, such as affordability of installing chargers, (ii) operational challenges, such as lack of familiarity with completing complex construction projects to install charging, (iii) space constraints, and (iv) security and reliability at off-depot charging locations.[13] Shared hubs can address these barriers by (i) spreading out the cost of infrastructure development across multiple customers, (ii) pooling resources and leveraging the expertise of shared hub developers, (iii) sharing land where it is available for charging siting, and (iv) allowing for space reservations and providing security while charging away from a dedicated depot.

There are several emerging business models for operating shared hubs in New York as well as in other states, such as California and New Jersey. Examples of charging hub business models include:

- A developer-owned charging hub offering a subscription model or reservation system;[14]
- A depot owner offering a portion of chargers in their depot to be shared with other fleets, or a timeframe that chargers in their depot can be used by other fleets;[15]

[12] EVSE & I Proceeding. *Indicated Utilities Make-Ready Program Review Comments*. (April 25, 2025) (IU 2025 Comments).
[13] Appendix Exhibit B provides a detailed list of use cases for shared hubs.
[14] This is a business model approved for incentives for MHD charging projects in California and New Jersey (where subscription-based charging stations are captured under the definition of public accessibility). Approximately nine developers offer this type of service. One municipality in Westchester County is seeking to attract charging developers to develop MHD charging on municipal land, with reservation-based systems being explored as part of the solution.
[15] Examples of this use case include (1) a city in Westchester County exploring decentralizing school bus charging across its school buildings and enabling school staff and the public to use the chargers when not in use by school buses, and (2) a Bronx-based bus contractor looking to develop a charging hub where other school buses, MHD vehicles, and for-hire vehicles can charge during the day while the contractor's buses charge overnight.

- Multiple entities sharing a charging depot to distribute land development and grid upgrade costs, effectively reducing the upfront cost to each fleet;[16] and
- MHD vehicle dealerships and rental facilities permitting their customers to charge on-site as an on-route charging option.[17]

The Commission should adopt a definition of shared hubs that allows for continued market innovation to meet the different needs of MHD fleets and therefore permit the Indicated Utilities to provide customer-side incentives to any sites that provide charging for more than one fleet. Thid definition would expand the potential use cases and allow for additional innovation and learning for shared hub use cases through the MHD Pilot.

2. Modify Current Requirements for Disadvantaged Communities and Vouchers

To expand MHD Pilot participation, the Commission should approve customer-side cost coverage for all MHD charging sites statewide.[18] Currently, a non-publicly accessible site is eligible for customer-side incentives only if it: (a) is in, partially within, or directly adjacent to a DAC, and (b) participates in an eligible voucher program.[19] These two eligibility criteria, both separately and combined, are limiting participation in the MHD Pilot and should be reconsidered.

a. Include Sites Outside of Disadvantaged Communities to Expand Benefits to Disadvantaged Communities

[16] An example of this use case is the FM Harbor site at the Port of Long Beach, which is used by fleets including Amazon Global Mile, Talon Logistics, Jaspem Truck Line Inc, Legacy Drayage, and more (More information available at https://www.truckinginfo.com/10235176/forum-mobility-opens-electric-truck-charging-depot-at-port-of-long-beach).

[17] Examples of this use case include (1) a collaboration between Hitachi America, Ltd., Hitachi Energy, and Penske Truck Leasing for a truck charging site to support Penske's electric truck deployments in Stockton, California (More information available at https://www.hitachienergy.com/news-and-events/press-releases/2024/03/hitachi-and-penske-launch-large-scale-electric-truck-charging-pilot) and (2) Electric Island, which is a Daimler Trucks North America (DTNA) and Portland General Electric-operated charging site near the DTNA headquarters in Portland, OR (More information available at https://portlandgeneral.com/news/2021-04-21-daimler-portland-general-electric-open-electric-charging-site).

[18] The Climate Leadership and Community Protection Act (CLCPA) stipulates that 35 percent of benefits go to DACs. While the benefits of MHD electrification at locations outside of DACs will bring benefits to DACs, to ensure compliance with the CLCPA, the Indicated Utilities can manage their budgets such that 35 percent of program spend goes to projects sited in DACs.

[19] See footnote 5 for the list of currently eligible voucher programs.

Expanding customer-side cost coverage for all MHD charging sites provides benefits to DACs since MHD vehicles are a mobile source of emissions. Thus, electrification can provide emission-reduction benefits in DACs, regardless of where the charging occurs.[20] Expanding eligibility to any location in New York has several benefits: (1) it can build the MHD charging market without disproportionally concentrating MHD charging infrastructure in DACs, (2) it can unlock the benefits of reducing emissions from all MHD vehicles that operate through DACs, regardless of where charging occurs, and (3) it can support MHD customer locations in non-residential areas that are not DACs due to population requirements[21] in the DAC designation.[22]

First, expanding customer-side incentives to projects outside DACs is consistent with the CLCPA goal to support DACs without increasing traffic, congestion, and concentrating chargers in those communities.[23] Because the current MHD Pilot rules require non-publicly accessible sites to be in DACs to qualify for customer-side cost incentives, there is an unintended consequence of MHD charging infrastructure being disproportionately concentrated in DACs.[24] Currently, 57 percent of the MHD Pilot projects are in DACs statewide (and 85 percent are in DAC downstate).[25] However, only 35 percent of New York State census tracts are DACs. Expanding eligibility for customer-side costs to charging stations outside DACs can resolve this disproportionate distribution by improving the cost effectiveness of electrifying depot sites outside of DACs as well as those inside DACs.

Second, the electrification of MHD vehicles outside of DACs contributes to emissions-reduction benefits within DACs. MHD vehicles often travel through DACs as part of their daily work routes. Focusing electrification efforts solely on where vehicles park or charge does not

[20] The Climate Action Council Scoping Plan states that "Replacing diesel trucks and port equipment with ZEV trucks and equipment is a critical component of climate justice and would have a substantial impact on improving air quality statewide, especially in Disadvantaged Communities" and recommends investments in fleets *operating* in disproportionately burdened communities (not limited to those *domiciled* in those communities). New York State Climate Action Council, "New York State Climate Action Council Scoping Plan," pp. 159-161 (Published 2022). Available at: https://climate.ny.gov/resources/scoping-plan/.

[21] For example, the DAC designation does not consider low-population census tracts (fewer than 100 people).

[22] EVSE & I Proceeding, 2023 Order, pp. 95-97. Commenters, including EDF, CALSTART, United, ACE-NY, NY-BEST, Nuvve, NYPA, and VGIC were cited by the Commission as in favor of supporting and prioritizing broad support for MHD electrification, including providing customer-side incentives to participants located outside of DACs.

[23] The CLCPA states that "all state agencies, offices, authorities, and divisions shall not disproportionately burden disadvantaged communities." (2019-S. 6599/A. 8429, p. 19. Available at https://www.nysenate.gov/legislation/bills/2019/S6599).

[24] EVSE & I Proceeding, 2023 Order, p. 98. "The Commission also finds merit in the argument by EDF [that focusing customer-side incentives in Disadvantaged Communities] may even unintentionally increase traffic congestion in Disadvantaged Communities."

[25] Downstate refers to Con Edison and O&R service territories.

adequately represent how DACs are affected by MHD vehicles. For instance, New York City school buses domiciled *outside* DACs make up 31 percent of school bus miles driven and emissions in DACs.[26]

Expanding geographic eligibility outside of DACs provides an opportunity for fleet electrification and associated benefits to DACs in particular, as the Indicated Utilities estimate that approximately 70 percent of the school bus depot locations in New York State are located outside of DACs.[27] One large school bus fleet in Orange and Rockland's territory assessed 15 potential depot locations and found that none of their sites are located in any of the territory's 39 DACs. By allowing fleets outside of DACs to receive customer-side cost coverage, the MHD Pilot would support more school bus fleets as they work towards New York State's Zero-Emission School Bus Mandate.

Finally, the methodology the Climate Justice Working Group used to designate DACs does not account for some MHD-dense areas because residency characteristics factor significantly into the designation.[28] Non-residential areas are often not designated DACs, resulting in the ineligibility of many areas—within commercial and industrial zones and ports—with high numbers of MHD vehicles. In particular, there are areas in dense urban environments where MHD depots are neighboring or fully surrounded by DAC zones, but do not touch or cover a DAC zone.[29] In such cases, vehicles will travel repeatedly through the DACs when they start and end their routes, as well as during the typical fleet workday. Making such sites eligible for customer-side cost incentives would thus enhance support for MHD electrification that benefits DACs.

b. Include Fleets Without a Voucher Incentive to Expand Program Progress

The Commission should also allow fleets without a voucher incentive qualify for customer-side cost coverage. Vehicle voucher programs seek to support customers who need

[26] Based on school bus vehicle telematics data provided by the New York City Department of Education (NYC DOE). School buses domiciled outside DACs also make up 38 percent of the societal cost of school bus emissions in DACs. See Appendix Exhibit C for assumptions and methodology.
[27] Based on Indicated Utilities' analysis as of May 14, 2024.
As another example, roughly 43 percent of MHD vehicles in Con Edison's territory are domiciled outside of DACs, indicating the potential in supporting the electrification of all MHD vehicles regardless of where they park or charge.
[28] Climate Justice Working Group (CJWG), Disadvantaged Communities Criteria (adopted March 27, 2023). Available at https://climate.ny.gov/Resources/Disadvantaged-Communities-Criteria
[29] Examples are listed in Appendix Exhibit D.

additional financial support to cover the incremental cost of new zero-emission vehicles compared to their diesel or gas equivalents. These programs exist at the local, state, and federal levels.[30] Due to a combination of factors that include limited program eligibility, vehicle scrappage requirements, and program pauses, many MHD fleets are not eligible for voucher program funds and are therefore not eligible for customer-side incentives through the MHD Pilot. Removing voucher programs as an eligibility requirement will allow more fleets to participate in the program.

First, the voucher programs and the MHD Pilot should be delinked because voucher programs do not account for all the ways fleets electrify their vehicles. For example, voucher programs incentivize new electric MHD vehicle purchases, but a smaller fleet may buy a used electric vehicle due to the lower overall cost, or they may lease.[31] Similarly, repowered trucks and buses[32] represent an opportunity for fleets to electrify at a lower total cost while yielding the same environmental and health benefits,[33] but this option is often not available in voucher programs. These limitations of the voucher programs available limit participation in the MHD Pilot and fleets' ability to achieve TCO parity for electric compared to internal combustion engine vehicles.

A second barrier to voucher participation is a change in federal priorities. Most federal electric vehicle grants are paused as of the filing date of this petition, and there is high uncertainty around future federal funding opportunities under the current administration. This

[30] An example of a local program is the New York City Clean Trucks Program. An example of a state-level program is the New York TVIP. An example at the federal level is the Environmental Protection Agency's (EPA) Clean School Bus Program.

[31] The scrappage requirements associated with some voucher programs can also be a barrier for fleets. Many fleets use voucher programs to fund the first few or incremental ZEVs; fleet owners may be reluctant to scrap the diesel vehicle if they are still exploring how best the ZEV will work in their fleet and support operations. Additionally, fleets can only meet scrappage requirements if they scrap a pre-2009 diesel vehicle, a category which only makes up 25 percent of MHD vehicles in the State (commercial and bus vehicles with a maximum gross weight of 10,001 or more) (New York State Department of Motor Vehicles, "Vehicle, Snowmobile, and Boat Registrations," (Last updated May 2, 2025) (Vehicle Registration Data)). Available at: https://data.ny.gov/Transportation/Vehicle-and-Boat-Registrations-by-Fuel-Type-per-Co/vw9z-y4t7/about_data). Even this percentage is likely an overrepresentation of the actual eligible vehicles, because the available data categories are broader than the eligibility criteria for voucher programs (e.g., the data includes the subset of the "bus" category that accounts for transit buses that are not from one of the 5 approved transit agencies that are eligible for TVIP.).

[32] "Repowered School Bus is an existing school bus, at least six years older than the current model year, that had its existing internal combustion engine scrapped and replaced with a new zero-emission engine, motor, drivetrain, and battery." (NYSERDA, *New York School Bus Incentive Program Implementation Manual, Version 5*, p.8. (December 2024) (NYSBIP Implementation Manual). Available at: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Electric-School-Bus/NYSBIP-Implementation-Manual.pdf)

[33] Ly, Stephanie and Emmett Wethmann, World Resources Institute. *8 Things to Know about Electric School Bus Repowers* (May 8, 2024). Available at: https://www.wri.org/insights/repowering-electric-school-buses

includes the EPA Clean School Bus Rebate and Grant Programs, and the Clean Heavy-Duty Program. Similarly, there is uncertainty as to whether MHD customers in New York who were selected to receive voucher incentives will receive the funds. In New York State, this currently affects 54 customers, with an estimated total of $370M.[34]

A third barrier to voucher participation is that not all vehicle classes or fleets are eligible for each voucher program. For example, Class 3 vehicles[35] are not eligible for the NYC Clean Trucks Program and the Truck Voucher Incentive Program, which limits their participation in the MHD Pilot and thus delays some electrification plans. Enabling fleets with Class 3 vehicles to receive customer-side infrastructure incentives is important because Class 3 electric vehicles may be able to electrify sooner than other heavier class MHD vehicles. Class 3 vehicles are primed to electrify in the coming years, given their TCO is becoming competitive with that of internal combustion engine models,[36] especially with the support of make-ready incentives. Unlinking MHD Pilot eligibility from voucher incentive program participation would open up the MHD Pilot to the fleets that are most likely to participate so that they can realize their electrification plans sooner.

By providing broader support for MHD electrification and removing the voucher requirement, the Commission can help fleets electrify sooner, facilitate innovation in vehicle procurement approaches, and move toward New York State's policy goals.

III. CONCLUSION

Expanded incentive eligibility will unlock opportunities for customers to participate in the MHD Pilot, advance clean transportation progress, and provide information the Commission can use to evaluate a full-scale MHD Make-Ready Program. Therefore, the Indicated Utilities respectfully request that the Commission expand MHD Pilot eligibility for customer-side cost incentives to include shared hub business models, projects located outside of DACs, and projects without a voucher incentive.

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[34] EPA, *Clean School Bus Program Awards* (September 12, 2024) (https://www.epa.gov/cleanschoolbus/clean-school-bus-program-awards) and *Clean Heavy Duty Vehicles Grant Program Tentative Selections* (February 14, 2025) https://www.epa.gov/clean-heavy-duty-vehicles-program/clean-heavy-duty-vehicles-grant-program-tentative-selections.

[35] There are 79,723 vehicles registered in New York State with a Maximum Gross Weight of between 10,001 and 14,000 (Vehicle Registration Data).

[36] International Council of Clean Transportation, "Cost of Electric Commercial Vans and Pickup Trucks in the United States Through 2040" (published January 11, 2022), available at https://theicct.org/publication/cost-ev-vans-pickups-us-2040-jan22/

Dated: May 23, 2025

Respectfully submitted,

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IV. APPENDICES – Table of Contents

EXHIBIT A: Summary of the Indicated Utilities' MHD Pilot Applications to Date

Project Type	**Submitted Projects**	**Committed* Projects**	**Completed Projects**	**Funding Committed or Spent ($)****
Non-publicly Accessible	17	7	3	$734,755
Publicly Accessible	1	0	0	$0
Total	**18**	**7**	**3**	**$734,755**

*Committed refers to projects that have received a Program Agreement

**Committed and Completed projects only

EXHIBIT B: Barriers to Fleet Electrification That Can Be Addressed With Shared Charging Hubs

(i) Financial Challenges:

- Smaller owner/operators are more sensitive to the costs of electrification and are often unable to afford charging infrastructure[37]
- Lessees of battery-electric vehicles may not have a need to invest in long-term charging infrastructure[38]

(ii) Operational Challenges

- Customer expected truck delivery timelines can be misaligned with charging infrastructure construction timelines, where customers may receive vehicles before construction is complete.
- Fleets may be unable to get permission from the depot landowner to install chargers
- Fleets lack familiarity with completing complex construction projects to install charging infrastructure

(iii) Space Constraints:

- Not all fleet vehicles are domiciled at a depot. Some park on-street (parkouts) where charging is unavailable[39]
- Many depots are space constrained. Fleet vehicles are densely packed without space for chargers.

(iv) Security and reliability at off-depot charging locations:

- Shared charging hubs offer on-route charging opportunities, enabling longer routes before returning to depot, and space reservations, reducing range anxiety and enhancing driver schedule planning[40]

[37] One example is the NYC Economic Development Corporation Multi-site RFP, announced April 22, 2024. "Shared EV charging hubs are especially beneficial to small fleets with limited funding for charging infrastructure and promote the transition of existing MHD fleet traffic to electric, especially those EVs close to the Sites". Available at: https://edc.nyc/press-release/nycedc-advances-ev-charging-infrastructure-next-cohort-climate-tech-startups-brooklyn-army-terminal

[38] The lower upfront cost of leased electric vehicles lowers the barrier to adoption for customers.

[39] According to the NYS Electric School Bus Roadmap, 4 percent of school buses statewide and 40 percent of school buses in NYC do not return to a depot; this fleet management approach is referred to as 'parkouts'. Available at: https://www.nyserda.ny.gov/-/media/Project/Nyserda/Files/Programs/Electric-School-Bus/New-York-State-Electric-School-Bus-Roadmap.pdf

[40] The importance of on-route charging is identified in the preliminary analysis of the NYSERDA MHD Study, which identified 20 vehicle segments that will need on-route charging options. The charging needs for each segment

- Shared hubs can provide secure vehicle storage to protect goods, vehicles, and drivers in lieu of a dedicated depot
- Shared hubs offer particular opportunities for Board of Cooperative Educational Services (BOCES) and school districts, which can provide charging sites to be shared by buses from multiple schools while on sports runs and school field trips[41]
- Shared charging hubs along/near highway corridors

varies from less than 5 percent of energy needed on-route (e.g. medium-duty EV Vans) to 100 percent (long-haul heavy-duty EV Tractors). While the on-route energy is significantly smaller than depot charging, the availability of these on-route charging locations can often be the critical factor when deciding to electrify a particular depot.

[41] "BOCES Purchasers may apply for Charger(s) without initiating an ESB purchase, for the purpose of charging visiting school district ESBs" (NYSERDA, NYSBIP Implementation Manual, p. 25). Available at: https://www.p12.nysed.gov/mgtserv/boces/handbooks/

EXHIBIT C: NYC DOE School Bus Vehicle Telematics DAC Assessment

Con Edison developed a DAC Assessment to determine social costs per census tract using vehicle telematics data received from the New York City Department of Education. The data contains information on routes for one day of service (February 27, 2024) and 8,656 vehicles. This represents about 80 percent of the public-school buses in Con Edison's territory.[42]

The following assumptions were used to translate the vehicle telematics information to social cost:

Assumption	**Source**
The Company assumed 38 percent of school buses in NYC are diesel and 62 percent are gasoline. Vehicle fuel, class, and age of school buses in Con Edison's territory.	NYS Vehicle Registration Data
Fuel efficiency varies by census tract to account for the impacts of idling.	NYC DOE vehicle telematics data, 2019 DD5 Diesel Bus and 2019 Gasoline Bus from Thomas Built Buses
Social cost of removing one ton of PM2.5, SO2, NOx, and VOCs using a 2 percent discount rate, as recommended by the US Office of Management and Budget Circular No. A-4 guidance.	US EPA COBRA tool
Social cost of removing one ton of carbon	NYS Value of Carbon Guidance Appendix
Vehicle emissions (grams / mile)	Argonne National laboratory, MOVES3 Vehicle Operation Emission Factors

The following methodology was used to calculate greenhouse gas emissions and the resulting social cost:

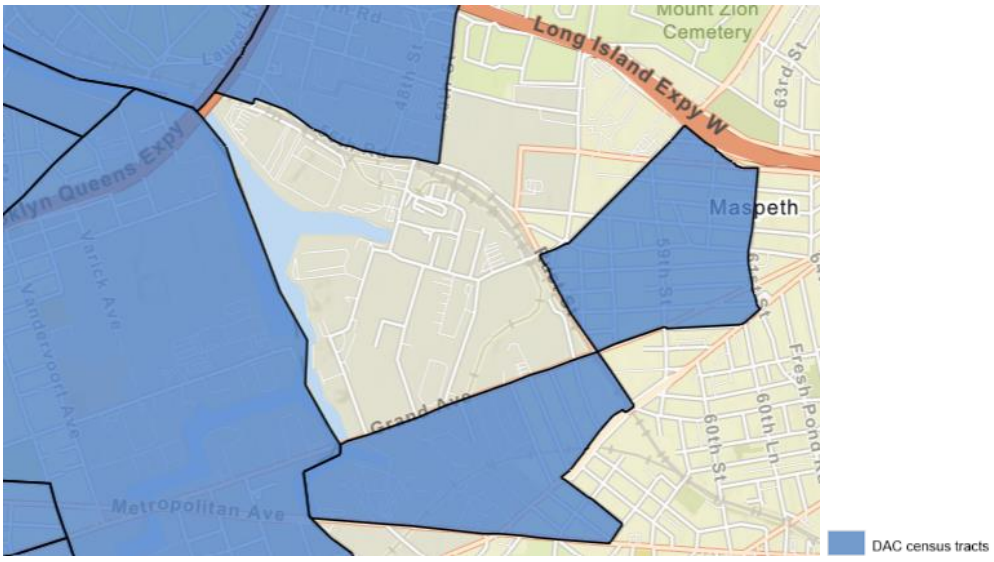
- **Calculate vehicle miles driven in DAC and non-DAC:** NYC DOE vehicle telematics provides the number of miles driven in DAC versus outside DACs**.** NYS vehicle registration data shows the vehicle fuel, class, and age of school buses in Con Edison's territory. The number of miles driven was broken down by fuel type (battery-electric vehicles, gasoline, and diesel), vehicle class (1-8), and vehicle age.
- **Calculate emissions per mile:** Emissions include PM2.5, SO2, NOx, VOCs, and CO2. National emissions per mile are scaled to NYC levels according to fuel efficiency differences derived from the telematics data.
- **Calculate marginal social cost by ton of pollutant:** The Company used the EPA COBRA tool and NYS Value of Carbon to calculate local social costs by census tract, then used DOE telematics data to split costs by vehicle origin for impact in DAC versus non-DACs.

[42] School bus vehicle counts in Con Edison's territory are based on the Company's proactive planning study, presented as part of the technical conference on November 2, 2023. *See* Case 23-E-0070, *Proceeding on Motion of the Commission to Address Barriers to Medium- and Heavy-Duty Electric Vehicle Charging Infrastructure.*

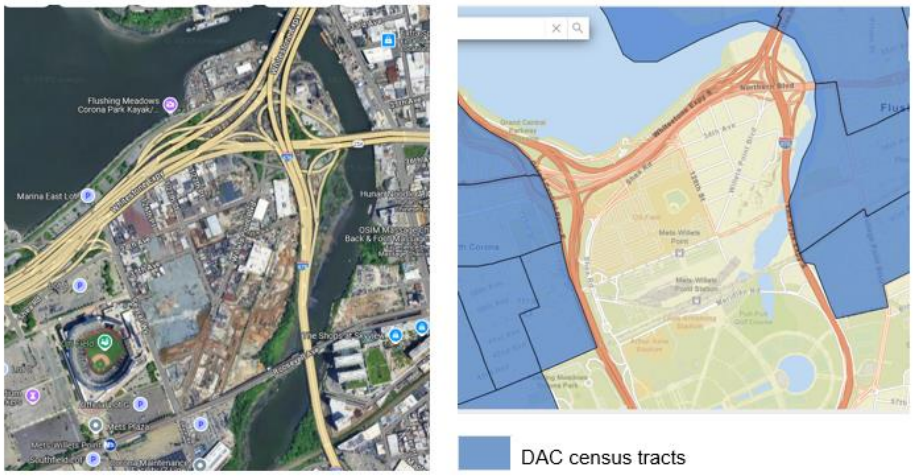
EXHIBIT D: Examples of How DAC Designation Does Not Align with MHD Depot Locations

This series of maps illustrate examples of locations where MHD vehicles are domiciled that are neighboring or surrounded by, but not included in, DAC designations. Although the MHD vehicles travel through the surrounding and nearby DACs as an essential part of their normal operations, the sites are currently ineligible for customer-side incentives. Supporting such sites with customer-side incentives would enhance support for the DACs that surround these locations. This list is not an exhaustive list of all such locations in the New York State.

a. Maspeth, Queens



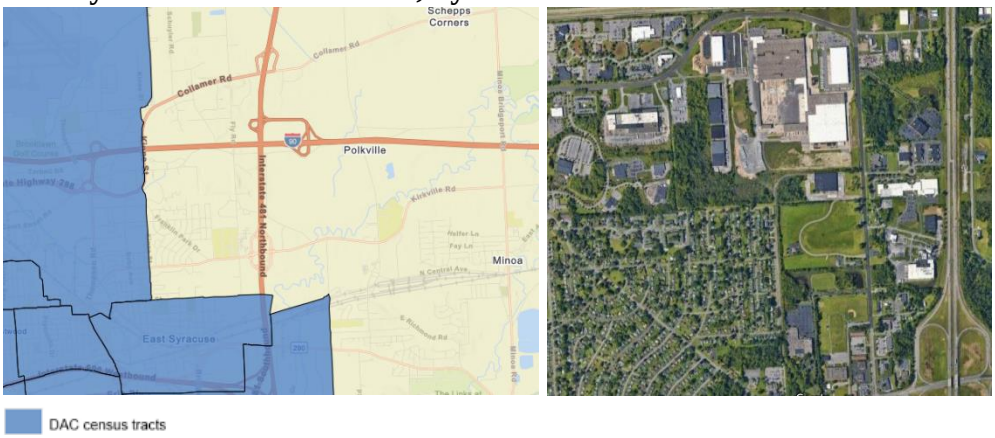
b. Willets Point, Queens



c. Warehouse Row / Fuller Road, Albany

d. Albany Airport Fleets, Albany

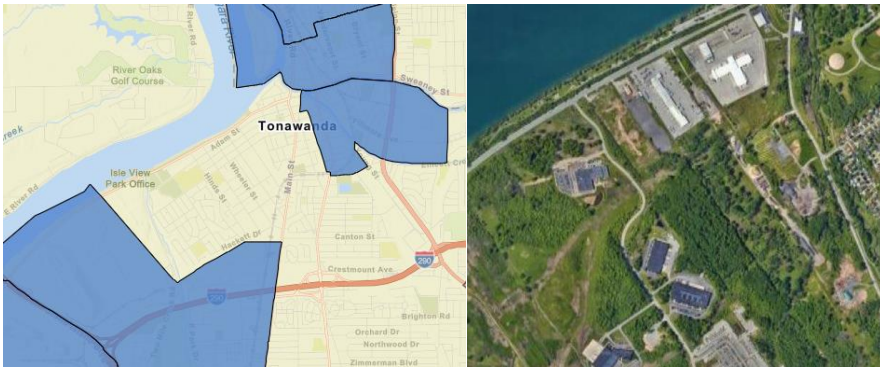
e. East Syracuse Industrial Zone, Syracuse



f. Sloan Industrial Zone, Buffalo

DAC census tracts

g. Tonawanda



DAC census tracts

h. Accord, NY

DAC census tracts