



Transportation

I. Introduction

New York’s transportation sector is the state’s largest source of greenhouse gas (“GHG”) emissions as well as a source of harmful co-pollutants. In New York State, transportation accounts for 28% of statewide GHG emissions, the second greatest emitter of any end use sector.¹ Total transportation sector GHG emissions have increased 16% since 1990.² The State’s own modeling indicates that transportation sector GHG emissions must be reduced by at least 86% of 2016 levels by 2050 (and 31% of 2016 levels by 2030), and likely by more, to meet the Climate Leadership and Community Protection Act (“CLCPA”)’s binding economywide emissions limits.³ Vehicle tailpipe emissions are also a serious public health problem, as they

¹ N.Y. Energy Rsch. & Dev. Agency, *New York State Greenhouse Gas Inventory: 1990-2016 S-12* (2019), <https://www.nyscrda.ny.gov/-/media/Files/EDPPP/Energy-Prices/Energy-Statistics/greenhouse-gas-inventory.pdf> (“NYSERDA GHG Inventory”).

² *Id.* at 13.

³ Energy & Env’t Econ., *Pathways to Deep Decarbonization in New York State* 23 tbl.2 (2020), <https://climate.ny.gov/-/media/CLCPA/Files/2020-06-24-NYS-Decarbonization-Pathways-Report.pdf> (“Pathways Analysis”).

contribute heavily to air pollution that disproportionately affects communities of color within the State.⁴

At the same time, there is cause for optimism. Automakers are beginning to meaningfully invest in electrifying their vehicle offerings and the number and range of battery electric vehicles (“EVs”) is increasing rapidly. Battery technology is rapidly improving with new battery chemistries and even solid-state batteries beginning to enter the market. Most of the major automakers have committed to selling mainly or exclusively EVs in the next 10 to 15 years, and new entrants are poised to accelerate the electrification trend. The North American Council for Freight Efficiency identifies New York State as a “high-potential region” for electrification now, not just for passenger vehicles, but for many trucking applications as well.⁵ A recent analysis found that nearly two-thirds of medium-duty and nearly one-half of heavy-duty vehicles—a total of almost 150,000 freight vehicles—are electrifiable in New York State in the near-term.⁶

To comply with the CLCPA’s emission limits, as well as its mandate to prioritize the reduction of co-pollutants in disadvantaged communities (“DACs”), the Climate Action Council (“CAC” or “the Council”) should focus attention on the most critical and enforceable policies: (1) enforceable EV sales mandates; (2) maximizing co-pollutant reductions by electrification of trucks, buses, and other medium- and heavy-duty vehicles (“MHDVs”); (3) incentives specifically designed to boost EV adoption among low-income consumers and that prioritize electrification of diesel fleets that harm environmental justice communities; (4) equitable deployment of charging infrastructure that anticipates future growth; (5) policies to reduce vehicle miles traveled (“VMT”) through expanded public transit and land-use planning; and (6) additional measures to align State policies with CLCPA mandates.

Given the scale and pace of electrification needed to meet climate, equity, and public health goals, there is no room for policies that will serve to perpetuate the status quo. Furthermore, the Final Scoping Plan (“FSP”) should not provide incentives for low-carbon drop-in fuels or support market-reliant policies that do not directly regulate vehicle emissions. Policies that incentivize the use of low-carbon fuels could prolong our reliance on internal combustion engine vehicles and divert resources from the investments we need to meet our electrification goals.

The FSP should make clear that New York’s transportation policy is electrification-first, similar to the California Air Resources Board (“CARB”) strategy of “zero-emissions everywhere feasible.”⁷ Electrification of nearly all vehicles is the only way to reach the CLCPA’s mandatory emissions limits; it also has important public health benefits and can dramatically cut health care costs by eliminating all tailpipe emissions. These concrete pollution reduction benefits will

⁴ Pinto de Moura et al., Union of Concerned Scientists, *Inequitable Exposure to Air Pollution from Vehicles in the Northeast and Mid-Atlantic* (2019), <https://www.ucsusa.org/resources/inequitable-exposure-air-pollution-vehicles>.

⁵ See N. Am. Council for Freight Efficiency & Rocky Mtn. Inst., *High-Potential Regions for Electric Truck Deployments* (2020), <https://rmi.org/insight/high-potential-regions-for-electric-truck-deployments>; see also Amol Phadke et al., Lawrence Berkeley Nat’l Laboratory, *Why Regional and Long-Haul Trucks are Primed for Electrification Now* (2021), https://eta-publications.lbl.gov/sites/default/files/updated_5_final_ehdv_report_033121.pdf.

⁶ RMI, *Charting the Course for Early Truck Electrification* 12 (2022), <https://rmi.org/insight/electrify-trucking/>.

⁷ Cal. Air Resources Bd., *2020 Mobile Source Strategy* 131 (2021), https://ww2.arb.ca.gov/sites/default/files/2021-12/2020_Mobile_Source_Strategy_0.pdf.

improve air quality and prevent adverse health outcomes in communities most impacted by the transportation sector. In tandem with an electrification-first policy, the FSP should promote strategies to reduce VMT. This includes increasing access to public transit through route redesigns, improving the frequency, hours of operation, breadth of people or destinations served, and on-time performance, modernizing rider experience, and easing access to real-time information and route planning. It also includes developing strategies for reducing VMT from freight. By both minimizing the miles driven and electrifying those miles, New York will be able to make great strides towards achieving a truly low-emissions transportation sector consistent with the CLCPA's climate mandates.

II. Pursue an “Electrification-First” Policy and Aggressively Electrify All Feasible End Uses

Under any CLCPA-compliant scenario, widespread transportation electrification will be the core of transportation sector emissions reductions. By 2050, the Draft Scoping Plan (“DSP”) states “the transportation sector will need to shift nearly completely to ZEVs.”⁸ Nearly all light-duty vehicles (“LDVs”), and most MHDVs must be zero-emission vehicles (“ZEVs”) by midcentury, and marine and port operations must be fully electrified.⁹

Even in the most aggressive scenario modeled for the CAC, transportation sector emissions do not reach zero (due mostly to aviation emissions),¹⁰ it is imperative to achieve the maximum amount of emissions reductions from sectors—like LDVs and MHDVs—where zero-emissions technology is viable.

For LDVs, MHDVs, and many non-road vehicles, electric vehicles are now or will soon be viable, both in terms of technology and economics. The DSP finds that the number of ZEVs on the road will have to increase exponentially, from roughly 80,000 in 2021 to 2.7–3.4 million in 2030, and 10.0–10.1 million in 2050. In other words, the number of zero-emission LDVs on the road will have to increase by up to 43 times by the end of the decade. Zero-emission MHDVs have to increase dramatically as well, from 1,500 in 2021 to 18,800–22,700 in 2030 and 181,000–201,300 in 2050—or 15 times 2021 levels by the end of the decade.

The DSP identifies a range of policy levers available to achieve these targets and mandates, and rightly singles out the importance of ZEV sales requirements.¹¹ Modeling demonstrates that

⁸ N.Y. Climate Action Council, *Draft Scoping Plan* (“DSP”) 96 (2021), <https://climate.ny.gov/-/media/Project/Climate/Files/Draft-Scoping-Plan.pdf>.

⁹ *Id.* at 97.

¹⁰ Per the State’s modeling, non-road and on-road emissions, under any of the scenarios, must decline from 100.3 MMT CO₂e in 2021 to 69.1–73.3 MMT CO₂e in 2030 and 8.74–15.0 MMT CO₂e in 2050. See Energy & Env’t Econ (E3), *Appendix G: Annex 2: Key Drivers and Outputs* (2021), <https://climate.ny.gov/-/media/Project/Climate/Files/IA-Tech-Supplement-Annex-2-Key-Drivers-Outputs.xlsx> [attached to DSP as app. G] (citing emissions data under the dark blue tabs).

¹¹ See DSP at 95.

the lion's share of the emissions reductions from the transportation sector must come from ZEV sales mandates.¹²

Therefore, we believe it is necessary for the Climate Action Council to make an express recommendation that New York State's mitigation strategy for transportation is "electrification-first," in line with the CARB's strategy of "zero-emissions wherever feasible" and promoting of "widespread transportation electrification."

A. ZEV Adoption mandates are essential and must be strengthened.

Commenters are fully supportive of the types of policies identified in T1, T2, and T5, which would boost ZEV adoption for LDVs, trucks and buses, and non-road sectors, but urge the Council to include additional policies, increased specificity, and more aggressive timelines to guide state policymaking in a way that ensures that all feasible use cases are electrified as expeditiously as possible.

1. The CAC Should Endorse Aggressive ZEV Sales Targets

We urge the Council to recommend a non-binding target that 100% of LDV and bus sales, and 50% of other MHDV sales, should be zero-emission by 2030, and 100% of MHDV sales should be zero-emission by 2035. These targets are broadly consistent with inputs to the DSP,¹³ but would force state agencies to consider ways to outperform the legally-binding mandates signed by Gov. Hochul (A.4302/S.2758), as well as the mandates proposed by CARB,¹⁴ and bring state policy closer to what the modeling says is required for CLCPA compliance.

2. The Final Scoping Plan Must Include Recommendations to Adopt All Available California Vehicle Emission Standards

From this target, the FSP should ensure that the cumulative effect of state policies will, to the extent possible, allow for attainment of the sales and stock targets. We fully endorse the Draft Scoping Plan's recommendation to opt in to California's Advanced Clean Cars 2 and Advanced Clean Trucks regulations (the latter of which has already been adopted), but the Draft Scoping Plan left many other viable regulatory options off the table. All enforceable emission standards will be needed to meet transportation sector emission reduction mandates and targets. Moreover, legislation signed into law last year requires that DEC adopt regulations implementing ZEV sales mandates for passenger vehicles, on-road MHDVs, and non-road vehicles. ECL § 0306(B)(2).

In particular, the Draft Scoping Plan offers inexplicably equivocal language with respect to California's Advanced Clean Fleets rule—which, once finalized, will offer the only tool to

¹² See Jeffrey Risman, Energy Innovation, *How to Reach U.S. Net Zero Emissions by 2050: Decarbonizing Transportation*, Forbes (Nov. 11, 2019), <https://www.forbes.com/sites/energyinnovation/2019/11/11/how-to-reach-us-net-zero-emissions-by-2050-decarbonizing-transportation/?sh=6b2a72772040>.

¹³ See DSP at 102.

¹⁴ See *Path to Zero Emission Trucks FAQ*, CARB, <https://ww2.arb.ca.gov/resources/documents/path-zero-emission-trucks-faq> (last visited June 20, 2022); *Advanced Clean Cars II*, CARB, <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-cars-program/advanced-clean-cars-ii> (last updated March 2022).

directly regulate MHDV emissions for New York State. The Final Scoping Plan should scrap the conditional language—that DEC need only “consider” the Advanced Clean Fleets rule—and instead offer a full-throated recommendation that DEC opt in to all available California ZEV mandates.

This should extend to other on-road and non-road sectors, like Transport Refrigeration Units or airport shuttles, for which CARB has or will develop ZEV mandates. As the DSP states, “New York should take regulatory and programmatic actions to achieve” ZEV sales targets,¹⁵ and California’s regulations will necessarily provide the regulatory backbone of the State’s mobile source policies. It is critical that DEC avails itself of all available regulatory tools, especially because even with these mandates on the books, the State will need to pursue further policies to bend the curve towards what the State’s own modeling says is required to meet the CLCPA’s emissions limits.

There is no reason for the Council to avoid making such a direct recommendation. The FSP should also recommend additional California emission standards, like those applicable to cargo handling equipment and the heavy-duty low NOx omnibus rule, that will drastically reduce emissions from new combustion vehicles and equipment, while increasing the cost-competitiveness of ZEVs.

3. The Final Scoping Plan Should Strengthen Transit and School Bus Electrification Recommendations

Transit and school buses are both primed for electrification now, and are ideal sectors for additional state support, given that these are public fleets that state or local governments have the authority to regulate. No less important, the Draft Scoping Plan underscores the health and equity benefits of electrifying transit and school bus fleets, noting that zero-emissions buses will “benefit overburdened communities”¹⁶ by eliminating a major source of toxic air emissions and “prevent exposure of school children to diesel exhaust which often leaks into the cabin of buses.”¹⁷

While the Draft Scoping Plan does include some decent recommendations regarding bus electrification, Commenters urge the Council to strengthen its approach, which currently fails to provide for enforceable, tangible, and specific policies to accelerate the transition to zero-emissions. For example, regarding transportation strategy related to public transit, T5 merely calls for a “plan to transition” to zero-emission public transit buses.¹⁸ The DSP’s approach to school buses is even flimsier. School bus electrification is not mentioned as a transportation strategy at all; it is folded into local government strategy LG5, which includes a recommendation for NYSERDA and DEC to “support” electrification of school district fleets.¹⁹ Neither of these policies are sufficient to accelerate bus electrification targets at the pace called for in the

¹⁵ DSP at 102.

¹⁶ DSP at 63.

¹⁷ *Id.*

¹⁸ DSP at 109.

¹⁹ DSP at 307.

Pathways Analysis,²⁰ as these policies alone will fall far short of what will be needed to meet the CLCPA’s emission reduction mandates.

The DSP’s failure to meaningfully address these sectors is even more conspicuous given several bold new policies adopted or being actively considered to promote bus electrification. For example, the most recent State budget codified a mandate to fully electrify school bus fleets across the State by 2035 along with a ban on new fossil fuel school bus purchases starting in 2027.²¹ This followed the adoption of a similar school bus electrification mandate in New York City that was adopted late last year.²² Meanwhile, legislation proposed in both houses and advanced through the Senate Transportation Committee would require all new transit bus purchases to be zero-emissions in 2029.²³ The number of battery electric transit buses in the U.S. grew 112% from 2018 to 2021, with California leading the way with a fleet size of 1,371—nearly 7 times the size of New York’s fleet of 195 full-sized zero-emission transit buses.²⁴ Several states have adopted even more aggressive transit bus electrification policies, and numerous transit agencies are well on the way towards fully electrifying their fleets.²⁵

Delaying the transition away from diesel and other fossil fuel buses, when zero-emission technology is viable and likely to be cost-effective in the near-term, does not make practical sense and will only serve to postpone readily achievable emissions reductions in DACs. New electric buses are already cost-effective, and initial costs are only going to come down, while retrofits provide an alternative, affordable solution for bus electrification. The FSP must call for: (1) a phase-out of new purchases of fossil fuel-powered transit and school buses as soon as possible and no later than 2029 for transit buses and 2027 for school buses, (2) a 2035 mandate for full transition to zero-emission bus fleets, (3) adequate funding over the next 5–10 years to minimize the cost burdens for transit agencies and school districts, and (4) additional policies to protect existing workers, provide workforce development for new zero-emission technologies, and ensure DACs are prioritized for zero-emission bus and infrastructure deployments.

4. The Final Scoping Plan Must Recommend Strategies to Require ZEV Adoption for Public Fleets and Other Fleets Where Allowable

Commenters support the Draft Scoping Plan’s recommendations to electrify the State’s passenger and MHDV vehicle fleet (T1 & T2),²⁶ which, as the DSP notes, are consistent with a

²⁰ The Pathways Analysis modeled CLCPA-compliant emission reduction scenarios and found that 60–70% of new bus sales would need to be zero-emissions by 2030, and 100% of new bus sales would need to be zero-emissions between 2035–40, to keep CLCPA mandates within reach. See Pathways Analysis, *supra* note 3 at 12 tbl.1.

²¹ See 2021 NY Senate-Assembly Bill S8006C, A9006C Pt. B, Subpt. A.

²² See Green Car Congress, *New York City Council Passes Bill Mandating All City School Buses be Electric by 2035* (Oct. 20, 2021), <https://www.greencarcongress.com/2021/10/20211010-nyc.html>.

²³ See 2021 NY Senate-Assembly Bill S3535C, A.3090.

²⁴ Hannah Hamilton et al., Calstart, *Zeroing in on ZEBs 7 tbl.2* (2022), https://calstart.org/wp-content/uploads/2022/01/2021-ZIO-ZEB-Final-Report_1.3.21.pdf.

²⁵ See Md. Dep’t of Transp., *MDOT MTA Launches Phased Plan for Conversion to Zero-Emission Bus Fleet*, Md. Transit Admin. (Dec. 21, 2021), <https://www.mta.maryland.gov/articles/334>; N.J. Transit, *NJ Transit Unveils Roadmap to 100% Zero-Emissions Bus Fleet*, (May 25, 2021), <https://www.njtransit.com/press-releases/nj-transit-unveils-roadmap-100-zero-emissions-bus-fleet>; Press Release, CARB, *California Transitioning to All-electric Public Bus Fleet by 2040* (Dec. 14, 2018), <https://ww2.arb.ca.gov/news/california-transitioning-all-electric-public-bus-fleet-2040>.

²⁶ DSP at 104, 106.

November 2021 commitment made by Gov. Hochul.²⁷ Critically, the DSP notes the need for “appropriate funding” to transition the State’s fleet. The recently enacted budget only allocated \$17 million for state fleet electrification, and that money was earmarked for passenger vehicles only.²⁸ By contrast, New York City has committed \$420 million to fully transition the City’s vehicle fleet to ZEVs by 2030 for LDVs and 2035 for MHDVs.²⁹ The Final Scoping Plan must strengthen this set of recommendations, by 1) making explicit the timelines to fully electrify the State’s LDV and MHDV fleets—2030 for passenger vehicles and 2035 for MHDVs, 2) including interim electrification targets to guide state procurement policy, and 3) calling for appropriations at a level that will achieve aggressive ZEV deployment for State agency vehicles.³⁰

Commenters also support the Draft Scoping Plan’s recommendation (T2) to “[r]equire ZEV equipment use for State contractors and at targeted facilities,” and to “enact legislation that establishes procurement and contracting rules to increase the percentage of zero-emission equipment and vehicles used for State-funded projects to be ZEVs (including contractors and subcontractors).”³¹ New York State already has legislation on the books intended to reduce emissions from State-funded projects—the Diesel Emissions Reduction Act (“DERA”), codified at ECL § 19-0323. DERA applies to heavy-duty diesel vehicles “owned by, operated by or on behalf of, or leased by” state agencies and public authorities—thus capturing contractors on State-funded projects—and requires that such vehicles utilize “best available retrofit technology for reducing the emission of pollutants.” ECL § 19-0323(3). The Council should recommend that New York State lawmakers update DERA—which was signed into law in 2006—to facilitate the deployment of ZEV technology for State-funded projects, which would align with the CLCPA and reflect improvements in ZEV technology. In addition, our groups note that the State’s enforcement and implementation of the existing DERA statute has been subpar. Reports required by DERA have not been submitted, and the extent to which DEC is enforcing its provisions is unclear. The Final Scoping Plan should recommend that DEC devote sufficient resources to adequately implement this program and to ensure regulated entities are in compliance, and that DEC develop guidance for state agencies and contractors that clarifies all relevant legal obligations.

Other public fleets should be prioritized for electrification as well. Commenters support the recommendation in local government strategy LG5 calling for NYSERDA and DEC to “support electrification of municipal . . . fleets,” but urge the Council to expand on this in the Final Scoping Plan.³² As mentioned above, New York City already has a plan to downsize its vehicle fleet and to fully electrify its vehicles by 2035. The State can do more to encourage such efforts. The Final Scoping Plan should: (1) set a target to electrify all municipal fleets in the State by 2035, including passenger vehicles and MHDVs, (2) recommend that the State significantly

²⁷ Green Car Congress, *9 National, Regional, State and City Governments Sign Up to ZEV Pledge for Their Fleets: 121,355 Vehicles* (Nov. 30, 2021), <https://www.greencarcongress.com/2021/11/202111130-zevpledge.html>.

²⁸ Capital Projects Appropriations Bill, 2022 NY State-Assembly Bill S8004, A9004 at 330.

²⁹ Press Release, Off. of the Mayor, *Mayor de Blasio Announces Historic Investments to Drastically Cut Citywide Climate Emissions and Advance Carbon Neutrality*, (Dec. 22, 2021), <https://www1.nyc.gov/office-of-the-mayor/news/857-21/mayor-de-blasio-historic-investments-drastically-cut-citywide-climate-emissions-and>.

³⁰ Legislation passed by both houses would codify the State’s commitment, and the Final Scoping Plan should endorse this bill to effectuate this recommendation. See 2021 NY State-Assembly Bill S2838C, A.2412.

³¹ DSP at 106.

³² DSP at 307.

increase funding for municipal fleet electrification through the Climate Smart Communities program, (3) recommend enhanced incentives for cash-strapped municipalities and those with DACs, (4) recommend the State develop a robust technical assistance program for municipalities, with adequate funding so that the program can be appropriately staffed, and (5) call for a report to explore additional legislative or policy tools that can accelerate municipal and county fleet electrification.³³

B. The CAC should pursue additional strategies to accelerate freight electrification.

The CLCPA requires that the Council identify “measures to promote the beneficial electrification of personal *and freight* transport” in the Final Scoping Plan. ECL § 75-0103(13)(f) (emphasis added). While it is the case that several policies identified in the DSP transportation strategy T2: “adoption of zero-emission trucks, buses, and non-road equipment”³⁴ will, if implemented, jumpstart the transition towards electrifying freight, there are additional measures that should be included in the Final Scoping Plan.

1. The FSP Should Endorse a Warehouse Indirect Source Rule

One major oversight regarding freight electrification is the CAC’s failure to recommend an Indirect Source Rule (“ISR”) to address facilities that attract significant volumes of vehicle traffic. DEC has the authority to regulate major freight facilities, such as warehouses and ports, by requiring facility operators to mitigate emissions through electrification and other strategies.³⁵ An “indirect source” is “a facility, building, structure, installation, real property, road, or highway which attracts, or may attract, mobile sources of pollution.” 42 U.S.C. § 7410(a)(5)(C). Developing a regulatory framework to encourage ZEV adoption at warehouses and other important “indirect sources” will be critical to achieving the level of MHDV electrification called for in the DSP and supporting analysis.

There is no legal barrier to New York State adopting such rules. Courts have affirmed that the CAA allows sub-national governments to regulate indirect sources of air emissions. For example, in 2006 the San Joaquin Air District adopted a rule to address emissions of nitrogen oxides and PM associated with construction of development projects. *See Nat’l Ass’n of Home Builders v. San Joaquin Valley Unified Air Pollution Control Dist.*, 627 F.3d 730, 731–32 (9th Cir. 2010). The National Association of Home Builders (“NAHB”) sued the District, arguing that

³³ For example, Albany County, Westchester County and Suffolk County recently announced a partnership to begin planning collectively to electrify their vehicle fleets by 2030. This FSP should encourage this level of ambition statewide. *See* Kate Pierce, *Tri-County Electric Vehicle Shared Services Purchasing Initiative*, Issuu (2021), https://issuu.com/nysac/docs/nysac_news_magazine_-_fall_2021/s/13911366.

³⁴ DSP at 104.

³⁵ New York’s authority for an ISR flows primarily from the federal Clean Air Act (“CAA”), 42 U.S.C. §§ 7401–7671q. The CAA expressly provides that a State Implementation Plan (“SIP”) to meet National Air Quality Standards (“NAAQS”) may include “any indirect source review program.” 42 U.S.C. § 7410(a)(5)(A)(i). An “indirect source review program” is defined as “the facility-by-facility review of indirect sources of air pollution, including such measures as are necessary to assure, or assist in assuring, that a new or modified indirect source will not attract mobile sources of air pollution” that would prevent meeting or maintaining the NAAQS. *Id.* § 7410(a)(5)(D).

the Clean Air Act preempted the rule. *Id.* at 730. NAHB reasoned that the rule imposed emissions standards on construction vehicles, and California may not set such standards without federal approval. *Id.* at 734. The Ninth Circuit rejected this argument, explaining that the rule “does not target vehicles or engines. It targets emissions, and requires emissions reductions, from a development site as a whole.” *Id.* at 739. Similarly, New York would be well within its authority to adopt a rule to limit vehicle emissions associated with warehouses and ports because the rule would target a warehouse or port “site as a whole” rather than imposing a standard on the vehicles or engines. Moreover, an ISR for sites that induce MHDV traffic would be an appropriate use of DEC’s authority because such a rule would “assist in assuring[] that a new or modified indirect source will not attract mobile sources of air pollution” that would prevent New York from meeting the ozone NAAQS. 42 U.S.C. § 7410(a)(5)(D).

In Southern California, where warehouse sprawl has exacerbated air quality in “diesel death zones,” the South Coast Air Quality Management District recently promulgated an ISR for warehouses to regulate their air quality and climate impact.³⁶ Meanwhile, DEC has stated that it is considering a similar policy for New York State.³⁷ Commenters strongly urge the Council to recommend in the FSP that DEC adopt an ISR for warehouses, which will accelerate electrification of vehicle fleets in the freight and goods movement sectors.³⁸ And, given that these facilities tend to be sited near communities of color,³⁹ an ISR provides a regulatory tool to target vehicle turnover in a way that would further the CLCPA’s objectives to prioritize emissions reductions efforts in DACs.

2. The FSP Needs to Include Other Measures to Electrify Freight

The Council must also strengthen its recommendations regarding non-road vehicles. The DSP misses the mark by only calling for DEC to “consider” regulatory options to achieve 100% ZEV sales for non-road vehicles and equipment by 2035. Commenters fully support the 2035 100% ZEV sales target for the non-road sector, but urge the Council to firm up the language in the FSP so that it unambiguously recommends that DEC opt in to all available California emission standards for forklifts, cargo handling equipment, commercial harbor craft, in-use locomotives, and any other sector regulated by CARB.

Finally, Commenters also ask the Council to recommend that state and local governments evaluate ways to strengthen mitigation requirements as part of the environmental review for major transportation projects. As discussed more fully below, the procedures and regulations that

³⁶ See S. Coast Air Quality Mgmt. Dist., *Rule 2305. Warehouse Indirect Source Rule* (adopted May 7, 2021), <http://www.aqmd.gov/docs/default-source/rule-book/reg-xxiii/r2305.pdf?sfvrsn=15>.

³⁷ Letter from Deputy Comm’r Jared Snyder, DEC to Reg’l Adm’r Lisa Garcia, EPA Region 2, submitting for approval the final proposed revisions to the NY State Implementation Plan for the 2008 Ozone National Ambient Air Quality Standards, at 73 (Nov. 29, 2021), https://www.dec.ny.gov/docs/air_pdf/sipseriouso3nyma.pdf (“DEC is also evaluating . . . the South Coast Air Quality Management District’s (SCAQMD’s) finalized ISR for warehouses to consider emission reduction opportunities for such sources.”).

³⁸ Legislation recently introduced in the New York State would direct DEC to adopt an ISR for warehouses, which the FSP should recommend that the Legislature pass. See 2021 NY Assembly Bill A9799.

³⁹ See Kaveh Waddell, *When Amazon Expands, These Communities Pay the Price*, Consumer Reports (Dec. 9, 2021), <https://www.consumerreports.org/corporate-accountability/when-amazon-expands-these-communities-pay-the-price-a2554249208/>.

are intended to mitigate the environmental harms for major projects are woefully outdated and often lack teeth. There are opportunities to revamp the approach so that they can become a tool to boost adoption of zero-emission vehicles and equipment and major freight and transportation facilities.

C. The FSP must not be based around reliance on “low-carbon fuels”.

Consistent with an “electrification-first” strategy, we urge the CAC to reject reliance on so-called “low-carbon fuels” by avoiding any policies that would prolong the use of fossil fuel infrastructure and combustion technology. Leapfrogging these dead-end strategies is necessary to reduce emissions that disproportionately impact DACs. The default assumption for State transportation policy should be to “electrify everything that moves,” in line with Climate Justice Working Group recommendations.

Moreover, we strongly urge the CAC to offer clear instructions that would limit any alternative approach to those use cases where there is a clear demonstration of technical infeasibility for electric technologies. Moreover, given how rapidly technology is evolving, any determination that an application is “hard to electrify” must be reevaluated periodically. The current DSP identifies a wide range of potential transportation fuels for consideration including renewable diesel, renewable jet fuel, and green hydrogen.⁴⁰ Renewable diesel and hydrogen must be approached with caution even as temporary strategies for decarbonization of the transportation sector.

As the DSP itself acknowledges, renewable diesel exacerbates the conventional air pollution impacts of diesel vehicles: “When compared with petroleum-based fuels, biodiesel and alcohol-based fuels have higher levels of combustion emissions of respiratory irritants and some ozone-precursors such as acrolein, carcinogens, formaldehyde, and acetaldehyde.”⁴¹ Consequently, biodiesel may not achieve the critical localized emission benefits of electrifying diesel-based vehicles. Moreover, claimed climate benefits of biofuels are premised on assumptions regarding reuptake of biological carbon that may not hold in practice.⁴² And biofuel production can induce land use change that may eliminate or reverse the intended climate goals on climate-relevant time scales.⁴³ Any incorporation of biofuels into the FSP must include explicit guardrails to prevent its use in contexts where electric alternatives are possible and to ensure rigorous quantification of direct, indirect (including upstream), and induced climate impacts associated with the fuel are accounted for.

Hydrogen also has a limited role to play in the decarbonization of the transportation sector. Most fundamentally, hydrogen as a fuel is far less efficient than electricity at converting energy into propulsion. Particularly if the hydrogen is “green” (i.e., produced using zero emission renewable energy using electrolysis), the energy lost in electrolyzing water to produce hydrogen,

⁴⁰ DSP at 118.

⁴¹ *Id.* at 63.

⁴² See, e.g., John M. DeCicco et al., *Carbon Balance Effects of U.S. Biofuel Production and Use*, 138 *Climatic Change* 667 (2016).

⁴³ E.g., Wouter M. J. Achten & Louis V. Verchot, *Implications of Biodiesel-induced Land-use Changes for CO₂ Emissions: Case Studies in Tropical America, Africa, and Southeast Asia*, 16 *Ecology & Soc.* (2011).

then compressing the hydrogen for use in a fuel cell, then reacting it in a fuel cell, and then using that energy to propel a vehicle, renders hydrogen vehicles several-fold *less* efficient than pure battery electric vehicles.⁴⁴ Hydrogen does have higher energy density than current battery technology, and thus may have a role in limited applications such as long-distance trucking, but the Integration Analysis’s suggestion that hydrogen will be used “for MHDVs and freight rail” is overly broad.⁴⁵ There may be viable electric options that will be cheaper and/or more energy efficient for many or most of these vehicle types. To the extent that any hydrogen is proposed as a transportation sector strategy, it is critical that this hydrogen be green. The definition of “zero emissions vehicle” should be clarified to exclude hydrogen fuel cell vehicles where the hydrogen is not produced via electrolysis using entirely non-emitting renewable resources.

III. Address Infrastructure and Other Barriers to Electrification

A. The final scoping plan must encourage utilities to more actively promote fleet electrification.

Fleet owners are accustomed to managing the logistics of fleet operations, but electrification presents a novel set of challenges. Utilities have relevant expertise to share.

Strategy T5 recommends “[i]mproving electric fleet economics for developers by supporting the Make-Ready program, which promotes EV charging station deployment.”⁴⁶ The same recommendation also envisions the State working with municipally-sponsored public transportation systems on plans to transition to all-electric/zero-emission public transportation vehicles.⁴⁷ However, there is no acknowledgment of the non-financial barriers to fleet electrification or resources identified to assist private fleet owners in transitioning to ZEVs.

While critical to achieving New York’s CLCPA mandates, fleet electrification is not widespread in New York. Niagara Mohawk recently surveyed its customers in 2020 and found that only around 20% currently operated any EVs in their fleets or were planning to incorporate EVs in their fleets within the next year.⁴⁸ Nearly a quarter, however, indicated that they intended to incorporate EVs into their fleets within the next 1–5 years and more than 40% indicated that they have considered doing so.⁴⁹ A variety of barriers were identified by Niagara Mohawk’s customers including some that will require regulations that grow and scale the EV market such

⁴⁴ Tom Baxter, *Hydrogen Cars Won’t Overtake Electric Vehicles Because They’re Hampered by the Laws of Science*, the Conversation (June 3, 2020), <https://theconversation.com/hydrogen-cars-wont-overtake-electric-vehicles-because-theyre-hampered-by-the-laws-of-science-139899>.

⁴⁵ Energy & Env’t Econ (E3), *Appendix G: Integration Analysis Technical Supplement* sec. 1 at 118 tbl.16 (2021), <https://climate.ny.gov/-/media/Project/Climate/Files/Draft-Scoping-Plan-Appendix-G-Integration-Analysis-Technical-Supplement.pdf> [attached to DSP as app. G] (“Technical Supplement”).

⁴⁶ DSP at 110.

⁴⁷ *Id.* at 109.

⁴⁸ Niagara Mohawk EV Panel Direct Testimony at 49 fig.4, *In re Niagara Mohawk*, Niagara Mohawk Power Corp. Case No. 20-E-0380 (July 31, 2020) (Docket No. 520), <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={9628378F-D083-440C-AEAA-521503F5E86A}>.

⁴⁹ *Id.*

as up-front vehicle costs and availability of electric models in desired vehicle categories.⁵⁰ Other barriers to fleet electrification, however, can be addressed through active engagement of the State’s utilities, such as uncertainty regarding utility bill impacts and costs, uncertainty regarding planning and how to begin the process of electrifying the fleet, and the cost of equipping facilities with charging infrastructure.

Utilities are not only well-positioned to help address these barriers but have actively proposed programs to do so. Niagara Mohawk, in its 2020 rate case, proposed a suite of fleet programs intended to “enable the market for, and accelerate, both [LDV] and [MHDV] fleet electrification in a cost-effective, efficient, and sustainable manner.”⁵¹ Niagara Mohawk’s proposal included, among other components: (1) fleet assessment services consisting of a bill impact analysis, a site feasibility analysis (estimating the cost for infrastructure upgrades in front of and behind the meter), and a roadmap to fleet electrification;⁵² (2) a make-ready charging infrastructure offering to reduce the cost to fleet owners of installing charging to support fleet electrification;⁵³ and (3) a single utility point of contact for fleet customers considering electrification who would assist customers through the process, answer technical questions, identify relevant EV offerings, and address related issues regarding deploying on-site storage for demand management or utilizing renewable energy programs to optimize the emissions impact of fleet electrification.⁵⁴

Commenters urge the Council to include recommendations to have utilities play a more active role in promoting electrification of LDV and MHDV fleets, especially those that operate in or near DACs and environmental justice communities. Such programs will be needed to address soft barriers to electrification and ensure that 20,000+ ZE MHDVs are on the road by 2030, in line with Scenarios 3 & 4.⁵⁵

B. The CAC must support policies to ensure the EVSE is available and accessible for all New Yorkers.

The DSP properly highlights the importance of electric vehicle charging stations to state-wide decarbonization. The FSP, however, will require more specific policies, explicit directions to state agencies, and clear targets for deploying electric vehicle supply equipment (“EVSE”). Most urgently, in order to meet our climate goals, we will need to significantly increase state funding towards public electric vehicle charging stations. Commenters recommend investments be sourced nearly equally between public, utility, and private funding. On the public side, the State should continue to fund rebates or investments in EV charging stations, by scaling up existing programs with proven track records and plugging in holes with new programs as appropriate.

⁵⁰ *See id.*

⁵¹ *Id.* at 38.

⁵² *Id.* at 39.

⁵³ *Id.* at 39–40.

⁵⁴ *Id.* at 40–41.

⁵⁵ Even Scenario 2’s path towards meeting the CLCPA’s emissions limits depends on nearly 19,000 MHDVs to be on the road by 2030. This will require hundreds of fleets starting on the path to electrification in the near-term.

1. The CAC Must Call for an Interagency Planning Process to Guide Development of Strategically-placed EV Charging Stations

The CAC should call for the State to initiate an interagency planning effort to ensure EVSE installations are keeping pace with broader ZEV adoption targets. This planning effort should consider ways to support and enhance existing programs and identify gaps that need to be filled with additional State resources. Commenters further urge that this planning process ensure that equity, environmental justice, and just transition considerations be integrated and embedded into the State’s EVSE framework, rather than merely tacked on.

For example, the FSP should identify ways to maximize the value of New York’s Make-Ready program—the largest state commitment to EV charging outside of California—which is currently intended to fund over 53,000 public Level 2 (“L2”) charging stations and 1,500 public Direct Current Fast Charging (“DCFC”) stations by 2025.⁵⁶ The Make-Ready program is a necessary element of widespread electrification and is estimated to stimulate \$1.5 billion in new private investment while providing more than \$2.6 billion in consumer benefits and economic opportunities.⁵⁷ The Make-Ready program is currently funded with \$701 million and is slated to run through 2025, offering incentives to offset a large portion or, in some cases, all the utility-side infrastructure costs associated with preparing a site for EV charger installation.⁵⁸ Despite its scale, it has not been established in any quantitative way whether this program will be sufficient in enabling the drastic increase in personal and fleet electrification needed before the end of the decade. The FSP should recommend that such an analysis be conducted.

The reality is that the current scale and pace of public EVSE installation in New York threatens to jeopardize widespread ZEV adoption across the State. A very recent audit conducted by Comptroller DiNapoli found that “The New York Power Authority (NYPA) has failed to install [EV] chargers where they are most needed by New York’s nearly 50,000 registered EVs, leaving nearly half of the state’s counties without any NYPA-installed charging stations.”⁵⁹ The program’s stated purpose was to enable NYPA to supplement the EV charging industry by providing the initial investment needed to catalyze demand where the private sector wouldn’t. Yet, as of June 2021, NYPA had installed just 277 public EV charging ports, or one for every 168 EVs registered in New York. The FSP should call for NYPA to change its current course and deploy charging stations where they are most needed to ensure transportation electrification is equitable and benefits all New Yorkers, which will include intentional efforts to boost installations in areas that may be less profitable and areas along major state highways that lack adequate EVSE.⁶⁰

⁵⁶ See Claire Alford, *New York’s \$701 Million Program for EV Charging, By the Numbers*, Advanced Energy Econ. (Aug. 19, 2020), <https://blog.aee.net/new-yorks-701-million-program-for-ev-charging-by-the-numbers>.

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ Press Release, Off. of the N.Y. Comptroller, *DiNapoli: New York Power Authority’s Installation of Electric Vehicle Chargers Years Behind Schedule*, (Feb. 4, 2022), <https://www.osc.state.ny.us/press/releases/2022/02/dinapoli-new-york-power-authoritys-installation-electric-vehicle-chargers-years-behind-schedule>.

⁶⁰ Unlike in large metropolitan areas, drivers in upstate New York generally go on much longer trips. While some gas stations will most likely transition to charging stations, a fully charged car just does not go as far as a full tank of

2. The FSP Should Set a Goal to Make EV Charging Ubiquitous

Furthermore, as part of any interagency planning process, Commenters call on the State to support counties that are leading the way on transportation electrification, while also planning proactively so that infrastructure does not pose a barrier where ZEV adoption has not yet taken off, including rural, low-income, and urban communities. This may mean pinpointing those locations where charging stations may not be profitable, at least in the near-term, but will nevertheless be essential to achieve mass adoption of EVs across New York State. Commenters further note that utilization rates may not be the best metric to gauge the effectiveness of EVSE programs where home or workplace charging may be predominant, EV adoption may be slow, but where broad coverage with EVSE is going to be a prerequisite for individual drivers.

The State should work with the goal to make charging stations ubiquitous, as recommended by the National Academy of Sciences—given that EV adoption is closely linked to the presence of visible charging stations.⁶¹ The comparison to gas stations may be instructive, as in many locations there are clearly more options than are strictly needed. The FSP should include an explicit recommendation that the State develop a framework to guide public and private investment into EVSE to achieve the goal of making charging ubiquitous for New York drivers.

At the same time, the State’s framework for EVSE must integrate the CLCPA’s equity provisions as a foundational element. This means the State must actively strive to increase EV charger density in low-income and environmental justice communities, with a focus on highly polluted freight hubs, to remove any potential barriers to transitioning the State’s dirtiest diesel fleets to ZEVs. For urban communities, this will also require exploring creative solutions to overcome space constraints, such as widespread curbside charging in high-use areas. Critically, this planning should also prioritize efforts to electrify public and private depots in communities facing cumulative impacts from environmental burdens, in line with transportation strategy T2. Currently, transit agencies and other fleets may be developing individual strategies to electrify depots—an integrated, inter-agency, broad-based planning process can help fleets manage their own electrification while ensuring clusters of depots are electrified on a priority basis.

3. The FSP Needs Concrete Recommendations to Promote EVSE Accessibility

Commenters support the DSP’s call for state agencies to focus EVSE installation on multi-unit dwellings.⁶² An important tool to promote widespread EVSE adoption is to make home charging convenient for as many New Yorkers as possible. For the approximately 24% of New Yorkers who live in multi-dwelling units, a shared station for use by building residents could well be the catalyst for broad EV adoption. Right now, across the U.S., more than 80% of EV

gas, thus long distances present the challenge of needing even more fueling stations. For fast charging, one needs a DC fast charger, but it is faster to charge to 50% from 0% than 50% to 100%, therefore drivers may be more apt to take multiple charging stops, and again, this necessitates more chargers on highways.

⁶¹ Nat’l Acads. Scis., Eng’g, & Med., *Accelerating Decarbonization of the U.S. Energy System* 65 tbl. 2.6, 160 (2021), <https://www.nap.edu/read/25932/chapter/1>.

⁶² DSP at 104.

charging load (and as much as 93% under some scenarios) happens at home, mostly in the evening.⁶³

Several pending bills could unlock home charging for a large percentage of New Yorkers. For example, the EV Ready Building Codes (and parking structures) Bill (S23B, A4386B) would require all new residential and commercial construction with dedicated off-street parking (like garages or parking lots) to install EVSE in conformance with the requirements of the current edition of the national electrical code (A3435). The bill would cover construction projects that receive state capital funding and that include a garage or parking lot with 50 or more parking spaces, and would require that the parking facility be capable of supporting EV charging stations. The FSP should endorse this legislation as a concrete proposal that would boost EV adoption across the State.

At the same time, the State should utilize and expand existing frameworks like the Charge Ready NY program, and enhance rebates for Level 2 chargers to include single or multi-family units. Additionally, the Council should endorse the continuation and expansion of the Charge to Work NY program, which provides financial support to workplaces installing EV chargers—a critical incentive as more low- and middle-income New Yorkers begin adopting EVs at scale. Both programs should also be evaluated in the interagency planning recommended above.

4. The CAC Should Recommend That Lawmakers Adopt Legislation to Coordinate EVSE Installation

New York State needs to ensure the rollout of EV charging infrastructure is carefully coordinated and sufficient to meet EV deployment targets. The State can develop targets through periodic planning and transportation forecasting to ensure the State is on track with EV charger deployment. California has set out to accomplish this important planning with Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment which examines charging needs to support California’s plug-in electric vehicle goals. Under AB2127, the California Energy Commission (“CEC”) is required to publish a biennial report on the charging needs of 5 million ZEVs by 2030.⁶⁴

New York State needs a similar statutory requirement to identify gaps in charging infrastructure. The State Assembly’s proposal in its one-house budget proposal could provide a framework for lawmakers seeking to take up this issue. The Council must include a recommendation in the FSP to codify the obligation to periodically assess the state of charger deployment in New York State.

5. Address Inequities in Charger Deployment

To meet our climate mandates, we cannot treat the electrification of transportation the same way as a naturally occurring socio-technical change. So far, there have been inherent inequalities

⁶³ *Charging at Home*, U.S. Dep’t of Energy, <https://www.energy.gov/eere/electricvehicles/charging-home> (last visited June 27, 2022).

⁶⁴ Cal. Energy Comm’n, CEC-600-2021-001-CMR, *Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment* (July 2021), <https://efiling.energy.ca.gov/getdocument.aspx?tn=238853>.

in the early electric vehicle adoption process. For a just transition, we need interventions to ramp up electric vehicle adoption among low- and middle-income New Yorkers who cannot afford them at the current market rate. The climate cannot afford to have “early adopters” be just a small percentage of the population that can pay for EVs. This requires implementing policies to get more affordable EVs on the market, but also requires careful attention to where chargers are deployed. Studies have shown that charger installations in urban areas excludes communities of color, leading to charging deserts that can pose a significant barrier to EV adoption.⁶⁵ The State must be intentional in developing a framework for EVSE installations that ensures all New Yorkers will be able to benefit from the transition to EVs.

C. The FSP must account for the role of utility rates.

1. The CAC Must Propose Concrete Strategies to Mitigate or Eliminate Demand Tariffs

On top of infrastructure-related barriers, utility rate structures can serve to impede rather than promote widespread fleet electrification. Commenters urge the CAC to be more assertive in recommending ways to mitigate or eliminate demand tariffs.⁶⁶ Commenters agree with the Transportation Advisory Panel’s finding noting that demand charges can inhibit MHDV ZEV adoption. Existing demand charges can present a major barrier to the installation of DCFC stations, which can draw significant loads but are needed to accelerate MHDV fleet electrification. As Rocky Mountain Institute’s *EVgo Fleet and Tariff Analysis for California* illustrates, at low levels of utilization, demand charges swamp volumetric charges, and can be up to 90% of the total electric bill.⁶⁷ This threatens to tilt the economics away from electrification, despite the fact that electricity is generally cheaper than diesel, and thus jeopardizes attainment of the CLCPA’s emissions limits.

Time-limited demand charge relief is not a workable long-term solution because fleets will electrify at different rates. Alternate rate structures that are designed to facilitate MHDV adoption have been implemented in other jurisdictions and could serve as a model for New York State.⁶⁸ Increasing the use of such tariffs in the State is critical to facilitate emission reductions from MHDV fleets, especially those that impact disadvantaged communities, and thus should be a core component of any transportation sector-specific strategy to meet the CLCPA.

⁶⁵ Will Englund, *Without Access to Charging Stations, Black and Hispanic Communities May Be Left Behind in the Era of Electric Vehicles*, Washington Post (Dec. 9, 2021), <https://www.washingtonpost.com/business/2021/12/09/charging-deserts-evs/>.

⁶⁶ Demand charges are power capacity-related costs that cover all of the wear-related grid components, both upstream (e.g., distribution station, distribution feeder, transmission line, generation) and downstream (e.g., transformers, distribution cabling, and utility poles).

⁶⁷ Garrett Fitzgerald & Chris Nelder, Rocky Mountain Instit., *EVgo Fleet and Tariff Analysis, Phase 1: California at 1* (2017), https://rmi.org/wp-content/uploads/2017/04/eLab_EVgo_Fleet_and_Tariff_Analysis_2017.pdf.

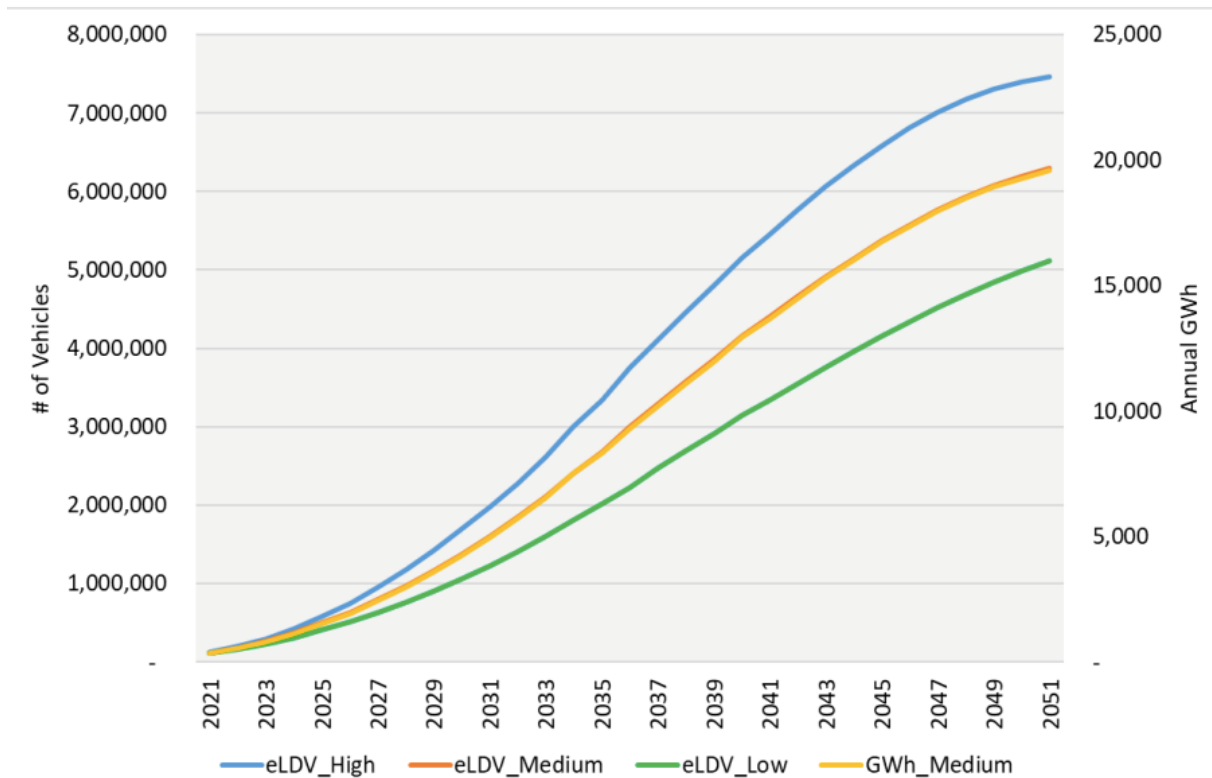
⁶⁸ For example, Pacific Power in Oregon implemented a tariff that would shift a portion of demand charges to on-peak energy rates for customers with DCFC, initially reducing DCFC bills by up to 59%. San Diego Gas & Electric has unveiled an optional approach that completely eliminates demand charges and offers eligible fleets even more billing stability through fixed, monthly subscription charges that are flexible enough to accommodate different load profiles but that are designed to save as much as 50% in fuel costs compared to diesel.

2. The CAC Must Include Recommendations Related to Managed Charging in the FSP

While the DSP addresses the need for load management in the context of distributed energy resources,⁶⁹ the FSP should specifically address the role for utilities in managing new electric loads associated with the projected increase in EVs.

Transportation electrification is projected to dramatically increase electric demand and load, and these impacts will be magnified by efforts to accelerate this trend to achieve the CLCPA climate mandates. In its 2021 Gold Book, the New York Independent Systems Operator (“NYISO”) projected that by 2050, light-duty EVs will add between 15,000 and 22,000 GWh of new load to the system, (see Figure 1 below).⁷⁰

Figure 1: Zero-emission LDV Stock & GWh Forecast



The EV sales projections in the Integration Analysis and Draft Scoping are far higher. The State will need 3 million ZEV LDVs in 2030 and 10 million ZEV LDVs by 2050.⁷¹ This would require on the order of 30 TWh (1.2 * 25 TWh = 30 TWh) of new load to be incorporated into the grid. Electric MHDVs are further expected to add significant additional electric load.

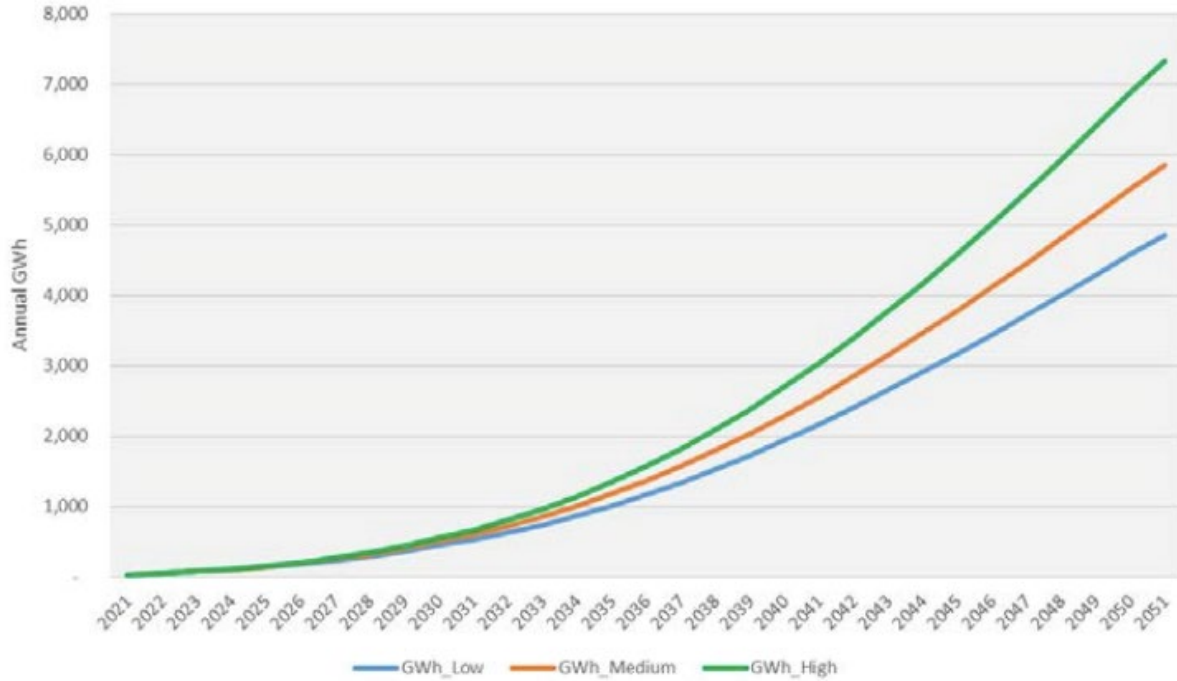
⁶⁹ See DSP at 139.

⁷⁰ NYISO, *Electric Vehicle Forecast Impacts (Gold Book 2021)*, at slide 6 (March 12, 2021), <https://www.nyiso.com/documents/20142/19415353/04%202021%20GoldBook%20EVForecast.pdf/bc823f27-cbbd-669f-8d76-e695d59b9bed> (“Gold Book 2021”).

⁷¹ DSP at 95

NYISO’s high electrification scenario—which is less ambitious than the State’s current MHDV electrification goals—would require more than 7,000 GWh of additional electric generation, (see *Figure 2 below*).⁷²

Figure 2: Zero-emission MHDVs GWh Impacts



Depending on how it is integrated and managed, the large increase in electric load required for widespread electrification of LDVs and MHDVs will have significant implications for the costs and benefits of achieving New York’s CLCPA climate mandates. The following figures illustrate how peak load impacts can be impacted by moving EV charging to off-peak hours, (see *Figures 3 & 4 below*).⁷³

⁷² Gold Book 2021 at slide 8.

⁷³ M.J. Bradley & Assoc., *Electric Vehicle Cost-Benefit Analysis: New York 13* (2016), https://mjbradley.com/sites/default/files/NY_PEV_CB_Analysis_FINAL.pdf.

Figure 3: 2040 Projected New York PEV Charging Load, Baseline Charging

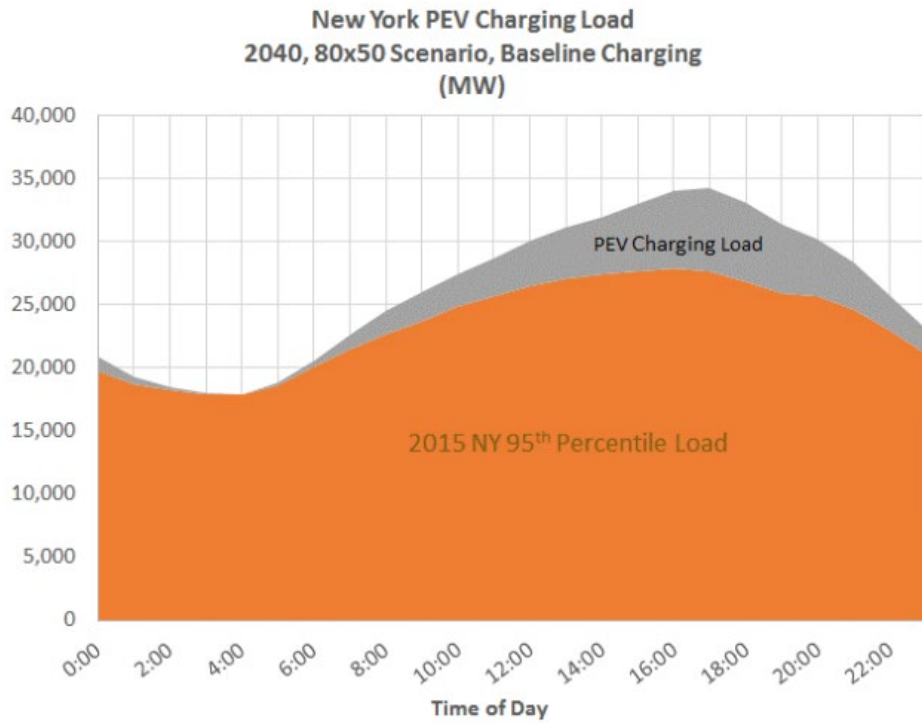
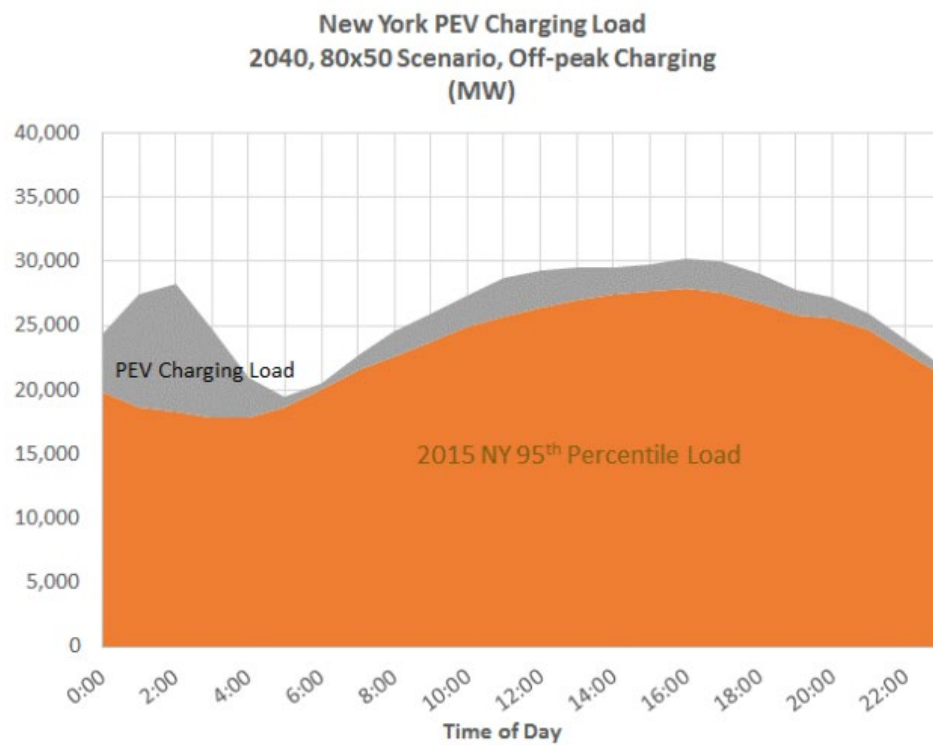


Figure 4: 2040 Projected New York PEV Charging Load, Off-peak Charging



More so than many other loads, EV load is highly flexible. Time-variant rates have consistently shown to be extremely effective in moving EV load to off-peak hours, and other more active management strategies are increasingly available.

There are multiple reasons that managing new EV load will be critical to implementation of the CLCPA:

(1) **Providing Important Grid Services:** Effectively managed EV load can provide a range of grid services, including mitigating bulk system peaks, avoiding local distribution system peaks, ramp reduction, voltage control, balancing, capacity, storage, congestion. Real world data shows that EVs are not currently—nor will they in the near term—put strain on the grid.⁷⁴ However, to maximize benefits, managed charging can help ensure that EV charging generally occurs during off-peak times thereby reducing capacity needs and, therefore, capacity costs. In addition, while the electric grid can handle every household having an EV, as data from California show,⁷⁵ managed charging helps to ensure that the local system is not overwhelmed. In addition, load management may be needed to address so-called “timer peaks” resulting from price signals that cause many vehicles to commence charging at the same time.

(2) **Facilitating the Integration of Renewable Energy:** Renewable energy may peak at times throughout the day when few EV drivers are plugging in their vehicles to charge. Managed charging can shift EV charging to times when there is excess renewable energy available on the grid.

(3) **Customer Bill Management:** The vast majority of EV charging occurs in the residential segment. Residential rate design and enrollment in utility EV programs that encourage charging during off-peak hours thus have a direct impact on fuel cost savings.

There are a variety of tools available for managing EV load to achieve these benefits:

(1) **Passive Signals:** EV load can be shaped by passive signals such as time-varying rates or other financial incentives to charge (or not charge) at certain times. Price signals can be sufficient to shift the timing of EV load—if the driver sees them—but issues around metering must be addressed, as requiring drivers to pay for a second meter for their EV can erase the cost-savings associated with discounts for off-peak charging. The telematics and communications capabilities in smart meters and smart charging stations, or in the vehicles themselves, can help avoid the need for customers to install second meters.

(2) **Appropriate rate design that increases fuel cost savings and encourages off-peak charging** also improves the utilization of the grid, spreading the costs of maintaining the system over more sales and reducing the price per kilowatt-hour to the benefit of all utility customers—even those that do not use EVs. Done right, widespread transportation electrification will benefit all utility customers and New York generally. EVs on time of use (“TOU”) rates consume less than 5% of their total kilowatt-hours during system peak hours.

⁷⁴ See Avi Allison & Melissa Whited, NRDC, *Electric Vehicles Are Not Crashing the Grid: Lessons from California* (2017), https://www.synapse-energy.com/sites/default/files/EVs-Not-Crashing-Grid-17-025_0.pdf.

⁷⁵ See Pamela MacDougall, *Steering EV Integration Forward*, NRDC (June 12, 2019), <https://www.nrdc.org/experts/pamela-macdougall/steering-ev-integration-forward>.

- (3) Demand Response: EV load can also be shaped by demand response programs, which often involve technology allowing the utility to throttle back the rate of vehicle charging during demand response events to minimize impacts to system load.
- (4) Active Management: EV load can be controlled directly by utilities or third parties through active managed charging programs. These can involve coordinating the timing and rate of charging of a number of vehicles simultaneously to achieve desired load shape.
- (5) Vehicle-to-Grid (“V2G”): Load can be shaped even further through use of V2G or vehicle-to-building (“V2B”) technology, which not only allows the utility or third party operator to control the timing of charging, but can also enable vehicles to inject power back to the system. This is especially true for MHDVs, as they tend to have more predictable down-times and larger batteries than passenger vehicles.

The utilities have a key role in ensuring that EV load is being effectively managed. Whether load management occurs through rate design, demand response programs, or active managed charging, utilities will be central to developing and implementing these programs. We urge the CAC to incorporate an additional recommendation regarding load management, calling on the Public Service Commission to establish a framework for utilities to develop managed charging programs—including new rate design—that address the full range of goals and charging contexts.

IV. Reduce VMT and Expand Access to Zero-Emissions Transportation

VMT is on an upward trend, and these trends are expected to continue without meaningful State support for policies that reduce VMT. The DSP notes that recent trends, including the prevalence of larger, single-occupancy vehicles for discretionary trips, the growth of e-commerce, and land use policies promoting sprawl have all served to increase VMT.⁷⁶ These trends will be challenging to reverse. The Integration Analysis Technical Supplement accompanying the Draft Scoping Plan notes that “vehicle ownership and VMT are expected to grow in all scenarios.”⁷⁷ But the Draft Scoping Plan does model policies that can help mitigate this growth. Scenario 4, described as the “Very Low VMT” scenario, would reduce VMT by 16% through 2050 compared to business-as-usual, while the other scenarios would only reduce VMT by 6%.⁷⁸ There is no compelling reason to not pursue a level of ambition commensurate with Scenario 4, and achieve over 2.5 times the VMT reduction and ease the path towards achievement of emission reduction mandates by limiting the number of ZEVs needed to meet transportation sector emission targets. The Council should call for an ongoing examination of VMT reduction efforts and recommend that state agencies identify further measures to maximize VMT reductions.

⁷⁶ See DSP at 94.

⁷⁷ See Technical Supplement, *supra* note 45 sec. 1 at 35.

⁷⁸ See *id.* sec. 1 at 94–97.

In general, the State needs to implement policies that will minimize reliance on personal automobiles. Increasing access to and enhancing the appeal of public transit for all New Yorkers, including urban, suburban, and rural communities, will go a long way towards reducing the use of single-occupancy vehicles for personal trips. Complementary policies for the promotion of denser, accessible, housing and transit must be considered to reduce our VMT habits. Opportunities to increase the availability of teleworking should also be explored, as teleworking can reduce VMT during the times of greatest road congestion, maximizing the benefits of those reduced vehicle miles. Other options exist to support transportation-disadvantaged New Yorkers. With the right mix of policies, the State can actually begin to reverse some of the historical inequalities associated with transportation access and build a more equitable transportation system that benefits all New Yorkers.

A. The Council should provide more guidance in recommending enhancements to public transportation.

Expanding and enhancing public transportation provides perhaps the most reliable path towards reducing VMT statewide. The DSP acknowledges that “enhancing the availability, accessibility, reliability, and affordability of public transportation services with an emphasis on unserved and underserved communities” is “one of the more impactful” strategies with regards to implementing the CLCPA.⁷⁹ By 2030, the DSP envisions that “a substantial portion of personal transportation in urbanized areas would be required to shift to public transportation and other low-carbon modes.”⁸⁰ It calls for “historic investments in expanded public transportation” to help realize this vision.⁸¹

Commenters are generally supportive of the public transit vision and strategies identified in the DSP, but more detail and specificity will be needed to bring about the transformation that the CLCPA requires. While the DSP calls for “historic,” “large-scale,” and “extensive” state and local investments into public transportation,⁸² nowhere does it offer an actionable recommendation for expanding transit services (e.g., route redesigns, frequency, hours of operation, people or destination served, on-time performance, modernizing rider experience, ease of accessing real-time information, and route planning) or boosting state and local funds. Commenters also support the greater ambition in terms of VMT reductions as modeled by Scenario 4, which includes 200 million additional passenger vehicle miles reduced in 2050 relative to Scenarios 2 and 3 from “rail improvements,”⁸³ and echo the DSP’s calls for historic, large-scale investments into public transportation operations and infrastructure.

But the FSP needs to both expand and add detail to the public transportation strategies. For example, transportation strategy T3 recommends that the State “work with communities and service providers to design strategies that increase utilization of transportation alternatives” while strategy T4 recommends that the State “facilitate the development and implementation of

⁷⁹ DSP at 107.

⁸⁰ *Id.* at 95.

⁸¹ *Id.*

⁸² *Id.* at 97.

⁸³ Technical Supplement, *supra* note 45 sec. 1 at 98.

strategies for making public transportation easier to use.”⁸⁴ Specifics are deferred to future “community-based discussions,” with no targets or benchmarks to guide those discussions.⁸⁵

While Commenters certainly support the inclusion of local community members in the decision-making process, the Council must affirmatively identify goals to guide the “historic investments” it calls for. A few good ideas are discussed in the DSP, such as dedicated bus lanes, increasing the number of routes, increasing service frequency, increasing the number of stops, introducing demand response services, and providing direct connectivity to long-distance bus and rail service.⁸⁶ But these are only offered as examples, not concrete recommendations.

Inexplicably, the DSP seems to have rejected or severely watered down several key mitigation strategies put forward by the Transportation Advisory Panel, including (a) a call to identify “implementable strategies to *significantly enhance*” public transit services “with an emphasis on unserved/underserved communities” and (b) a concrete target to “doubl[e]” service availability and accessibility of “municipally sponsored upstate and downstate suburban public transportation services statewide.”⁸⁷

Moreover, the DSP neglects to quantify the level of funding needed to achieve VMT reduction targets, which jeopardizes its efficacy in guiding future budget negotiations. It also fails to recommend any ambitious new policies for MTA—it simply refers back to projects identified in existing plans.⁸⁸ And, despite CJWG recommendations, the DSP omits any recommendations regarding expanded long-range bus service and high-speed rail,⁸⁹ ignoring a readily achievable path to reducing reliance on passenger vehicles—a goal explicitly endorsed by the CAC.

This lack of ambition must be remedied in the FSP. Specifically, we urge the CAC to (1) adopt a target of increasing public transit access by at least 50% by 2030, and 100% by 2050 for upstate and downstate suburban communities, in line with the TAP’s recommendations, (2) provide specific guidance as to appropriation levels needed to meet those targets, (3) include the CJWG’s recommendations regarding expanding high-speed rail and long-range bus service.

B. Prioritize spending on emissions-free transportation alternatives.

Commenters support transportation strategy T8, which calls for low-cost transportation options, and echo the CJWG’s call to focus intentionally on accessibility for underserved and disadvantaged New Yorkers. Part of this strategy calls for: “As part of future investments, agencies and authorities should be required to prioritize low- and zero-emission transportation

⁸⁴ DSP at 108–09.

⁸⁵ *Id.* at 108.

⁸⁶ *Id.* at 107–08.

⁸⁷ See Transportation Advisory Panel, *Appendix A: Advisory Panel Recommendations*, A-8 (2021), <https://climate.ny.gov/-/media/Project/Climate/Files/Draft-Scoping-Plan-Appendix-A.pdf> [attached to DSP at app. A] (emphasis added).

⁸⁸ DSP at 107.

⁸⁹ *Id.* at 37.

infrastructure in all activities, where feasible.”⁹⁰ In order to meet our climate and equity goals, we must invest in enabling low- and zero-emission mobility options to be safe, accessible, and effective.

New York must prioritize creating the best infrastructure possible to encourage New Yorkers shift towards emissions-free mobility options. To walk or bike to school or to the local store to buy a gallon of milk, one must feel that the mode will be the safest and most rewarding method for the time and energy invested into the trip. The T8 strategy requires funding and policy support. We agree with the DSP’s recommendation to:

Fund low-emission zones and car-free streets: The State should prioritize investments in local projects that establish low-emission transportation zones, car-free streets, and similar concepts that encourage travelers to take alternative transportation modes and support the infrastructure required to shift freight to lower-emission modes, like rail, cargo bikes, and electric trucks.⁹¹

And we must update existing legislation “to more effectively avoid new State infrastructure spending that would promote sprawl.”⁹² Encouraging density and accessible transit orientated development with walkable complete and green streets, robustly connected to transit infrastructure will encourage a lower carbon mobility lifestyle.

We also agree with the DSP’s recommendation to “fund mobility options: The State and metropolitan planning organizations (“MPOs”) should prioritize, incentivize, and expand access to funding for bike, pedestrian, transit, and complete streets projects that serve employment and population centers.”⁹³ One such model policy is Complete and Green Streets for all,⁹⁴ which combines Complete Streets with green infrastructure such as stormwater management, semipermeable surfaces, traffic-calming treatments, shaded trees, and the use of recycled materials.

C. Develop a strategy to reduce freight VMT.

The latest data show that total vehicle miles traveled from diesel-powered heavy-duty vehicles nearly doubled from 1990 to 2007, with most of that increase seen in the period since 2002.⁹⁵ In New York State, trucks move 84% of freight by tonnage and 86% of freight by value.⁹⁶ Even freight moved by other modes (e.g., freight, rail) generally requires a first- and last-mile truck connection.

⁹⁰ *Id.* at 113.

⁹¹ *Id.* at 114.

⁹² *Id.*

⁹³ *Id.*

⁹⁴ *Complete and Green Streets*, Smart Growth America, <https://smartgrowthamerica.org/resources/complete-and-green-streets/> (last visited June 20, 2022).

⁹⁵ NYSERDA GHG Inventory, *supra* note 1 at 17 tbl.10.

⁹⁶ N.Y. Dep’t of Transp., *New York State Freight Transportation Plan 56* (2019), https://www.dot.ny.gov/portal/page/portal/content/delivery/Main-Projects/projects/P11618881-Home/P11618881-repository/NYS%20Freight%20Plan%20September_2019.pdf.

The New York State Freight Transportation Plan forecasts that, given current trends, the “dominance of trucking” will last through 2040 and the highway system will remain “the backbone” of the State’s freight transportation system.⁹⁷ In fact, truck traffic is estimated to increase its share relative to other modes in 2040, with overall truck tonnage increasing 716 million tons, or 49%, compared to 2012 levels.⁹⁸ Rail and water modes are only projected to increase by 45 million tons and 28 million tons, respectively.⁹⁹ Truck trips related to “secondary traffic”—which includes warehouse and distribution centers and port drayage activities—will account for 17% of all truck tonnage by 2040, with overall tonnage increasing by over 175 million tons.¹⁰⁰

It is unclear the extent to which VMT reductions from MHDVs and freight activities were modeled in the scenarios presented to the Council. The Integration Analysis Technical Supplement suggests that the more ambitious VMT reduction policies modeled in Scenario 4 did not include measures related to freight and goods movement.¹⁰¹ Reducing the number of diesel truck trips would improve air quality in and near DACs, since major freight and goods movement hubs tend to be sited near environmental justice communities. Specifically, Commenters call for shifting freight trips from trucks and vans to maritime, rail, and e-bikes to the maximum extent possible, and urge the Council include a recommendation to that effect in the FSP. Commenters also urge the Council to recommend that the New York State Department of Transportation (“DOT”) update its Freight Transportation Plan—which was last published in 2019, prior to enactment of the CLCPA—to include concrete targets, benchmarks, and actions towards reducing emissions and VMT from freight. The Council should call for NYSERDA, DOT, DEC, and other relevant agencies to collaborate and provide policy recommendations regarding smart freight management that would apply Statewide and address specific issues for urban, suburban, and rural communities.

V. Update DOT Spending Priorities and Policies

Many of the policies identified in the DSP require DOT oversight and implementation. DOT is identified as a key stakeholder for strategies across the four “themes” identified in the Transportation chapter. Yet the DSP all but neglects DOT’s role in the specific strategies and policy components it recommends. As the agency that controls the funding of the vast majority of transportation spending in the State, the Final Scoping Plan must include a suite of DOT-specific strategies to align state transportation funding and policy with CLCPA mandates.

A. The State should analyze and redirect transportation funding.

The first step towards harmonizing state transportation policy with the CLCPA and emission reduction targets modeled by New York State is to properly measure the GHG and co-pollutant

⁹⁷ *Id.*

⁹⁸ N.Y. Dep’t of Transp., *New York State Freight Transportation Plan, Technical Memorandum 5* at 28, 31 (2017), https://www.dot.ny.gov/content/delivery/Main-Projects/projects/P11618881-Home/P11618881-repository/Tech%20Memo%205_FINAL.pdf.

⁹⁹ *Id.* at 31.

¹⁰⁰ *Id.* at 32 tbl. 6-6, 38 tbl. 6-8.

¹⁰¹ See Technical Supplement, *supra* note 45 sec. 1 at 97.

emission impact of transportation spending. The current transportation system has been informed by decades of policy choices that have left communities of color and low-income communities to bear the brunt of a wide range of adverse impacts. For example, communities of color in New York State are disproportionately exposed to particulate matter from vehicle emissions.¹⁰² Other harms range from congestion, safety risks, proximity to sensitive receptors, and damage to local roadways. Spending on transportation projects has historically served to exacerbate these inequities. The CLCPA and Scoping Plan process gives New York State a chance to rethink its approach to transportation planning and reset its policy approach in a way that prioritizes equity, public health, and climate change mitigation.

But first, policymakers and the public need an accurate, empirical analysis of proposed transportation projects. Commenters urge the Council to include a recommendation to require DOT to evaluate the projected emissions from all proposed capital projects. To ensure that State spending does not undermine the CLCPA, Commenters also urge the Council to recommend that projects that would increase emissions and/or VMT be proposed alongside alternatives that would contribute to attainment of emission reduction mandates, including those that would expand or enhance transit service or promote mode shifting away from personal automobiles. Public participation and transparency should be a core part of this strategy.

Federal transportation spending can also be used as a tool to further the State's climate and equity objectives. Many U.S. Department of Transportation programs that were traditionally earmarked for highways now provide states flexibility to propose a range of alternative projects. The FSP should recommend that DOT develops a plan to identify and take advantage of any opportunities to redirect transportation spending away from highways and projects that promote sprawl, and towards those that accelerate electrification, enhance transit services, reduce VMT, or otherwise advance CLCPA mandates and compliance strategies. Funding is a relevant issue for emission reduction strategies, but there has been no serious consideration of how the State could better allocate *existing* funding streams to support clean transportation policies. The FSP should call for DOT to quantify how much funding would be available to invest in emission reduction programs, such as a fast charging network, if existing funding streams were optimized.

Finally, given the importance of reducing VMT in meeting the CLCPA's 2030 and 2050 emission reduction mandates, Commenters also urge the CAC to recommend that DOT undertake a study to evaluate options to prohibit or severely restrict new spending on highway expansion.

B. DOT should issue regulations to ensure transportation investments are consistent with the CLCPA.

The CLCPA requires that DOT and other state agencies promulgate regulations to “contribute to achieving” the CLCPA's emissions limits. CLCPA § 8. At present, DOT policies and spending very often serve to thwart the State's very clear emission reduction mandates. While the DSP is silent on regulatory approaches to aligning DOT policies with the CLCPA, Commenters urge the Council to recommend that DOT initiate a rulemaking to ensure that State-

¹⁰² See Pinto de Moura, *supra* note 4.

funded transportation projects minimize emissions and VMT to the fullest extent possible. Such a rulemaking could be modeled on a recent policy adopted by the Colorado Department of Transportation, which sets emission reduction targets for Metropolitan Planning Organizations and the state as a whole.¹⁰³ Given the State’s other policy priorities, the rule should be designed to address GHG and co-pollutant emissions, VMT, and explicitly prioritize disadvantaged communities through a transportation equity framework that prohibits projects that add to existing harms in DACs.

C. DOT must update relevant policies, procedures, and guidance to reflect the CLCPA.

DOT has developed numerous documents that are meant to ensure agency practices are conducted in a manner consistent with relevant environmental regulations. But these documents are woefully out of date—some are over two decades old. None even mention the CLCPA.

For example, the Environmental Procedures Manual (“EPM”), which is “the comprehensive source for the [DOT]’s policy, procedure and technical guidance on environmental matters relating to the planning, design, construction and maintenance of transportation facilities” and provides the “basis for most of NYSDOT’s environmental quality assurance, training and continuous improvement processes,” was published in 2001.¹⁰⁴ While it has been partially updated since then, there is no discussion of agency obligations under the CLCPA. This manual continues to serve as “comprehensive guidance for addressing transportation projects’ air quality issues for NYSDOT-sponsored projects as well as for projects that are not sponsored by NYSDOT,” and is thus in many ways the starting point for evaluating the impacts of public and private transportation projects.¹⁰⁵

DOT’s most recent “Environmental Policy” dates back even further, to 2000.¹⁰⁶ It establishes as department policy a commitment to “[s]eek opportunities to cooperatively advance Federal, State and local environmental policies, programs and objectives” and requires DOT divisions evaluate ways to improve air quality, encourage transit, promote non-motorized modes, reduce use of non-renewable combustion fuels, and increase energy efficiency.¹⁰⁷ Another guidance document, dating back to 1999, is incorporated into the EPM and directs DOT to (1) “ensure all necessary steps are taken in planning, design, and construction to avoid and minimize adverse effects of transportation projects and operations on important elements of the environment and

¹⁰³ See *Greenhouse Gas (GHG) Program*, Colo. Dep’t of Transp., <https://www.codot.gov/programs/environmental/greenhousegas> (last visited June 24, 2022).

¹⁰⁴ DOT, *Environmental Procedures Manual: Introduction 1* (Feb. 2001), <https://www.dot.ny.gov/divisions/engineering/environmental-analysis/repository/epmltr2.pdf>.

¹⁰⁵ See, e.g., Inter-departmental Memo from George Baptista, Deputy Comm’r of Env’t Res., Town of Oyster Bay, *Re: Draft TEQR Report — Syosset Park Warehouse 37* (2020), https://oysterbaytown.com/wp-content/uploads/305-Robbins-Lane_Syosset-TEQR-Report-final-draft12_15_2020Compiled.pdf.

¹⁰⁶ See N.Y. Dep’t of Transp., *Environmental Policy*, code 1.6-3 (June 2000), <https://www.dot.ny.gov/divisions/engineering/environmental-analysis/repository/policyen.pdf> (“DOT Environmental Policy”).

¹⁰⁷ *Id.*

adjacent communities,”¹⁰⁸ (2) incorporate mitigation measures in DOT capital and maintenance projects, and (3) leverage state and federal highway funds for “project-specific avoidance, minimization, mitigation and enhancement efforts” and to advance broader environmental policies, among other policies.¹⁰⁹

Given the importance of these documents for setting DOT policy, and their use in evaluating and mitigating environmental impacts for non-DOT sponsored projects, it is absolutely critical that they be updated and streamlined to highlight the Department’s vital role in implementing the CLCPA. Commenters urge the Council to recommend that DOT update and streamline all of its various internal policy and guidance documents to reflect the agency’s obligations under the CLCPA, which should include a framework to accelerate transportation electrification, reduce VMT, expand and enhance public transit and other non-motorized modes, improve air quality in DACs, and implement section 7 of the CLCPA.

VI. Prioritize Environmental Justice and DACs

Transportation emissions have a well-documented disproportionate impact on communities of color and low-income communities in New York, and diesel trucks and buses in particular have an outsized contribution to disparate health outcomes. The DSP notes that “[d]iesel trucks and port equipment are one of the largest sources of local air pollution in Disadvantaged Communities,” and replacing such equipment with ZEV technology “would have a substantial impact on improving air quality statewide, especially in Disadvantaged Communities.”¹¹⁰ Thus, it is vital that the CAC intentionally support strategies to accelerate retirement of diesel vehicles and deployment of EVs where air quality improvements are most needed to further the CLCPA’s equity provisions.

Commenters are generally supportive of the pathways identified in the DSP that would attain emissions limits through “accelerated ZEV adoption and early retirement of internal combustion vehicles,”¹¹¹ rather than “low-carbon fuels,” and urge the Council to advocate for policies that will prioritize retirements and ZEV deployments in and near DACs (such as incentives for vehicles or chargers, and the creation of low-emission zones).

There are references throughout the DSP to policies that would benefit overburdened communities or DACs, which Commenters endorse, but the FSP should include more forceful and tangible recommendations to embed equity considerations into the heart of transportation sector mitigation strategies. For example, the DSP recommends that the State fund purchase incentive programs for ZEV trucks and buses “with a focus on fleets operating in LMI and overburdened communities, small fleets, and school buses, as well as non-road vehicles and equipment such as airport ground support equipment, port cargo handling equipment,

¹⁰⁸ Gary McVoy et al., N.Y. Dep’t of Transp., *The NYSDOT Environmental Initiative Guidelines and Procedures for a New Paradigm* 3 (1999), <https://www.dot.ny.gov/divisions/engineering/environmental-analysis/repository/eitrbdot.pdf>.

¹⁰⁹ DOT Environmental Policy, *supra* note 107 at 3.

¹¹⁰ DSP at 105.

¹¹¹ *Id.* at 96; *see also* DSP at 73.

construction, and farm equipment.”¹¹² Similarly, the DSP calls for “[p]reference” in terms of state infrastructure investments for MHDV fleets “adversely impacting LMI communities that have been disproportionately burdened by the impacts of air pollution.”¹¹³

Neither of these recommendations go far enough in centering equity and prioritizing DACs. Many of these strategies reference fleets that most adversely impact DACs or other overburdened communities—but the identity of these fleets is unknown, meaning these recommendations lack practical effect. The FSP therefore needs to be strengthened to include the recommendation that state agencies collaborate to identify the specific fleets that most adversely impact air quality in and around each DAC and other environmental justice communities, and the FSP should also recommend that the State develop a cross-agency plan to prioritize turnover of diesel vehicles and equipment to ZEVs in these areas.

Similarly, Commenters generally support the DSP’s recommendations regarding port electrification but urge for stronger, and more specific language in the FSP. As part of transportation strategy T2, the DSP simply states that “[m]arine operations and port facilities are envisioned to be 100% electric by 2050,”¹¹⁴ but offers no further detail on how the DSP will ensure this target is met. Commenters find the Council’s commitment to 100% port electrification laudable, but call for specific recommendations in the FSP—such as a requirement for ports to develop clean air plans that will phase-out diesel equipment as expeditiously as possible, and State funding to support such plans—to ensure this goal is achieved.

Freight electrification strategies, such as the warehouse ISR referenced above, would also prioritize goods movement hubs for electrification and the Council should support such strategies as core strategies that meet the CLCPA’s twin emission reduction and equity goals. The language in transportation strategy T8, which references State support for “infrastructure required to shift freight to lower-emission modes, like rail, cargo bikes, and electric trucks”¹¹⁵ needs to be clarified and expanded upon, as this infrastructure will be critical to realizing emissions reductions and health benefits in DACs.

Commenters also generally urge for more specific and forceful recommendations regarding the provision and allocation of State incentives for ZEVs and supporting infrastructure. For example, consider transportation strategy T1, regarding light-duty ZEV adoption, which identifies “enhanced ZEV purchase incentives” as a required component.¹¹⁶ The equity provisions of this recommendation do not go far enough in prioritizing emissions reductions for DACs and environmental justice communities. The recommendation mentions that “the scenario that relies more heavily on expedited electrification will require the establishment of additional incentives to retire internal combustion vehicles early,” without offering state agencies any guidance or framework for how to design and implement those targeted incentives.¹¹⁷ In discussing a potential feebate program, the DSP only suggests that a policy “can” be designed to

¹¹² DSP at 106.

¹¹³ *Id.*

¹¹⁴ DSP at 97.

¹¹⁵ *Id.* at 114.

¹¹⁶ *Id.* at 103.

¹¹⁷ *Id.*

support “other policy goals” like higher rebates and exemptions for low- and moderate-income customers.¹¹⁸ The FSP should make explicit that such programs, if adopted, *must* comply with the CLCPA’s equity provisions—targeting at least 35% of investments to DACs—and should affirmatively identify ways to prioritize DACs and environmental justice communities. Measures to boost availability and offer incentives for used EVs, for example, can make them a viable choice for more New Yorkers. And the FSP should provide some meaningful guidance to inform the Legislature and policymakers about the scope and duration of incentive programs (for LDVs and MHDVs) that will be needed to phase out tailpipe emissions in DACs as expeditiously as possible. To the extent possible, the State should establish centralized procurement programs for major LDV and MHDV fleets (as the Legislature codified for school buses), which should in turn trigger the CLCPA’s 35% investment mandate for DACs.

Other policies that would serve to expedite emissions reductions in overburdened areas should also be highlighted and endorsed. One example is the establishment of low-emission zones. Commenters support the recommendation in transportation strategy T8, in which the Council recommends that the State “prioritize investments in local projects that establish low-emission transportation zones, car-free streets, and similar concepts that encourage travelers to take alternative transportation modes.”¹¹⁹ But this needs to be fleshed out to be truly actionable. At a minimum, the FSP should call for a study to evaluate the feasibility and benefits of low-emission zones for urban areas most impacted by transportation emissions.¹²⁰

The State will not be able to meet binding emissions limits unless zero-emission technologies, including ZEVs, take hold quickly in low-income communities and communities of color that have historically been left behind or ignored by clean transportation policies. The Council must be creative and innovative in recommending transportation sector strategies that can reduce emissions while reducing structural inequities in transportation pollution and access to clean, affordable transportation options. Commenters urge the Council to include in the FSP a recommendation to investigate and support novel municipal e-mobility programs, modeled on the Green Raiteros car-sharing program in the Central Valley of California, that can leverage ZEVs and supporting infrastructure to benefit transportation disadvantaged New Yorkers so as to increase economic opportunity and overall quality of life.¹²¹

VII. Conclusion

In summary, the FSP should include recommendations to:

- Adopt an “electrification-first” approach to the transportation sector that minimizes “low-carbon fuels” and other false solutions to the fullest extent possible;

¹¹⁸ *Id.*

¹¹⁹ *Id.* at 114.

¹²⁰ A bill introduced in the State Assembly, A9799, would direct DEC to conduct such a study and the Council should endorse this bill.

¹²¹ See Evan Halper, *A Neglected California City Reinvents Itself with Electric Cars — and Plots a Road Map for the Nation*, L.A. Times (Jan. 10, 2022), <https://www.latimes.com/politics/story/2022-01-10/neglected-california-town-reinvents-itself-with-electric-cars-and-plots-a-roadmap-for-the-nation>.

- Opt in to all enforceable ZEV mandates and emission standards available, including California regulations and mandates for buses and other public fleets;
- Accelerate freight electrification, including through endorsing a warehouse ISR;
- Initiate an inter-agency, periodic planning process to assess the adequacy of EV charging installations and programs;
- Enable utilities to better facilitate the transition to widespread fleet electrification;
- Significantly expand (and electrify) public transit and zero-emissions transportation modes;
- Reduce freight VMT;
- Update DOT regulations and guidance, and better use transportation spending towards CLCPA compliance; and
- Prioritize DACs

Respectfully submitted,

Acadia Center
 All Our Energy
 Alliance for a Green Economy
 Brookhaven Landfill Action and
 Remediation Group
 Catskill Mountainkeeper
 Clean Air Coalition of WNY
 Climate Reality Project, Capital Region NY
 Chapter
 Climate Reality Project, Finger Lakes
 Greater Region NY Chapter
 Climate Reality Project, Hudson Valley and
 Catskills Chapter
 Climate Reality Project, Long Island
 Chapter
 Climate Reality Project, NYC
 Climate Reality Project, Westchester NY
 Chapter
 Climate Reality Project, Western New York
 Chapter
 Climate Solutions Accelerator of the
 Genesee-Finger Lakes Region
 GreenLatinos
 Committee to Preserve the Finger Lakes
 Community Food Advocates
 CUNY Urban Food Policy Institute
 Earthjustice

Environmental Advocates NY
 Fossil Free Tompkins
 Gas Free Seneca
 Green Education and Legal Fund
 HabitatMap
 Hotshot Hotwires
 Jobs to Move America
 Long Island Progressive Coalition
 Nassau Hiking & Outdoor Club
 Network for a Sustainable Tomorrow
 New Clinicians for Climate Action
 New York City Environmental Justice
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 North Brooklyn Neighbors
 NY Renews
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 Union of Concerned Scientists
 University Network for Human Rights
 UPROSE
 WE ACT for Environmental Justice
 350NYC