March 23, 2021

Dear Transportation Advisory Panel Members,

The transportation sector is the largest emitter of greenhouse gases in the state of New York, and to fully achieve the goals of the Climate Leadership and Community Protection Act (CLCPA), it is vital that the state—and more specifically the Climate Action Council and Transportation Advisory Panel (TAP)—develop goals, policies, and programs that help New York achieve zero-emissions from the transportation sector **equitably** by 2050, put systems in place to evaluate the state's progress towards achieving its goals and help agencies course correct when needed, remove barriers for widespread transportation electrification, and expand access to mass transit and other means to reduce travel by car.

While the transportation sector is broad and wide-reaching, there are four major goals that several members of the TAP recommend the state focus on to reduce emissions from on-road vehicles:

- Achieve 100% Light-Duty Zero Emission Vehicles by 2050
- Achieve 100% Medium-and Heavy-Duty Zero Emission Vehicle by 2050
- Expand Zero-Emission Active Mobility and Alternatives to Driving
- Increase Access to and Electrify Transit

It is vital that the state also implement policies that help to support the transition to a zero-emission future through interim targets and reducing pollution and improving air quality as soon as possible.

To achieve these goals, there are several policy initiatives and programs that need to be implemented in the near-term.

This recommendation document focuses on these four high-level goals and the near-term policies that we, the undersigned, see as vital to achieve them. Throughout all of these goals and programs, it is vital that equity and reducing pollution from New York's historically overburdened communities be at the forefront and leading edge of program and policy development, and that representatives of these communities have a "seat at the table" as policies are developed in order to ensure that their needs and recommendations are well-incorporated.

This document is not comprehensive or exhaustive and focuses solely on on-road transportation emissions. Other forms of transportation emissions—including aviation, marine sources, off-road vehicles, and port equipment—are outside the scope of this Straw Proposal, but it will be important for New York to identify pathways to reduce emissions from these vehicles as well. Further, the TAP needs to coordinate with the Power Generation Advisory Panel to ensure that utilities develop programs that support transportation electrification and ensure that vehicles are integrated in the way that optimizes the electric grid and utilizes clean energy sources.

Goal: Achieve 100% Light-Duty Zero Emission Vehicles by 2050

Light-Duty Vehicles (LDVs) comprise the largest source of pollution from the transportation sector, accounting for 82 percent of on-road vehicle emissions in New York. Consequently, it is not possible to achieve CLCPA 2050 goals without complete conversion of LDVs to ZEVs. Moreover, because LDVs remain on the road for an average of over 15 years, as a practical matter, achieving this goal requires 100 percent of new LDV sales to be zero emission by 2035 or sooner. In order to put the State on track to achieve this ramp on ZEV sales, analysis of interim (2025, 2030) sales goals and associated charging needs are required.

Near-term policies to achieve goal:

Adopt the California Clean Car Standard (Advanced Clean Car 2 Program) (DEC):

This will set a standard for 100% zero emission sales by 2035. Given the length of time cars remain in service, phasing out the sale of fossil fuel-based cars by 2035 will put NY on a path to have 100% clean cars by 2050.

Expand rebate programs for electric vehicles to used vehicles (NYSERDA):

As new vehicles are overwhelmingly purchased by members of the top income quartile, new vehicle rebates do not substantially increase access to EVs for low-and moderate-income (LMI) communities. Therefore, developing a rebate program that is income qualified and provides rebates for used EVs can expand EV accessibility to *all* New Yorkers who drive a personal vehicle. To increase EV sales in the state, New York should also consider providing incentives for dealerships similar to programs that have been helpful in increasing education and outreach and sales elsewhere, such as in Connecticut.

Such a program could be funded by feebates, a Clean Fuel Standard (CFS), or a cap-and-invest program such as the transportation and climate initiative program (TCI-P).

EV Charging Infrastructure Build Out (DPS and NYSERDA):

Building out a robust network of charging stations will require an all hands-on deck approach from both the private and public sector, through mechanisms such as utility programs and state-run incentive programs. The state should set interim goals and an evaluation process to determine how to structure future programs and processes to support infrastructure expansion.

Utility role:

Through its July 2020 Make-Ready Order in docket 18-E-0138, the PSC has taken important steps to support publicly accessible charging infrastructure for light-duty vehicles by requiring utilities to defray the cost of make-ready charging infrastructure. It will be critical to closely monitor the success of the program, and in particular whether it is succeeding in accelerating deployment of direct current fast charging (DCFC) stations, charging stations in multi-unit dwellings (MUDs), and charging options for on-street parkers.

The CAC should recommend the PSC adopt criteria to determine whether the program is successfully meeting the charging needs of these market segments and, if not, require modifications to the program moving forward. The state should also consider flexible utility ownership and turn-key solutions for charging infrastructure to support MUDs and underserved areas.

NYPA role:

NYPA has made significant commitments to create a backbone of DCFC charging sites along major travel corridors throughout the State. However, to date, deployment has been very slow. To ensure that NYPA meets its DCFC deployment commitments, an annual deployment schedule should be created along with regular reporting on progress.

NYSERDA role:

The state should continue to support the ChargeNY Program to help build out additional charging infrastructure throughout the state.

Department of State role:

Local zoning can play a critical role in the private deployment of electric vehicle infrastructure. The state building code should be updated to support the build out of charging stations in commercial development requiring parking lots and help streamline the permitting process.

Utility support of EVs (DPS):

Utilities have a vital role to play as transportation electrification increases in New York. While they can help with infrastructure buildout and support of charging stations, utilities also need to ensure that the new load from transportation electrification is integrated in a way that optimizes the grid and puts downward pressure on rates for all customers. This can be achieved through a variety of policies and programs, including:

- Promoting and developing sustainable, long-term rate design that includes load management components;
- Ensuring that utility programs provide default pass-through price signals to customers, as utilities in California have done; and
- Supporting infrastructure build-out, especially in LMI/EJ communities, at MUDs, and in areas underserved by the private market.

Lead by example (OGS, all-state agencies):

New York state agencies need to commit to increasing percentages of electric vehicles in state and other publicly owned or leased fleets, and fully electrify by 2040. In addition to the climate and air quality benefits associated with electrifying publicly owned and leased fleets, these actions show critical leadership, increase the visibility of EVs and, as part of broader electrification efforts, can help to bring down the purchase price of EVs and help to expand charging infrastructure.

EV-ready buildings (DOS):

New York should require wiring to support EV charging be installed in all new buildings and major building renovations with parking, as it is far less expensive to pre-wire buildings for EV charging during construction than to rewire buildings at a later point. In anticipation of much higher penetration of EVs, new and gut-rehabilitated buildings should all be pre-wired and have sufficient amperage to support anticipated EV load.

Removing barriers for widespread deployment of vehicles (all state agencies):

In addition to the aforementioned policy recommendations, New York also needs to ensure that artificial barriers for the EV market are removed. This includes ensuring that residents, dealerships, utilities, community-based organizations and decision makers have access to and effectively disseminate education and outreach on the benefits of transportation electrification, as well as the programs and opportunities available to them.

Further, New York should allow for EV manufacturers beyond Tesla to directly sell vehicles to customers. This will help to increase customer choice, keep sales of vehicles in state, and allow for more EVs to be sold in New York.

Near-term Policy to Provide Long-term, Sustainable Funding

Clean Fuel Standards (DEC):

Under a Clean Fuel Standard (CFS) program, producers of high-carbon intensity transportation fuels— such as diesel and gasoline— purchase credits from producers of low-carbon intensity fuels such as electricity and biofuels, with credits varying based on how low-carbon the fuels are on a full lifecycle basis and the program's cap on carbon intensity.

A CFS can reduce transportation emissions between 20-30% in a decade, paid by fossil fuel producers at no cost to the state other than administration of the program. The standard would give a benefit for transportation electrification over alternative fuel sources, due to its low and declining carbon intensity. Stimulating the in-state market for biofuels will have benefits for more difficult-to-decarbonize sectors including maritime and aviation fuels even after all or nearly all light- and medium-duty vehicles are electrified.

This policy will also provide revenue and proceeds to New York to invest in additional transportation programs to help to further reduce emissions.

Goal: Achieve 100% Medium-and Heavy-Duty Zero Emission Vehicles by 2050

The threat of climate change and existing harm to human health requires swift, comprehensive action. In July 2020, New York signed a multi-state, bi-partisan MOU that set a goal for 100% of new truck and bus vehicle sales to be zero-emission by 2050. However, this goal is insufficient both recognizing the realities of market/technology development, and the tremendous pollution burden caused by these vehicles. Rather, we should be looking to a goal of 100% new medium- and heavy-duty (M&HDV) sales by 2040 – with more market-ready segments like school buses and delivery vehicles moving potentially more quickly. As well, New York may wish to consider a 2045 target, insofar as feasible, much as California's recent Executive Order has done.

As New York commits to transformational goals, it is imperative that adequate focus and resources are applied to the small fleets that will experience the greatest challenges to early adoption.

Trucks and buses are the highest source of diesel pollution in the state and they adversely affect communities that live near highways, bus and fleet depots, and ports. Electrifying the M&HDV sector will help to ensure that all New Yorkers have access to clean transportation, regardless of whether they own a personal vehicle, while also improving air quality in communities that have been historically overburdened with pollution from the transportation sector.

Two commonly held arguments against this ambition are that vehicles of all classes won't be available on this timeframe, and that upfront cost will still be too prohibitive to make a transition to zero-emission vehicles attractive. Both can be dispelled.

First, technology is evolving at a rapid pace. In the North American market, more than 100 zero-emissions truck and bus models are either already available or coming to market by 2022, ranging from shuttle buses and cargo vans to school buses and tractor-trailers. Rapid technological progress is unlocking electrification of even the most demanding duty cycles. Daimler, Paccar, and Volvo, who collectively account for nearly 90% of the class 7-8 truck market, are all actively testing zero-emissions class 8 tractors and have announced plans to bring them to series production over the next 1-2 years. In addition, several other legacy and zero-emission vehicle manufacturers are currently developing prototypes and first-generation commercial products, including hydrogen fuel cell vehicles for long-haul operations.

Second, while upfront cost of zero-emission trucks and buses currently exceeds their diesel counterparts, cost parity over the total cost of ownership—that is, factors such as operations, maintenance, and fuel costs that are more favorable relative to diesel vehicles—will occur over the next decade for most duty cycles -- well before the currently proposed 2050 timeframe for completing the transition to ZEVs. Many medium-duty trucks (Class 3-6) are already cost competitive over the total cost of ownership (TCO) and heavy-duty short-haul vehicles (Class 7-8) are expected to achieve TCO parity with diesel powered vehicles by 2025, even without incentives. Heavy-duty long-haul vehicles (potentially powered by hydrogen fuel cells) are expected to demonstrate TCO parity without incentives by around 2030.

Near-term policies to achieve goal:

California's Advanced Clean Truck and Heavy-Duty Omnibus Rules (DEC):

Adoption of these rules sets clear parameters and timelines for industry to transition fleets and provide incentives to manufacturers to innovate to bring cost effective clean technology to market to meet demand that will arise.

New York should also adopt a 2040 timeline for achieving the goal of 100% of new truck and bus sales to be zero-emission – with an even more ambitious timeframe for vehicles classes that are more technologically and market-ready.

California Fleet Rule (DEC):

The California Fleet Rule will require set percentages of any given fleet to transition to zero emission, ramping up in milestone years. After California adopts the Fleet Rule, we also recommend that New York consider adopting that regulation as a counterpart to sales targets.

New York Truck Voucher Incentive Program (NYSERDA):

We recommend the State continue supporting the Truck Voucher Incentive Program. This program provides financial support for the replacement of M&HDV with clean alternatives that often have higher upfront costs. However, these programs should require the retirement of vehicles/ engines/ drive trains – rather than leaving open the possibility that they can be resold – to ensure reductions in pollutants are not shifting the burden elsewhere. This program could continue and be funded by CFS, cap- and-invest programs, or some combination thereof.

Utility support (DPS):

Utilities have a vital role to play as transportation electrification increases in New York. While they can help with infrastructure buildout and support of charging stations, utilities also need to ensure that the new load from transportation electrification is integrated in a way that optimizes the grid and puts downward pressure on rates for all customers. This is especially important for the M&HDV space, where there is the potential for significantly larger new load added to the grid as these vehicles electrify. Below are several recommendations for utilities and DPS to consider.

Developing long-term, sustainable commercial and industrial rates.

The state should consider opportunities to integrate M&HDV in a way that optimizes and supports the grid and the integration of clean energy resources.

The New York Public Service Commission has consistently maintained that electric rates should be cost-reflective and has expressed an aversion to technology-specific rates. However, there are multiple possible ways to structure cost-aligned electric rates, and given the urgency of the need to eliminate vehicular emissions, it is essential that would-be EV customers have an opportunity to pay for their charging pursuant to price structures that allow them to avoid unmanageable bills while ensuring that their use of the grid is, to the extent possible, helpful rather than burdensome. Where new technology-neutral rate designs are being promulgated in New York (through the VDER proceeding or elsewhere), it is essential that they be evaluated among other things for

their impact on the charging costs experienced by hypothetical vehicle- and fleet-charging customers, particularly small/independent fleet operators that may not have the same level of sophistication as larger operators, as well as the load impacts likely to occur as a result of potential adjustments to charging behavior that they may incentivize. Absent such an evaluation, the PSC will be unable to discern whether such electric rates are likely to pose a barrier to electrifying vehicles, or to incentivize charging behaviors that are not optimal from the standpoint of the grid. Consideration of the behavioral impact of rate design is especially important in the case of medium- and heavy-duty vehicle electrification, because a fleet of electric trucks or buses will be a significant source of concentrated load, potentially with some flexibility. Utilities should also consider programs that support investments in vehicle-to-grid technology, as well as ways to provide appropriate price signals to incentivize the promulgation of these services, to optimize the grid and have vehicles serve as distributed energy resources.

Support for infrastructure

Make-ready support for M&HDV electrification

DPS should release new guidance and a program to support medium and heavy duty vehicle electrification, similar in scale and scope to the 2020 light-duty make ready program, which will help to build out the infrastructure needed to support M&HDV electrification. The state also needs to consider the specific needs of transit and en-route charging.

Analyses

Based on use cases and duty cycles, utilities should conduct analyses to determine the appropriate number, location and type (i.e. speed of charging) of charging stations that will support the day-to-day operations of M&HDVs, including the subsequent grid impact of that added load. Utilities should also consider non-wires solutions (like on-site solar and storage as well as optimal charging) to ensure that the need for grid infrastructure buildout is mitigated to the extent feasible.

Lack of infrastructure is one of the predominant barriers to increased adoption of electric vehicles. Ensuring that infrastructure is sufficient to support a growing number of clean vehicles will be critical to combatting persistent range concerns. As well, strategic placement of infrastructure— that is, at locations like workplaces that can facilitate charging at off-peak times and times of higher renewable penetration—can help enable charging timed to take advantage of lower cost, clean energy.

Standards

DPS should work with utilities to develop processes to streamline and reduce the time it currently takes to interconnect to the grid. Currently it can take months or even years to

interconnect to the grid, delaying deployment of electric M&HDVs, and creating uncertainty among fleet operators as to the viability of the transition.

Further, DPS should require utilities to adopt communication and technology standards that support interoperability, particularly for long-haul vehicles that may need to use inter- and intra-state public charging, to assure operators that they will be able to utilize charging infrastructure, regardless of the charging station vendor/operator, and to alleviate the potential issue of stranded assets will be alleviated, potentially further accelerating the market.

Marketing, Education, and Outreach

DPS should require utilities to develop targeted outreach and education programs for small fleets and independent owners/operators, including those in disadvantaged communities. In addition, DPS should determine the feasibility and scope of incentive programs that address this market segment and measure deployment of vehicles/infrastructure in those communities.

Small operators are less likely to have the bandwidth and capital to adopt these vehicles without intervention. Further, ensuring that programs are equitably designed will be critical to ensuring that disadvantaged communities hardest hit by harmful air pollution will derive significant benefits from these programs and be able to participate on a meaningful scale.

Fleet assessment services

Consider expanding Fleet Assessment Services as described in the EVSE + I Make-ready Order beyond site feasibility and rate analyses, to include at a minimum greenhouse gas emissions reductions and available funding/financing.

Near-term Policies to Provide Long-term, Sustainable Funding

Finance tools

The development of financing tools and non-financial policy supports that leverage and animate public and private capital engagement around fleet electrification are needed. A range of tools that address hard costs, soft costs and risks and uncertainties can be used to target barriers to scalable investment. These tools can include public-backed “soft” loans, interest rate incentives, performance guarantees, lease purchase agreements and on-bill financing. NYSERDA, the New York Green Bank and stakeholders critical to advancing fleet electrification should assemble and collaborate to identify fleet-specific barriers to electrification, designing financing tools and non-financial supports that optimize the targeted, leveraged use of limited public monies and catalyze the creation of scalable business models that animate private capital engagement.

Clean Fuels Standard (DEC):

Under a Clean Fuels Standard (CFS) program, producers of high-carbon intensity transportation fuels— such as diesel and gasoline— purchase credits from producers of low-carbon intensity fuels such as electricity and biofuels, with credits varying based on how low-carbon the fuels are on a full lifecycle basis and the program's cap on carbon intensity.

A CFS can reduce transportation emissions between 20-30% in a decade, paid by fossil fuel producers at no cost to the state other than administration of the program. The standard would give a disproportionate benefit for transportation electrification over alternative fuel sources, due to its low and declining carbon intensity. Stimulating the in-state market for biofuels will have benefits for more difficult-to-decarbonize sectors including maritime and aviation fuels, even after all or nearly all light- and medium-duty vehicles are electrified.

This program will leverage significant private sector investment in cleaner fuels and fleets and encourage and promote using cleaner fuels while transitioning to ZEV fleets. Additionally, it provides operating support to public transit agencies and municipal fleets by generating recurring payments for each clean fuel vehicle in the fleet. A clean fuel standard is also a key revenue source that helps make the TCO favorable for fleet operators to make the switch to zero-emission vehicles.

Cap-and-Invest Program (DEC, DOT, NYSERDA):

A cap-and-invest program (such as the Transportation and Climate Initiative Program (TCI-P)) would require wholesale suppliers of on-road gasoline and diesel to purchase carbon allowances, sold at auction, to account for the combustion emissions associated with the fuels they sell, and to reduce these emissions over time in accordance with a regional carbon pollution cap established by New York and other states. New York would decide how best to invest its proportional share of the allowance proceeds, subject to the standards and requirements of the CLCPA (e.g., the 35-40% minimum investment requirement in disadvantaged communities). A multistate Memorandum of Understanding on the TCI-P calls for a regional pollution cap reduction of 30 percent between 2023 and 2032.

A legally binding, declining regional cap on carbon pollution from on-road vehicles (which account for over 80% of transportation GHG emissions) would help New York achieve emissions reductions in its most polluting sector, and it provides a level of certainty in terms of emissions outcomes. TCI-P allowance proceeds would provide a new and much-needed source of funding estimated to begin at more than $300 million dollars in the first in New York alone for clean transportation projects. The TAP (and CAC and other working groups) should further establish processes for working directly with communities to determine how TCI-P funds should be spent—such as on expanded mass transit and bus electrification, targeted rebates for M&HDV

rebates in disadvantaged neighborhoods, etc.—to ensure these funds are put to their highest and best uses.

Importantly, the TCI-P is set to begin in neighboring states (CT, MA, RI) and potentially several others, as soon as 2023. This means that the proceeds would available soon for investment in urgently needed clean transportation projects and programs. Indeed, if New York joins with the other jurisdictions, it can play a leading role in fashioning the final details of the Model Rule for the TCI-P market, while also beginning to plan for the early deployment of hundreds of millions of dollars per year on investments that can lower emissions in overburdened communities, address infrastructure problems, and establish lasting clean transportation solutions.

Together, a CFS and a cap-and-invest program would help fund New York clean transportation investments, in different but supportive ways. By lowering the carbon intensity of fuels, adoption of a CFS will help achieve the TCI-P emissions cap. Likewise, TCI-P can help deploy clean fuel applications, like electric transit buses in furtherance of the CFS, while ensuring that overall transportation emissions come down. Having the CFS requirements and TCI cap-and-invest programs working together is vital to a holistic approach to reducing emissions in the transportation sector.

Goal: Expansion of Zero-Emission Active Mobility and Alternatives to Driving

Production of 4+ wheeled vehicles is carbon-intensive regardless of fuel type, and negative environmental externalities are associated with both the mining of rare-earth metals necessary for producing electric batteries and the everyday use of heavy vehicles on urban roads. Decarbonization of the transportation sector by 2050 is likely not possible without also reducing the number of vehicles on the road by a substantial amount.

Enhancing mobility options is an important goal and strategy for New York to achieve an equitable, clean future. Reducing vehicle congestion by providing alternatives to driving will lead to a reduction in idling vehicles and pollution in concentrated areas.

Near-term policies to achieve goal:

Increased and Electrified Public Transit

Ensuring that transit agencies across the state are able to improve service, routes, and maintenance while electrifying and managing reduced ridership and increased costs in the near-term due to the COVID-19 pandemic is critical to ensuring emissions do not increase from an increased reliance on vehicles and to ensure equity in access to clean mobility. Actionable items include resuming 24-hour subway service in New York City, and expanding the use of dedicated busways along major transit corridors.

As discussed further in this document, it is vital that transit buses electrify to provide a clean transportation alternative for residents who are unable or choose not to drive a personal vehicle.

Telecommuting

According to the U.S Census Bureau the average American workers one-way commute time is 27 minutes. Expanding broadband access throughout New York State will make telecommuting, flex work and other remote service options more feasible, reducing the need for vehicle trips. Shifting people out of vehicles provides benefits beyond emission reductions, including reducing vehicle congestion and reducing roadway accidents and injuries. In addition, given the slow rate of vehicle turnover, reducing the mileage driven in CO2-emitting vehicles will have climate benefits.

Providing safer routes for biking and walking and other active mobility between homes, businesses, services, and workplaces

New York needs to ensure there are robust and interconnected protected bike lane networks as well as safe streets to encourage alternative modes of transportation. Some communities do not have access to mass transit or could avoid car trips with the proper supports, including protected bike lane networks and safe sidewalks. Focus groups and opinion polls show that concerns about safety are one of the leading reasons why people choose not to use bikes for commuting and close-to-home errands. Safe, interconnected bike lanes are one of the most important amenities to get people biking more and using their cars less.

E-mobility

The state should increase shared access and ownership of e-bikes and e-scooters with a focus on mass transit deserts in urban areas, as well as support for low- and moderate-income individuals to provide a low cost means of transportation.

E-bikes and e-scooters expand the distance that people can travel under their own power, reducing reliance on cars. In addition to shrinking transit deserts and enabling more people to commute by bike, e-bikes are also heavily used by food delivery workers and could be used for local freight deliveries, which would displace many delivery trucks.

Additionally, the state needs to ensure that there is first and last mile access to public transportation.

Determine future solutions to fund infrastructure (roads and bridges) in NY as we shift to zero-emission mobility

As the State works to transition to zero-emission mobility infrastructure needs, investments in areas such as maintenance of roads and bridges, is still necessary. New York State should consider future solutions to adequately plan, fund, and execute this work. It is crucial that the State approaches this transition holistically and not let critical transportation infrastructure degrade in the process.

To help fund these needs, consideration should be given to vehicle miles traveled assessments.

Goal: Increase Access to and Electrify Transit

Reducing overall VMT is an important step toward meeting our climate goals, and expanding transit infrastructure, along with making it an attractive transportation option, allows drivers to opt into transit use where available. Electrifying transit networks, especially buses, reduces pollution, particularly in vulnerable communities. In addition, development and deployment of public charging infrastructure to support transit buses, if made available for public use, can help accelerate adoption of other medium-and heavy-duty electric vehicles.

Near-term policies to achieve goal:

Investments (NYSERDA):

Federal, state, and local governments must invest in mass transit expansion, modernizing systems and providing reliable transportation options, including investing in the transition to zero emission buses and trains no later than 2040 for the MTA and 2035 for non-MTA transit agencies in the state.

Expanding access to mass transit expands access to opportunities for employment, schooling, and other needs, especially among low-income communities, communities with low car ownership, and elderly populations. Transit buses, while a small overall fraction of greenhouse gas emissions, are an outsize contributor to harmful pollution, especially in low-income communities and communities of color.

Congestion Pricing (MTA, NYC DOT, TBTA):

Pursuant to a law adopted in 2019, the State is establishing a fee on vehicles driving in New York City's cordon zone, below 60th St in Manhattan. Implementation has been delayed due to federal inaction and COVID-19 but must move forward as quickly as possible and the Biden administration has given positive signals about advancing the program in recent weeks. This

policy will generate revenue to support the MTA, including NYC subways and bus, LI Railroad and Metro North.

This policy should be considered in additional highly congested zones after understanding the impact of implementation in Manhattan.

Fair fares

Expansion of transit is part of the solution to reduce overall VMT, but ensuring transit is affordable to low-income riders is another important aspect of ensuring transit access. Investments from market-based programs can provide expanded Fair Fares programs for riders below the poverty threshold who rely on the MTA and transit agencies statewide.

First and last mile access to public transit (DOT, MTA, NYC DOT)

Expanding access to e-bike, e-scooter, bikeshare, and even electrified Transportation Network Company (TNC) van pilot programs will increase the reach of transit hubs, allowing more passengers to elect to use transit options over driving. This must also include safe bike and scooter parking at transit stops.

Near-term Policies to Provide Long-term, Sustainable Funding

Clean Fuels Standard (DEC):

As previously discussed, a CFS will help support financing of electric transit buses and help to reduce operating expenses.

Cap-and-Invest Program (DEC, DOT, NYSERDA):

A cap-and-invest program like the TCI-P will provide an important funding stream for affordable and expanded transit as well as electric transit buses.

Conclusion

To address the climate crisis, the State of New York has set an ambitious goal to decarbonize its energy use. It has established a mandate to reduce greenhouse gas (GHG) emissions by at least 40% economy-wide by 2030 and achieve 100% net zero emissions by 2050. The transportation sector represents 36% of New York's GHG emissions, making it the largest emitting sector of the economy, with motor vehicles accounting for over 80% of those emissions. If New York is to succeed in reaching its ambitious emission reduction requirements, it will need specific and bold transportation-focused goals and policies—while also considering long-term, sustainable ways to

fund them. The above comprehensive package of goals and policy recommendations can be used for a state roadmap to a zero-emission transportation sector.

Sincerely,

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