Transportation Advisory Panel

Meeting 5

November 19, 2020

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NEW YORK STATE OF OPPORTUNITY. | Climate Action Council

Agenda

- Welcome/Introductions
- Strategies for VMT/Management and System Efficiency
- Climate Justice Working Group
- Panel Sub-Groups/Policies Under Consideration
- Public Discussion
- Open Discussion/Next Steps

Meeting Procedures

Before beginning, a few reminders to ensure a smooth discussion:

- **Panel members should be on mute when not speaking**
- **Video is encouraged for Panel members, in particular when speaking**
- **We will not be muting individuals for this discussion; the chair will call on members individually, at which time please unmute**
- **If technical problems arise, please contact: Alexandria.Trujillo@dot.ny.gov**

Panel Member Introductions

Transportation Advisory Panel Members

Marie Therese Dominguez, Chair
NYSDOT

Jared Snyder
NYSDEC

Paul Allen, M. J. Bradley & Associates

Dimitris Assanis, Stony Brook University

Steve Finch, AAA Western & Central New York

Albert Gore III, Tesla

Kendra Hems, Trucking Association of New York

Elgie Holstein, Environmental Defense Fund

Renae Reynolds, New York City Environmental Justice Alliance

Porie Saikia-Eapen, Metropolitan Transit Authority

John Samuelsen, Transport Workers Union of America AFL-CIO

Nick Sifuentes, TriState Transportation Campaign

Kerene Tayloe, WE ACT for Environmental Justice

Julie Tighe, NYS League of Conservation Voters

Craig Turner, Buffalo Niagara International Trade Gateway Organization

Nancy Young, Airlines for America

Bob Zerrillo, New York Public Transit Association

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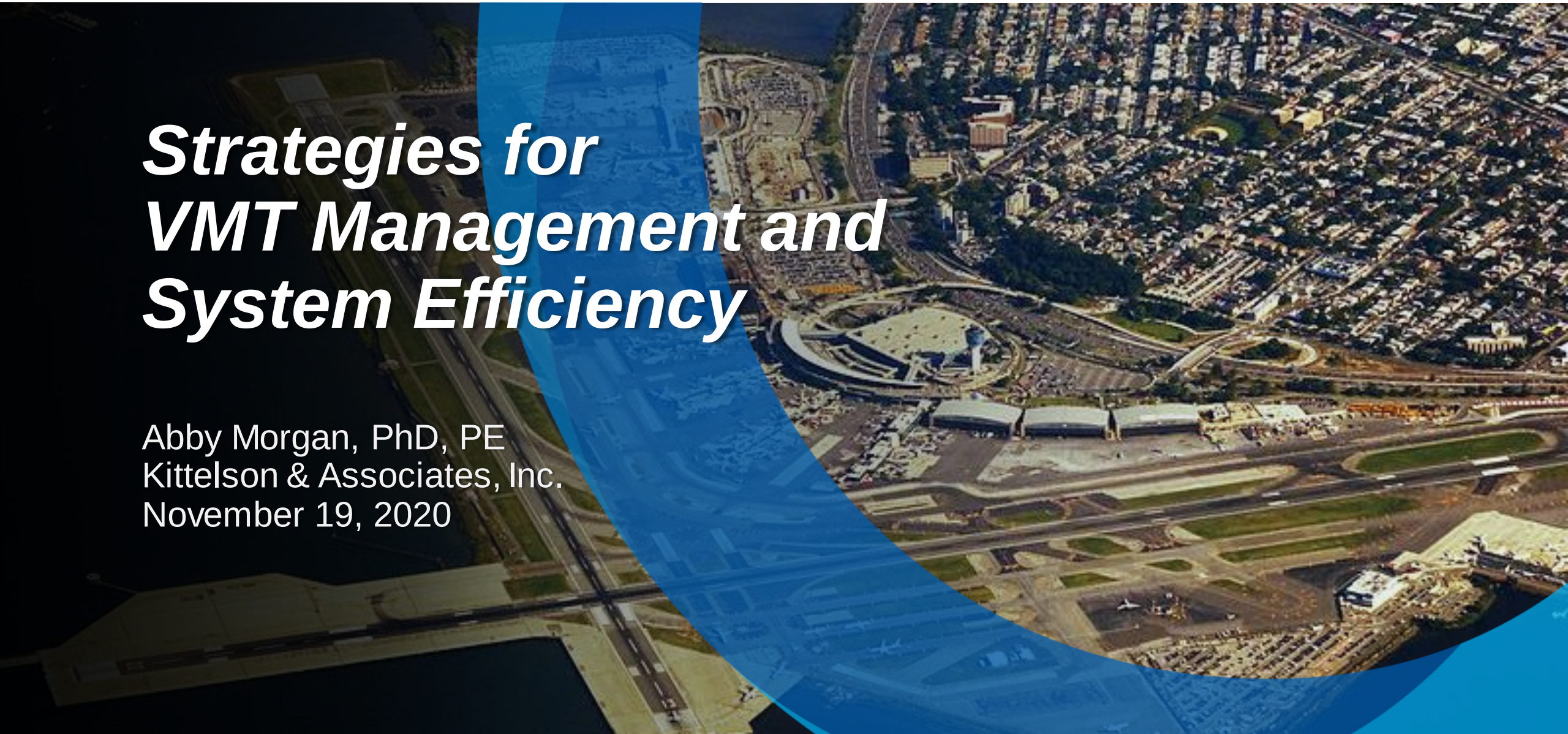

Strategies for VMT Management and System Efficiency

Abby Morgan, PhD, PE
Kittelson & Associates, Inc.
November 19, 2020

Agenda

- Project background
- Current efforts
- Initial strategy list

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NYS Clean Transportation Roadmap: Project Background

- Deep decarbonization requires many strategies
- Strategies to meet NY's 2030 & 2050 GHG reduction goals
  - Electric Vehicle (EV) & other clean technologies
  - Vehicle Miles Traveled (VMT) management
  - System Performance Optimization
- Focus today: Non-EV Strategies

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Current Efforts

- Conduct market assessments of policies and technologies
  - Scenario Development
  - System Efficiency Strategies
  - VMT Management Strategies
- Next step: Identify policy options to implement strategies

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Strategy Categories

Manage VMT (*Demand*)

1. Reduce trip distance traveled
2. Reduce the need to travel
3. Reduce non-productive vehicle trips

Increase System Efficiency (*Supply*)

4. Reduce use of internal combustion engine (ICE) vehicles
5. Reduce GHG emissions associated with a given VMT
6. Increase use of fuel- & emission-efficient shipping methods

Equity Impacts

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Strategies to Manage VMT

1. Reduce trip distance traveled
   - Promote higher density developments
   - Promote mixed-use development
   - Encourage balanced Jobs/Housing development
   - Promote in-fill development
2. Reduce the need to travel
   - Promote the use of internet connectivity to replace travel
3. Reduce non-productive vehicle trips
   - Discourage zero-occupancy trips
   - Implement parking management to reduce circulating trips
   - Promote inter-shipped cooperation to reduce deadheading

Strategies to Increase System Efficiency

4. Reduce use of ICE vehicles
   - Promote non-motorized vehicles for trips/shipments that currently use ICE vehicles
   - Increase use of more efficient modes of passenger travel

5. Increase use of more fuel- or emissions-efficient shipping methods
   - Promote use of more efficient shipping modes
   - Promote siting strategies for warehouse, distribution, and delivery centers to increase freight movement efficiency
   - Improve the VMT and GHG efficiencies of last-mile deliveries

6. Reduce GHG emissions for a given VMT
   - Deploy Adaptive Signal Control and other advanced signal timing strategies
   - Implement Active Transportation Demand and Management (ATDM) Strategies
   - Promote Platooning of AV trucks

1. Reduce trip distance traveled

- **Promote higher density developments**
  - VMT environmental impact factors
  - Municipal fee discounts, development bonuses for high density developments
- **Promote mixed-use development**
  - Municipal fee discounts, development entitlement bonuses for mixed uses
  - Transit-oriented development plans
- **Encourage balanced jobs/housing development**
  - Development bonuses, fee discounts for meeting target jobs/housing balance ratio
- **Promote in-fill development**
  - Expedited review, fee discounts for in-fill projects near major transit stations and in Environmental Justice areas
  - Incentivize brownfield redevelopment

Discussion:

Other strategies

New York examples

Opportunities

Barriers or pitfalls

State action, policy

Most important or most influential

2. Reduce the need to travel

- **Promote the use of internet connectivity to replace travel**
  - Web-conferencing, telework, remote education, telemedicine
  - E-commerce, concierge shopping and delivery services
  - In-home entertainment services
  - 3-D printing
  - Expanded broadband and fiber connectivity to underserved areas
  - Home internet connection and computers for disadvantaged populations
  - Internet training for seniors and disadvantaged populations
  - Improved security for online financial transactions
  - Online platforms to offer municipal services (licenses, permits, tax filings, payments, etc.)

Discussion:

Other strategies

New York examples

Opportunities

Barriers or pitfalls

State action, policy

Most important or most influential

3. Reduce non-productive vehicle trips

- **Discourage circulating empty vehicles**
  - Staging areas to disincentivize circulating ridehail trips
  - VMT fee for future zero-occupancy AV trips
- **Promote inter-shipped cooperation to reduce deadheading**
  - Sharing logistics databases, warehouse, distribution, and delivery infrastructure by multiple shippers
  - Information sharing, open competition for shipments
  - Enabling proprietary carriers (carriers owned by a single shipper and dedicated to only that shipper) to operate as common carriers when dead heading
  - Open market for "dead headers" to bid on shipments for return trip
- **Implement parking management and information systems to reduce circulating trips**
  - Demand-based parking pricing
  - Traveler information systems and wayfinding to available parking locations

Discussion:

- Other strategies
- New York examples
- Opportunities
- Barriers or pitfalls
- State action, policy
- Most important or most influential

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4. Reduce use of internal combustion engine (ICE) vehicles

- **Use of non-motorized vehicles for trips and shipments that otherwise would have been made by ICE vehicle**
  - Greater accessibility and use of micromobility modes
  - Street design to reduce the negative impacts of motor vehicles on micromobility modes

- **Increased use of more efficient modes of passenger travel**
  - New or increased tolls for single occupant vehicles
  - Pricing incentives to encourage shifting to higher-occupancy modes of travel
    - Congestion pricing, VMT tax, HOV discounts for express lanes, and taxes on private individual-owned AVs
  - New or increased incentives, subsidizes and regulatory support for the expansion of public transit

Discussion:

- Other strategies
- New York examples
- Opportunities
- Barriers or pitfalls
- State action, policy
- Most important or most influential

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5. Increase use of more fuel- and emissions-efficient shipping methods

- **Promote the use of more efficient shipping modes**
  - Rail subsidies, truck VMT tax, tax and toll incentives
  - Expedited review of new and upgraded intermodal terminals
  - Rail service upgrades, elimination of at-grade rail crossings, safety and schedule improvements
- **Promote efficient freight movement**
  - Reorganization, relocation, and establishment of new warehouses, distribution centers, and delivery centers in and near high demand urban areas
- **Improve the VMT and GHG efficiencies of last-mile deliveries**
  - Increased use of electric UAVs, ground drones, electric vans, AV delivery vans, e-bike delivery services

Discussion:

- **Other strategies**
- **New York examples**
- **Opportunities**
- **Barriers or pitfalls**
- **State action, policy**
- **Most important or most influential**

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6. Reduce the GHG emissions associated with a given VMT

- **Deploy Adaptive Signal Control and other advanced signal timing strategies**
  - Transit signal priority, adaptive signal control that prioritizes high occupancy vehicles
  - Signal timing and other traffic calming measures
- **Implement Active Transportation Demand and Management (ATDM) Strategies**
  - Managed lanes, ramp metering
  - Traveler information services, advance queue warning
  - Active incident management
  - Electronic toll collection (NYS Thruway, MTA bridges and tunnels)
- **Promote Platooning of AV trucks**
  - Deploy more automated trucks capable of platooning
  - Coordination of platooning between different companies
  - Dedicated platooning lanes

Discussion:

- Other strategies
- New York examples
- Opportunities
- Barriers or pitfalls
- State action, policy
- Most important or most influential

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Topics for Further Discussion

- What strategies or sub-categories should we **add or revise**?
- What are additional **examples** of these strategies occurring in New York?
- Which strategies represent significant **opportunities for success**?
- How can these strategies be influenced by **state** action or policy?
- What are some **potential barriers or pitfalls** of the strategies?
- Which strategies are the **most important or most influential** to achieve deep decarbonization?

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Thank you

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Discussion

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Climate Justice Working Group

- Provide strategic advice for incorporating the needs of disadvantaged communities in the CAC Scoping Plan
- Consult with the Environmental Justice Advisory Group to ensure that all New Yorkers will reap the economic/environmental benefits resulting from a carbon neutral economy
- Ensure that no less than 35 percent of the direct resources generated through CAC policies accrue to disadvantaged communities, including:
    - Clean energy and energy efficiency programs;
    - Projects or investments in the areas of:
        - Housing
        - Workforce development
        - Pollution reduction
        - Low-income energy assistance
        - Energy
        - Transportation
        - Economic development

Panel Sub-Groups/ Policies Under Consideration

Policies Under Consideration - Electrification and Fuels

- **Policy**
  - *Adopt regulatory approaches and supporting policies to increase the sale of ZEV M/HDVs to 30% by 2030*
  - *Adopt regulatory approaches and supporting policies to increase the sale of ZEV LDVs to 100% by 2035*

- **Strategies to Support Policy Goals**
  - Identify policies that make the purchase price and total cost of ownership of ZEVs competitive with or better than ICE vehicles
  - Identify ways to prioritize ZEV M/HDVs in locations impacting high-risk communities (ports, heavy traffic areas)
  - Identify other activities to break down barriers to EV adoption around awareness, local regulations
  - Identify potential funding and financing strategies to support increased incentives, and identify potential incentive levels required to meet goals
  - Identify policies that encourage adoption of non-road EVs

- **Expert Input**
  - *Industry groups:* Utilities, Car/Truck/Bus OEMs, Large and small fleets (e.g., Small Carrier Assn), EV start ups (e.g., SparkCharge, LA Clean Tech Incubator)
  - *NGOs/Think Tanks/Advocates:* CALSTART, Rocky Mountain Institute, Electrification Coalition, NRDC, Sierra Club, ICCT, NREL, EV Noire, Clean Energy Works, PlugIn America, Synapse Energy, Forth, Greenlining Institute, Moving Forward Network

- **Additional Analysis/Research**
  - Sub-sectors that are hardest to electrify, sub-sectors that provide largest GHG emission reduction opportunities, fleet turnover info
  - GHG reduction potential of different policy options

Policies Under Consideration - Electrification and Fuels

- **Policy**
  - *Adopt a market-based approach and supporting policies to increase the availability and affordability of clean transportation fuels in NYS*

- **Strategies to Support Policy Goals**
  - Identify policies that encourage greater investment in clean fuel production, distribution, and sales, including market-based policies, mandates, and regulatory approaches
  - Identify ways to increase EV charging infrastructure, reduce cost of charging, and encourage off-peak charging
  - Identify potential funding and financing strategies to catalyze private investment in clean fuel infrastructure
  - Identify workforce development opportunities around clean fuels

- **Expert Input**
  - *Industry Groups:* Advanced Biofuel Assn, National Biodiesel Board, Airlines for America, Railroads of NY, NY hydrogen industry companies (e.g., Plug Power, Standard Hydrogen), Assn of General Contractors of NYS, Car/Truck/Bus OEMs
  - *NGOs/Think Tanks/Advocates:* US DOT Volpe Center, American Gas Foundation, Energy Vision, Renewable Natural Gas Coalition

- **Additional Analysis/Research**
  - Sub-sectors that are hardest to electrify, sub-sectors that provide largest GHG emission reduction opportunities
  - GHG reduction potential of different policy options
  - Fuel characteristics (GHG accounting, co-pollutants)

Policies Under Consideration - Market-Based Policies and Funding

- **Policy**
  - *Consider potential market-based approaches to support achievement of emission reduction goals*

- **Strategies to Support Policy Goals**
  - Could include cap-and-invest program, a program to increase the availability of clean transportation fuels in NYS such as a Low Carbon Fuel Standard, and/or others market-based programs
  - Other funding mechanisms could include VMT fees, registration fees, and feebates
  - Evaluation would consider how such mechanisms complement other policies or provide funding for such policies

- **Expert Input**
  - *NGOs/Think Tanks/Advocates:* Resources for the Future, National Resources Defense Council, Georgetown Climate Center, Eastern Transportation Coalition
  - *Governmental Agencies:* California Air Resources Board

- **Additional Analysis/Research**
  - Interactions and relative effectiveness of programs
  - GHG reduction potential of different policy options

Policies Under Consideration - Financing

- **Policy**
  - *Consider potential financing approaches to support achievement of emission reduction goals*

- **Strategies to Support Policy Goals**
  - Could include utilizing and expanding on strategies being used by NY Green Bank to help attract private investment
  - Other financing mechanisms like value capture and PACE financing for transportation
  - Evaluation considers how such mechanisms complement other policies or provide funding for such policies

- **Expert Input**
  - *NGOs/Think Tanks/Advocates/Market Participants/Financiers: Clean Energy Works*

- **Additional Analysis/Research**
  - Interactions and relative effectiveness of programs
  - Information on performance of current NYS programs and programs in other jurisdictions

Policies Under Consideration - Public Transportation

- **Policies**
  - *Identify policies and programs that would double the availability/accessibility of upstate and downstate suburban public transportation services statewide by 2035*
  - *Identify policies and programs to support system reliability/network expansion projects identified by MTA in their twenty-year needs study*

- **Objectives**
  - Identify alternative service delivery methods to address under-served/un-served areas (micro-mobility)
  - Identify strategies to facilitate transit compatible land-use/development (infrastructure/non-infrastructure)
  - Identify strategies to enhance physical access for users of all abilities, including street and roadway approaches
  - Identify potential new revenue alternatives to support core operating/capital requirements
  - Identify potential new financing strategies to facilitate system enhancement (value-capture, impact fees)

Policies Under Consideration - Public Transportation

Extent of Current Services

Metric	Total	Rank	National Share
Annual Unlinked Trips	3,970,913,654	1	40.2%
Annual Revenue Vehicle Miles	764,032,315	1	15.8%
Annual Revenue Vehicle Hours	52,047,584	1	16.2%

PUBLIC TRANSIT USERS CAN SAVE NEARLY **$10K A YEAR** VERSUS DRIVING

OVER 130 TRANSIT SYSTEMS THROUGHOUT NY STATE

NEW YORKERS SERVED BY PUBLIC TRANSIT SAVE **260M HOURS** IN TRAVEL TIME

PUBLIC TRANSIT LESSENS OUR DEPENDENCE ON FOREIGN OIL AND SAVES **1.3B GALLONS** OF GASOLINE IN NEW YORK STATE ANNUALLY

NY'S USE OF PUBLIC TRANSIT REDUCES THE CARBON EMISSIONS BY **17M TONS**

Policies Under Consideration - Public Transportation

- **Potential Strategies in Support Requiring Additional/Research Assessment**

  - Identifying service options/vehicle types
  - Communicating economic/mobility benefits
  - Making transit easier to use (e.g., trip planning, mobile fare payment, smart card, tap and go, real time info)
  - Enhancing existing/deploy new travel/trip planning alternatives
  - Assessing federal/state parking/station management/policies
  - Coordinating/integrating FHV/private/not for profit providers
  - Integrating policies of existing public service providers (e.g., Nassau, Suffolk, MTA, Westchester)
  - Providing general education/awareness on how to use services (travel training)
  - Integrating affordability/equity into integrated fare media
  - Leveraging data to target potential users
  - Enhancing reliability/providing preferential treatment within roadway right of way
  - Increasing frequency/hours of operation
  - Creating electric vehicle service network
  - Providing commercial amenities at key stations to mitigate trip-changing
  - Implementing cordon pricing strategies
  - Other

Policies Under Consideration - Public Transportation

- **Expert Input (not inclusive)**
  - Hudson Yards Development Corporation
  - Partnership for New York City
  - Economic Development Corporation
  - American Public Transportation Association
  - New York State Association of Counties/Conference of Mayors
  - Business Council of New York State
  - Straphangers Campaign
  - Riders Alliance
  - Tri-State Transportation Campaign
  - TransitCenter
  - Other
- **Additional Analysis/Research**
  - GHG modeling/reduction potential
  - Policy feasibility
  - Policy implantability
  - Policy costs/return on investment toward achieving goals

Policies Under Consideration – Smart Growth

- **Policy**
  - Incentivize construction of all new roadway, residential and commercial development along travel corridors to be adjacent, proximate and/or accessible to public transportation routes
- **Strategies to Support Policy Goal**
  - Promote Transportation-Oriented Development
  - Facilitate First Mile/Last Mile Connectivity
  - Identify Supportive Financing Mechanisms
  - Provide Equity/Affordability/Displacement/Job Accessibility/Poverty De-concentration Issues
  - Include Freight Considerations
  - Incorporate/Incentivize Alternative Low/No-Carbon Design Features

Policies Under Consideration – Smart Growth

- **Expert Input/Cross Sector Coordination**
  - Smart Growth America
  - Congress for the New Urbanism
  - Shared mobility providers
  - Bicycle and pedestrian advocates
  - Real estate developer trade groups
  - Municipalities
  - Public transportation sponsors/operators
  - Land Use and Local Government Advisory Panel
  - Energy Efficiency and Housing Advisory Panel
  - Representatives from Environmental Justice/Distressed Communities
  - Metropolitan Transportation Authority
  - Public Transportation Sub-Work Group
  - Other
- **Additional Analysis/Research**
  - Other factors contributing to VMT
  - Challenges for and impacts of Smart Growth on equity/displacement/affordability/job accessibility issues in EJ/Distressed Communities
  - Assess how emerging technologies can impact system efficiency and VMT

Discussion

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Public Discussion

Public Discussion Procedures

- Speakers are asked to announce their name, organization and/or affiliation, if any
- Preregistered speakers will be called upon first, in the order of registration
- Speakers will be provided two minutes to comment on the work of the Sub-Work Groups/Panel
- When called upon, speakers should turn on their camera and/or microphone
- Individuals are also encouraged to enter comments into the “Q&A” feature of Webex at any time; we will read them on your behalf
- As time permits, the Panel will open the comment period to individuals that have not preregistered
- All comments will be documented by staff for panelists to consider in future deliberations

Public Discussion Procedures

- Public comments are strongly encouraged and may be submitted to the Panel at any time in writing or via e-mail
  - **E-mail:** Transportation.publiccomment@dot.ny.gov
  - **Google Form:** https://tinyurl.com/NYTransportComment
  - **Letter:**

    Transportation Advisory Panel
    C/O Abigail Schultz
    6th Floor, Room 6N23
    50 Wolf Road
    Albany, New York 12232

Next Steps/Open Discussion

Climate Action Council Meetings

- November 24, 2020
    - Reports from the following Advisory Panels:
        - Energy Efficiency and Housing
        - Agriculture and Forestry
        - Land Use and Local Government
- December 15, 2020
        - Transportation
        - Energy-Intensive and Trade Exposed Industries
        - Power Generation

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