Agenda

• Welcome/Introductions - Commissioner Dominguez/Jared Snyder

• Report out on Climate Action Council Meeting - Commissioner Dominguez/Jared Snyder

• Report out on Climate Justice Work Group - Jared, Nick, Renae

• Report out on Electrification/Fuels Roundtable - Julie Tighe

• Report out on Public Transportation/Smart Growth Round Table - Nick Sifuentes

• Upstate/Downstate Suburban Public Transportation - Bob Zerrillo

• Next Steps - Commissioner Dominguez/Jared Snyder

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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: jesse.way@cadmusgroup.com
Panel Member
Introductions

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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
Climate Action Council Report Out
**Transportation Mitigation Strategies, slide 1 of 4**

**Scope topic/Subgroup: Transportation Electrification**

**Strategy under consideration**
- Adopt regulatory approaches and supporting policies to increase the sale of M/HD ZEVs to 30% by 2030 and the sale of LD ZEVs to 100% by 2035, and require greater use of ZEV non-road vehicles.

**Rationale**
- Zero emission vehicles (ZEVs) are rapidly becoming commercially available in many subsectors, offer low lifecycle GHG emissions and zero or low emissions of local pollutants;
- NYS can accelerate this transition to ZEVs through regulatory actions, market-based policies, and supporting activities including incentives, public-private partnerships, and private financing;
- ZEVs save consumers and businesses money otherwise spent on fuels and maintenance.

**Equity considerations**
- Prioritize M/HD ZEVs in locations impacting overburdened communities (e.g., ports, heavy traffic areas) through strategies such as green zones – these are the largest sources of local air pollution in the transportation sector;
- Focus on making clean transportation available to all, including low-income and rural New Yorkers, through measures such as enhanced incentives, targeted infrastructure investment;
- Avoid transferring pollution from vehicles to peaking power plants located in disadvantaged communities.

**Potential Implementation challenges**
- The policy levers for this strategy are well established but many require additional resources and financing tools;
- Initial purchase costs of vehicles (esp. M/HD ZEVs) and charging stations, including electric grid upgrades, remain high;
- Policies and programs need to encourage replacement of existing vehicles, open up EV market to more companies;
- Ecosystem improvements require local regulations, workforce training, improving consumer awareness.

**Issues to explore**
- Suitability of mandates like CA Advanced Clean Trucks, 100% ZEV sales targets, state procurement of non-road vehicles;
- Ways to reduce the cost of EVs through incentives or feebates, used EV rebates, scrappage programs;
- Ways to accelerate charging station installations and bring down their cost;
- Electric tariff changes that encourage off-peak charging, address demand charges, and make EVs more affordable to operate;
- Revenue and financing options, opportunities to create broader economic ecosystem around EVs.

**Additional thoughts**
- Need for engagement with Power Generation Advisory Panel, Climate Justice WG, Just Transition WG.
- Evaluate market-based mechanisms to reduce carbon emissions and provide longer-term funding for implementation of strategies.
- Evaluate various financing strategies, including Green Bank and other tools to leverage private investment.
### Scope topic/Subgroup: Clean Fuels

#### Strategy under consideration
Adopt a market-based approach and supporting policies to increase the availability and affordability of clean transportation fuels (renewable biofuels, green hydrogen, electricity) in NYS.

#### Rationale
- Pathways identifies role for diesel substitutes in decarbonizing transportation;
- Some hard-to-electrify uses may be decarbonized with low-carbon fuels (e.g. aviation, long-distance trucking);
- Potential interim role in other uses as we move towards electrification (e.g. medium/heavy duty trucking).

#### Equity considerations
- Importance of reducing co-pollutants in overburdened areas, particularly w/r/t diesel truck and bus pollution;
- Siting of renewable/clean fuel production, storage and refueling facilities;
- Avoid policies and activities that expand fossil fuel infrastructure.

#### Potential Implementation challenges
- Low Carbon Fuel Standard is a complex regulatory program requiring substantial development; opportunity to partner with other states; potential impact on fuel prices.

#### Issues to explore
- Availability of various biofuels; best uses for limited availability (with other panels);
- Other policy mechanisms to support clean fuels production and deployment;
- Interaction with other policies, e.g. LCFS can support electrification;
- GHG accounting, including accounting for out-of-state life cycle emissions, including land use impacts.

#### Additional thoughts
- Consider CLCPA statutory constraints;
- Coordinate with Agriculture, Waste Panels and CJWG.
**Transportation Mitigation strategies, slide 3 of 4**

**Scope topic/Subgroup: Public Transportation**

<table>
<thead>
<tr>
<th>Strategy under consideration</th>
<th>Rationale</th>
<th>Equity considerations</th>
<th>Potential Implementation challenges</th>
<th>Issues to explore</th>
<th>Additional thoughts</th>
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<tbody>
<tr>
<td>• 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.</td>
<td>• Transportation generates approximately 40 percent of all greenhouse gases, primarily single-occupant light/heavy-duty vehicles; • Unparalleled State support for public transportation directly attributable to New York using the least energy per capita for transportation purposes than any state in the nation; • Results in net reduction of more than 17 million metric tons of carbon annually; • High-frequency/high quality public transportation services provide options to single-occupant vehicles and benefits users/non-users.</td>
<td>• Ensuring affordability of passenger fares/expanding transportation availability/options in rural/underserved communities; • Integrating safe/accessible pedestrian/bicycle infrastructure in un-served/underserved areas; • Reducing carbon emissions in overburdened areas; • Implementing complementary zero-emission public transportation rollingstock/supportive infrastructure/land use considerations.</td>
<td>• Funding and finance strategies to sustain/enhance public transportation services; • COVID-19 revenue loss replenishment needs; • Technological impacts on existing workforce/workforce training and development; • Existing federal rules constrain planning for projects to those activities that are fiscally constrained, conflicts with ambition.</td>
<td>• Exploring Tax Increment Financing and other revenue strategies to support increased public transportation; • Transitioning performance measures for traditional transportation investments from Level of Service to reduced Vehicle Miles Traveled, Equity, Greenhouse Gas Emissions avoided, health, other. • Incentivizing transit supportive land use/development policies; • Strategies for addressing Last-mile/transit desert connectivity; • Deploying technology that makes transit easier to use.</td>
<td>• Requires strong coordination with Land Use and Local Government and Energy Efficiency and Housing Advisory Panels; and Just Transition Working Group. • Evaluate market-based mechanisms to reduce carbon emissions and provide longer-term funding for implementation of strategies.</td>
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**Scope topic/Subgroup:** Smart Growth and Transportation System Efficiency

<table>
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<th>Equity considerations</th>
<th>Potential Implementation challenges</th>
<th>Issues to explore</th>
<th>Additional thoughts</th>
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<tr>
<td>• Transportation-Oriented Development—Align roadway, residential and commercial development to be proximate and accessible to public transportation and consider holistic GHG emissions in smart growth developments; • Low- and Zero-Carbon Transportation Modes—Expand access to low- or zero-carbon transportation modes (biking, walking, carpooling) for first mile/last mile connections to transit and destinations.</td>
<td>• Expansion of transit is ideal opportunity to align development and low- or zero-carbon transportation options; • Well-considered development and provision of appropriate transportation options leads to land use/transportation location efficiencies that support efficient VMT and reduce transportation-based and other greenhouse gas emissions.</td>
<td>• Overcome the spatial mismatch between housing and jobs for LMI households, which traditionally spend more time and percentage of income on commuting; • Ensure affordable housing in and around transportation-oriented developments; • Provide low- or zero-carbon transportation modes that are accessible and affordable for LMI households; • Support land uses that account for freight without creating areas with poor air quality.</td>
<td>• Greater level of inter-governmental land use/transportation coordination, private sector engagement, and local buy-in (through land use planning and zoning), particularly for more compact, mixed-use, mixed-income development; • Incentives and technical support will likely be needed to achieve local buy-in; • Financial support may be needed to roll out new transportation options in smaller cities and towns.</td>
<td>• Mechanisms and opportunities for delivering land use/transportation coordination on this level, mechanisms for delivering new transportation modes in diverse settings; • Ways to designate local/county/regional priority growth areas that are aligned with public transportation investments; • Ways to support projects that improve safety and ease of use of low- or zero-carbon transportation modes; • Changes to SEQRA process to remove barriers to transportation-oriented development while maintaining community input.</td>
<td>• Collaborate with Land Use and Transportation Advisory Panel to ensure adequate local land use support.</td>
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Discussion

www.Climate.ny.gov
Climate Justice Work Group Report Out
Discussion
Electrification/Fuels Roundtable Report Out
Public Transportation/Smart Growth Roundtable Report Out
Discussion

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Upstate/Downstate Suburban Public Transportation
NYS Transit Systems

• Regional Transportation Authorities – MTA, NFTA, RGRTA, CNYRTA, CDTA

• Downstate County Bus Systems – Nassau, Westchester, Suffolk, Rockland, Orange, Putnam, Dutchess

• Upstate Small Urban Areas – Binghamton, Ithaca, Elmira, Glens Falls, Kingston, Watertown

• Upstate Rural Counties – 32 rural counties with transit service
Transit Rankings by Fleet Size

1. New York MTA
2. Chicago
3. New Jersey Transit
4. Los Angeles
5. San Francisco
6. Washington, DC
7. New York Upstate/Downstate Transit (over 3,000 transit vehicles)
8. Boston
9. Philadelphia
Transit Ridership and Vehicles

Upstate and Downstate Transit Systems
2019 Unlinked Trips and Fleet

<table>
<thead>
<tr>
<th>Transit System</th>
<th>Daily Trips</th>
<th>Number of Vehicles</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDTA</td>
<td>51,462</td>
<td>325</td>
</tr>
<tr>
<td>CNYRTA (Syracuse)</td>
<td>34,865</td>
<td>289</td>
</tr>
<tr>
<td>RGRTA (Total)</td>
<td>52,507</td>
<td>401</td>
</tr>
<tr>
<td>NFTA</td>
<td>82,878</td>
<td>435</td>
</tr>
<tr>
<td>Binghamton</td>
<td>6,467</td>
<td>70</td>
</tr>
<tr>
<td>Ithaca</td>
<td>14,407</td>
<td>81</td>
</tr>
<tr>
<td>Rest of Upstate (approx.)</td>
<td>15,000</td>
<td>175</td>
</tr>
<tr>
<td><strong>Total Upstate</strong></td>
<td><strong>257,586</strong></td>
<td><strong>1,776</strong></td>
</tr>
<tr>
<td>Nassau</td>
<td>79,530</td>
<td>398</td>
</tr>
<tr>
<td>Westchester</td>
<td>91,055</td>
<td>437</td>
</tr>
<tr>
<td>Suffolk</td>
<td>14,308</td>
<td>360</td>
</tr>
<tr>
<td>Dutchess</td>
<td>2,919</td>
<td>52</td>
</tr>
<tr>
<td>Rockland</td>
<td>5,163</td>
<td>71</td>
</tr>
<tr>
<td>Rest of Downstate (approx.)</td>
<td>30,000</td>
<td>400</td>
</tr>
<tr>
<td><strong>Total Downstate</strong></td>
<td><strong>222,975</strong></td>
<td><strong>1,718</strong></td>
</tr>
<tr>
<td><strong>Total Upstate and Downstate</strong></td>
<td><strong>480,561</strong></td>
<td><strong>3,494</strong></td>
</tr>
</tbody>
</table>
Non-MTA Transit Systems
Types of Urban and Rural Services

• Light Rail
• Fixed Route Bus
• Bus Rapid Transit
• Express Bus
• Demand Response
• Route Deviation
• Paratransit
• Microtransit
• Regional/Commuter/Intercity
Transit Responds To COVID-19 Crisis

Transit systems across NYS responded quickly to the COVID-19 crisis and played a vital role by:

- Providing transportation for essential workers.
- A lifeline for those without a vehicle to access jobs, food, and healthcare.
- Rapidly implementing cleaning and disinfecting protocols and operational changes to protect customers and employees.
- Transit stepped up during the pandemic under stressful conditions to maintain service, provide a safety net to support their communities and help the economy recover.
- The connections that transit provides are important to successfully reopen the economy.
But the Future is Uncertain

- Projected State budget shortfall of $15 billion; $70 billion over 4 years
- MTA financial crisis ($12 billion, 2-year need; capital plan on hold)
- Additional costs for cleaning and disinfecting
- Pace of reopening/economic recovery/return to workplaces
- Evolving school/college transportation plans
- Future State dedicated revenue levels (PBT, auto rental fee, downstate dedicated taxes)
- Uncertain Federal relief for state/local governments and for transit
- Implementation of COVID-19 vaccine
Operating Impacts

Current trends
• Ridership and passenger revenue down 40% to 60%
• STOA reduction of 27-31%
• CARES Act funds depleted

Importance of State aid
• Upstate - $238 million
• Downstate Suburban - $410 million
• Typically funds 40% or more of operating costs

Federal Relief a Necessity!
5-Year Non-MTA Capital Needs

Capital Funding Needs and Gap (millions of dollars)

<table>
<thead>
<tr>
<th></th>
<th>Bus</th>
<th>Rail</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needs</td>
<td>$1,543</td>
<td>$189</td>
<td>$1,732</td>
</tr>
<tr>
<td>Resources</td>
<td>$604</td>
<td>$109</td>
<td>$713</td>
</tr>
<tr>
<td>Gap</td>
<td>$939</td>
<td>$80</td>
<td>$1,019</td>
</tr>
</tbody>
</table>

- Upstate and Downstate transit systems require $1.7 billion over the next 5 years to maintain infrastructure in a state of good repair and make strategic investments.
- The combination of all funding resources expected to be available from all levels of government over the 2020-2024 period totals $713 million, leaving a $1.019 billion funding gap.
EV Plans

MTA And 5 Systems Transitioning To Battery Electric Buses
• NFTA, RGRTA, CDTA, Westchester and Suffolk Counties

2 Systems Are Largely CNG Powered Fleets
• CNYRTA, NICE Bus (Nassau County)

Others Piloting BEB
• TCAT (Ithaca)
• UCAT (Ulster County)

Financial Issues
• Incremental cost of electric vehicles
• Charging equipment
• Facility and infrastructure upgrades
• Connection to the electric grid
• EV cost is over and above core infrastructure needs
Transit Finances - Impact on CLCPA Goals

• Revenue loss and future deficits will impact achievement of climate goals:
  • Reduced service area and frequencies
  • Shift customers to less efficient modes
  • Deferred capital projects; slow transition to EV

• Existing transit services:
  • Save 17 M tons of carbon annually
  • Result in lowest energy use per capita

• Reductions in transit service from current levels will reduce these positive environmental impacts and make future environmental improvement more challenging
Transit Service Improvements

• Transit Network Redesigns
  • Reimagine RTS (ready to implement)
  • Westchester County Bee Line (underway)
  • Ithaca TCAT (underway)

• BRT
  • CDTA
  • Suffolk County

• NFTA Light Rail extension

• Technology
  • New fare payment
  • Trip planning
  • Real time schedule info

• Partner/Integrate Other Mobility Options
  • TNCs
  • Microtransit
  • Micromobility
THANK YOU

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Next Steps/Open Discussion

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