Key Elements of a Potential Regional Approach to Transportation and Climate
Transportation & Climate Initiative

12 northeast and mid-Atlantic states and the District of Columbia

Working together to reduce GHG emissions from transportation

Georgetown Climate Center provides facilitation, conducts research, and supports the states
Transportation is the Largest and Growing Share of GHG Emissions in NYS & TCI Region

Data Source: WRI CAIT, 2018
TCI States Have Worked Together Since 2010 on Clean Vehicles, Freight Analysis, and Sustainable Communities Policies
In 2018 TCI States Engaged Stakeholders and Communities through Listening Sessions

Through six regional listening sessions, and an additional 5 in NYS, over 800 stakeholders discussed:

- Transportation needs and opportunities
- Goals for a future, low carbon-transportation system for our region
- How different types of policies and actions can help meet those goals
Policy Actions Identified Most Often by Stakeholders

1. Price pollution transparently and reinvest proceeds
2. Electrify all travel modes
3. Incorporate smart growth, zoning changes, transit-oriented development and affordable housing in plans
4. Encourage all modes of transportation
5. Support alternative fuel use
6. Improve ports and other freight facilities
2018 TCI Regional Policy Announcement

• Announcement in December 2018

• “design a regional low-carbon transportation policy proposal that would cap and reduce carbon emissions from the combustion of transportation fuels... and allow each TCI jurisdiction to invest proceeds from the into low-carbon and more resilient transportation infrastructure”

• All 13 jurisdictions are participating in the process
TCI Technical Workshop
Boston, April 2019

- Initiating the public dialogue about a cap-and-invest program for regional transportation

- Building common understanding among state officials and the public regarding policy design options and modeling strategies for evaluating costs and benefits of a program
Other TCI Workshops & Webinars

Workshops on Equity and Investment:
- Newark, NJ – May
- Baltimore, MD – July

Webinars:
- Cap-and-Invest 101 - April
- Modeling Assumptions - May
- Reference Case - August

Videos of the workshops and webinars can be found online at: https://www.transportationandclimate.org/main-menu/tcis-regional-policy-design-process-2019
HOW
CAP. AND INVEST
WORKS
How Does it Work?

What emissions level to start?

What reduction pathway?

CORE MECHANICS?

Link up programs?

ADDITIONAL MECHANISMS?
What is the starting point for the cap?

CO₂ Emissions:
- measure + monitor

Inventory sources of CO₂ Emissions
- e.g., fossil-fuel Suppliers

tons of CO₂

Q = ALLOWANCES

STARTING EMISSIONS BUDGET

Which sources?  What are the current emissions?  Where to start?
CAP & RATE OF DECLINE

“Business as Usual” (projection)

baseline carbon content

Tons

TIME

Today

1 20 yrs

WHAT WILL THE ALLOWANCE PRICE BE?
HOW CAP AND INVEST WORKS

Emissions Budget

The "Cap" ⇒

Allowances

Allowances are distributed into the marketplace
COMPLIANCE: FLEXIBLE and SIMPLE

These suppliers measure, monitor, and report carbon content and "turn in" allowances to "cover" carbon content at the end of each compliance period.
CAP GETS SMALLER OVER TIME

OVERALL EMISSIONS DECREASE ACROSS REGION
Auction

\[\rightarrow\]

Invest in low-carbon transportation programs.
INVESTMENTS CAN BE TARGETED TO SPECIFIC LOCATIONS
Thank You!

franz@litzstrategies.com
POINT OF REGULATION

WHOLESALERS

DISTRIBUTORS

RETAILERS

POINT OF POLLUTION

INTERNAL COMBUSTION ENGINES
Key Program Design Elements

Selection of Covered Fuels

Determine Regulated Entities

Setting a Cap and Reducing Emissions
TCI Transportation Energy by Fuel Type

- Motor Gasoline: 66%
- Diesel: 18%
- Jet Fuel: 13%
- Natural Gas: 2.44%
- Residual Fuel Oil: 1.06%
- Aviation Gasoline: 0.05%
- Propane: 0.03%
Regulated Entities in Fuel Supply Chain
Cap Setting and Reducing Emissions

This Photo by Unknown Author is licensed under CC BY-NC-ND
Policy Could Raise Significant Proceeds to Fund Emissions Reductions and Improved Transportation Services

Image Sources: (complete streets) City of Boulder, (electric bus) Howard County, MD
## Possible Measures to Reduce Emissions and Improve the Transportation System for All Users

<table>
<thead>
<tr>
<th>Electrification (Buses &amp; Freight)</th>
<th>Electrification (Personal Vehicles)</th>
<th>Sustainability Planning</th>
<th>Regulatory Incentives</th>
<th>Affordability</th>
<th>Driver Pricing Reforms/Cost Incentives</th>
<th>Infrastructure Improvements</th>
<th>Public/Alternative Transportation Options</th>
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<td>Port Equipment Electrification</td>
<td>Rebates &amp; Tax Incentives</td>
<td>Transit-Oriented Development and In-fill Development</td>
<td>Real Estate Level of Service Review</td>
<td>Income-Based Transit Fares; Discounts for kids, seniors</td>
<td>Dynamic Parking Prices</td>
<td>State-of-Good-Repair improvements for Roads</td>
<td>Expansion of transit service to underserved areas</td>
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<td>Electrify Local Delivery Vehicles</td>
<td>EV Charging Infrastructure Incentives</td>
<td>Non-road Equipment (Farms, Construction, Lawn equipment)</td>
<td>Transit Oriented Zoning</td>
<td>Direct Rebates/Dividend</td>
<td>Congestion Pricing</td>
<td>State-of-Good-Repair improvements for Transit</td>
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<td>Electrify Transit Bus Fleets</td>
<td>Electrifying Carshares/ Rideshares</td>
<td>Adjusting Routes to Avoid Traffic</td>
<td>Transportation Demand Management</td>
<td>Financing Programs for EVs</td>
<td>Weight Distance Fees</td>
<td>Complete Streets</td>
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<td>Carpool Lane Access for ZEVs</td>
<td>Resilient Transportation Infrastructure</td>
<td>Road Safety Liability</td>
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<td>Parking Pricing and Parking Cash Out</td>
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<td>Active Transportation and Community Planning</td>
<td>Tax Credits</td>
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<td>Heavy-duty EV Utility Rate Design Reform</td>
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<td>Pay as You Drive</td>
<td>Traffic Calming</td>
<td>Bus Rapid Transit &amp; Express Bus Routes</td>
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</table>
Thank You

• Please send any questions or comments to: climateandtransportation@dec.ny.gov

• For more information on the regional process including webinars and regional workshops, visit: https://www.transportationandclimate.org/main-menu/tcis-regional-policy-design-process-2019

• More information on upcoming meetings around the state will be announced soon on our website: http://www.dec.ny.gov/energy/99223.html