States Step Up Efforts on Carbon Emissions – *Transportation Edition*

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Global Temperatures Continue to Rise

Global Land and Ocean Temperature Anomalies, January-December

Source: https://www.ncdc.noaa.gov/cag/time-series/global
Georgetown Climate Center: A Resource for State and Federal Climate Policy

- Launched in 2009 as a resource to states
- Works at the nexus of federal-state policies
- Supports states through research, facilitation, and convening
U.S. Energy-related CO₂ Emissions by Sector

Source: Rhodium US Climate Service

Image reproduced from Rhodium Group
**Policy Approaches**

**Cut vehicle emissions**
- Zero & Low Emission Vehicle requirements (CA & others)
- Remove prohibitions on utilities owning chargers (CO)

**Cut emissions from fuels**
- Low carbon fuel standard (CA & OR)

**Reduce miles driven**
- Land use planning
- Increase transit ridership

**Pricing emissions (or usage)**
- Cap-and-invest (CA)
- Emissions fee (BC)
- Congestion pricing (VA, NY)
- Mileage-based user fee (OR)

**Investments**
- Incentives for EVs
- More transportation options (Complete Streets)
Multi-state Transportation Climate Policies

- Transportation & Climate Initiative
- Vehicle GHG emission standards
- Electric vehicles & EV charging corridor development
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 TCI Region

Data Source: WRI CAIT, 2018
TCI States Have Worked Together Since 2010 on Clean Vehicles, Freight Analysis, and Sustainable Communities Policies

Source: Transportation & Climate Initiative
In 2018 TCI States Engaged Stakeholders and Communities through Listening Sessions

Through six regional listening sessions, over 500 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 by 10 jurisdictions 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”

- CT, DE, MD, MA, NJ, PA, RI, VT, VA, D.C.
TCI States Engaging Communities and Stakeholders and Conducting Analysis

Stakeholder Engagement

Modeling and Analysis

State Working Groups

About TCI's regional low-carbon transportation policy design process
Transportation and Climate Initiative (TCI) states are developing a regional policy for low-carbon transportation following the December 18, 2018 statement by nine states and Washington DC committing to:

"...design a regional low-carbon transportation policy proposal that would cap and reduce carbon emissions from the combustion of transportation fuels through a cap-and-invest program or other pricing mechanism ...and...to complete the policy development process within one year, after which each jurisdiction will decide whether to adopt and implement the policy."

TCI jurisdictions have designed a workplan with the goal of developing a policy that accelerates the transition to a low-carbon transportation future and delivers a better, cleaner, more resilient transportation system that benefits all our communities, particularly those underserved by current transportation options and disproportionately burdened by pollution, while making significant reductions in greenhouse gases and other harmful air pollution across the region. With ongoing facilitation support from the Georgetown Climate Center, TCI states are planning and beginning to implement a range of activities to ensure that the final proposed policy reflects further input from stakeholders, rigorous technical analysis, and consultation with leading experts.

TCI Leadership and Workgroup Co-Chairs

Leadership Team
Chair: Kathleen Theoharides, Secretary, Massachusetts Executive Office of Energy and Environmental Affairs

TransportationAndClimate.org
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
TCI Workshop &
Roundtable Discussions

Newark, NJ - May & Baltimore, MD - July

• Hearing directly from impacted communities, including frontline communities and communities of color

• Experts on health impacts, transportation planning and policy solutions

• Panel discussions and input through round tables
Multi-state Transportation Climate Policies

- Transportation & Climate Initiative
- Vehicle GHG emission standards
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Figure I: Impact of the CAFE rollback on fleetwide fuel economy
Miles per gallon, new passenger vehicle fleet average (cars and light trucks), AE02018 oil price scenarios

Source: EIA, NHTSA, Rhodium US Climate Service
States With Low-Emission Vehicle and Zero-Emission Vehicle Standards
Multi-state Transportation Climate Policies

- Transportation & Climate Initiative
- Vehicle GHG emission standards
- Electric vehicles & EV charging corridor development
Electric Vehicles Significantly Reduce GHG Emissions (and Get Cleaner Over Time)

[Map showing electric vehicle emissions across the U.S. with various states highlighted in different shades to indicate MPG ratings.]

US Average (EV sales-weighted): 80 MPG

Note: The MPG (miles per gallon) value listed for each region is the combined city/highway fuel economy rating of a gasoline vehicle that would have global warming emissions equivalent to driving an EV. Regional global warming emissions ratings are based on 2016 power plant data in the EPA’s eGRID 2016 database (the most recent version). Comparisons include gasoline and electricity fuel production emissions estimates using Argonne National Laboratory’s GREET 2017 model. The 80 MPG US average is a sales-weighted average based on where EVs were sold in 2011-2017.

Image reproduced from Union of Concerned Scientists
Multi-state Collaboration on Regional EV Corridor Planning
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