How States are Moving the Emissions Needle

Webinar and Workshop on Decarbonizing Transportation Through State Policy

November 20, 2020
PART 1: WEBINAR (50 minutes)

- Introduction
- Speakers’ Presentations
- Brief Q&A (submit your question through Q&A box) - continued in breakouts
PART 2: WORKSHOP (40 minutes)

- Join using link (received via email, posted in chat box, and included at the end of this presentation)
- Breakout room conversations (30 minutes) with expert facilitators
- Shared takeaways (10 minutes) by facilitators and SUMC Staff
 Speakers and Moderators

Erin Evenhouse
Program Manager, Shared-Use Mobility Center

Vicki Arroyo
Executive Director, Georgetown Climate Center

Sam Gregor
Manager, Planning and Regulatory Development, California Air Resources Board

Ashwat Narayanan
Executive Director, Our Streets Minneapolis

Breakout Topics

What policy tools have been used to cut emissions in states and what should we be doing? with Tony Dutzik, Associate Director, Frontier Group

What is the role of shared use in cutting emissions and how can we make it work better? with Ellen Partridge, Policy Director, Shared-Use Mobility Center

How can state and federal policy interact to cut emissions? with Vicki Arroyo

How can state and local policy interact to cut emissions? with Ashwat Narayanan
Creating a Multimodal Transportation System that Works for All

- Bikesharing
- Microtransit/Shuttles
- Ridehailing/Ridesourcing
- Public Transit
- Carpooling/Vanpooling
If the top 50 cities did all they could to cut emissions through shared mobility, their actions alone could save nearly 100 million tons of greenhouse gas emissions annually, 40% of the total transportation emissions across the U.S.
Transportation and Climate Initiative

Progress Updates and Next Steps

Shared Use Mobility Center

November 20, 2020

Vicki Arroyo
Executive Director, GCC
Prof. from Practice, Georgetown Law
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
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
TCI States Have Worked Together Since 2010 on Clean Vehicles, Freight Analysis, and Sustainable Communities Policies

Source: Transportation & Climate Initiative
Scale of the TCI Opportunity

- 72 million people
- $5.3 trillion in GDP
- 52 million registered vehicles
- Most emissions in the region are from transportation
- Modeled TCI cap (254 MMT CO₂) would cover more than three times the carbon pollution covered by RGGI cap

2017 Data, U.S. Energy Information Administration
TCI States Engaged with People, Communities, and Businesses

- Three regional TCI workshops with participation of 1,000 people
- 4,300 submissions to TCI public input portal
- Community engagement by individual states
- **Common themes**: Investments in low carbon transportation, promote equity and public health
  
  *Now more important than ever*
Draft Memorandum of Understanding

- Draft MOU Includes:
  - Program Goals & Schedule
  - Elements of a Model Rule
  - Investments & Equity
  - Regional Organization
  - Program Monitoring & Review
- Invited Input through February 28, 2020
- Final MOU: Late Spring 2020
Features of Regional Cap & Invest Approach

- Guarantees Pollution Reduction
- Regional Consistency of Allowance Prices
- Offers Flexibility in Compliance
- Drives Innovation and Investments in Low Carbon Transportation Programs
Emissions Cap Scenarios Results: Projected Transportation CO₂ Emissions

• A declining emissions cap could lock in decreases in CO₂ emissions that are expected through 2032 and drive additional reductions.

• More stringent caps result in greater emissions cuts and more proceeds for investments.

• Initial annual proceeds range from $1.4 billion at start in the 20% case up to $5.6 billion in the 25% case.
## Range of Clean Transportation Investments in Modeled TCI Scenarios

- Modeled **annual clean transportation investments by strategy** in 2032

- Combined $1.84 billion to $6.92 billion in modeled scenarios

<table>
<thead>
<tr>
<th>Category</th>
<th>Investment Range</th>
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<tbody>
<tr>
<td>Electric cars, light trucks and vans</td>
<td>$554 million to $2 billion</td>
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<tr>
<td>Low &amp; zero-emission buses and trucks</td>
<td>$425 million to $1.6 billion</td>
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<tr>
<td>Transit expansion and upkeep</td>
<td>$333 million to $1.2 billion</td>
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<tr>
<td>Pedestrian and bike safety, ride sharing</td>
<td>$259 million to $970 million</td>
</tr>
<tr>
<td>System efficiency</td>
<td>$148 million to $554 million</td>
</tr>
<tr>
<td>Indirect/ Other</td>
<td>$148 million to $554 million</td>
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Reducing Pollution Delivers Multiple Benefits
$2.7 to $11 Billion in Estimated Public Health Benefits

Improved air quality & increased physical activity
- 200 to 707 deaths avoided from walking and cycling
- 980 to 4700 childhood asthma cases avoided
- 80 to 330 premature deaths avoided

Estimated Deaths Avoided per Million People for Scenario B with a 25% CO2 Reduction Cap Compared to a No-TCI Reference Scenario in 2032

Map credit: J. Buonocore.
Proposed Equity-related Strategies
September 29 TCI webinar

- Dedicated Investments - minimum 35% investments for the benefit of underserved and overburdened communities

- Equitable Processes - establish an Equity Advisory Body to:
  - define underserved and overburdened communities
  - recommend equitable investments and complementary policies
  - develop metrics for evaluating program benefits

- Ensure Transparency - annually review and report on program impacts

- Complementary Policies
TCI Program Development Timeline

- **December 17, 2019** – Release of a regional policy proposal in the form of a draft Memorandum of Understanding (MOU), accompanied by modeling results that estimate the energy and emissions implications of different cap levels and investment scenarios, as well as potential costs and benefits of different program design options.

- **January/February 2020** – Gather and consider public input on Draft MOU

- **September 2020**: Public Engagement Webinars
  - **September 16**: “Program design, modeling, and the implications of COVID-19”
  - **September 29**: “Ensuring environmental justice and equity in a regional low-carbon transportation program”

- **Fall 2020** – Jurisdictions release a final Memorandum of Understanding. At this point, each jurisdiction will decide whether to sign the MOU and participate in the regional program.

- **Fall/Winter 2020-2021** – Participating jurisdictions develop a “model rule.”

- **2021** – Participating jurisdictions take any legislative steps that could be needed to implement the regional program and conduct rulemaking processes to adopt regulations.

**Georgetown Climate Center**
Presentation Overview

• Introduction
• SB 350 Barriers Study: Barriers, Opportunities, and Recommendations
• Overview of Clean Transportation Equity Investments
• Lessons Learned from Clean, Shared Mobility Pilot Projects
• Policies for Investing in Shared Mobility
Introduction

• California’s transitioning fleets to zero-emissions to meet climate change and air quality goals

• California Air Resources Board committed to advancing transportation equity and increasing access to clean transportation and mobility options
  • Over $300 million invested in Clean Transportation Equity projects since 2014
  • Directing investments to low-income households and low-income and disadvantaged communities
  • Many barriers exist that require unique and innovative strategies and policies
SB 350 Barriers Study: Barriers and Opportunities

- 5 main barrier categories identified for analysis
- Importance of understanding community needs and increasing education and awareness

Accessibility & Convenience → Reliability & Affordability → Community-based Needs → Education & Outreach → Planning, Infrastructure & Investment
<table>
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<th>Expand Community Needs Assessments</th>
<th>Develop an Outreach Plan Roadmap</th>
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<td>2</td>
<td>Develop Regional One-Stop-Shops</td>
<td>Develop Grant/Solicitation Guiding Principles</td>
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<tr>
<td>4</td>
<td>Maximize Economic Opportunities &amp; Benefits</td>
<td>Expand Funding &amp; Financing Opportunities</td>
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Overview of Clean Transportation Equity Investments

• Vehicle Ownership Projects
  • Clean Vehicle Rebate Project (CVRP)
  • Clean Cars 4 All (CC4A)
  • Financing Assistance for Lower-Income Consumers

• Clean Mobility Projects (next slide)
  • Outreach, Technical Assistance, Workforce Development, Transportation Needs Assessments and Planning
Clean, Shared Mobility Projects

- Agricultural Worker Vanpool
- Clean Mobility in Schools
- Rural School Bus Pilot
- Statewide Clean Mobility Options Voucher Pilot Program
- Sustainable Transportation Equity Pilot Project (STEP)
Lessons Learned from Mobility Pilot Projects

• Requires a lot of money to create and develop clean, shared mobility **AND** meet equity/justice goals

• Creating from scratch new mobility projects takes **a lot** of time

• Barriers will arise unexpectedly – **build in flexibility** from the start

• One solution doesn’t solve all problems – urban, rural, tribal communities have **different barriers and require different solutions**

• Be **bold** and open minded in developing creative solutions
• **Listen** to community residents and be ready to hear you have made mistakes – no project is perfect

• Connecting partners **willing to do the work** is important – long-term commitments are key

• Develop metrics to understand **successes AND failures**

• Revenue from users **may not** cover all costs – shared mobility is similar to transit in many instances
Policies for Investing in Shared Mobility in Historically Underserved Communities

• Ensure equity and racial justice are at **forefront** throughout planning, development, and operation

• High upfront capital costs are just part of the equation – **need to accept** this when coming up with a budget/plan

• Understand historical practices and make investments to overcome those practices – and **don’t short change underserved communities**

• Prioritize **building capacity** within communities

• **Educate and raise awareness** to active transportation, zero-emissions technologies, and other mobility options
Policies for Investing in Shared Mobility in Historically Underserved Communities (Cont.)

- Identifying community transportation needs by engaging residents is critical for developing sustainable projects
- Be community driven at all stages
- Ensure benefits are intentionally delivered directly to residents
- Shared mobility is similar to transit – it provides public benefits and may require ongoing government investments to be sustainable
Equity and Justice: Building Strong Partnerships is
Questions?

Contact Info:
- Sam Gregor: Sam.Gregor@arb.ca.gov

More Information:
- Moving California: https://ww3.arb.ca.gov/msprog/lct/movingca.htm
- Clean Mobility Options (CMO): www.cleanmobilityoptions.org
Ashwat Narayanan
Executive Director
Our Streets Minneapolis
Transportation is the largest source of CO2 in Minnesota

- Transportation emissions increased by 30.5% since 1990
Driving the climate crisis

- Our transportation system is mostly designed to move and store cars
- Driving is the largest and fastest growing source of carbon emissions in America today
- VMT in Minnesota in 2018 was 60.4 billion-up over 44% since 1992 while population grew only at 26%
- Communities of color breathe worse air
- People who contribute the least to climate change will face its worst impacts
Historically, transportation decision-making has been

- White led
- Made for, not by BIPOC
- Top-down, made by a few people
- Favored cars over other ways of getting around
Consequences
“We would never, we could never, build that kind of atrocity today”

Former MnDOT Commissioner, Charles Zelle
The unequal burden of traffic crashes

- Over 350 fatal and severe crashes on Minnesota streets each year
- Native Americans 5 times more likely to be killed while walking than white Americans
- Black Americans 2 times more likely
We need to reduce VMT to build an equitable, low carbon transportation system.
Goals

The goal of the STAC is to help Minnesota transition to a low-carbon transportation system in a way that is consistent with statutory goals for energy and emissions reductions and maximizes benefits to Minnesota, while recognizing the importance of continued work towards improving safety, reducing inequities, and supporting economic development.
Approach

- Do no more harm, then
- Do good
1. Establish a VMT Reduction Goal

- Adopt a statewide goal of reducing VMT by 20% by 2050
- Incorporate reducing VMT in the purpose and need section of all major MnDOT led transportation projects.
- Apply a VMT reduction goal on MnDOT’s current project “Re thinking I-94” that seeks to reconstruct Interstate 94 between Minneapolis and St. Paul.
- Establish a statewide VMT reduction goal and track it in the annual MnDOT sustainability report.
2. Move away from highway capacity expansions as a solution for congestion

- Do not invest in highway capacity expansion on any new major project

- Focus on spending limited resources on maintenance, transit, biking and walking

- Incorporate this goal into the I-94 project
3. Prioritize Transit and High Occupancy Vehicles on MnDOT owned right of way

- MnDOT should prioritize high occupancy and low carbon transportation options as alternatives in transportation projects
- Consider converting existing lanes to MnPASS or BRT lanes
- Implement this on the I-94 project
**WORKSHOP**

**Policy Tools** → What policy tools have been used to cut emissions in states and what should we be doing?  
*w/ Tony Dutzik, Associate Director, Frontier Group; Kevin Karner, SUMC*

**Shared-Use** → What is the role of shared use in cutting emissions and how can we make it work better?  
*with Ellen Partridge, Policy Director, SUMC; Hannah Wilson, SUMC*

**Federal/State** → How can state and federal policy interact to cut emissions?  
*w/ Vicki Arroyo, Georgetown Climate Center; Alvaro Villagran, SUMC*

**Local/State** → How can state and local policy interact to cut emissions?  
*w/ Ashwat Narayanan, Our Streets Minneapolis; Rudy Faust, SUMC*

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**Join the Zoom meeting.**
Once at the meeting, click on the breakout room icon

Then join a room
Need Help? Chatbox or email
israel@sharedusemobilitycenter.org