Webinar: States on the Hot Seat: State Efforts to Reduce Greenhouse Gas Emissions from Transportation

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States on the Hot Seat: State Efforts to Reduce Greenhouse Gas Emissions from Transportation

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NITC #789 Assessing State Efforts to Integrate Transportation, Land Use and Climate.

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Overview

- Context
- Conceptual Framework
- Case Studies
  - California, Maryland, Oregon, Washington
- Synthesis
- Findings and Recommendations
Transportation accounts for ~ 1/3 of GHG emissions in the U.S.

Reducing GHG from transportation rests on a three-legged stool (and must address all)
- Vehicle efficiency
- Carbon content
- Vehicle Miles Traveled (VMT)

Approximately 34 states climate plans and 29 states adopted GHG reduction goals

Innovative states have passed legislation aimed towards driving down GHG from transportation
Conceptual Framework

GHG Reduction Goals

Transportation

Other

Vehicle Technology

Fuel Content

VMT

Transportation

Pricing

Land Use

"3-Legged Stool"
Conceptual Framework

Climate
- mitigation
- transportation sector (VMT)

Transportation
- options (modes)
- cost of driving

Land Use
- development patterns
Research Questions

1. **Policy Framework:** What is the framework for reducing GHGs from the transportation sector via transportation and land use strategies?

2. **Assessment:** What are strengths and weaknesses of each state’s approach to achieving GHG reduction goals for the transportation sector?

3. **Knowledge Transfer:** What approaches are working well in the four case study states and what can they learn from each other? What can other states learn?
Methodology

- **Document Analysis**
  - State-level transportation, land use and climate plans
  - Regulations
  - Progress reports
  - Additional documents

- **Stakeholder Interviews**
  - 44 semi-structured interviews
  - State agency staff, MPOs, local and regional associations, nongovernmental organizations
Conceptual Framework

Goals

Efforts

Plans

Actions

Results
# Statewide GHG Goals

<table>
<thead>
<tr>
<th>State</th>
<th>Year</th>
<th>Statewide GHG Goals</th>
<th>Light-Duty Vehicle Targets</th>
<th>Key Legislation</th>
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<tbody>
<tr>
<td>California</td>
<td>2020</td>
<td>0% below 1990</td>
<td>1% above to 8% below</td>
<td>2005: EO S-3-05</td>
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<td>2006: AB32</td>
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<td>2008: SB375</td>
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<td>2011: EO G-11-024</td>
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<td>2035</td>
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<td>1% above to 16% below</td>
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<td></td>
<td>2050</td>
<td>80% below 1990</td>
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<tr>
<td>Maryland</td>
<td>2020</td>
<td>25% below 2006</td>
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<td>2007: EO 01.01.2007.07</td>
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<td>2009: SB278 / HB315</td>
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<td>2014: EO 01.01.2014.14</td>
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<td>2016: SB323 / HB0610</td>
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<td>2030</td>
<td>40% below 2006</td>
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<td>2050</td>
<td>90% below 2006</td>
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<tr>
<td>Oregon</td>
<td>2020</td>
<td>10% below 1990</td>
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<td>2007: HB3543</td>
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<td>2009: HB2001</td>
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<td>2010: SB1059</td>
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<td>2011: OAR 660-044</td>
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<td>2035</td>
<td></td>
<td>17% to 21% below</td>
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<td></td>
<td>2050</td>
<td>75% below 1990</td>
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<tr>
<td>Washington</td>
<td>2020</td>
<td>0% below 1990</td>
<td>18% below</td>
<td>2007: EO 07-02</td>
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<td>2007: SB6001</td>
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<td>2008: HB2815</td>
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<td>2009: EO 09-05</td>
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<td>2035</td>
<td>25% below 1990</td>
<td>30% below</td>
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<tr>
<td></td>
<td>2050</td>
<td>50% below 1990</td>
<td>50% below</td>
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California

- **Plans**
  - Scoping Plan
  - SB 375: Regional per-capita targets, MPOs develop Sustainable Communities Strategies (SCSs), voluntary local implementation
  - CalTrans updating CTP 2040 & CalTrans includes scenarios for reaching GHG target

- **Actions**
  - Cap-and-Trade program – funding to implement SCS
  - Regulatory Relief: Under SB743, use VMT threshold to exempt some projects from CEQA; SB226 – exempt some infill projects from CEQA

- **Monitoring**
  - Update Scoping Plan and MPO GHG targets
  - Measure GHG levels
Maryland

- Plans
  - Greenhouse Gas Reduction Act Plan (multi-sector and multi-agency)
  - Maryland Transportation Plan
  - PlanMaryland (under O’Malley)
  - Priority Funding Areas

- Actions
  - Implementing existing programs (public transportation; bike/pedestrian; smart growth, etc.) + enhancements

- Monitoring
  - Sunset provision on GHG Reduction Act
  - Measure GHG levels and attribute to actions
Oregon

- Plans
  - Roadmap to 2020 (advisory)
  - Statewide Transportation Strategy
  - MPO specific targets; Portland required to adopt scenario (Climate Smart Strategy); optional for other MPOs
  - Statewide Planning Program and UGBs

- Actions
  - Lack of funding to support investments and failed transportation funding package in 2015

- Monitoring
  - Oregon Global Warming Commission report card
  - Measure levels of GHG; update targets
Washington

- **Plans**
  - State Level VMT targets
  - Voluntary efforts by MPOs (Puget Sound Regional Council)
  - State Climate Plan
  - Growth Management Program

- **Actions**
  - Study of how Growth Management Act could be used to address climate change
  - Commute Trip Reduction program

- **Monitoring**
  - Measure GHG levels
Analysis Themes

Policy Framework

Goals
Planning
Implementation
Monitoring
Institutional Relationships

Leadership
Regional and Local Support

Sustainable Cities Initiative

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### Synthesis: Leadership, Framework & Goals

<table>
<thead>
<tr>
<th>State</th>
<th>Leadership</th>
<th>Policy Framework</th>
<th>Goals</th>
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<tbody>
<tr>
<td>California</td>
<td>• Originated from governors</td>
<td>• Sustainable Community Strategy (SCS): Assign target for each MPO to meet</td>
<td>• Overall goal in statute</td>
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<tr>
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<td></td>
<td>• Transportation specific targets (passenger)</td>
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<tr>
<td>Maryland</td>
<td>• Originated from governor with strong authority</td>
<td>• Climate Change Commission</td>
<td>• Overall goal in statute</td>
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<td>• Takes a state level approach – how far can we get?</td>
<td>• No transportation specific targets</td>
</tr>
<tr>
<td>Oregon</td>
<td>• Initial legislation originated from governor</td>
<td>• MPO level targets but only two MPOs have responsibilities</td>
<td>• Overall goal in statute</td>
</tr>
<tr>
<td></td>
<td>• WCGGWG influenced</td>
<td></td>
<td>• Transportation specific targets (passenger)</td>
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<tr>
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<td>• Interest groups pushed original legislation</td>
<td></td>
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</tr>
<tr>
<td>Washington</td>
<td>• Originated from governor</td>
<td>• Shared governance</td>
<td>• Overall goal in statute</td>
</tr>
<tr>
<td></td>
<td>• WCGGWG influenced</td>
<td></td>
<td>• Total VMT targets in statute</td>
</tr>
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## Synthesis: Planning

<table>
<thead>
<tr>
<th>State</th>
<th>State Planning</th>
<th>Regional Planning</th>
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</table>
| California       | • CARB oversees  
                   • Scoping plan (all sectors)  
                   • Updated LRTP  
                   • No state land use planning but guidance for local plans | • MPOs responsible  
                   • SCS/RTP integration  
                   • All required |
| Maryland         | • MDE oversees  
                   • 2 climate plans – before statute and after statute  
                   • LRTP references GHG  
                   • PlanMaryland (but no longer in effect) | • Not required to be engaged  
                   • Action by MPOs is voluntary—both Baltimore and Washington, D.C. are involved |
| Oregon           | • No one agency has ownership  
                   • OGWC plan (advisory)  
                   • ODOT climate plan (advisory)  
                   • No update to LRTP  
                   • UGBs predate GHG | • MPOs responsible, but only Portland and Eugene required to do scenario planning and only Portland required to adopt |
| Washington       | • Distributed authority  
                   • Climate action plan  
                   • Updated LRTP  
                   • Studies on growth management and climate change | • MPOs not required to be engaged (lawsuit)  
                   • Seattle MPO (PSRC) voluntarily |
## Synthesis: Implementation & Monitoring

<table>
<thead>
<tr>
<th>State</th>
<th>Implementation</th>
<th>Monitoring</th>
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<tbody>
<tr>
<td>California</td>
<td>• Cap-and-trade funding&lt;br&gt;• Regulatory relief&lt;br&gt;• High Speed Rail&lt;br&gt;• Difficult to balance maintenance and expansion&lt;br&gt;• Not enough funding to implement SCSs</td>
<td>• Revision of targets required&lt;br&gt;• Tracking GHG&lt;br&gt;• Lack of monitoring of plans&lt;br&gt;• No feedback loop from GHG to policies</td>
</tr>
<tr>
<td>Maryland</td>
<td>• All mechanisms in place before climate programs&lt;br&gt;• Enhancements in GHG Reduction Act Plan go above and beyond existing policies&lt;br&gt;• Need funding to expand transportation options</td>
<td>• Regular reports on GHG&lt;br&gt;• Requirement for 2015 report on implementation</td>
</tr>
<tr>
<td>Oregon</td>
<td>• All mechanisms in place before climate programs (UGB)&lt;br&gt;• Need funding to implement plans (transit)</td>
<td>• Revision of targets required&lt;br&gt;• OGWC biennial report card&lt;br&gt;• Lack of monitoring of scenarios.</td>
</tr>
<tr>
<td>Washington</td>
<td>• All mechanisms in place before climate programs (GM)&lt;br&gt;• Expansion of mass transit (but independent of climate goals)&lt;br&gt;• WSDOT engaged in Practical Solutions and Corridor Planning&lt;br&gt;• Need funding to implement plans</td>
<td>• Tracking levels of GHG&lt;br&gt;• No requirement to meet target</td>
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Key Findings & Recommendations: Overview

- Finding
- Recommendation
- Who?
- Model

- Leadership
- Goals
- Planning
- Institutional Relationships
- Implementation
- Monitoring
- Regional and Local Support
Environmental groups important in pushing legislation
Important to allow flexibility within regions

Source: Tescher, Mintier, Hammond

Strategies...

- Land Use: Compact Growth, Infill, Mixed-Use, & TOD
- Land Use & Conservation: Green Buildings
- Mobility: Alternative Fuel Vehicles
- Conservation: Community Gardens
- Open Space & Safety: Flooding & Habitat
- Conservation & Infrastructure: Alternative Energy
- Transit

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Sustainable Cities Initiative
Heavy reliance on models, assumptions & scenario planning

Source: http://www.oregon.gov/ODOT/TD/OSTI/Pages/scenario_planning.aspx
Heavy reliance on models, assumptions & scenario planning

Three approaches evaluated in 2013

**SCENARIO A**
Recent Trends
This scenario shows the results of implementing adopted land use and transportation plans to the extent possible with existing revenue.

**SCENARIO B**
Adopted Plans
This scenario shows the results of successfully implementing adopted plans and achieving the current Regional Transportation Plan which relies on increased revenue.

**SCENARIO C**
New Plans and Policies
This scenario shows the results of pursuing new policies, more investment and new revenue sources to more fully achieve adopted and emerging plans.

Source: Portland Metro
Need a statutorily created agency with oversight, authority & budget
Silos hamper implementation
Disconnect between goals, efforts & results

**Current**
- Goals
- Plans
- Actions
- Results

**Recommended**
- Set Goals
- Assign Reposibility
- Implement
- Plan
- Monitor
Framing outcomes as co-benefits important to gaining public support

Source: Portland Metro
Weak integration of land use plans & transportation plans (& funding decisions)
Lack of funding & incentives for planning at regional & local level
Lack of funding for transit & redevelopment
Who holds states & regions accountable to targets?
## Highlights of Key Findings & Recommendations

<table>
<thead>
<tr>
<th>Category</th>
<th>Finding</th>
<th>Recommendation</th>
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<tbody>
<tr>
<td>Leadership</td>
<td>Changes in leadership undermine implementation</td>
<td>Require interim reports and sunset clauses; establish broad commission</td>
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<tr>
<td>Policy Framework</td>
<td>MPOs can be effective</td>
<td>Rely on MPOs if strong.</td>
</tr>
<tr>
<td>Goals</td>
<td>Difficult to link results to actions</td>
<td>Develop performance measures more closely tied to actions</td>
</tr>
<tr>
<td>Planning</td>
<td>MPOs vary in capacity</td>
<td>Provide technical and financial support for planning</td>
</tr>
<tr>
<td>Institutional</td>
<td>Local government strong</td>
<td>Provide incentives to change plans</td>
</tr>
<tr>
<td>Implementation</td>
<td>Lack of funding</td>
<td>Remove restrictions on funding sources</td>
</tr>
<tr>
<td>Monitoring</td>
<td>Lack of oversight of plans</td>
<td>Monitoring and enforcement + staff, funding</td>
</tr>
<tr>
<td>Support</td>
<td>Difficult to get buy in</td>
<td>Rely on civic sector to build coalitions; emphasize co-benefits.</td>
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Key Takeaways

- Case study states are exemplars for other states; modest public support and political will.
- Initial legislation setting goals and requiring plans is a starting place
- But sustained leadership and momentum is essential
- Plans and scenarios will not be realized without adequate funding and a reorientation of transportation spending
- Lack of connecting the dots from goals to actions to results
- And selling co-benefits is important to gaining broad citizen support
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