Executive Summary

States across the county are recognizing that integrating transportation and land use planning can play a critical role in generating economic, equity, and environmental benefits for communities. Greenhouse gas (GHG) reduction has been one such benefit which states have created specific legislative frameworks to support. California, Washington, Oregon and Florida are some of many states striving for a collaborative platform from which varied stakeholder groups can work to update transportation policies and plans to meet new converging objectives of economic development; equitable access to jobs, goods and services; and environmental resource protection.

This memorandum provides case study overviews of the challenges, successes and lessons for planning, implementation and measurement as well as the role of technical assistance and capacity building resources to support the efforts. Strategic interviews of key policy implementers from state/regional agencies as well as leading practitioners working on local level project and program delivery were conducted to inform these case studies.

While the regulatory and legislative planning frameworks vary across the states California, Washington, and Oregon had similar “themes” in challenges and successes within greenhouse gas target setting, plan development, project implementation, and performance measurement. Florida represents a state that experienced a change in administration during the study period and illustrates the need to prepare capacity building and technical assistance resources that serve to provide continuity in policy over political cycles. Common themes found in these case studies, include:

**State/MPO Challenge Themes:**

- **Targets:** Greenhouse Gas Reduction Target Allocation and Benchmarking for Regions; climate messaging
- **Plans:** Dedicated, Discretionary, and Secure Funding Sources for Planning and Implementation, esp. transit,
- **Projects:** Regulatory Barriers at the Planning and Implementation Stages, continuity of support for projects
- **Measurement:** Lack of Consistent & Transparent Models and Metrics for Implementation

**State/MPO Successes Themes:**

- **Targets:** Political Leadership and Collaboration
- **Plans:** Agency and Stakeholder Partnerships Formed
- **Projects:** Local Innovation and Funding Initiatives
- **Measurement:** Investments in Consistent Model and Data Updates
Case Studies of Four States

The object of this preliminary assessment was to look at the effect on the transportation planning process of different approaches to transportation planning for GHG reduction. The main players in that process are the US DOT, the various state DOTs and the Metropolitan Transportation Agencies. In the absence of a federal legislative framework, looking at states as case studies provides a substitute, with the advantage that the various states can serve as laboratories for examining a range of approaches. The three states on the west coast all are subject to some sort of variation of the basic approach mandatory target approach that was proposed under the Waxman-Markey climate bill of 2009. That bill set a national target for GHG reduction and required state and regional transportation agencies (MPOs) to work with the Department of Transportation and EPA to prepare plans for reducing the contribution of transportation GHG emissions an amount deemed necessary to meet that target. The Florida framework is similar, except that MPOs are never subject to a specific reduction target.

Transportation planners have many technical resources to help them understand and select measures, policies and strategies that can reduce transportation GHG emissions. The difficulty is making that selection within a set of political, economic, social and environmental goals and constraints that vary from region to region. This problem is amplified as soon as a specific target is set. Therefore the process for determination of any mandatory transport GHG target takes on great significance. If the process is based on technical analysis, the tools and outputs also become subject to close scrutiny. Even without mandatory target setting, which was not required in Florida, a transparent, public decision making process, supported by a range of technical tools, is the key making progress integrating GHG reduction into the transportation planning process.

For each of the four states in this case study memo we will follow a similar outline. First we present the legislative framework within which the GHG issue is introduced into the planning process. Then we review the key challenges that arose within the process. We then discuss the outcomes that have occurred; none of the states have completed a planning cycle under the new GHG legislation but all have made some progress. Finally we suggest some of the lessons that can be drawn from each case. A matrix comparing the specifics of the legislative frameworks is provided in the appendix.

California

California Legislative Framework

In California, the transportation sector accounts for approximately 38 percent of the total GHG inventory, with 65 percent of emissions coming from light duty trucks/cars and on-road freight.¹

Over the past decade the State of California passed several key laws and regulations that built upon the existing regulatory authorities at the state, regional and local levels in regard to transportation and land use planning, the environmental review processes, and funding structures that promote sustainable community development. These include:

• **Assembly Bill 857** – (2002) Establishes state priorities promoting equity, a strong economy, environmental protection, health and safety in urban, suburban and rural communities. It requires all state agencies to specify how infrastructure expenditures are consistent with infill development and redevelopment, cultural and historic resources, environmental and agricultural resources, and efficient development patterns.

• **Assembly Bill 2140** – (2006) Established authority for MPOs to create scenario-based regional growth visions. This served as the basis of the California Regional Blueprint Planning Program.

• **Executive Order S-3-05** – (2005) California Governor Arnold Schwarzenegger issued this Executive Order to establish a goal of reducing greenhouse gases by 80 percent below 1990 levels by 2050.

• **Assembly Bill 32 – Global Warming Solutions Act** (2006) This landmark legislation called for a reduction in GHG emissions to 1990 levels by 2020. Under AB 32, the State established a Climate Action Team (CAT) to guide the development of the *Climate Change Scoping Plan*. The CAT included subgroups such as the Land Use Subgroup of the Climate Action Team (LUSCAT). The California Air Resources Board is responsible for overseeing the implementation of AB 32.

• **Senate Bill 97 – California Environmental Quality Act (CEQA) Guidelines**: (2007) The Governor’s Office of Planning and Research (OPR) and the Natural Resources Agency were tasked with updating the CEQA Guidelines to provide assistance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents.

• **Senate Bill 375 – Sustainable Communities Strategies**: (2008) In conjunction with AB 32 this bill requires mandatory GHG targets to be set and Sustainable Communities Strategies to be developed through Metropolitan Planning Organizations’ Regional Transportation Plans under an integrated land use and transportation planning framework.

• **Senate Bill 732 – Strategic Growth Council**: (2008) This bill created the Strategic Growth Council to assist state and local entities in the planning of sustainable communities and meeting AB 32 climate change goals. The Council includes representatives from the Governor’s Office of Planning and Research; Natural Resources Agency; California Environmental Protection Agency; California Business, Transportation and Housing Agency; and the California Health and Human Services Agency.

• **Assembly Bill 842** – (2008) Requires the Department of Housing and Community Development, when ranking applications for funding under the Infill Incentive Grant Program and the Transit Oriented Development Implementation Program, to award preference or priority to projects located in areas where the local or regional entity has adopted a general plan, transportation plan, or regional blueprint that will reduce the growth of VMT by at least 10 percent. Proposed projects must also be consistent with the relevant VMT-reducing plan.

• **Senate Bill 391** – (2009) Requires Caltrans to update the California Transportation Plan (CTP) to address how the State will achieve “maximum feasible emissions reductions” consistent with AB 32 and Executive Order S-3-05 and to identify the statewide integrated
multimodal transportation system that will achieve these results. The first update of the CTP must be completed by December 31, 2015 with updates every five years thereafter.

**Key Challenges**

In the AB 32 Climate Change Scoping Plan, the California Air Resources Board (ARB) recommended a three-pronged approach for reducing GHG emissions from personal vehicles. This three-pronged approach identifies vehicle technology, fuel GHG intensity, and travel behavior as key components contributing to overall passenger vehicle GHG emissions. Further, the California Energy Commission’s 2007 Integrated Energy Policy Report states that to reduce GHG emissions, California must begin reversing the current two percent annual growth rate of vehicle miles traveled.\(^2\) Since the release of the ARB’s Scoping Plan in December 2008, other agencies have introduced improved network management as a way to reduce GHG from personal vehicles. Thus California’s legislative framework seeks to address the roles that reducing VMT growth and improving network management (i.e., system efficiency) have in meeting GHG reduction goals while also promoting a prosperous economy, quality environment, and social equity.

Key challenges in California’s greenhouse gas reduction target setting process surfaced during the Regional Targets Advisory Committee (RTAC) lifespan. SB 375 required the California Air Resources Board (ARB) to set regional targets for the purpose of reducing GHG emissions from passenger vehicles, for 2020 and 2035 for each of the 18 MPOs under a fairly rapid schedule.

<table>
<thead>
<tr>
<th>Process</th>
<th>Timeline</th>
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<tbody>
<tr>
<td>Step 1</td>
<td>Regional baseline setting; using 2005 BY for statewide 2020/2035 per capita GHG targets</td>
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<td>Step 2</td>
<td>State role up and statewide baseline setting</td>
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<td>Step 3</td>
<td>Regional scenario planning; sensitivity analysis and Best Management Practices list integration</td>
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<td>Step 4</td>
<td>Regional target refinement</td>
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<tr>
<td>Step 5</td>
<td>State role up: review and analysis of refined regional targets</td>
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<td>Step 6</td>
<td>Draft target recommendations to CARB</td>
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<td>Step 7</td>
<td>Additional state/regional coordination prior to final target setting</td>
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The California Air Resources Board was faced with playing the role of conductor, orchestrating a symphony of unharmonized MPO models, data benchmarks, geographic diversity, and political support for this process. The ARB created the RTAC, filled with experts representing a wide range of stakeholders, as a bridge between the public and the regulatory body. The RTAC, in coordination with ARB, oversaw an MPO-driven GHG reduction target setting process utilizing a foundation of existing regional scenario planning efforts from the Regional Blueprint Program. The nine-month evaluation process of the best methods to assign GHG emission reduction targets included four central questions, which framed many technical challenges:

- Should targets be for GHG or VMT?
- Is an Absolute or Relative target better?
- Do we measure per capita or per household metrics?
- What baseline is more realistic: 2005 or 2020?

**GHG vs VMT**

Despite SB 375’s language requirements to assign GHG reduction targets specifically, the RTAC still struggled initially in determining the use of a metric – namely GHG emissions versus vehicle-miles-traveled (VMT). In addition to the statute not giving ARB direction to establish VMT targets (explicitly directing GHG targets), there was concern that a VMT metric would not fully capture GHG effects due to local actions for system efficiency and vehicle fleet/fuel programs which go beyond ARB’s statewide requirements.

**Absolute vs Relative**

While the AB 32 Scoping Plan held a temporary placeholder of an absolute GHG reduction of 5 MMTCO2E, a relative “percent reduction from base year” was ultimately chosen during the RTAC process because a percent reduction from a base year is a more practical method for local governments to understand and relate to what the region needs to achieve – despite the fact that they would achieve the same reduction result.

**Measurement Metrics**

After several RTAC meetings, a per capita GHG reduction methodology was recommended to ARB – resulting in overall acceptance when the final target percent reductions were allocated to the MPOs. The League of California Cities describes a per capita metric as being “fair, easily understood, and supported with current data.” After much discussion around how to meet affordable housing targets also set in SB 375, the RTAC process resulted in a per capita metric as a means to not penalize growing regions. Likewise, there was stakeholder concern over encouraging regions to stop growing if a per capita metric was not used, driving housing prices up. With a per capita GHG metric, the expectation was around individual ability to reduce emissions by a given percentage.

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3 million metric tons carbon dioxide equivalent
Benchmarking: Baseline vs Trend

The challenge area which received the greatest level of attention during the RTAC process was the insensitivity and inconsistency in travel demand models across the MPOs to measure GHG emission reduction from various land use and transportation strategies. As a result of these concerns, the need for modeling updates and the development of tools which could be used transparently to engage local governments took the spotlight. Limited faith in modeling capabilities was a strong motivator for not using a trend projection to benchmark targets. Because of the difficulty in projecting trend conditions, particularly related to the current economic downturn, ARB chose a base year of 2005 to apply the MPO per capita GHG percentage reductions.

Other Issues

Other challenge issues included MPO allocation for interregional travel and regional jobs/housing needs, as well as demographic forecasting limitations and variations in benchmarking data to establish a base year for target reduction. The Strategic Growth Council announced $12 million from Proposition 84 funding would go to modeling updates across California’s MPOs, and other state agencies such as ARB and Caltrans are investing in regional data improvements. However, for the purposes of setting initial targets ARB relied heavily on existing data from each of the MPOs who then proposed targets which were compared to research from the University of California at Davis for various land use and transportation strategies.

Outcomes

Target Recommendations

California saw overall success in the target setting phase with a unanimous vote by the ARB Board to adopt the staff-recommended targets for the State’s four largest MPOs — 13-16% by 2035, and 10% for the Valley. The targets for the Valley act as a placeholder to be revisited in 2012 when better data and tools in the Valley are expected. The State, MPOs and major stakeholders felt that the process yield “ambitious and achievable” per capita GHG reduction targets.

The following recommendations for target setting provided by the RTAC to ARB were addressed - with the exceptions of addressing co-benefits, housing/equity, economic considerations, and limited local resources to the extent desired by stakeholders due to technical and capacity building limitations at the MPO and State levels.

- Uniform Statewide Metric
- Regional Flexibility Recognized
- Ambitious Achievable Targets
- Collaborative Process
- Existing Tools/Models
- Policies & Practices
- Public Engagement
- Economic Considerations
- Housing/Equity
Lessons Learned

California was successful in crafting ambitious and achievable GHG reduction targets largely because the political landscape had been laid throughout the state with regional Blueprint plans. This created a foundation from which Senate Bill 375 could springboard – with many stakeholders believing that SB 375 was more of a legislative recognition of where California is on the path toward integrating land use and transportation planning. The Caltrans Blueprint Planning Incentive Program made critical early investments in the process of regional collaboration in the RTP planning process to introduce regional governments to scenario planning through an incentive based approach.

Even California’s challenges became success stories – as the state’s major MPOs began to create an ongoing dialogue over the lack of consistency and sensitive tools/methods to measure GHG emission reduction from land use and transportation strategies. This statewide MPO collaboration has spawned a greater dialogue related to equity and economic co-benefits from GHG emission reduction, which indicates that any federal framework that requires scenario planning could have the same benefits as a requirement to achieve a GHG emission reduction target. However, California still struggles with state agency coordination and often encounters repeat efforts and conflicting policy objectives. Even with the establishment of the State’s Strategic Growth Council, many of the state agencies and critical staff members focused on SB 375 implementation are not included as part of the Council.

Overall, California’s successful target setting process resulted in communication of co-benefits across statewide stakeholders – a result which could not have occurred in absence of an extensive process to determine ambitious yet achievable targets.

Washington

Legislative Framework

Washington State faces an even greater challenge than California, with the transportation sector contributing 47 percent of the total GHG inventory. In 2008, House Bill 2815 established GHG emissions and VMT reductions – including goals for GHG emissions reduction to 1990 levels by 2020; 25 percent below 1990 levels by 2035; and 50 percent below 1990 levels by year 2050. HB 2815 also called for an 18 percent VMT per capita reduction below business-as-usual projections for 2020 (75 billion total VMT); 30 percent by 2035; and 50 percent by 2050. The law places implementation responsibility for GHG reduction on the Department of Ecology (DOE) with partner agencies including the Department of Transportation (WSDOT) and the Department of Commerce (DOC), while WSDOT was directed to oversee the VMT reduction targets in coordination with Washington’s MPOs, and in partnership with DOE and DOC.

The following year, the Governor's Executive Order (EO) 09-05 directed WSDOT to work with the four largest Regional Transportation Planning Organizations and MPOs to "develop and adopt regional transportation plans that will, when implemented…reduce GHGs and achieve statutory
benchmarks to reduce annual per capita VMT." In addition to the inclusion of VMT per capita reduction targets for light duty vehicles, Executive Order 09-05 Section 2 requires WSDOT to work with Spokane Regional Transportation Council, Thurston Regional Planning Council, Puget Sound Regional Council, Southwest Washington Regional Transportation Council to cooperatively develop and adopt regional transportation plans that will provide people with additional transportation alternatives and choices, reduce GHG emissions, and achieve the statutory benchmarks to reduce annual per capita VMT in those counties with populations greater than 245,000. By December 01 2011, WSDOT will report to the Governor on which regional transportation planning organizations have developed, or are developing, plans with GHG strategies; which strategies appear to have the greatest potential to achieve the benchmarks; and what policy or funding issues need to be resolved to ensure implementation.

The State of Washington’s “top-down” legislative mandate in House Bill 2815 (2008) created a much different target setting process than in California, where MPOs largely drove the process of establishing a methodology to assign GHG reduction percentages to the regions that would be “ambitious yet achievable.” Instead, the EO directs WSDOT to work with the four largest MPOs/RTPOs to "develop and adopt regional transportation plans that will, when implemented… reduce GHGs and achieve statutory benchmarks to reduce annual per capita VMT." There are a few key elements in Washington’s target setting process which differ from California’s, with the underlining difference being that Washington State approached answers to the following RTAC considerations primarily through a legislative directive rather than through a collaborative process involving technical experts and practitioners.

**Key Challenges**

**GHG vs VMT**

In 2008, House Bill 2815 established GHG emissions and VMT reductions – including goals for GHG emissions reduction to 1990 levels by 2020, and an 18 percent VMT per capita reduction below business--as-usual projections for 2020 (75 billion total VMT); 30 percent by 2035; and 50% by 2050. While California faced challenges in choosing a methodology to assign regional GHG reduction targets for passenger vehicles, Washington’s major challenges revolve around achieving statutory benchmarks for regional GHG and VMT reduction without a technical advisory team with feasibility and methodology input.

**Absolute vs Relative**

Washington is similar to California in that it chose – through the legislative process rather than a technical advisory team – a relative (percentage) approach to setting a VMT reduction target which works toward a statewide absolute GHG reduction goal.

**Measurement Metrics**

The targets outlined in HB 2815 create a challenge for regional governments responsible for a proportionate share of the State’s GHG and VMT reductions because there was no collaborative and technical process that led to the quantification of targets – resulting in legal challenges over compliance with a target that was perhaps too ambitious and not achievable in some regions.
Benchmarking: Baseline vs Trend

The issue of establishing a per capita VMT target through a legislative rather than a technical/collaborative approach extends from measurement metrics to benchmarking. Unlike California which established a 2005 baseline with supporting data, Washington’s HB 2815 established a business-as-usual projection of 75 billion total VMT in 2020 from which the 18 percent VMT per capita target would be measured.

Outcomes

Washington’s ambitious GHG and VMT targets are facing political and legal challenges as a result of there being no extensive target setting process based on technical and fiscal constraints at the regional level. However, State agencies and Washington’s largest MPOs have increased collaboration due to these types of challenges and as a result are creating a unified voice in identifying the need for capacity assistance to develop technical capabilities to develop methodologies and tools to determine GHG and VMT target feasibility. Similar to California’s Blueprint Program laying the foundation for SB 375 collaboration, Washington’s Commute Trip Reduction Law and Growth Management Act in the 1990s resulted in state agency partnerships which have carried into the implementation of HB 2815 – which is one successful area where Washington has seen more progress than California’s state agency silos.

Lessons Learned

Washington found that benchmarking to a business-as-usual trend forecast is inaccurate, because the VMT target was skewed by the economic recession and resulted in an overly ambitious and not feasible target. The State believes a historical baseline is much better that a project forecast, as factors such as projections in electric vehicle market share complicate an accurate baseline.

Oregon

Legislative Framework

The Oregon Global Warming Commission is leading the State toward its goal of 10% GHG reduction below 1990 levels by 2020 and 75% below 1990 levels by 2050 across all sectors as established in House Bill 3543 (2007). Under House Bill 2001 (2009), Portland Metro is required to develop two or more land use and transportation scenarios designed to reduce GHG emission from light duty vehicles. Further, the law requires by June 2011 the Department of Land Conservation and Development (DLCD) to adopt rules for Portland Metro which identify the amount of GHG emissions that must be reduced within the MPO’s boundaries by 2035 – with the Departments of Environmental Quality (DEQ) and Energy (DOE) estimating the reduction in vehicle miles of travel needed within Portland Metro to achieve the 2035 reduction.

In partnership with Oregon’s six MPOs and DOT, DEQ, and DOE, Senate Bill 1059 (2010) – Oregon Sustainable Transportation Initiative – requires DLCD to set light duty passenger GHG percent reduction targets for all six MPOs by 2035 target in order to help achieve the State’s 2050 targets for GHG reduction. Additionally, Section 8 of SB 1059 directs ODOT and the DLCD, in cooperation and consultation with local governments within metropolitan areas, to
estimate the funding needed to prepare and evaluate land use and transportation scenarios and to identify potential funding sources for this work.

In 2009 and 2010 the Oregon Legislature passed SB 1059, requiring the Oregon Department of Transportation (ODOT), DLCD and other state agencies to work together and examine ways to reduce GHG emissions from passenger vehicles. This legislation required the development of a statewide transportation strategy (STS) and its adoption by Oregon Transportation Commission (OTC), scenario planning guidelines, and implementation toolkit, GHG reduction targets, and a public education program. This multi-task effort involving ODOT, DLCD, the Department of Environmental Quality (DEQ), and the Oregon Department of Energy (ODOE) is referred to as the Oregon Sustainable Transportation Initiative.

**Key Challenges**

Under House Bill 2001 (2009), Portland Metro is required to develop two or more land use and transportation scenarios designed to reduce GHG emission form light duty vehicles. As a result of this legislation, Portland Metro is farther along in it target setting process, so Oregon’s Target Rulemaking Advisory Committee (TRAC) is looking to the region for guidance on establishing targets for other regions. TRAC is facing many of the same challenges in the target setting process that California’s RTAC process encountered, including a tight schedule.

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<tr>
<th>Process</th>
<th>Timeline</th>
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<tbody>
<tr>
<td><strong>Phase 1: To be conducted within existing planning work</strong></td>
<td>State: Develop preliminary GHG strategy for transportation, establish planning assumptions, develop/assist scenario planning and modeling tools, develop GHG toolkit (catalog actions and programs), prepare GHG reduction BMPs, guidelines, and tools for inventory, compile additional data</td>
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<td></td>
<td>MPO: Engage public, GHG plan assessment, identify additional reductions, consider alteration to pop./emp. assumptions for reduced GHGs, consult toolkit</td>
</tr>
<tr>
<td><strong>Phase 2: To be conducted in RTP update following adoption of GHG targets</strong></td>
<td>State: DLCD adopts GHG targets for Portland Metro (HB 2001) and other MPOs</td>
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<tr>
<td></td>
<td>MPO: Continue public engagement, develop scenarios to meet GHG target, model GHG effect on plan elements, consider possible actions from GHG toolkit, apply BMPs in developing strategies</td>
</tr>
<tr>
<td><strong>Phase 3: To be conducted during subsequent RTP updates</strong></td>
<td>MPO: Evaluate performance of plans, apply BMPs, conduct additional scenario planning and revise plans as necessary, identify additional actions from the toolkit, continue public involvement and local government engagement.</td>
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</table>
**GHG vs VMT**

Just as SB 375 directed ARB to set regional GHG targets for passenger vehicles, Oregon’s SB 1059 requires DLCD to set light duty passenger GHG percent reduction targets for all six MPOs by 2035 target in order to help achieve the State’s 2050 targets for GHG reduction. To achieve the statutory goal of a 75 percent reduction from 1990 GHG levels by 2050, it is estimated that overall GHG levels for 2035 would need to be reduced by 52 percent (or 75 percent on a per capita basis), in order to account for large population growth from 1990 onward.

**Absolute vs Relative**

Mirroring Washington’s statutory requirement to use a relative (percentage) reduction in GHG emissions, the Oregon Sustainable Transportation Initiative also includes a relative target to set light duty passenger GHG percent reduction targets for all six MPOs by 2035 target.

**Measurement Metrics**

The TRAC has outlined per capita reduction needs for both VMT and GHG emissions in order to achieve the State’s overall GHG reduction goal. Oregon’s average 1990 daily VMT per capita for all metropolitan areas was approximately 18 miles, resulting in 4.0 metric tons of carbon dioxide equivalents (CO2e) per capita annually. In 2035, GHG emissions per capita from light motor vehicle transportation need to be reduced to an average of 1.03 metric tons of CO2e per capita annually across all metropolitan areas – translating to an approximate 25 percent reduction in per capita passenger vehicle GHG emissions by 2035, compared to 13-16% in California and 30% in Washington.

**Benchmarking: Baseline vs Trend**

The TRAC faced a benchmarking challenge over the lack of Oregon’s statewide GHG reduction target by 2035 (HB 3547 includes 2020 and 2050 goals). A method was established in the TRAC which sets a baseline for 2035 through estimation by assuming that an equal (quantity vs percentage) amount of change will occur annually – resulting in a 42.5 percent reduction goal by 2035. Oregon’s use of an estimated projection to determine a baseline benchmark mirrors Washington’s statutory requirement to reduce from business-as-usual trends. California differs from both Oregon and Washington in that it used a current year baseline. Where Oregon is unique in this regard comes from the use of a relative target to achieve an absolute one at the state – Washington and California’s statewide absolute GHG reduction goals are disconnected from the relative VMT/GHG emission goals.

**Outcomes**

Oregon is just beginning the process of setting targets and preparing plans. The Agencies Technical Report found that the six MPOs proposed reduction goals varied between 40% reduction from 1990 to 2% reduction from 1990.

Lessons Learned

The State of Oregon combines the strengths of Washington’s state agency collaboration with California’s technical advisory process to establish GHG reduction targets and methodologies. Early indicators show that this frameworks draws upon the successes achieved in other states, while shedding light on consistent challenges across the west coast related to technical resource needs and fiscal limitations to obtaining the level of analysis required by new statues.

Florida

Legislative Framework

Florida Growth Management Act gives Department of Community Affairs the authority to review local land use plans for adherence to state laws. It also set up concurrency requirements and Development of Regional Impact review process by regional planning agencies.

In 2007 - Climate Change Summit resulted in three Executive Orders that established state GHG reduction targets and a Governors Action Team charged with preparing a Climate Plan.

Climate Plan completed in 2008.

In 2008 - HB7135, Energy and Economic Development bill that requires GHG emissions be considered in MPO plans. It says that MPOs should minimize GHG emissions, consider strategies for integrating transportation/land use planning and encourage sustainable development to reduce GHG emissions

2008 - HB 697, enacting new Building Code Standards, also contained provision requiring local comprehensive plan land use elements to discourage sprawl and include GHG reduction strategies, transportation elements to reduce GHG. Enacted by the 2008 Legislature, this legislation incorporates consideration of greenhouse gases and energy efficiency into local comprehensive plans by amending Section 163.3177, Florida Statutes, as follows:

- (6)(a) - [Future Land Use Element] is expanded to include: "... the discouragement of urban sprawl; energy efficient land use patterns accounting for existing and future electric power generation and transmission systems; greenhouse gas reduction strategies; ..."
- (6)(b) - [Traffic Circulation Element] is expanded to include: "The traffic circulation element shall incorporate transportation strategies to address reduction in greenhouse gas emissions from the transportation sector."
- (6)(d) - [Conservation Element] is expanded to include: "... including factors that affect energy conservation."
- (h) - [Housing Element] is expanded to include: "Energy efficiency in the design and construction of new housing" and "Use of renewable energy resources."
- (6)(j) - [Transportation Element] is expanded to include: "The incorporation of transportation strategies to address reduction in greenhouse gas emissions from the transportation sector."
In 2009 - SB 360, Community Renewal Act, which alters some aspects of the Florida Growth management Act including setting up Concurrency Exemption Areas. It also directs FDOT and DCA to develop a uniform mobility fee.

**Key Challenges**

Although there were no target setting issues in Florida, transportation agency officials identified a number of other types of barriers to implementing the legislative framework.

A primary topic of concern was how to implement the state law (Ch. 163, F.S.) requiring local government comprehensive plans to include energy efficiency land use patterns and GHG emissions reduction strategies (including those from the transportation sector). Due to sprawl and emerging mega regions, coordinated efforts would be needed and it would be a challenge to establish centers and transit oriented development, including supportive densities and intensities of use. They cited the limited role of transportation agencies (state and MPOs) in local land use and transit investment decisions. The fact that Florida will continue to be a growth state, means VMT will continue to grow. VMT is also affected by tourism, a major component of Florida’s economy.

A problem not unique to Florida, but cited by officials was the lack of funding for capacity improvements, the backlog of unmet needs and the reduced revenues because people are driving less and using more fuel-efficient vehicles. Funding issues were particularly acute for expanding regional rail transit and funding operations of the Tri Rail commuter rail.

Officials felt there was no framework for incorporating GHG reductions into review of STIP, TIPS and projects. They also raised issues about the reliability and consistency in measuring GHG baselines and projections and obtaining reliable information on potential effects of climate change for evaluating adaptation needs.

**Outcomes**

Florida DOT recently completed their 2060 state transportation plan. The 2060 plan has an environmental stewardship goal that includes GHG reduction, energy conservation and air quality. State regulations still require MPOs to address GHG in long range plans, and in local comprehensive land use plans.

The administration of Governor Rick Scott, who was elected in November, 2010, holds a different opinion about the need for GHG reduction than the previous administration. Gov. Scott told voters during the campaign that he doesn’t believe in climate change and is not persuaded that investing in renewable energy is a good deal. His proposed budget eliminated the Florida Energy & Climate Commission, the volunteer board which administers state and federal energy grants and makes recommendations on state climate policy.

Gov. Scott also made a high profile rejection of the federal High Speed Rail funding of $2.4 billion dollars. Florida high speed rail planning has had an on again off again history through four different governors and constitutional amendments. After the Governor’s rejection of federal funds a Florida DOT funded study was released that found HSR would have had an operating surplus after the first year of implementation.
Lessons Learned

There are many constituencies that have differing views on the need for climate mitigation action. As political power changes among them plans for GHG reduction can be setback. Consistent messaging should relate climate issues to concerns of shared value that align with what differing groups are already doing. Some messages might include cleaner air, energy security, or reduction of infrastructure costs. Economic analysis should be consistent across modes and policies so that truly cost effective strategies rise to the top.

Climate issues can also be couched in terms of asset management, especially where adaptation policies are needed. There is an obligation to maintain public investments. Florida transportation assets are quite vulnerable to weather events and this fact can lead to continuity in policy even across political changes.

The dual roles of the Energy and Climate Commission, which was supposed to track implementation of climate action plans, but ended up as a clearing house for all the energy grant programs, may have contributed to its demise under political shifts.
Appendix A: Matrix comparison of policies

A study done under the NCHRP “Assessing Mechanisms for Integrating Transportation-Related GHG Objectives into Transportation Decision Making” identified some key dimensions of policies that would address that subject. CCAP previously used a similar framework for analyzing legislative climate proposals. These analyses outlined some key issues in policy design that form the structure of different types of transportation planning requirements and processes. A comparable structure is used in the case studies below to highlight some of the differences between the legislative frameworks of the four states.

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