

Metro | Agenda

Special Meeting: Transportation Policy Alternatives Committee (TPAC)
Metro Technical Advisory Committee (MTAC)
Date: Monday, June 18, 2012
Time: 1 – 3 p.m.
Place: Metro, Council Chambers

- | | | | |
|----------------|------------|--|---|
| 1:00 PM | 1. | <u>WELCOME AND INTRODUCTIONS</u> | Robin McArthur, Chair |
| | 2. | <u>DISCUSSION ITEMS</u> | |
| 1:05 PM | 2.1 | * Climate Smart Communities – Scenarios Project Update – <u>DISCUSSION</u> | Kim Ellis |
| | | <ul style="list-style-type: none">• <u>Purpose:</u> Provide project update and kick-off discussion on framing scenario options• <u>Outcome:</u> Discussion and input on how to frame scenario options | |
| 1:45 PM | 2.2 | * Oregon Statewide Transportation Strategy –<u>DISCUSSION</u> | Barbara Fraser, ODOT
Brian Gregor, ODOT
Mike Hoglund |
| | | <ul style="list-style-type: none">• <u>Purpose:</u> Present draft STS recommendations and next steps• <u>Outcome:</u> Discussion and input on recommendations and implications for Climate Smart Communities scenario options | |
| 3:00 PM | 3. | <u>ADJOURN</u> | Robin McArthur, Chair |

- * Material available electronically.
Material will be distributed at the meeting.

For agenda and schedule information, call Kelsey Newell at 503-797-1916, e-mail: kelsey.newell@oregonmetro.gov.
To check on closure or cancellations during inclement weather please call 503-797-1700.



MEETING NOTES

Special Meeting of TPAC and MTAC
Metro Regional Center
Metro Council Chamber
Monday, June 18, 2012, 1:00 – 3:00 p.m.

Members and interested parties present:

<u>NAME</u>	<u>AFFILIATION</u>
Jon Holan	City of Forest Grove
Moriah McSharry McGrath	Multnomah County Health Department
Lainie Smith	Oregon Department of Transportation
Michele Crim	City of Portland
Ann Debbaut	Department of Land Conservation and Development
Dana Krawczuk	NAIOP
Shari Gilevich	Clackamas County
Darci Rudzinski	Angelo Planning
John Sonnen	City of West Linn
Dave Nordberg	Oregon Department of Environmental Quality
Eric Hesse	TriMet
Stacy Humphrey	City of Gresham
Cindy Hahn	City of Tualatin
Ben Bryant	City of Tualatin
Ramsey Weit	Community Housing Fund
Carol Gossett	TPAC Community Representative
Dan Chanoller	Clackamas County
Margaret Middleton	City of Beaverton
Katherine Kelly	City of Gresham
Andy Back	Washington County
Pat Ribellia	City of Hillsboro
Karen Buehrig	Clackamas County
Barbara Fraser	Oregon Department of Transportation
Kristina Evanoff	Oregon Department of Transportation
Brian Gregor	Oregon Department of Transportation
Tamara Deridder	RCPNA/Habitat for Sustainability
Susan Wright	Kittelson and Associates

Staff: Tom Kloster, Kim Ellis, Nuin-Tara Key, Ray Valone, Mike Hoglund, Janna Allgood, Thaya Patton, Andy Cotugno, Patty Unfred, and Chris Myers.

1. WELCOME AND INTRODUCTIONS

Ms. Robin McArthur of Metro started the meeting with work group introductions.

Ms. Kim Ellis of Metro introduced the presenters for the Oregon Statewide Transportation Strategy presentation, those presenters are: Barbara Fraser, ODOT; Brian Gregor, ODOT; and Mike Hoglund, Metro.

2. DISCUSSION ITEMS

2.1 OREGON STATEWIDE TRANSPORTATION STRATEGY

- **Purpose:** Present draft STS recommendations and next steps
- **Outcome:** Discussion and input on recommendations and implications for Climate Smart Communities scenario options

Ms. Barbara Fraser of ODOT gave an overview of the Greenhouse Gas Emissions statewide program and legislative mandates specific to greenhouse emissions reduction planning. After the overview Ms. Fraser presented information and current process for adoption of the Oregon Statewide Transportation Strategy and next steps for developing an implementation plan.

Committee members discussed the economic and fiscal impacts of the plan and what portions of the plan are open for comment.

Mr. Brian Gregor of ODOT presented the three market segments of the plan - heavy freight, ground passenger and commercial service vehicles, and the air passenger segments of transportation. Mr. Gregor discussed that this plan is different than an air quality plan for a metropolitan area because it considers all travel of households within Oregon. Mr. Gregor discussed that the scenario planning is suggesting the state's GHG emissions can and will be reduced by 2050. Further presentation points focused on which levers can be used to influence GHG emissions reductions such as pay-as-you-drive auto insurance, paying for air pollution/full cost of driving, decreasing the age of the fleet of vehicles, and rising fuel prices over time.

Mr. Gregor then discussed technology advances and the place of vehicle technology in the state's planning for GHG reductions. Further discussion focused on the potential recommendations based on the Statewide GreenSTEP model, specifically community design, urban growth boundary, more ITS, shift of single occupancy vehicle trips to zero emission modes, car-sharing, more transit ridership, modest road expansion, and parking pricing.

Mr. Gregor also discussed freight vehicles, fuel technologies, and pricing. Freight is and has been the largest growing sector for emissions and the best the state model could do was to reduce freight GHG emissions by 30%.

Committee members discussed how population locations within the state affect GHG emission outcomes.

Mr. Mike Hoglund of Metro presented preliminary comments on the draft Statewide Transportation Strategy. Mr. Hoglund presented four primary lessons/themes:

- Build on existing plans at the state, regional, and local levels
- A multi-faceted approach is necessary to reach targets and state goals
- Partnerships and collaboration work best
- Any GHG reduction approach should be “outcome based”

Mr. Hoglund presented areas for state and metro region collaboration:

- Public Development
- Public Outreach and Education
- Implementation
- Other Emission Sectors
- Technical Tools
- Research and Analysis

Committee members discussed the process for working through the fifty different recommendations and how the OTC would prioritize implementation. Members also expressed that the letter needs a summary statement specifically outlining what is being asked from the letter. Further discussion centered on the issue that many of the solutions for reducing GHG emissions actually have a net savings to households and businesses. Members were encouraged to provide any additional comments on the draft letter directly to Mike Hoglund by June 29. MPAC and TPAC will have an opportunity to provide comments on the draft letter at the June 27 and June 29 meetings, respectively. JPACT will review the draft letter at their July 12 meeting.

Ms. Fraser reiterated the public comment period is open until July 20, and that TPAC, MTAC, MPAC and JPACT members will also be sent an email from Survey Monkey in providing an additional comment opportunity. Input provided through the electronic survey will help the Oregon Transportation Commission form strategic priorities and develop the STS implementation plan. The OTC is anticipated to adopt the STS in October.

2.2 CLIMATE SMART COMMUNITIES SCENARIOS PROJECT

- **Purpose:** Provide project update and kick-off discussion on framing scenario options
- **Outcome:** Discussion and input on how to frame scenario options

Ms. Kim Ellis presented an update on the Climate Smart Communities Scenarios Project. With this update Ms. Ellis sought input on the proposed framework and approach for defining scenario options and assumptions during phase 2.

Ms. Ellis discussed local partner suggestions and concerns raised to date, those are:

- The focus on GHG emissions from light-duty vehicles is too narrow.
- More clarity is needed on the potential scenario options and the preferred scenarios
- Uncertainty about what the project will recommend and provide more concrete examples of implementation.
- Local partners need to be part of defining the options and the assumptions used in the analysis.
- Phase 2 scenario options should be more fiscally pragmatic than what was assumed in phase 1.
- Work to date is too focused on the urban core; more work needed on the unincorporated areas of the region.
- Project engagement needs to be an ongoing dialogue.
- Staff and resource capacity is an issue for every agency; this project takes away from other priorities.

Ms. Ellis explained that the proposed framework is focused on an investment theme that tests different levels of transportation investment based on policymakers' willingness and ambition to fund investments needed to achieve adopted community plans and visions. She described that the approach responds to the political and economic realities facing the region, and uses community plans and visions as the foundation. Committee and audience members discussed opportunities to change assumptions used in phase 1 to reflect more tailored ambitions within each community and new information from the STS work, engaging community leaders and developers in the process, the target date of 2035 for the planning horizon, which represents a mid-point to reaching the 2050 state goals, whether global trends will have a greater impact than any work completed in the scenarios project and whether to focus on fleet and technology when those policies are largely outside local and regional control.

Ms. Ellis explained that MTAC and TPAC will continue to discuss the proposed framework at their June 20 and June 29 meetings. Staff plans to bring the framework forward to MPAC and JPACT for discussion in July.

3. ADJOURN

Ms. McArthur adjourned the meeting at 3:03 p.m.

Respectfully submitted,
Chris Meyers
Meeting Recorder



Metro | Memo

Date: May 25, 2012
To: TPAC, MTAC and interested parties
From: Kim Ellis, Principal Transportation Planner
Re: Climate Smart Communities – Proposed Framework and Approach for Defining Scenario Options

Action requested

Input on the proposed framework and approach for defining scenario options and assumptions during Phase 2.

This will be discussed at the joint MTAC/TPAC meeting on June 18, MTAC on June 20 and TPAC on June 29.

Purpose

This memo summarizes suggestions and concerns raised by local partners and describes a proposed framework and process for developing scenario assumptions with local partners using Envision Tomorrow and through other stakeholder engagement activities.

Background

The Climate Smart Communities project is a multi-year, collaborative effort to help communities in the Portland metropolitan region achieve the things they want – clean air, healthy communities and jobs close to home – while at the same time attaining state, regional and, in some communities, local greenhouse gas reduction goals. Phase 1 focused on understanding available choices by testing a variety of possible actions to reduce emissions from cars and small trucks. In Phase 2 (this year), the project will focus on working with local governments and community stakeholders to shape scenarios options to be evaluated in more detailed in 2013.

Phase 2 includes:

- working with local partners to confirm community ambitions and develop case studies, review Phase 1 sensitivity analysis and the draft Statewide Transportation Strategy to identify most effective strategies, and frame a range of scenario options that support community and regional ambitions
- working with local partners and other stakeholders to refine the scenarios evaluation framework and criteria to create a score card
- facilitating a regional discussion with local government, business and community leaders to review the scenario options and assumptions to be tested in 2013.

In December, MPAC, JPACT and Council will be asked to provide direction to staff on the scenario options to be evaluated.

Local partner suggestions and concerns raised to date

A number of comments and concerns have been raised during project discussions with Metro Policy Advisory Committee, the Joint Policy Advisory Committee on Transportation, City Councils and briefings of other elected officials and local agency staff. Suggestions and concerns raised include:

- The focus on greenhouse gas emissions from light-duty vehicles in state legislation is too narrow, and the process has been overly focused on meeting the state target. It is important to make a good-faith effort to meet the target, but also recognize that other sectors may provide

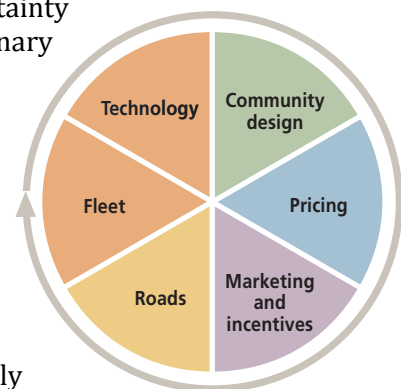
significant reductions. In the end, local and regional policymakers should agree collectively on what is best for each community and the region, not just focus on meeting the target for light-duty vehicles.

- More clarity is needed on what the scenarios options and the preferred scenario could be. It is important to provide more concrete examples of things that are already going on in communities in the region – e.g., integrating and coordinating investments to advance/leverage existing efforts to achieve each community’s vision.
- There is uncertainty about what the project will recommend in the end and providing more concrete examples of how things will be implemented will be helpful. Some have wrongly translated a “preferred scenario” to mean a one-size fits all, top down strategy that is disconnected from what communities want for their future. The preferred scenario (at end of process) should be a compilation of local ambitions and a toolbox with a menu of choices for each community that fit together to shape the region’s strategy.
- Local partners need to be part of defining the options and the assumptions used in the analysis. The assumptions should be tailored for each community and reflect local ambitions.
- The Phase 2 scenario options should be more fiscally pragmatic than what was assumed in Phase 1, particularly for TriMet transit service; the South Metro Area Regional Transit (SMART) district has not experienced service declines. There is concern about being able to fund the investments that may be needed, and the challenge of building support for sustainable financing solutions.
- Work to date is too focused on the urban core and strategies that will work in these areas; more work is needed to address the unincorporated areas of the region. The counties should play a coordinating role to ensure the needs and ambitions of these areas are included in the process.
- Project engagement needs to be a dialogue and ongoing, with more discussion with Mayors and City Councils beyond sharing the Phase 1 findings.
- Staff and resource capacity is an issue for every agency, not just Metro – this project takes away from other priorities and every agency does not have the staff and/or time to participate. Local government work sessions to define community ambitions should include interested elected officials and be organized around subareas if resources are insufficient to convene them individually.

To jumpstart the policy conversation and begin to provide more certainty without driving to pre-determined outcomes, staff drafted a preliminary framework and approach for defining the scenario options. The proposed framework and scenarios are intended to create policy bookends for developing a preferred scenario – and position community plans and ambitions as the foundation.

Framing scenario options – a proposed framework

The purpose of the scenarios is to provide distinct options about the region’s future to clearly articulate local, regional and state choices and tradeoffs based on more detailed evaluation of those options in 2013. The framework is intentionally simplistic to be easily communicated and provide flexibility and range of assumptions for defining a preferred scenario in 2013-14. The scenarios will include refined assumptions for each of the policy areas tested in Phase 1.



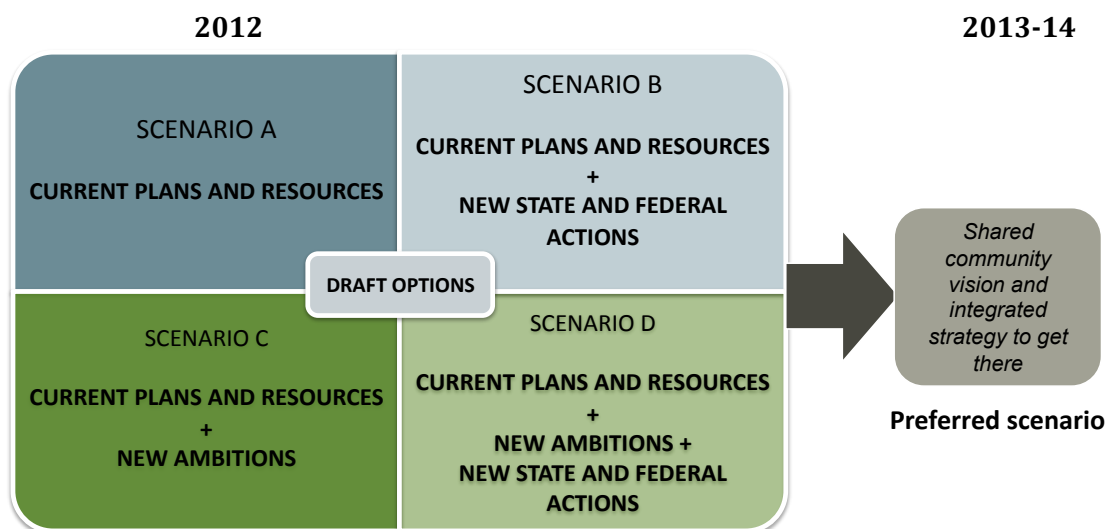
Policy areas tested in Phase 1

Figure 1 illustrates a proposed framework that structures the scenario options so that local community goals and investments are at the forefront and to better communicate that the region's preferred scenario will represent a compilation of local ambitions that have been tailored in each community, and be complemented by state and federal policies being considered in the Statewide Transportation Strategy.

The proposed framework structures the scenario options to demonstrate what communities and the region can do to build each community's vision with existing plans, investment tools and resources (Scenario A) and what could be done with additional investments and tools (Scenario C). Scenarios B and D show how state and federal policies being considered in the Statewide Transportation Strategy can complement local and regional policies to build great communities and meet the state target.

This framework is consistent with state direction but allows the project to do so with a focus on building ownership and support for the investment tools and resources needed achieve community visions, while at the same time reducing greenhouse gas emissions. In the end, the preferred scenario will reflect community ambitions and may include parts of each of the four scenarios tested.

Figure 1. Framing the Scenarios – A Starting Point for Discussion



Defining assumptions for scenario options – the proposed approach

DEFINING ASSUMPTIONS FOR THE COMMUNITY DESIGN POLICY AREA

The compilation of community plans and ambitions will be defined by local government staff and elected officials through the Southwest Corridor work¹ that has already been completed and the local partner work sessions and community case studies described below using Envision Tomorrow.

Local partner work sessions to confirm community ambitions and goals

Local partner work sessions are planned to confirm community ambitions that can be translated into assumptions for the scenarios to be evaluated in 2013. Participants are recommended to

¹ Local Southwest Corridor Plan partners include Portland, Sherwood, Tigard, Tualatin, Beaverton, Durham, King City and Lake Oswego.

include: Metro staff, community planning director, community development director, work group member, and senior staff. Participants may engage their respective City Councils, Planning Commissions, County Boards, as desired, for additional input. These work sessions provide an informal setting for local partners to test different desired land use changes to tailor scenario assumptions for their community. This will ensure the scenarios reflect new ambitions that have been adopted since 2010 or that are being contemplated through periodic review and other local or regional planning efforts. In some communities the "Reference Case" assumed in Phase 1 may adequately reflect those ambitions, and no additional work is needed.

The work sessions will be held with interested local jurisdictions not covered by the Southwest Corridor project outreach. Pending case study locations and interest, this could include Gresham, Hillsboro, Beaverton, Portland, Gladstone, Fairview, Wood Village, Troutdale, Cornelius, Forest Grove, Happy Valley, Damascus, Milwaukie, Oregon City, Maywood Park, Rivergrove, Johnson City, West Linn, Wilsonville and unincorporated areas in Clackamas and Washington counties.

Community case studies to illustrate community ambitions, goals and the strategies needed to achieve them

Five case study locations are proposed to include an employment area, a regional center, a town center and a corridor. Opportunities to convene two or more jurisdictions together will be sought to discuss connecting focus areas, shared ambitions and investment needs. The Southwest Corridor project will develop an integrated investment strategy for each of the project's focus areas that will inform additional community case studies for this part of the region. More information will be provided as the details are finalized.

Envision Tomorrow training opportunities for Metro staff and local government partners

Between mid-2011 and April 2012, Metro staff worked with Fregonese and Associates to incorporate 2010 and 2035 Reference Case land use data into the Envision Tomorrow software. Envision Tomorrow will be used in Phase 2 to work with local government staff and policymakers to confirm community land use ambitions and develop case studies. Envision Tomorrow will continue to be used in Phase 3 to support analysis and refinement of the scenario options developed in Phase 2. The Southwest Corridor effort also plans to use Envision Tomorrow for the focus areas work sessions the project will convene in 2012. *Other regional tools and models will be used in the scenarios evaluation in 2013, including the travel demand model, MetroScope and Metropolitan GreenSTEP.*

In advance of the local partner work sessions, TPAC, MTAC, JPACT, MPAC, the Metro Council and others have been invited to attend a 90-minute broad-level overview of Envision Tomorrow, *on June 12, from 11:30 - noon at Metro in the Council Chamber.* The presentation and overview will include a live demonstration of the tool to build awareness and understanding of the potential application of this tool in the Climate Smart Communities effort, Southwest Corridor effort as well as local planning efforts now and in the future.

Metro and local government staff trainings will be held in June to build Metro's internal capacity for conducting the local partner work sessions and providing technical support to local partners in the future. To date, the following local jurisdictions have indicated a desire to have one or two staff from their agency participate in the user group training:

- City of Gresham
- City of Hillsboro
- City of Beaverton
- City of Portland
- City of West Linn
- City of Oregon City
- Washington County
- Clackamas County
- TriMet

Limited space is available. Please contact Molly Vogt, Metro's Client Services Supervisor, as soon as possible if you would like staff from your jurisdiction to participate in the user group "hands-on" training by sending email to molly.vogt@oregonmetro.gov.

Other engagement activities and opportunities to provide input on the scenario options

Engagement in 2012 will be focused on local jurisdiction staff and elected officials, targeted community and business leaders (especially from the public health, equity/environmental justice, environmental, and business/economy sectors), and mayors and city councils. The primary goals of engagement are to (1) understand local community aspirations, (2) develop a shared understanding of the local and regional benefits possible through working together, (3) develop clear criteria for measuring the benefits and impacts of policy choices, and (4) build local ownership of and support for the project.

More extensive public engagement will not commence until Phase 3 in 2013-14 when there will be more opportunity for discussions on specific options and tradeoffs; however the public will continue to be informed about the project and issues this year through the project website, a series of newsfeeds and an online opinion tool in the fall.

In addition to the local engagement activities described in the previous section, staff will use the following approach to foster collaboration between local community leaders and elected officials, MPAC, JPACT and the Metro Council, incorporate feedback and new community aspirations, build community ownership and, ultimately, support for the narrowing process this fall:

- **Metro advisory committees** discuss project information and provide direction on assumptions related to the regional transit service; road management and capacity; marketing and incentives; and draft Oregon Statewide Transportation Strategy recommendations for pricing, fleet and technology policy areas. *(Ongoing)*
- **Scorecard workshops** (three workshops, focusing on public health, equity/environmental justice, and environment and three focus groups of businesses and developers) to provide input on how the scenarios should be evaluated in Phase 3. *(June-July)*
- **Coordination with the Southwest Corridor Project**, sharing information and building on focus area workshops with stakeholders in project jurisdictions (e.g., Tigard, Tualatin, Portland, Sherwood, Beaverton, Durham, King City and Lake Oswego). *(Ongoing)*
- **Briefings with Local Elected Officials and Planning Directors** to share and discuss project information and facilitate an ongoing dialogue with local and community partners on the scenario options and assumptions to be tested to ensure they reflect community ambition. *(Ongoing)*
- **Seminar series** to highlight successful strategies and build understanding of specific topic areas in coordination with other Metro programs and speakers' series. *(Ongoing)*
- **On-line engagement** to gather input on the range of scenario options and evaluation criteria being considered. *(October)*
- **Summit** in October/November to share and discuss case studies, additional analysis findings, evaluation criteria and scenario options to be tested in Phase 3. *(Proposed summit participants include Metro Council, JPACT, MPAC, scorecard workshop participants, local elected officials and other key business and community leaders)*

Technical work group role

A work group of members of the Transportation Policy Alternatives Committee and the Metro Technical Advisory Committee was created in 2011 to provide technical support to the Climate Smart Communities Scenarios process. The active participation and input provided by work group members provided a strong foundation for successful completion of Phase 1.

Metro staff will continue to convene the technical work group – made up of staff from local jurisdiction planning departments and community organizations – to conduct the technical work in Phase 2 and review products and materials in advance of Metro technical and policy advisory committee discussions.

Key work group tasks for Phase 2 include:

- Help review Phase 1 sensitivity testing and district results. *(April - July 2012)*
- Help frame scenario options, including regional and state policy options. *(April - July 2012)*
- Help define the Scenarios Score Card and the measures and methods used to evaluate the scenarios. *(June – September 2012)*
- Help coordinate development of community case studies and identification of focus areas. *(June – September 2012)*
- Review products and materials in advance of Metro technical and policy advisory committee discussions. *(On-going)*
- Serve as liaison, sharing project information with local government leaders and staff of their respective jurisdiction, Metro technical and policy advisory committees and planning efforts underway in the region (e.g., Southwest Corridor, local comprehensive plan updates, state and regional planning grants, etc.). *(On-going)*

TPAC/MTAC Climate Smart Communities Scenarios Technical Work Group *(as of May 25, 2012)*

	Name	Affiliation	Membership
1.	Tom Armstrong	City of Portland	MTAC alternate
2.	Andy Back	Washington County	TPAC alternate & MTAC alternate
3.	Chuck Beasley	Multnomah County	MTAC member
4.	Lynda David	Regional Transportation Council	TPAC member
5.	Jennifer Donnelly	DLCD	MTAC member
6.	Denny Egner	City of Lake Oswego	MTAC member
7.	Karen Buehrig	Clackamas County	TPAC member
8.	Chris Beanes	TPAC community member	TPAC member
9.	Jon Holan	City of Forest Grove	MTAC alternate
10.	Katherine Kelly/Jonathan Harker	City of Gresham	TPAC member/MTAC member
11.	Nancy Kraushaar	City of Oregon City	TPAC member
	Kenny Asher	City of Milwaukie	TPAC alternate
12.	Alan Lehto	TriMet	TPAC/MTAC member
	Eric Hesse/Jessica Tump		TPAC/MTAC alternates
13.	Mary Kyle McCurdy	MTAC citizen/community group	MTAC member
14.	Ben Bryant	City of Tualatin	Local government staff
15.	Tyler Ryerson	City of Beaverton	MTAC alternate
16.	Margaret Middleton	City of Beaverton	TPAC member
17.	Lainie Smith	ODOT	TPAC alternate and MTAC member
18.	Dan Rutzick/Peter Brandom	City of Hillsboro	Local government staff
19.	Mara Gross	Coalition for a Livable Future	Community member

For more information or to be added to the Climate Smart Communities scenarios project interested parties list, contact Kim Ellis at kim.ellis@oregonmetro.gov.



Metro | Memo

Date: May 25, 2012 – **Updated June 13, 2012**
To: JPACT and interested parties
From: Kim Ellis, Principal Transportation Planner
Re: Upcoming Briefings and Public Comment Period on Draft Oregon Statewide Transportation Strategy

Oregon Statewide Transportation Strategy

The Oregon Statewide Transportation Strategy (STS) is part of a larger effort known as the Oregon Sustainable Transportation Initiative (OSTI), resulting from two bills passed by the Oregon Legislature, to help the state meet its 2050 goal of reducing transportation-related greenhouse gas (GHG) emissions. The STS is intended to identify the most effective GHG emissions reduction strategies in transportation systems, vehicle and fuel technologies, and urban land use patterns in three key travel markets: ground passenger and commercial services, freight, and air passenger. These strategies will serve as the best tools available to help meet the state's goals while supporting other community goals such as clean air, safe and healthy neighborhoods, economic vitality and jobs close to home.

The STS was developed over 18 months through extensive research and analysis as well as policy direction and technical input from state agencies, local governments, industry representatives, metropolitan planning organizations, and others. Metro Councilors Collette and Burkholder have each served on the Policy Advisory Committee. The STS is not regulatory and does not assign responsibility for implementation, but rather points to promising approaches to be further considered by policymakers at the state, regional, and local levels.

Oregon Statewide Transportation Strategy Comment Period from May 16 to July 20, 2012

The Oregon Transportation Commission (OTC) released the draft strategy at their May meeting, formally initiating a public comment period from May 16 to July 20, 2012.

Materials are posted on ODOT's website: <http://www.oregon.gov/ODOT/TD/OSTI/STS.shtml>

Oregon Department of Transportation (ODOT) staff will present the draft STS to Metro's technical and policy advisory committees for discussion and input during the comment period. ODOT staff want to hear your ideas, questions and concerns so they can be considered prior to OTC approval of the STS in October.

The following meeting dates, times and locations have been scheduled.

- Monday, June 18 from 1-3 p.m. at Metro in the Council chamber – **Special Joint TPAC and MTAC Meeting**
- Wednesday, June 27 from 5-7 p.m. at Metro in the Council chamber – **regular MPAC meeting**
- Thursday, ~~July 12~~ **June 14** from 7:30-9 a.m. at Metro in the Council chamber – **regular JPACT meeting**

Metro staff will also present new information from the Climate Smart Communities project at these meetings to facilitate a discussion on implications of the draft STS for the region's Climate Smart Communities effort. The discussions will be an opportunity to talk about how the STS can support local community visions and help meet the region's GHG emissions reduction target.



Draft Oregon Statewide Transportation Strategy

A 2050 Vision for Greenhouse Gas Emissions Reduction

Executive Summary



Oregon Sustainable Transportation Initiative (OSTI)

May 2012



Oregon
Department
of Transportation

*Dedicated to the legacy of Gail Achterman's
leadership for Oregon's natural resources and
sustainable transportation.*



For more information, contact:

Barbara Fraser

Planning Unit, STS Outreach Lead
Barbara.K.Fraser@odot.state.or.us
(503) 986-2927

Kristina Evanoff

Planning Unit, Senior Transportation Planner
Kristina.Evanoff@odot.state.or.us
(503) 986-6576

www.oregon.gov/ODOT/TD/OSTI/STS.shtml



The Oregon Department of Transportation
Transportation Planning Unit
555 13th Street NE, Suite 2
Salem, Oregon 97301

The Statewide Transportation Strategy

The Statewide Transportation Strategy (STS) for greenhouse gas (GHG) emissions reduction looks out to the year 2050 and explores how transportation and land use choices made over the coming decades might affect Oregon's long-term future. It is part of a larger effort known as the Oregon Sustainable Transportation Initiative¹ (OSTI), an integrated statewide effort to reduce GHG emissions from Oregon's transportation sector.

OSTI is the result of two bills passed by the Oregon Legislature, House Bill 2001² (2009) and Senate Bill 1059³ (2010), which were crafted to help the state meet its 2050 goal of reducing transportation-related GHG emissions.⁴ OSTI takes into consideration how the energy landscape is changing, as well as the need to sustain a strong economy while creating healthier, more livable communities and greater economic opportunity.

The STS addresses the following key question:

What actions and strategies will be effective in reducing transportation-related GHG emissions in Oregon while supporting other societal goals such as livable communities, economic vitality, and public health?

The STS is the product of an effort involving extensive research and analysis as well as policy direction and technical input from state agencies, local governments, industry representatives, metropolitan planning organizations (MPOs), and others. It is intended to identify the most effective GHG emissions reduction strategies in transportation systems, vehicle and fuel technologies, and urban land use patterns, which will serve as the best tools available to help meet the state's goals.

The STS is neither directive nor regulatory, but rather points to promising approaches that should be further considered by policymakers at the state, regional, and local levels. It constitutes a framework for future work to reduce transportation-related GHG emissions in three key travel markets: Ground Passenger and Commercial Services, Freight, and Air Passenger.

The movement of people and goods produces emissions that account for a significant portion of all GHGs produced by Oregonians, so reducing emissions from transportation can make a sizeable contribution to overall GHG reduction goals. While the focus of OSTI



STS Policy Committee
Chair Ken Williamson

"We are not talking about getting people out of their cars. This is about a clear economic opportunity – creating industry, creating jobs. Leadership will be essential."

*— Ken Williamson,
Oregon Environmental
Quality Commission,
Oregon State University*

¹ OSTI; <http://www.oregon.gov/ODOT/TD/OSTI/General.shtml>

² Section 37 to 39, Chapter 865, Oregon Laws 2009; <http://www.leg.state.or.us/09orlaws/sess0800.dir/0865.htm>

³ Chapter 85, Oregon Laws 2010 Special Session; <http://www.leg.state.or.us/10ssorlaws/0085.htm>

⁴ ORS 468A.205; <http://www.leg.state.or.us/ors/468a.html>

Why Do Greenhouse Gas Emissions Matter?

GHG emissions result in part from the combustion of fossil fuels like oil, coal and natural gas. These gases trap extra heat in the atmosphere. According to scientists, this leads to increases in average global temperatures, extreme weather events, and other changes in the global climate, commonly referred to as climate change. Global climate changes can lead to extended warm spells and drought, as well as more frequent flooding. These changes have consequences for Oregon agriculture, hydropower, public health, watershed and forest health, and infrastructure vulnerability.

Scientists can't say exactly how intense these effects will be, how rapidly they will emerge or what exactly their geographic distribution will be, but there is broad agreement that GHG emissions must be reduced, and societies must prepare to react to some of these effects even if timely reductions are achieved.

If the climate change trend continues, Oregon could experience a range of negative impacts, including:

- Higher sea levels and stronger storm surges that could threaten coastal areas with greater risk of floods and damage to buildings, roads, bridges, and other infrastructure.
- Changes in precipitation patterns such as more severe rain and snowstorms, less and more rapidly melting snowpack, which could threaten supplies of water for drinking, recreation, irrigation, and fisheries.
- Diminished water supply and agricultural productivity that could affect Oregon's crops and livestock.
- Adverse health impacts including increases in heat-related illnesses, chronic disease and fatalities due to more heat waves.
- Suffering ecosystems, including forests, grasslands and watersheds, where native species will suffer as temperatures rise.

is on transportation, the Oregon Global Warming Commission and others are addressing GHG from other sources, such as electrical power generation, to help Oregon meet the state's ambitious goal of reducing GHG emissions to 75 percent below 1990 levels by 2050.⁵ Achieving this statewide goal will require planning, innovation, and coordination among many sectors and communities across the state.

The findings and recommendations documented in the STS is the first phase in a multi-year process. Following the adoption of the STS by the Oregon Transportation Commission (OTC), the next phase will be the collaborative development of an implementation plan. The third and final phase will consist of monitoring and adjusting the strategy over time.

The Cost of Inaction

Undertaking the recommendations in the STS will not be easy. They will require assuming new responsibilities, such as committing to providing more pedestrian, bicycle, and public transportation options in urban areas, and potentially reallocating and securing additional funds. However, the alternative is likely to be even more costly. On the current path, the results of the STS analysis suggest there will be a multitude of new costs and challenges. One way or another, projected increases in population and travel demand, funding constraints, and the need to repair or replace aging infrastructure will require some significant changes to Oregon's transportation system in the decades ahead. Inaction is neither cheap nor desirable.

What Will It Take to Change Course?

Long-term projections of the "business as usual" approach to transportation show that without decisive and timely action, GHG emission levels will rise steadily into the future. Further progress will result from existing policies, but much additional work is needed to put Oregon on track to meet emissions reduction goals and mitigate future impacts of climate change.

⁵ ORS 468A.205; <http://www.leg.state.or.us/ors/468a.html>

Achieving the state's goals will require a multi-faceted approach and significant cooperation between state agencies, regional planning entities, local governments, the private sector, and the public. While Oregon is prepared to be in the forefront in addressing climate change, it cannot face this challenge alone. Limiting the impacts of climate change must ultimately be a global effort, requiring actions from other states, the federal government, other countries, and private industry.

See how to be
involved –
[www.oregon.gov/
ODOT/TD/OSTI](http://www.oregon.gov/ODOT/TD/OSTI)

What's In It for Oregon?

The benefits of reducing GHG emissions from transportation extend beyond arresting the impacts of climate change. Many actions that can be taken to reduce GHG emissions may also help create new jobs while positioning Oregon to compete in a changing global economy. Over the next forty years – the planning horizon of the STS – Oregon will face a number of challenges that will require creative solutions. Factors such as population growth, a changing economy, and aging transportation infrastructure will all require attention whether or not there is comprehensive action on climate change.

As the STS demonstrates, the same actions that are employed to reduce GHG emissions also will:

- Reduce delay and inefficiency on Oregon's roadways;
- Support clean air and protect natural resources;
- Improve public health;
- Accommodate new state residents;
- Provide for the efficient movement of goods and services;
- Reduce Oregon's dependency on foreign energy sources; and
- Reduce the percentage of income the average Oregon household spends on transportation.

The 2050 Vision

In setting the context for a statewide transportation strategy to address transportation-related GHG emissions reduction, it is necessary to envision a future Oregon that accommodates an expanding population and maximizes the potential for a thriving economy, while maintaining Oregon's quality of life and natural beauty. Planning for a cleaner and more sustainable transportation and land use system also supports a multitude of societal benefits including: more efficient transportation systems that help people and goods travel more quickly and easily; reduced transportation costs for individuals and businesses; and increased travel choices such as bicycling, walking, and public transportation.

The Statewide Transportation Strategy envisions a future Oregon that features:

- **Walkable mixed-use communities**, where a large share of residents live within walking distance of jobs, stores, services, entertainment, and transit stops. Communities across the state are recognized for vibrancy, livability, and safety.



“This is also about protecting Oregon business – how are we as governments responding? Can we facilitate change, or be nimble enough to respond?”

*— Onno Husing,
Oregon Coastal
Zone Management
Association*

- **Improved public transportation service, bicycling and walking** throughout the state, provide all Oregonians with better access to a range of transportation options. Communities feature well-lit walking paths, bicycle facilities, and more frequent transit service, encouraging physical activity and overall improvements in public health.
- **Fuel-efficient/alternative energy vehicles**, created through great strides in technology, allow widespread adoption of cleaner and more efficient passenger vehicles. Heavy-duty freight vehicles run on liquefied natural gas, and commercial aircraft run largely on biofuels. These changes improve air quality dramatically while reducing dependency on foreign oil.
- **Enhanced information technology** allows Oregonians to easily plan and update their travel routes using multiple modes as needed such as transit, bicycling and walking. Improved communication systems enable individuals and organizations to meet and collaborate virtually, while reducing the need for physical travel. Collision avoidance systems in cars and trucks greatly reduce the number and severity of crashes, and eliminate hundreds of hours of roadway delays each year.
- **More efficient movement of goods** results from reduced congestion on Oregon roadways, shifts to more efficient modes such as rail and water, and lower emissions from new technologies in freight-hauling vehicles.



Benefits of the 2050 Vision

The potential benefits of achieving the Statewide Transportation Strategy 2050 Vision extend far beyond the critical goal of limiting the adverse effects of climate change. In fact, bringing about these advancements could result in a broad array of positive impacts to society when compared to business as usual. The 2050 Vision offers the following potential benefits for Oregonians:

- **Household savings** resulting from fewer vehicle miles traveled, lower household vehicle ownership rates, and improved access to public transportation, bicycling and walking. Savings allow households to spend a lower percentage of their incomes on transportation. Related benefits of more compact development include reduced per capita costs associated with providing electricity, water and other utilities, and lower health care costs as a result of improved public health.

- **A stronger economy** with a shift to more diverse fuel sources, reduced congestion, and improved travel reliability. Employers, employees, and shippers experience cost savings, time savings, and greater travel predictability. Substantial reductions in the amount of fossil fuels consumed per capita result in household cost savings and more investment in the state economy.
- **Safer roads**, through bicycle and pedestrian improvements designed to maximize visibility to motorists. On Oregon's roadways, lower rates of vehicle travel and new intelligent transportation systems significantly reduce crash rates.
- **A healthier public**, as mixed-use communities with transit and more transportation options, lead to more active and healthy communities, lower obesity rates, and lower incidences of asthma and other related diseases.
- **Energy savings** from improved vehicle efficiency, new alternative fuels, and lower vehicle usage.
- **Cleaner air and water** as heavy trucks, aircraft and private vehicles increasingly run on cleaner and more efficient energy, resulting in cleaner air and fewer environmental impacts from the extraction, refining, and transportation of fossil fuels.



"We know that as walking goes up, crime goes down."

*— Ken Williamson,
Oregon Environmental
Quality Commission,
Oregon State University,
STS Policy Committee
Chair*

Viewed from 2012, the 2050 Vision for transportation may seem ambitious. Indeed, many of its components will require significant advancements in technology and infrastructure. Yet each of the elements in the STS was selected for plausibility based on existing research, development, and practice. In fact, much of the groundwork for the 2050 Vision has already been laid through advances in alternative fuels and electric vehicles, intelligent transportation systems (ITS) applications to passenger and freight travel, modernization of the nation's air traffic control system, and significant improvements in freight vehicle fuel economy.

Fully realizing the benefits of some of these advancements will require investment and innovation by the federal government and private industry. Developing new and ongoing funding sources for infrastructure will remain difficult, as unforeseen circumstances and other societal priorities continue to compete for attention and dollars. Overcoming these obstacles will require a range of actions at state, regional, and local levels, as well as cooperation from public and private entities beyond Oregon's borders. The challenges will be great, but the opportunities are greater. Achieving the 2050 Vision will help continue Oregon's legacy of leadership and yield far-reaching benefits for generations to come.

Recommendations

The STS explores all aspects of the transportation system including the movement of both people and goods. The transportation sector consists of a diverse variety of modes and markets that for the purposes of the STS analysis were divided into three distinct travel markets: Ground Passenger and Commercial Services, Freight, and Air Passenger.

Although some actions (e.g., advancements in fuel technologies and deployment of intelligent transportation systems technologies) may affect multiple markets, by and large these three travel markets are subject to unique GHG emissions reduction strategies. Therefore, recommendations are presented separately for each travel market.



Ground Passenger and Commercial Services Travel Market Recommendations

Within the transportation sector, currently the largest share of GHG emissions (more than 50 percent) is generated from the Ground Passenger and Commercial Services travel market.⁶ This travel market facilitates the movement of people for work, recreation, and personal business and includes all ground passenger travel on roads and rail, as well as ground commercial deliveries and service trips. It includes passenger cars and light trucks (pick-up trucks, SUVs, delivery vehicles, etc.) as

well as public transportation vehicles (e.g., bus and train), motorcycles, pedestrians, and bicycles.

In exploring ways to reduce GHG emissions for the Ground Passenger and Commercial Services travel market, efforts were made to look at strategies that:

- Improve fuel economy and shift to lower-carbon fuels;
- Result in lower overall emissions;
- Help reduce delay;
- Provide travelers with transportation choices other than driving alone in a car; and
- Facilitate access to jobs and services closer to home.

⁶ Based on GHG inventory methods explained further in Appendix A

Recommendation G1 – Transition to lower emission vehicles, such as plug-in hybrids and electric cars, and encourage the purchase of newer technology vehicles that are more fuel-efficient or are not dependent on higher emission fuels.

Recommendation G2 – Support development of cleaner fuels.

Recommendation G3 – Promote compact, mixed-use development to reduce travel distances, facilitate use of zero- or low-energy modes (e.g., bicycling and walking) and transit, and enhance transportation options.

Recommendation G4 – Encourage communities to accommodate most expected population growth within existing Urban Growth Boundaries (UGB) through infill and redevelopment.

Recommendation G5 – Enhance fuel efficiency by fully optimizing the transportation system through operations and Intelligent Transportation Systems (ITS) deployment.

Recommendation G6 – Promote Pay-As-You-Drive Insurance (PAYD) programs that allow drivers to pay per-mile premiums, encouraging less driving through insurance savings.

Recommendation G7 – Move to a more sustainable funding source that covers the revenue needed to maintain and operate the transportation system.

Recommendation G8 – Encourage local trips, totaling six miles or less per round-trip, to shift from single-occupant vehicle (SOV) to bicycling, walking, or other zero-emission modes.

Recommendation G9 – Promote investment in public transportation infrastructure and operations to provide more transportation options and help reduce single-occupancy vehicle travel.

Recommendation G10 – Design road expansions to be consistent with the objectives for reducing future GHG emissions by light duty vehicles.

Recommendation G11 – Reduce the number of single-occupant vehicles on roadways by promoting and encouraging participation in carpool/vanpool (Rideshare) programs.

Recommendation G12 – Reduce the need for households to own multiple vehicles and reduce household vehicle miles traveled by

“It seems exotic but it’s just applying common sense in a really thorough way – looking at all costs and benefits, not only the near-term economic ones.”

*— Angus Duncan,
Chair of the Oregon
Global Warming
Commission*



enhancing the availability of carsharing (short-term self-service vehicle rental and/or peer-to-peer) programs.

Recommendation G13 – Develop and improve information and support programs that make it easier for people to choose transportation options.

Recommendation G14 – Promote better management and use of parking in urban areas to support compact, mixed-use development and use of other modes, including transit, walking and bicycling.

Freight Travel Market Recommendations

Freight transportation represents the second largest source of transportation-related GHG emissions at about 30 percent of all transportation emissions.⁷ The Freight travel market analysis considers the GHG emissions of all modes of transportation used to move commodities and finished products for consumption in Oregon, including heavy-duty trucks, trains, ships and barges, cargo aircraft, and pipelines. Freight transportation in this context involves larger, heavier vehicles that usually travel longer distances to serve both regional and national markets.



Of real concern is the finding that vehicle miles traveled (VMT) and GHG emissions in the Freight travel market have been growing faster than in the Ground Passenger and Commercial Services travel market. If steps are not taken to reduce the emissions from this sector of the economy, the freight market share of transportation GHG emissions could represent the majority of all transportation emissions in the future.

As in the Ground Passenger and Commercial Services travel market, strategies were evaluated to reduce Freight travel market GHG emissions in a way that would also produce other benefits, such as reducing fuel costs and encouraging the proliferation of technology to improve freight movement efficiency. Key strategy focus areas include improving the operating efficiency of the freight system, shifting commodity shipments to less carbon-intensive modes, implementing vehicle and fuel technology improvements, and enacting pricing strategies designed to support these other strategies. More than 80 percent of all Freight travel market GHG emissions are produced outside of the state as goods and commodities make their way to Oregon homes and businesses. While outside the scope of the STS, to be successful in GHG reduction, Oregon's consumption of goods and materials should be addressed. Strategies will be needed at multi-state, national, or even international levels.

⁷ Based on GHG inventory methods explained further in Appendix A

Recommendation F1 – For the commodities and goods where low-carbon modes are a viable option, encourage a greater proportion of goods to be shipped by rail, water, and pipeline modes.

Recommendation F2 – Encourage a diverse economy with growth in high-value density industries such as electronics, precision manufacturing, and aerospace.

Recommendation F3 – Encourage and incentivize more efficient use of industrial land through closer proximity of shippers and receivers, consolidated distribution centers, and better access to low-carbon freight modes.

Recommendation F4 – Regulate operation of freight vehicles at speeds that optimize GHG emissions reductions and provide incentives for technology improvements that provide drivers and operators with real-time information on fuel consumption and operating costs.

Recommendation F5 – Support industry transition to more efficient engine technologies, vehicle designs, and rail car/truck trailer designs.

Recommendation F6 – Reduce the carbon intensity of freight fuel.

Recommendation F7 – Implement idle reduction technologies at ports, freight terminals, and truck stops.

Recommendation F8 – Impose a fee on carbon and other environmental costs to account for the full costs of freight travel and to encourage the adoption of more carbon-efficient technologies and less impactful freight modes and shipping patterns.



“In a trade dependent state like ours, this strategy focuses on dramatically reducing greenhouse gases while efficiently moving the state’s goods and people.”

*— Marla Harrison,
Port of Portland*

Air Passenger Travel Market Recommendations

The Air Passenger travel market generates an estimated eight percent of the total GHG emissions in the transportation sector.⁸ GHG emissions in this travel market are emitted by aircraft on the ground and during flight, from ground support equipment at airports such as luggage carts and gate equipment, and from all vehicles accessing the airport including private vehicles, taxis, shuttles, transit vehicles, and trucks. Air passenger travel moves at much faster speeds and typically over much longer distances than ground passenger travel. In addition, unique fuels are required to propel aircraft.

⁸ Based on GHG inventory methods explained further in Appendix A

In exploring ways to reduce GHG emissions for air passenger travel, strategies were investigated that:

- Reduce overall demand for air passenger trips through improving alternative modes or eliminating entirely the need for some trips through advanced telecommunications;
- Reduce air passenger demand by assigning a fee that manages demand and/or encourages mode shift;
- Improve the efficiency of public transportation and nonmotorized access to the airport;
- Improve the efficiency of all vehicles and equipment operating on airport property;
- Reduce delays and improve overall efficiency of the air transportation system; and
- Reduce the carbon intensity of air passenger travel through improved aircraft and engine technologies and use of low-carbon aviation fuels.

Recommendation A1 – Support sponsored research and partnerships with aircraft and engine manufacturers to help meet NASA’s Environmentally Responsible Aviation (ERA) and Ultra Efficient Engine Technology (UEET) program goals.

Recommendation A2 – Reduce the carbon intensity of aviation fuels.



Recommendation A3 – Accelerate and complete implementation of the FAA “Next Generation” Air Transportation System.

Recommendation A4 – Institute a carbon fee for all commercial air passenger services, with scheduled fee increases over the long-term.

Recommendation A5 – Broadly support and deploy technologies for virtual meetings and other communication technologies to decrease business air travel demand.

Recommendation A6 – Increase efficiency in all airport terminal access activities, including shift to low- and zero-emission vehicles and modes for passengers, employees, and vendors.

Recommendation A7 – Deploy efficient operations and maintenance practices and use low- or zero-emission equipment for all airport ground service operations.

Recommendation A8 – Set aviation fuel charges at a level sufficient to pay for non-climate change related externalities associated with fuel consumption. Non-climate change related externalities include energy security, air pollution, and surface environmental impacts.

Recommendation A9 – Prioritize passenger rail improvements in the Eugene to Vancouver, BC corridor, ensuring service that is performance- and cost-competitive with air travel.

Recommendation A10 – Increase passenger fees for air travel with both an origin and destination in the Eugene to Vancouver, BC corridor to encourage mode shift to passenger rail or other lower-carbon modes such as express intercity bus.

The STS: A Path to Oregon's Future

Climate change is a global issue and cannot be addressed by Oregon alone. Still, Oregon's Statewide Transportation Strategy is a critical element in moving Oregon forward on path to a more sustainable future. Many existing and ongoing efforts have helped to inform and compliment the STS, including the Governor's Advisory Group on Global Warming (2004), the Governor's Climate Change Integration Group (2008), the Oregon Global Warming Commission's "Roadmap to 2020" (2010), and the Governor's 10-Year Energy Plan (2012). This document is intended to compliment these efforts.

Within ODOT's planning structure, the STS supports the Oregon Transportation Plan (OTP) and its goal to provide a safe, efficient and sustainable transportation system that enhances Oregon's quality of life and economic vitality. Many of the recommendations in the STS align with other broad policies in the OTP as well as policies identified in other plans, such as the Oregon Freight Plan.

Challenges

Each recommendation presented in the STS has its own opportunities and challenges. The cost, level of effort, and type of actions needed will vary by recommendation and element. Some of the potential challenges are discussed below.

Financing/Funding Sources: There is a need for new and/or more flexible revenue streams in order to build, operate and maintain the transportation infrastructure that is consistent with the 2050 Vision.

"We need to reach for the economic opportunities that will come from improved technologies, products associated with a low carbon economy. This will create new economic sectors."

*— Rex Burkholder,
Metro*



Adoption Rate of Technology: The development and adoption of new technology – for cleaner fuels, more efficient vehicles, intelligent transportation systems, etc. – may require research and development costs, incentives to encourage their use, and significant investment to build and operate appropriate infrastructure. Some actions may have slow implementation and start-up periods.

Land Use: Oregon faces the challenges of accommodating increases in population and supporting economic growth. New development that supports land uses to accommodate more infill and redevelopment, discourages sprawl and preserves industrial lands in areas with access to transportation options will be important. Some of these actions may require consideration of policy and code changes to allow jurisdictions flexibility in changing land uses and providing appropriate infrastructure.

Public Acceptance and Participation: Some of the recommendations may be controversial, especially in the short-term, making it challenging to find public support and acceptance. For example, users may find it difficult to accept the concept of paying the full cost of transportation through user fees or have privacy concerns.

Support of Decision-Makers: Lack of incentives, and the need for regulatory changes and new funding mechanisms to implement some of the STS actions will require legislative action to create regulatory context, establish incentive programs, encourage program exploration and participation, or change standards and policies. Federal legislative action may be essential to implement certain strategies, particularly those targeting the freight and aviation sectors.

Multi-Jurisdiction Coordination and Collaboration: The mix of public and private ownership and multiple jurisdictions responsible for the transportation system makes it a challenge to find shared goals. Transportation-related GHG emissions reduction will require close collaboration between jurisdictions across the national, state, and local levels. It will be necessary to balance these relationships so that Oregon is not at an economic disadvantage, and to find synergies and collaborations that enable progress on recommendations for the greater good.

The process of further defining the STS recommendations and addressing these and other challenges must be inclusive and engage stakeholders from diverse backgrounds to allow a variety of perspectives to be shared and considered. Members of the committees, agencies and other participants in the state's efforts to plan for reductions in transportation-related GHG emissions recognize that there are many unknowns and that there will be a need to monitor and adapt as the work moves forward. This work will require strong partnerships and close collaboration with local, regional, state and federal partners as well as with individuals and businesses. Key to achieving the goals is an agile and iterative process to respond to and take advantage of what is learned along the way.

Next Steps

Development of the STS is the first major step in a multi-year planning and implementation process to reduce transportation-related GHG emissions from the transportation sector. Following the adoption of the STS by the OTC, work will begin to develop an implementation plan. During this collaborative process, many of the recommendations will be analyzed in greater detail to understand potential economic impacts and opportunities. Also through development of the implementation plan, the roles and responsibilities of the federal, state, regional, local, and private sectors will be identified. Lastly, the STS will be monitored and adjusted over time, as needed.

The three phases of the STS are summarized below and illustrated in the graphic on the following page:

Phase I: This phase includes development of the STS document, including establishing a vision, identifying the recommendations for helping to reduce emissions, and conducting public outreach. Phase I began in fall 2010 and will be completed when the OTC adopts the final STS, scheduled to occur in fall 2012.

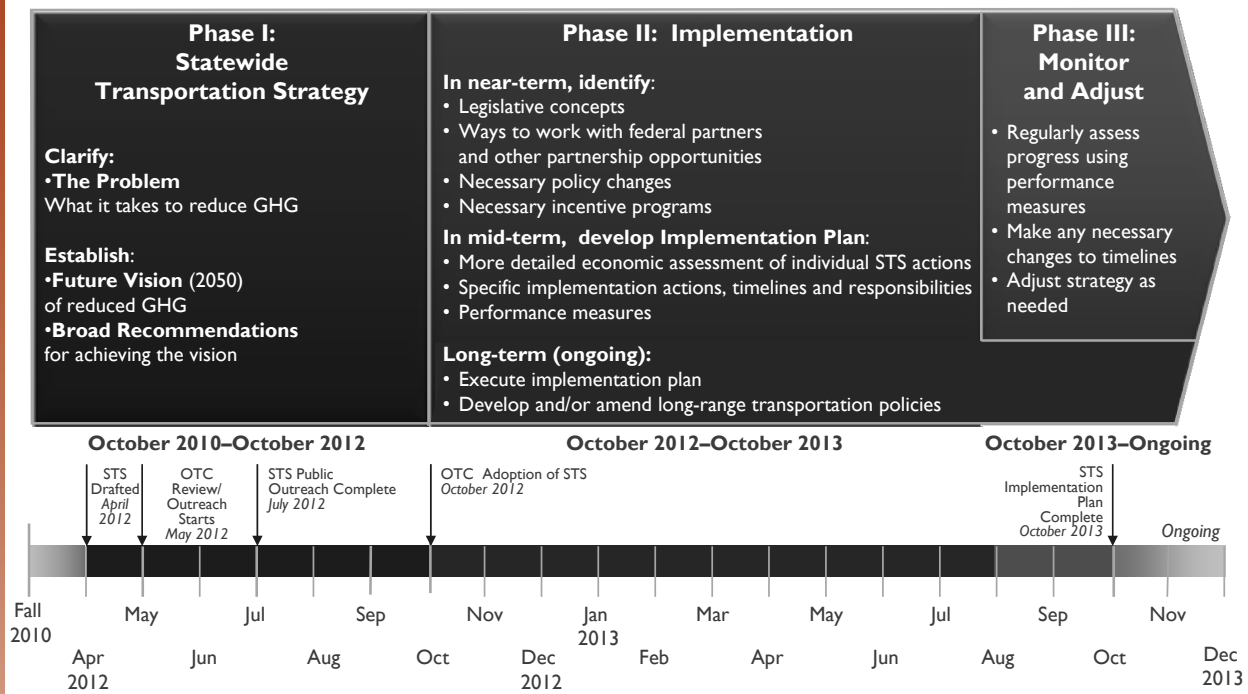
Phase II: The implementation phase will involve defining specific implementation actions, roles, and responsibilities. This phase also includes a more detailed assessment and analysis of potential economic impacts and opportunities. Phase II is anticipated to start in fall 2012 and continue for approximately one year.



*“Towns of all sizes
can reap the benefits
of many of these
strategies.”*

*— Chris Hagerbaumer,
Oregon Environmental
Council*

Phase III: The monitoring and adjustment phase includes tracking of performance measures over time and the periodic assessment and modification of the STS and timelines as elements of the STS are implemented. Phase III is anticipated to begin in fall 2013 and will be an ongoing process.



www.pedbikeimages.org /Laura Sandt

A special thank you to the following committee members for their contributions during the development of the STS. We also wish to thank the citizens of Oregon, including policy board members and their staff who provided valuable comments and assistance on the STS.

STS Policy Committee Members

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John VanLandingham Land Conservation and Development Commission

John Vial Jackson County

Oregon Transportation Commission

Chair: Pat Egan

David Lohman

Mary Olson

Mark Frohnmayer

Tammy Baney



"I am really looking forward to Phase 2, to doing something on the ground."

*— Mark Capell,
Bend City Councilor*

For the most current information go to:
www.oregon.gov/ODOT/TD/OSTI/STS.shtml

To Comment on the Draft Statewide Transportation Strategy

Comments may be provided electronically at:
www.oregon.gov/ODOT/TD/OSTI/STS.shtml

Written comments may be submitted to:
The Oregon Department of Transportation
Transportation Planning Unit
555 13th Street NE, Suite 2
Salem, Oregon 97301

Written comments on the Draft STS must be received by Friday, July 20, 2012.

Draft Oregon Statewide Transportation Strategy

www.oregon.gov/ODOT/TD/OSTI/STS.shtml



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Draft Oregon Statewide Transportation Strategy

***A 2050 Vision for
Greenhouse Gas Emissions Reduction***

Oregon Sustainable Transportation Initiative (OSTI)

May 2012



CLICK HERE FOR FULL REPORT



Draft Oregon Statewide Transportation Strategy

***A 2050 Vision for
Greenhouse Gas Emissions Reduction***

Oregon Sustainable Transportation Initiative (OSTI)

Technical Appendices

May 2012



Oregon's Statewide Transportation Strategy

Statewide Transportation Strategy—Summary:

The Statewide Transportation Strategy (STS) will set a long-term vision, looking out towards 2050, for helping to meet the state's goals for reductions in greenhouse gas emissions (GHG). The STS has been developed with the aid of two stakeholder committees, one focused on policy and the other on technical issues. Policy and technical level discussions were informed in part with input from GreenSTEP, a modeling tool developed by ODOT and designed to assess the effects of policies and other factors on transportation sector GHG emissions. A range of issues such as parking pricing, road capacity and operations management, land use policies, transit and emerging technologies have been considered.

The STS is not a regulatory document, and does not assign responsibilities. Instead it identifies potential approaches for substantially reducing GHG while fostering other societal goals for Oregon.

The stakeholder committees working on the STS have developed alternative scenarios for GHG reductions across the state. These have been evaluated based on criteria that include: Travel and System Performance, Energy Consumption and GHG Emissions, Economic Impact; Land Use and Natural Resource Impacts, Public Health Impact, Infrastructure and Implementation Costs, and Potential Implementation Risks. The end of Phase I will result in the adoption of a vision and recommendations for general courses of action to help Oregon achieve that vision. Phase II will see the development of an Implementation Plan with near-, mid- and long-term specific actions.

The STS is one part of the broader Oregon Sustainable Transportation Initiative (OSTI)— an integrated statewide effort to reduce our greenhouse gas emissions from transportation and foster energy independence and greater transportation choices for Oregonians.



Photo courtesy the Oregon Department of Transportation

Inputs and Outcomes of Phase I of the STS:

The result of Phase I of the STS will be a broad vision for Oregon's transportation and land use sectors out to the year 2050. It will be a description of what our future could look like and the benefits of getting there. The findings suggest that the same actions we can employ to reduce greenhouse gas emissions also allow us to:

- reduce traffic delay
- maintain a healthy environment
- improve public health
- accommodate movement of goods
- accommodate new residents
- reduce dependency on foreign energy; and
- save Oregonians money.



Photo courtesy the Oregon Department of Transportation

The process of developing the vision has been a statewide scenario planning process for the entire state. The STS has considered approaches necessary to reduce greenhouse gas emissions from three travel markets: ground passenger and commercial services, freight movement, and air passenger travel. Individual scenarios tested how different policies and assumptions would impact outcomes.

During the development of Phase I, the committees, staff and consultants established assumptions, tested potential outcomes of various strategy input factors, and established evaluation criteria.

Strategy Input Factors

A modeling tool (GreenSTEP) developed by ODOT was used to assess the effects of a variety of policies and other factors on transportation sector GHG emissions. The categories of factors that were tested include: Urban Design, Pricing, Marketing, Roads, Vehicle/Fleet, and Technology.



Photo courtesy Garfield Clean Energy

Evaluation Criteria

The STS Policy Committee used the evaluation criteria below to evaluate the various scenarios and their effectiveness:

- Travel and System Performance
- Energy Consumption and GHG Emissions
- Economic Impact
- Land Use and Natural Resource Impacts
- Public Health Impact
- Infrastructure and Implementation Costs
- Potential Implementation Risks

Recommendations from Phase I

Through the exploration and evaluation process conducted by the STS Policy Committee, a number of recommendations emerged based on areas that showed promise within each of the travel markets.

Ground Passenger and Commercial

- Increase vehicle efficiency
- Make fuels cleaner
- Encourage Eco-Driving
- Increased mixed-use development
- Encourage Car-Sharing
- Encourage availability of Pay-As-You-Drive Insurance
- Promote growth of transit services



Photo courtesy the Oregon Department of Transportation

Freight

- Encourage more efficient freight vehicles
- Encourage efficient industrial land use
- Encourage efficient mode choices
- Promote idle reduction technology

Air Passenger

- Reduce carbon intensity of aviation fuel
- Optimize airline operations and fleet management
- Accelerate implementation of FAA “Next Generation”

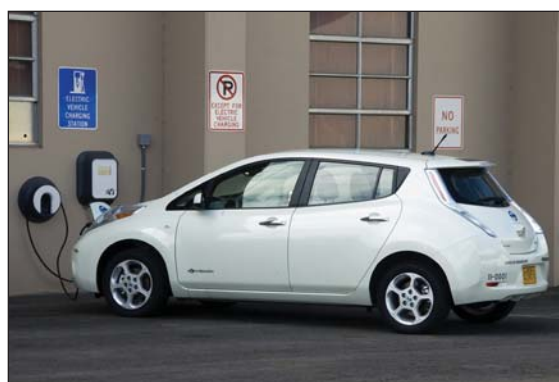


Photo courtesy the Oregon Department of Transportation



Photo courtesy the Google Images

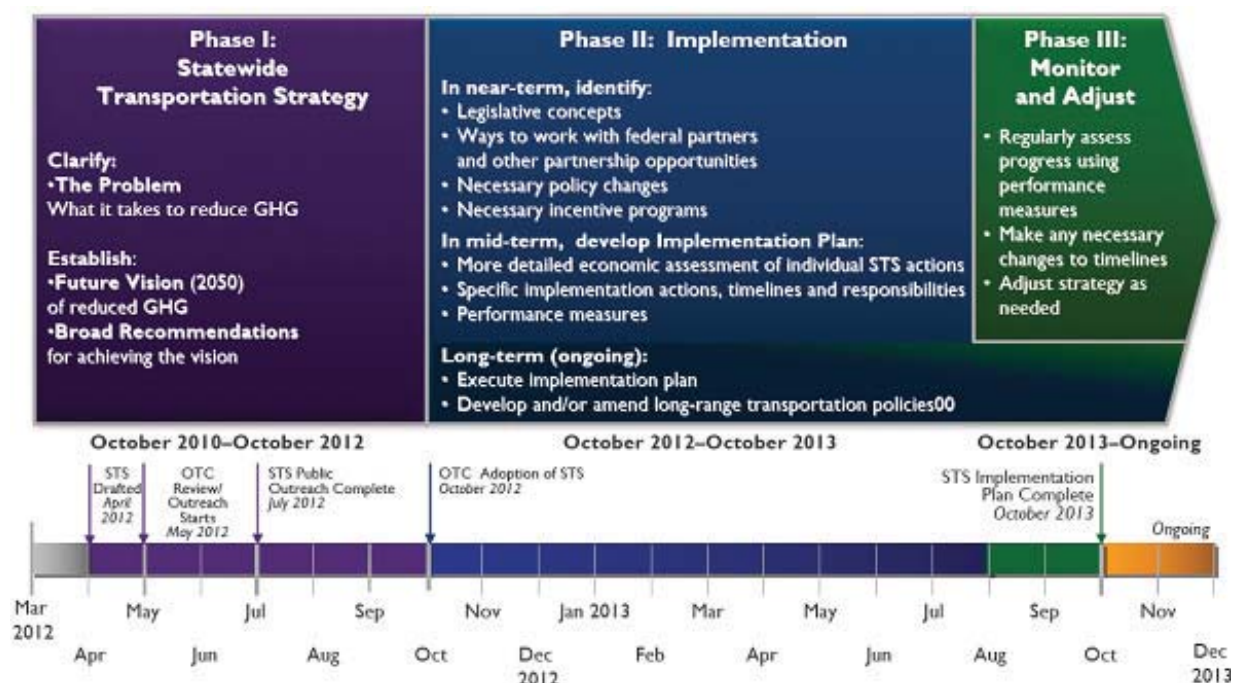


Photo courtesy TriMet

Findings of Phase I

Based on the exploration and analysis conducted in Phase I, some key findings emerged:

- Technology is a significant strategy for all travel markets
- There is no silver bullet, multiple types of efforts will be needed
- There are low-cost short-term strategies we can start soon
- Some strategies are complicated and need further analysis
- We must all work together
- Partnerships and collaboration are key to success



Next Steps

Phase II: FY-2012



- Develop An Implementation Plan
- Economic assessment of the STS actions
- Identification of performance measures, policy changes, programs, timelines, and responsibilities and partnership opportunities
- Begin implementing near-term actions



Photo courtesy TriMet

Phase III: FY-2013 – on-going

- Implement mid- and long-term actions
- Assessment and adjustment of timeline & elements
- Monitor and adjust as needed



**Oregon Department of Transportation**

Oregon's Statewide Transportation Strategy

A 2050 Vision for Greenhouse Gas Emissions Reduction

Oregon Sustainable Transportation Initiative



TPAC/MTAC
June 18, 2012

**Oregon Department of Transportation**

Presentation Overview



- Background
- Development Phases
- Phase 1 Findings and Recommendations

2

**Oregon Department of Transportation**

Background


3

**Oregon Department of Transportation**

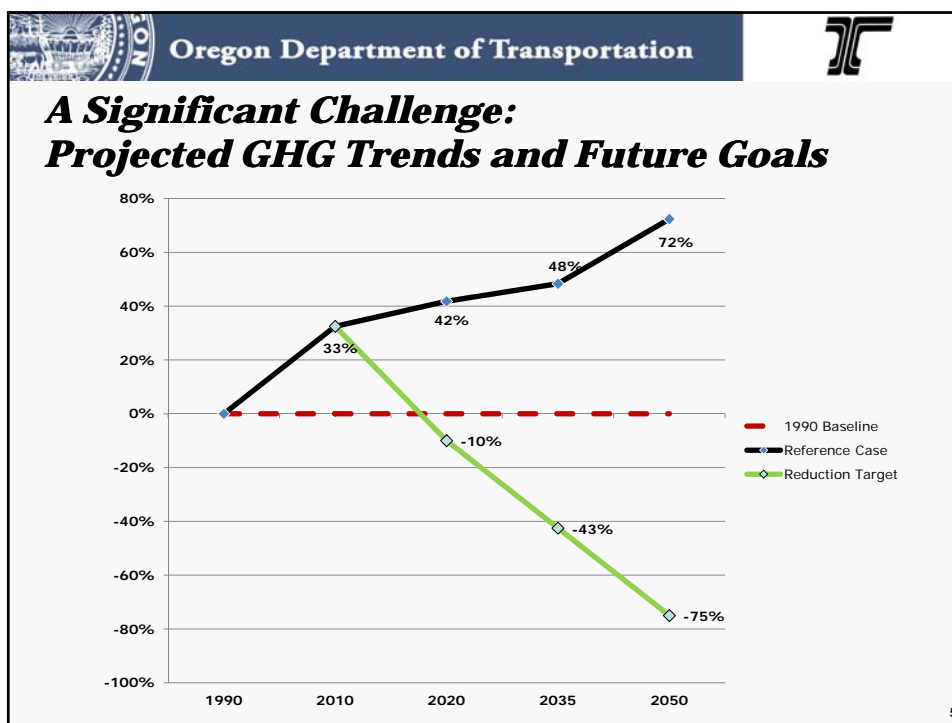
Legislative Directive

- 2007: Reduce GHG emissions by 75% below 1990 levels by 2050
- 2010: Planning to reduce GHG emissions from transportation

The Statewide Transportation Strategy (STS)



4



Oregon Department of Transportation

STS Overview

The STS addresses:

What actions and strategies will be effective in reducing transportation-related GHG emissions in Oregon while supporting other societal goals such as livable communities, economic vitality, and public health?

Looking out to 2050, intended to identify most effective transportation-related GHG emissions reduction strategies in:

- Transportation systems
- Vehicle and fuel technologies
- Land use patterns

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Oregon Department of Transportation

STS Overview

- Is one part of the Oregon Sustainable Transportation Initiative, which includes:
 - GHG Reduction Toolkit
 - Target Rules
 - Public Outreach
 - Scenario Planning Guidelines
 - Metropolitan Scenario Planning
- The STS is essentially a state-level scenario plan
- It differs from metropolitan scenario planning in the following ways:
 - Looks out to 2050, instead of 2035
 - Examine freight and air passenger GHG reduction strategies, not just ground




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Oregon Department of Transportation

STS Overview

- The STS is not directive nor regulatory
- Requires collaboration between public and private sectors and coordination among local, regional, state, and federal levels
- The STS is not one-size-fits-all
 - Different strategies work for urban and rural areas



8

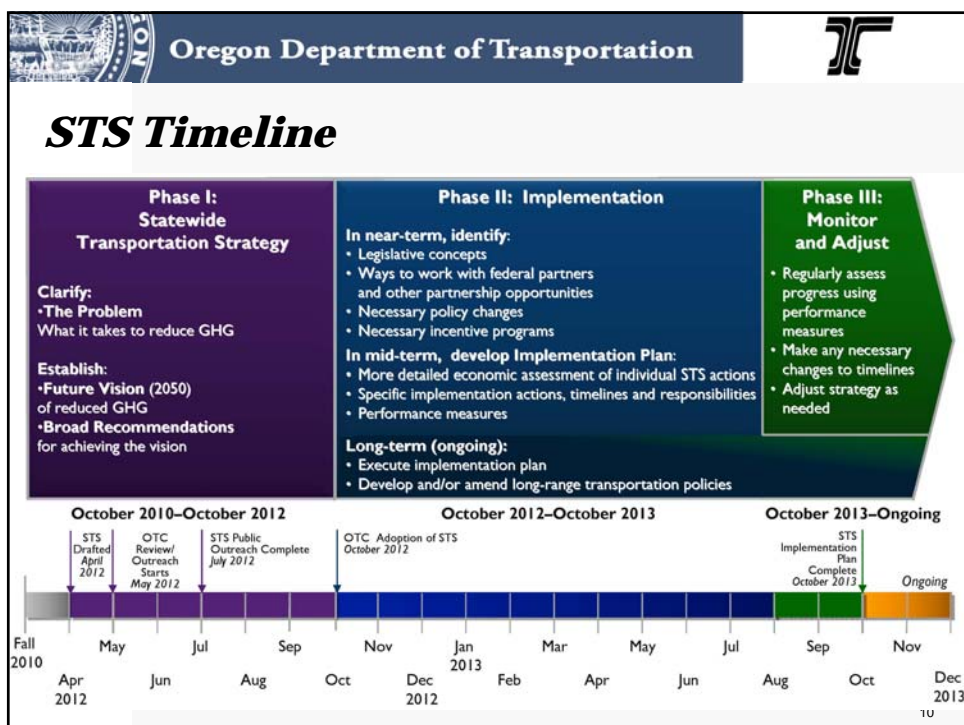



Oregon Department of Transportation




Development Phases

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Oregon Department of Transportation



STS Timeline: Phase I


**Phase I:
Statewide
Transportation Strategy**

Clarify:
•The Problem
What it takes to reduce GHG


Establish:
•Future Vision (2050)
of reduced GHG
•Broad Recommendations
for achieving the vision

- May 16: OTC workshop, public outreach begins
- July 20: Public outreach period ends
- July: Public hearing
- October: OTC adopts STS


October 2010–October 2012



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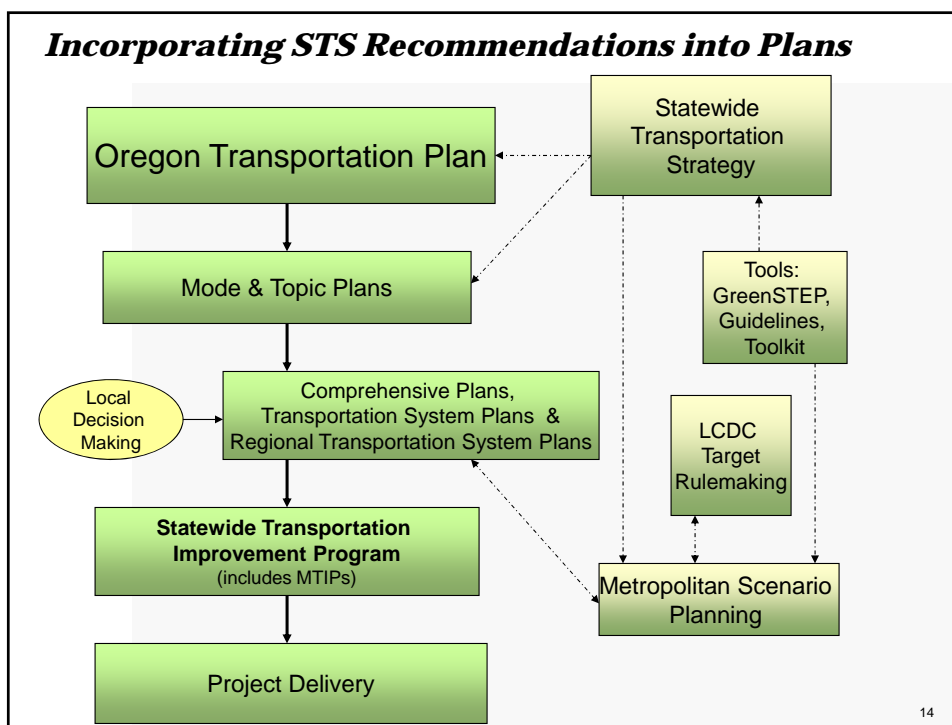
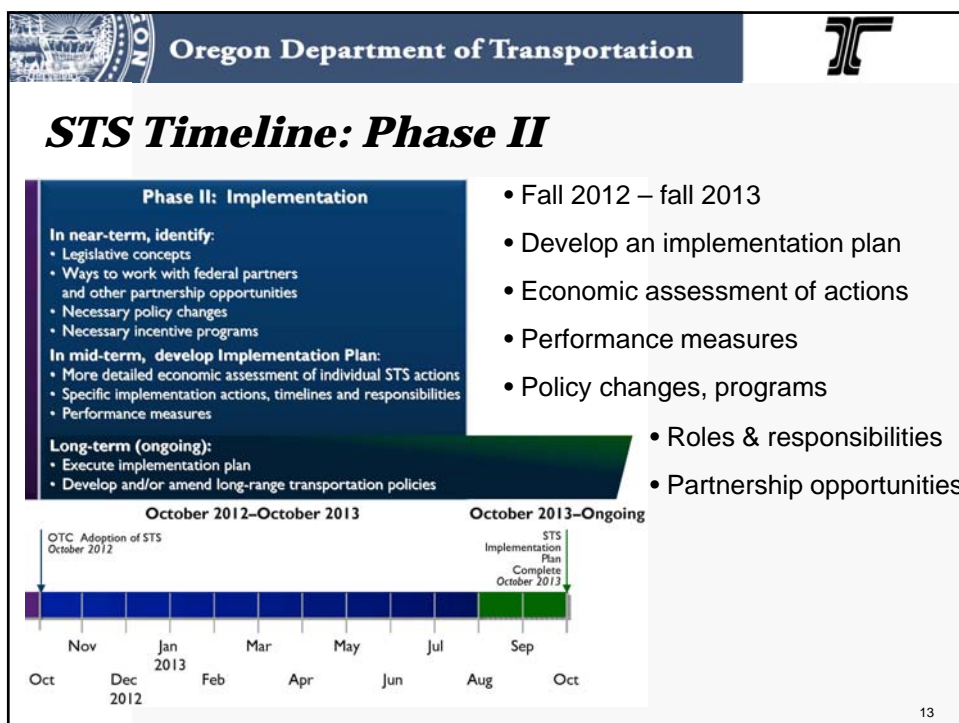



Public Outreach and Priorities Survey

- Open public outreach process to gather feedback on the STS
- Survey to help ODOT staff form strategic priorities
 - What's most important to communities and organizations?*
- Strategic priorities help with development of implementation plan and next steps




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STS Timeline: Phase III

**Phase III:
Monitor
and Adjust**

- Regularly assess progress using performance measures
- Make any necessary changes to timelines
- Adjust strategy as needed


- Monitoring and adjusting of STS timelines & elements

October 2013–Ongoing



The diagram shows a horizontal timeline from August to December 2013. A green bar from August to October is labeled 'STS Implementation Plan Complete October 2013'. An orange bar from October to December is labeled 'Ongoing'. The months Aug, Sep, Oct, Nov, and Dec 2013 are marked along the timeline.

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Phase 1 Findings and Recommendations

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STS Scope: Market Segments


The STS considers the entire transportation system, and policy recommendations are provided in each of three travel markets:

- **Ground Passenger and Commercial Services**
Cars, SUVs, pick-up trucks, public transportation, delivery/service vehicles
- **Freight**
Movement of goods (*road, air, rail, water*)
- **Air Passenger**
Aircraft, airport ground access and support equipment

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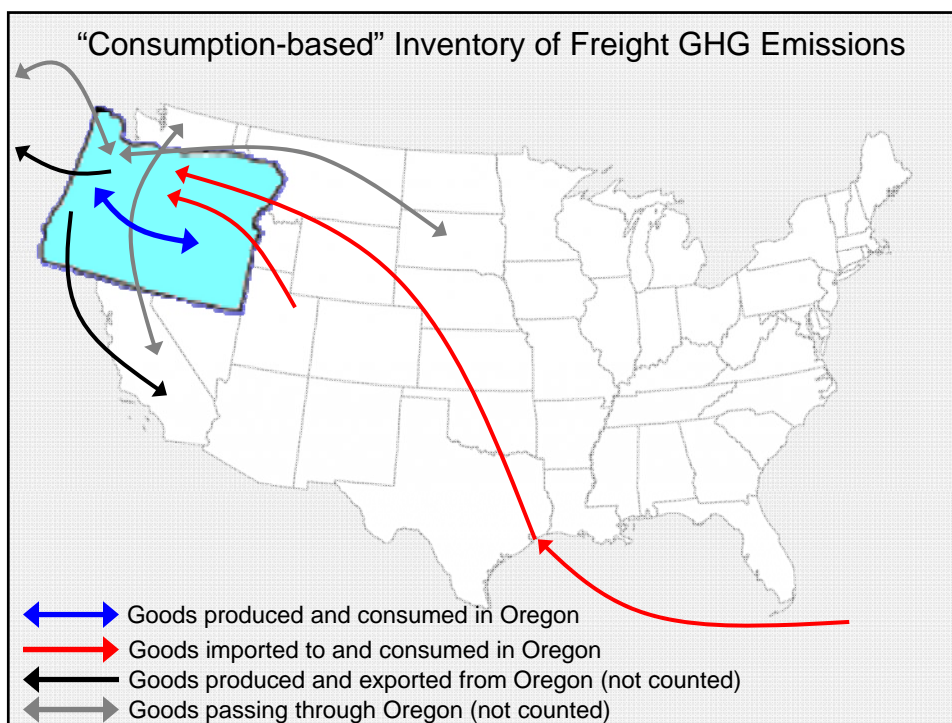
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STS Scope: Geography


- The STS considers the travel of Oregonians, not just the travel occurring within Oregon:
 - Unlike criteria air pollutants, the effects of greenhouse gas emissions are the same, regardless of where they occur
- All household light vehicle travel of Oregonians is considered, not just travel occurring in Oregon. No travel of non-Oregonians is considered.
- Air travel considers the round trip travel of Oregonians and does not consider visitors to Oregon or travelers passing through Oregon airports.
- Freight emissions were calculated from a consumption-based perspective, considering the total emissions to transport goods to their destinations in Oregon from wherever their origins may be.

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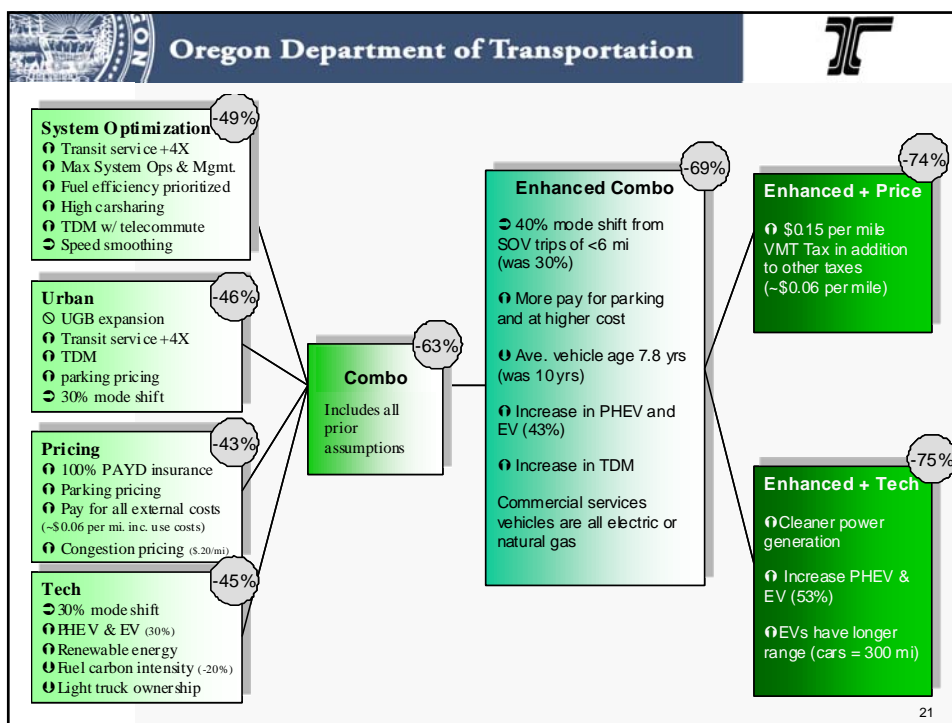


Approach to Ground Passenger and Commercial Service Vehicle Travel

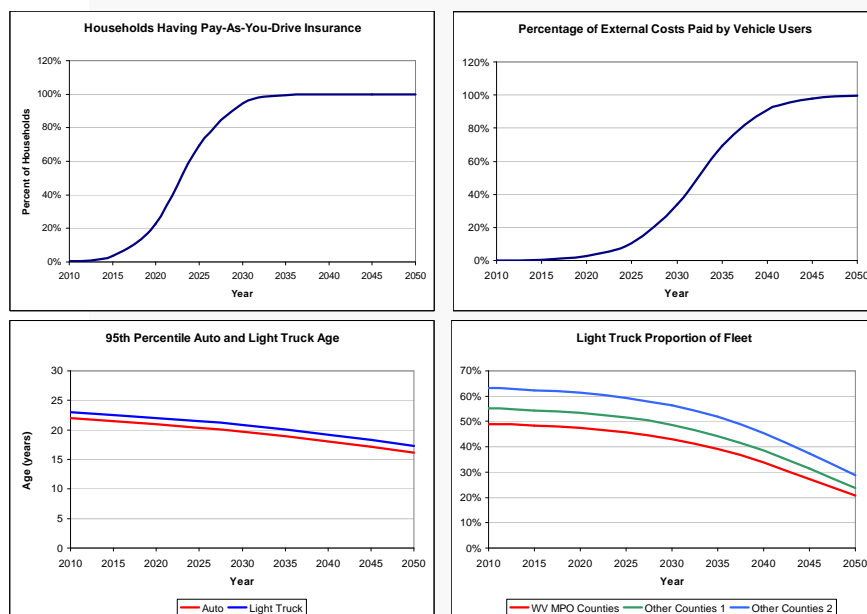
Several rounds of developing, assessing and refining scenarios.

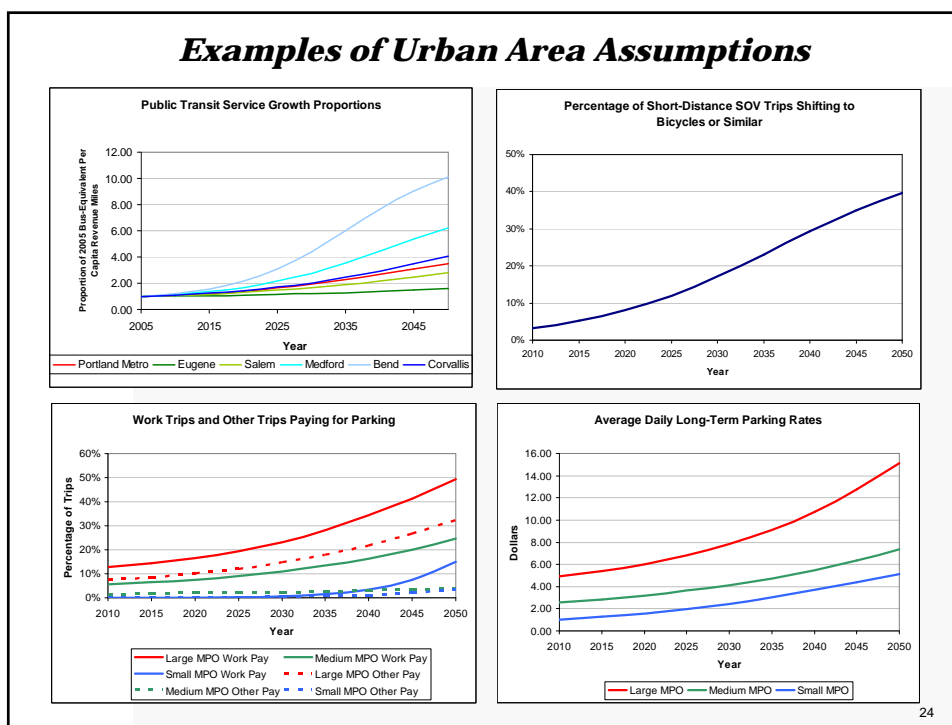
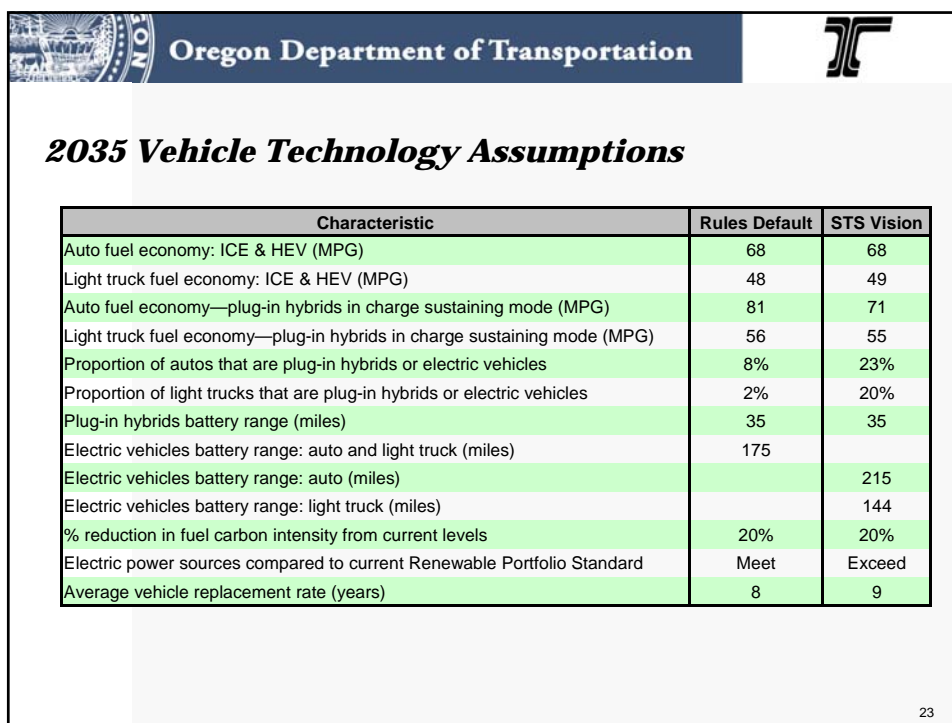
1. Explore wide range of possibilities (144).
2. Focus on 4 themes in addition to a reference: urban, vehicle technology, system and mode optimization, pricing and markets.
3. Combine themes together and enhance to attempt to reach goal. Examine additional pricing or technology.
4. Final adjustments and assume power sector also achieves 75% reduction.

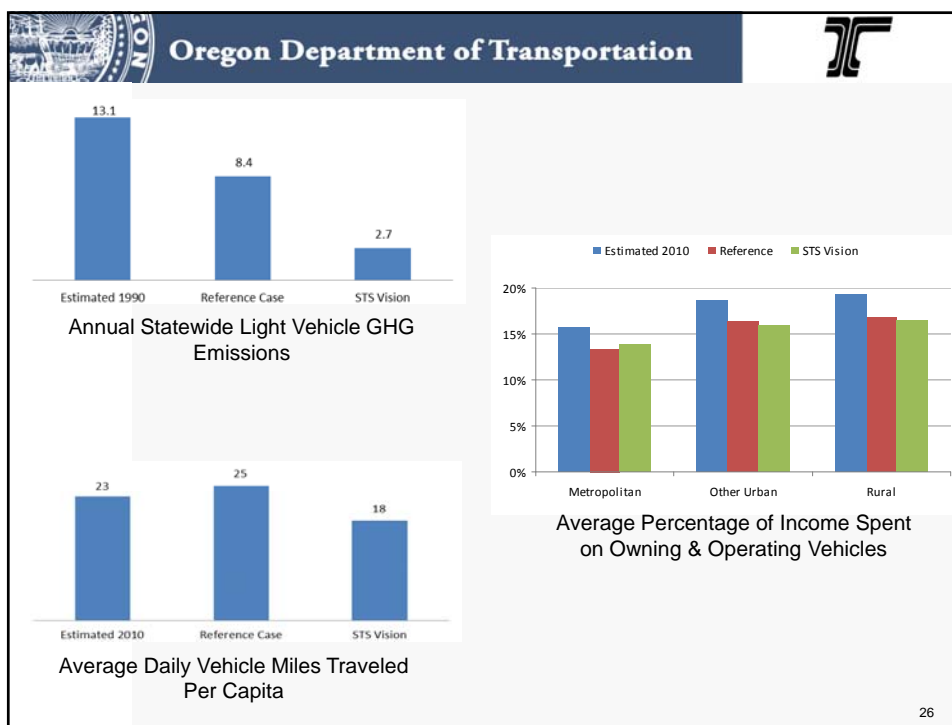
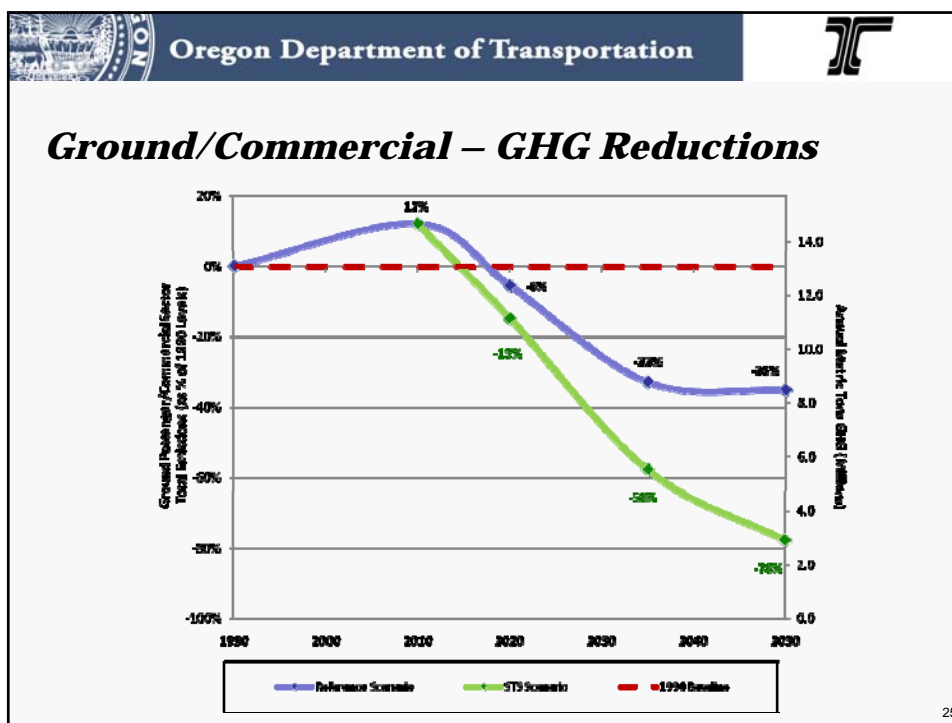
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Examples of Cost and Vehicle Fleet Assumptions










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Ground/Commercial Recommendations

Vehicle and Fuel Technologies

- More fuel-efficient and lower emissions vehicles
- Cleaner fuels

Land Use


- Compact, mixed-use development
- Limited Urban Growth Boundary expansion


System and Mode Optimization

- Transportation system operations optimization (*e.g., ITS*)
- More local SOV trips shift to zero-emission modes (*e.g., bicycling, walking*)
- Public transportation infrastructure and operations investments
- Carpool/vanpool, carsharing, and TDM programs
- Road expansions and parking management


Pricing and Markets

- Funding sources for transportation system operations and maintenance






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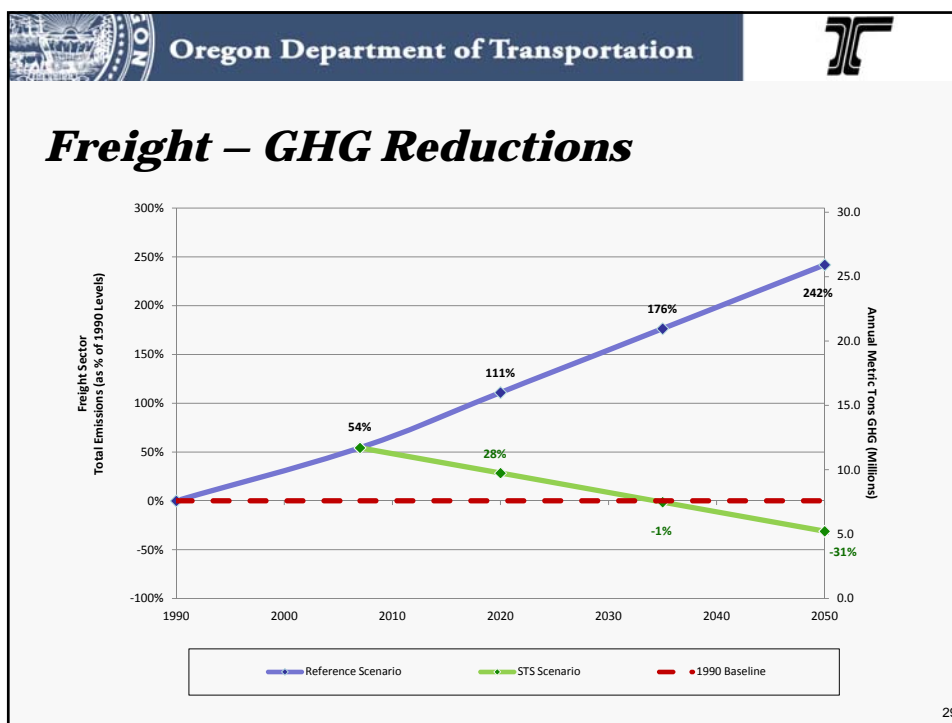


Approach to Freight

Several rounds of developing, assessing and refining scenarios.

1. Focus on 3 themes in addition to a reference: system and mode optimization, vehicle and fuel technology, tolling and pricing.
2. Combine themes together. Enhance to attempt to reach goal: changing import patterns, higher value goods, aggressive technology and pricing.
3. Develop STS vision scenario. Similar level of aggressiveness as with ground passenger and air passenger market scenarios.

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Other Freight Performance Measures

Performance Measure	2050 Reference Case	2050 Vision Scenario
Total Shipping Cost as Proportion of Total Dollar Value of All Goods Shipped	12%	7%
New User Fees as Proportion of Value	0%	0.78%
Air Pollution Costs	\$631M	\$310M

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Freight Recommendations

Vehicle and Fuel Technologies


- More efficient engines, bodies, rail cars, trailers
- Idle reduction technologies
- Low carbon freight fuels

System and Mode Optimization

- Low-carbon, more efficient freight modes (*e.g., rail, water, pipeline*)
- High-value industries (*e.g., electronics, precision manufacturing, aerospace*)
- Efficient industrial land use (*e.g., urban consolidation centers*)

Tolling and Pricing

- Carbon fee
- Options to pay for other environmental costs



High-efficiency long-haul truck

Tractor space
- large wheel + big axle
- heavy-duty engine
- power steering

Road-facing

Sub-zero temperature
- heating power and
- engine-mounted heat pump

Tractor axle drive


White paint
- low drag

Manufactured components
- "lean" trailers


White box trailer

Low-drag
- aerodynamic
- low-drag


Low-drag
- aerodynamic
- low-drag



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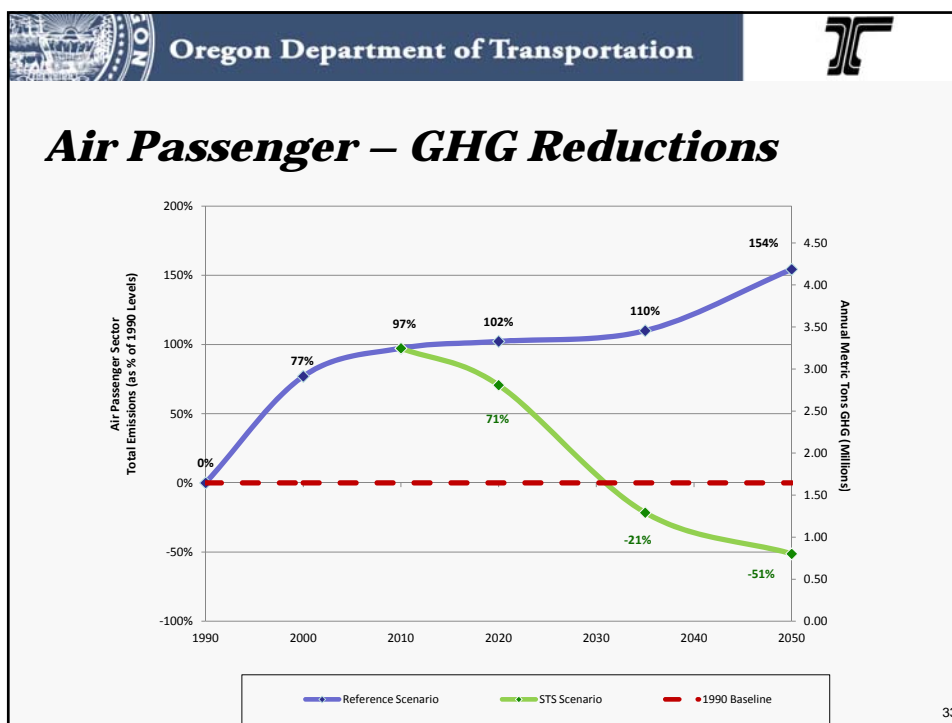


Approach to Air Passenger Travel

Several rounds of developing, assessing and refining scenarios.

1. Focus on 4 themes in addition to a reference: demand management, pricing, aviation system, aircraft and fuel technology.
2. Combine themes together. Increase low carbon fuels in later years.

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Air Passenger Recommendations

Aviation System

- Airframe and engine efficiency technology
- Low carbon aviation fuels
- Efficient airport ground access activities
- Efficient airport ground support operations and maintenance
- FAA *NextGen* technologies for flight and ground operations

Air Travel Demand Management

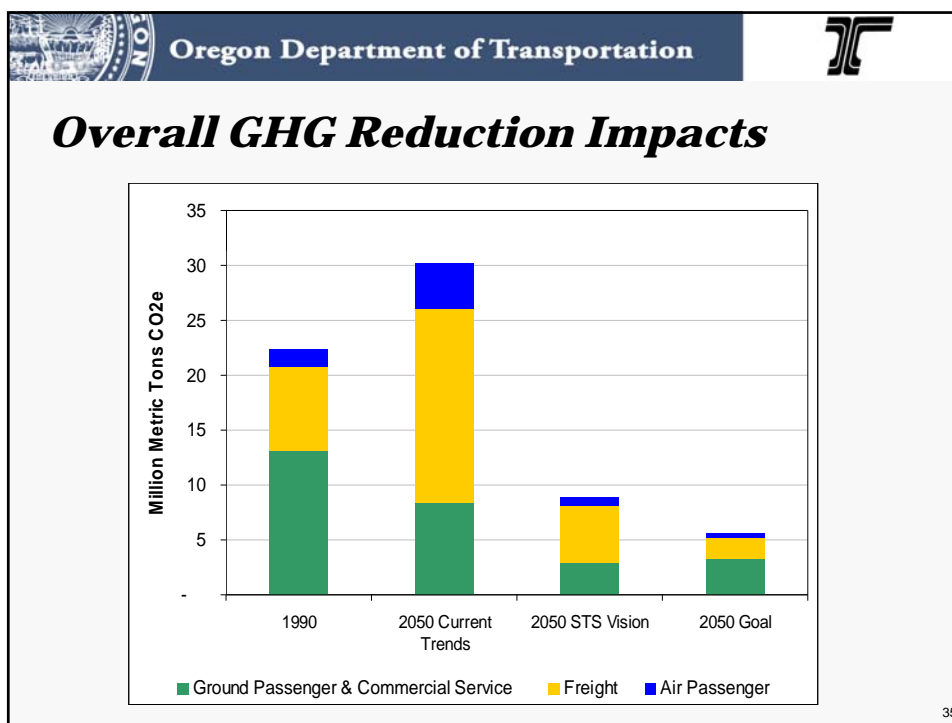
- Improved intercity rail corridor service
- On-line business solutions (e.g., video conferencing)

Pricing

- Carbon fee
- Fuel charges for non-climate change related externalities
- Increased air travel passenger fees




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Other Impacts and Benefits

- Reduced fuel consumption
- Lower levels of vehicle delay
- Accommodate increasing population and improving performance at lower cost
- Improved public health
- Reduced resource consumption, water use, and public utility expenditures

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Potential Challenges
to achieving the 2050 STS Vision:

- Public Acceptance and Participation
- Financing/Funding Sources
- Adoption Rate of Technology
- Land Use
- Support of Decision-Makers
- Multi-Jurisdiction Coordination and Collaboration



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Statewide Transportation Strategy

<http://www.oregon.gov/ODOT/TD/OSTI/pages/sts.aspx>

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Climate Smart Communities

Framing the scenarios

The scenarios will test possible futures to understand the impacts of different levels of transportation investment, and are intended to create policy bookends for developing a preferred scenario.

2012-13

2013-14

INPUTS:

CURRENT PLANS AND POLICIES



Community plans and visions
as defined by cities and counties for
downtowns, main streets and
employment areas



Statewide Transportation Strategy
for fleet and technology

Baseline assumptions
for marketing/ incentives, system
management and roads

SCENARIOS:

MORE INVESTMENT SCENARIO

Current plans and policies with higher level
of investment than current regional and
local transportation plans



CURRENT INVESTMENT SCENARIO

Current plans and policies with same level
of investment as current regional and local
transportation plans



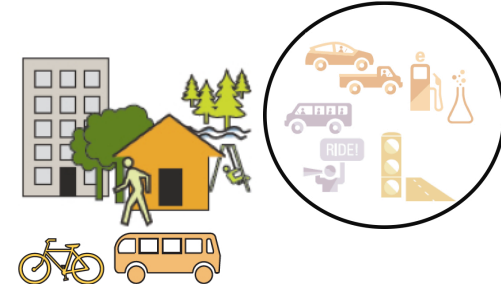
LESS INVESTMENT SCENARIO

Current plans and policies with lower level
of investment than current regional and
local transportation plans



PREFERRED INVESTMENT SCENARIO

Current plans and policies with preferred
level of transportation investment and
strategies to implement



June 18, 2012

Framing the scenarios

The scenarios will test possible futures to understand the impacts of different levels of transportation investment, and are intended to create policy bookends for developing a preferred scenario.

INPUTS:

CURRENT PLANS AND POLICIES



Community plans and visions
as defined by cities and counties for downtowns, main streets and employment areas



Statewide Transportation Strategy
for fleet and technology

Baseline assumptions
for marketing/ incentives, system management and roads

SCENARIOS:

MORE INVESTMENT SCENARIO

Current plans and policies with higher level of investment than current regional and local transportation plans



CURRENT INVESTMENT SCENARIO

Current plans and policies with same level of investment as current regional and local transportation plans



LESS INVESTMENT SCENARIO

Current plans and policies with lower level of investment than current regional and local transportation plans

