

How much do we have to reduce emissions, and by when?

HB 2001 directs Metro to develop combined land use and transportation plans, called scenarios, that show what policies and investments are needed to accommodate growth while reducing emissions. The law requires the region to adopt a preferred scenario after public review and consultation with local governments, and local governments are required to implement the scenario through their plans. In 2011, the state land use agency - the Land Conservation and Development Commission - adopted greenhouse gas emissions reduction targets for the year 2035 for each of Oregon's six metropolitan areas. The target for the Portland metropolitan region calls for cutting roadway tailpipe emissions to 1.2 metric tons per person by 2035.



The good news is that implementing current local plans and realizing advancements in cleaner fuels and more efficient vehicles (Steps 1 and 2) are expected to reduce emissions to 1.3 metric tons per person by 2035. Metro and local communities will need to continue working together to make those current plans a reality, and additional investment and policy action will be needed to meet the region's target. In November 2012, the Land Conservation and Development Commission adopted additional rules that provide more details as the region selects a scenario to meet the state target by December 31, 2014.

The Climate Smart Communities Scenarios Project will demonstrate to Oregonians and the nation that carbon reduction targets set by the state can be achieved while producing outcomes of equal importance to residents: clean air and water, vibrant communities, transportation choices, equity, and economic prosperity.

Why is it a *regional* target as opposed to a target for every city and town in the region?

Vehicle travel in the region includes a combination of local travel (trips that begin and end within the region) plus trips that pass through the region, or that begin or end outside the region. In addition,

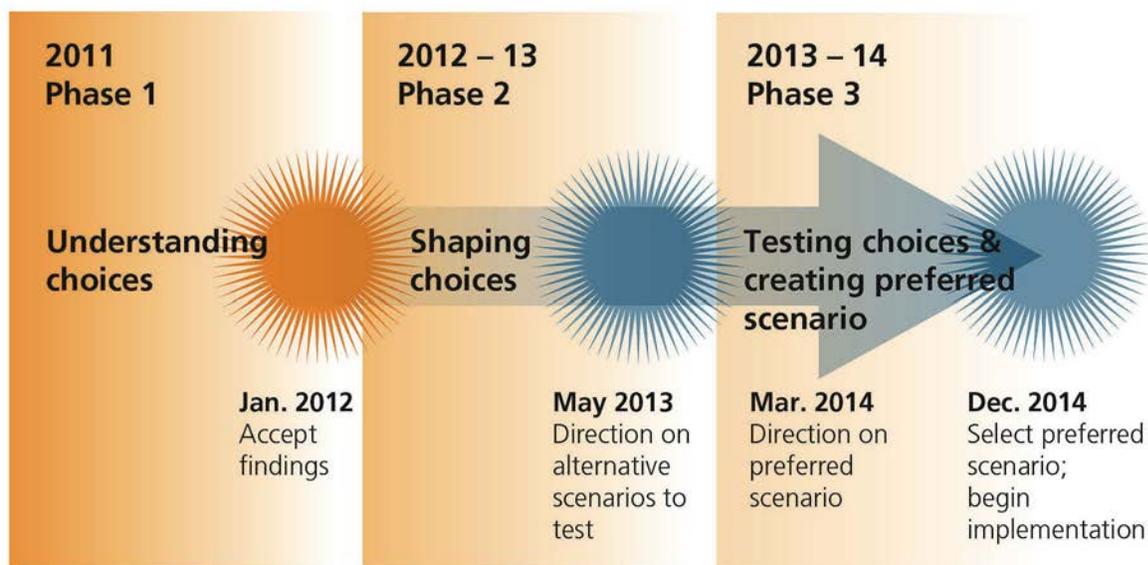
residents of one community often work, shop or go to school in another city or county. That's why the Land Conservation and Development Commission, the state agency responsible for setting the Portland area's carbon reduction target, set the goal at a regional level rather than community by community.

Does that mean that Metro is going to create one solution for the whole region?

There is no single solution to meet the state's greenhouse gas reduction goals. Communities will each have a role to play and a way to reduce emissions their own way. Different policies, actions, investments and technology improvements will combine to form a solution that will be implemented at state, regional and local levels. Local solutions will vary community by community.

Where are we in the project?

The project has three phases. Phase 1 focused on understanding choices. In this phase, all policy options that help reach the targets were open for consideration.



In Phase 2 the climate scenarios project team integrates community input from local government officials, community and business leaders, and the Metro Council to define the alternatives and strategies to be further evaluated. All will be tested in 2013, so cities, counties and community partners can decide which elements of the three should go forward into one scenario for the region to adopt in 2014.

Phase 3 is about building the strategy and defining how best to implement it. Metro, in partnership with local community and business leaders, will develop and recommend the preferred land use and transportation scenario and strategies needed to support implementation. In 2014, the region must adopt a scenario that supports local goals but also meets the emissions reduction target adopted for the region.

What do you mean by policies and strategies?

During Phase 1 analysis the team evaluated six categories of policies that could be evaluated using a new modeling tool called GreenSTEP, as seen below:

STRATEGIES EVALUATED

	COMMUNITY DESIGN Walkable communities, vibrant downtowns, job centers, housing and transportation options, walk and bike-friendly facilities, frequent transit service, urban growth boundary
	PRICING Gas tax, fees and pay-as-you-drive insurance options
	MARKETING AND INCENTIVES Education and marketing programs that encourage efficient driving, car sharing and use of travel options
	ROADS Clearing breakdowns and crashes quickly, adding capacity and using ramp metering, traffic signal coordination and traveler information to help traffic move efficiently
	FLEET Replacing older cars with more efficient new ones; shifting from light trucks to cars
	TECHNOLOGY More fuel-efficient vehicles, cleaner fuels, use of hybrid and electric vehicles

With as many as five different strategies in each of six categories, and including up to three levels of ambition in each category, the team analyzed 144 different combinations, called scenarios.

What is GreenSTEP?

GreenSTEP is an innovative modeling tool that supports scenario planning at the state and metropolitan area levels. It was developed at the request of the Oregon Global Warming Commission. Standard urban travel models are concerned only with forecasting traffic volumes on specific roadways in urban areas. GreenSTEP models account for household vehicle travel, energy consumption and greenhouse gas emissions regardless of where the travel occurs. But GreenSTEP can also calculate household vehicle travel, household walk and bicycle trips, amounts of money households spend on vehicle travel, and more.

Because it is a new type of model, GreenSTEP has been and continues to be peer-reviewed by state, national and international modeling experts. It is recognized by the U.S. Department of Transportation and by the American Association of State Highway and Transportation Officials.

ODOT and Metro worked together to develop a metropolitan area version of GreenSTEP used to support Phase 1 of the climate scenarios project. This version allows planners to evaluate prospective policies at a much finer level of geographic detail than is possible with the state level version.

What has been learned so far?

The Phase 1 findings are summarized below:

1. Current local and regional plans and policies are ambitious and provide a strong foundation for meeting the region’s greenhouse gas target.
2. The reduction target is achievable but will take additional effort and new strategic actions.
3. Most of the strategies under consideration are already being implemented to varying degrees in the region to achieve the 2040 Growth Concept vision and other important economic, social and environmental goals.
4. A range of policy choices exists to reduce greenhouse gas emissions; the best approach is a mix of strategies.
5. Community design and pricing play a key role in how much and how far people drive each day and provide significant greenhouse gas emissions reductions.
6. Fleet, technology and pricing strategies provide similar significant greenhouse gas emissions reductions but no single strategy is enough to meet the region’s target.
7. Road management and marketing strategies improve system and vehicle efficiency and reduce vehicle travel to provide similar, but modest greenhouse gas emissions reductions.

You can download a pdf of the complete Phase 1 Findings Report at

<http://www.oregonmetro.gov/climatescenarios>

How will social equity and environmental justice be considered and achieved? Will Metro make sure that the region’s most vulnerable populations – low-income households, communities of color, older adults and children, people with disabilities and households with limited English proficiency - benefit from the climate scenarios project?

We all want a region that provides good jobs, safe and reliable transportation, livable neighborhoods, and access to the opportunities that create the quality of life for which our region is known – for everyone. As part of the project, Metro is creating a “scorecard” to measure how well the chosen scenarios work to advance environmental justice and equity along with other desired outcomes. The scorecard will include a set of environmental justice and equity outcomes that the region desires, along with ways to measure each outcome. A variety of evaluation measures will be used to assess the scenario options, including housing and transportation costs, access to jobs and affordable housing and transportation choices, air quality, implementation costs, vehicle miles traveled, freight costs, and so on. Housing and transportation costs in particular will help determine the effect of certain policy actions on vulnerable communities.

Phase 2 outreach includes discussions with organizations working to advance equity and environmental justice in the region to provide guidance to this aspect of the process. Project outreach will also include

opportunities for community leaders to help identify what strategies should be included in the preferred scenario and how best to implement the strategies being considered to ensure the preferred scenario advances equity and environmental justice in the region.

What about the business community? How will business and economic interests be considered? Will Metro make sure that the region's preferred approach creates jobs and supports the area's economic competitiveness?

The community engagement strategy described for equity and environmental justice will also involve business leaders and business associations. Project outreach will include meetings with representatives from business sectors such as freight and building industries, shippers, ports, commercial and residential developers, small business owners, as well as the region's largest employers and business associations. Project outreach will also include opportunities for business leaders to help identify what strategies should be included in the preferred scenario and how best to implement the strategies being considered to ensure the preferred scenario advances job creation and economic prosperity in the region.

How much is all this going to cost and who's going to pay for it?

Cost will be one of many evaluation criteria used to guide the region's final selection and adoption of a preferred scenario in 2014. It will be a critical dimension in any discussion of implementation.

Phase 1 was intended to study a range of options to meet the target. With a variety of options still under consideration, it is not possible to estimate costs until a more specific direction is agreed upon.

Evaluation of costs as well as potential cost savings will occur in Phase 3. After Phase 3, the preferred scenario will be implemented through policies, actions and investments at the state, regional and local levels. An important outcome of the project will be documenting the investments and policies necessary to achieve local plans and visions, working together to realize those visions and finding ways to leverage or seek additional state and regional investment.

As the scenarios planning continues to be refined, policies and actions already being implemented as part of a community's planning process will likely become important building blocks in the final scenario's recommendation. The project is as much about investing in smart growth, healthy communities and a wonderful place to live and work as it is about reducing carbon emissions.

How can I stay involved?

There are many ways to stay involved in the development of the preferred scenario. Sign up to receive updates via e-mail about additional public events, forums, and web surveys at the project website at www.oregonmetro.gov/climatescenarios or by calling 503.797.1551.