The Portland Metro Climate Prosperity Project

A GREENPRINT FOR THE METRO REGION

Photo: Flickr user orb9220

A Call to Action

In 2009, the Portland metropolitan region became a pilot of the national Climate Prosperity Project, an invitation-only initiative led by the Rockefeller Brothers Fund to develop a new kind of regional strategy that simultaneously emphasizes economic prosperity and the reduction of greenhouse gas emissions. We asked a simple question: how does the Portland region successfully scale up the green economy while meeting established livability and environmental goals?

Our region is an early adopter of green technologies, conservation, and innovative public policy. It's known as a place where the environment and livability takes priority, bucking national trends around sprawl and greenhouse gas emissions.

But our environmental leadership has not fully materialized into a strong economic development and public policy strategy that builds social capital across the region. The promise of a clean economy is in our sights, yet other regions are vying for the leadership role — and they have the intent and capacity to pass us by.

This Greenprint is a call to action. It is a set of strategies to elevate and prioritize our activities, starting immediately. We can no longer afford to work without a strong regional platform on which to frame collaborative efforts. We can and must align our initiatives to grow our competitive advantages, scale up our efforts, reduce our environmental impacts, and capture the benefits of the clean economy for all of our residents.

Success will require a united and aggressive effort by business and policy leaders to strengthen and expand the Portland region's role on the leading edge of the global clean economy.

The time to act is now — please join us.

Sincerely,
The Portland Metro Climate Prosperity Working Group

THE WORKING GROUP

Climate Solutions

DSW Collective

Formos

Greenlight Greater Portland

Lane Powell

Metro

Nike

Oregon Business Council

Oregon Institute of Technology

Portland Bureau of Planning and Sustainability

Portland Development Commission

Portland Sustainability Institute

Regional Partners

Worksystems, Inc.

Executive Summary

In the past decade, the Portland metropolitan region has emerged as a national leader in urban sustainability and clean technology. The region has witnessed a veritable explosion of activity across companies, government, nonprofit organizations and educational institutions, resulting in a dazzling array of new green products, policies, programs and infrastructure.

It's clear that the region's track record has generated national recognition as well as tangible environmental and economic benefit. But the region's early adopter advantage diminishes as other cities and metropolitan regions—armed with greater resources and more sophisticated strategic partnerships and coordination—adopt the green mantle.

Further, rising inequalities in our region threaten to leave behind certain populations in the growth of the clean economy if not carefully integrated into the overall roadmap.

> The region is not guaranteed a leadership position in the fast-moving global clean economy unless it invests in and organizes itself for success.

Perhaps most important, metro regions without a long-term sustainability roadmap are at risk in a world of volatile energy costs, coming carbon regulations, and the long-term scarcity of resources.

The national landscape is shifting quickly. The federal government is pouring billions of dollars into green research and business development. Innovation and entrepreneurship are soaring across all sectors of the clean economy. At the same time, the threats and uncertainties of climate change and resource volatility are affecting metropolitan regions in new and more powerful ways. State and local budgets are shrinking, putting investments in the clean economy at risk.

The Portland metropolitan region's challenge is not to discover the benefits of living, working or thinking green. Rather, the challenge is to fully capture the jobs and economic benefits of the clean economy for our residents. To do so, we must strategically engage our business community, different levels of local and regional government,and our citizens in ways that keep the region at the forefront of the green economy. Few in our region are satisfied with the level of progress we have made creating green jobs or deploying innovative policy and financing structures that can scale broadly to reach the vision we all share for a sustainable economy. Put simply, the region is not guaranteed a leadership position in the fast-moving, global clean economy unless it invests in and organizes itself for success.

Business and civic leaders need to take concerted action today to create more linkages among key players around shared market interests, regional business planning and signature projects. The region must also increase its capacity to respond quickly and effectively to federal and state funding opportunities that will drive clean technology innovation and economic growth for years to come. In addition, the region's clean economy activities need to integrate and support low-income people and people of color.

The Portland Metro Climate Prosperity Greenprint provides a roadmap to accelerate the region's leadership in green development and clean technology. It starts from the premise that the Portland metropolitan region can simultaneously strengthen its economy, reduce carbon emissions and maintain a focused leadership position in the global clean economy.

Photo: State of Oregon

The Greenprint is a regional call to action that identifies seven green actions and recommends key strategies to achieve them. The seven strategic priorities were developed in consultation with more than 200 business, higher education and workforce leaders and the Climate Prosperity Working Group over the last year. The Greenprint synthesizes the many catalytic but often disparate initiatives that are currently underway throughout the region and offers up a series of new strategies based on a scan of best practices throughout North America. In each case the proposed strategies require true regional collaboration — no individual jurisdiction, sector, institution or company has the full range of assets and expertise to succeed on its own.

It's time for the region's business, civic and environmental leaders to pull together to accelerate green job creation and invest at scale in our region's most promising green practices.

A Vision for the Region

To become a beacon of the clean economy that achieves more economic prosperity and community vitality and produces less environmental impact—given the region's assets and size—than any other region in the world.

ACTION 1:
Expand Green Project Finance

- Establish energy efficiency finance program
- Develop regional investment strategy to support green infrastructure, smart growth and sustainable development projects
- Develop utility service and revenue recovery models to accelerate resource efficiency and smart grid technologies
- Develop regional green bank strategy that explicitly directs loans into energy efficiency and renewable energy investments
- Encourage the Oregon Investment Council to invest a portion of the state treasury portfolio into local clean technology and efficiency projects
- Create replicable ecosystem services marketplace for sustainable forestry, watershed and agriculture projects
- Enhance state incentives and policies for clean technologies

ACTION 2:
Accelerate Energy Efficiency and Clean Energy

- Establish a regional energy policy for efficiency and local clean energy production
- For major redevelopment sites, adopt high-performance building and infrastructure standards
- Accelerate bulk procurement of on-site clean energy systems
- Create unified customer energy literacy campaign for the region
- Support transportation electrification throughout the region

ACTION 3:
Commercialize Green Technologies

- Create a “one stop” commercialization resource center for businesses
- Create a commercialization gap fund through the State of Oregon’s signature Research Centers
- Organize companies into consortia to work together on proof-of-concept new buildings, energy technologies and retrofit projects to develop and commercialize innovative technologies

ACTION 4:
Cultivate the Clean Tech Cluster

- Support the regional wind energy industry
- Support the regional solar energy industry
- Support the regional green development industry
- Support the regional transportation electrification, battery storage and smart grid industries

ACTION 5:
Cultivate a Sustainable Forestry and Agriculture Cluster

- Support efforts to strengthen the regional food system as an economic development cluster
- Support the emerging regional biomass industry

ACTION 6:
Develop a Pipeline of Green Talent

- Forecast workforce needs
- Strategically invest in post secondary programs that will result in family wage green jobs
- Integrate green curriculum into metro region school districts (K-12)
- Create pathways to employment for all through sustainable workforce retraining programs

ACTION 7:
Build Support and Communicate Results

- Create Climate Prosperity Leadership Council
- Set up a measurement system to track quarterly and annual progress on key economic and environmental measures
- Broaden support for Greenprint implementation

Introduction

In the past decade, the Portland metropolitan region has emerged as a national leader in urban sustainability and clean technology. The region has witnessed a veritable explosion of activity across companies, government, nonprofit organizations and educational institutions resulting in a dazzling array of new green products, policies, programs and infrastructure.

Myriad studies have documented the region's growing concentration and competitiveness in clean technology industries including solar manufacturing, wind energy, green building, environmental technology, energy efficiency and electric vehicles across the state and region.[1]

Likewise, case studies of the region's unique public policy framework that incents green behavior through renewable energy standards, land use, transportation, building code and recycling policies has become required reading in urban and regional planning departments across the country.

At the same time, three trends provide a challenge to the region's continued health and growth.

First, other cities and regions with greater resources, regional economic development capacity and coordination are aggressively developing integrated clean economy and sustainability initiatives.[2] Our region stands to lose its early adopter advantage as one of the clean economy's rising stars — as well as the business and green jobs opportunity that comes with it.

Second, rising inequalities[3] in our region threaten to leave behind certain populations in the growth of the clean economy if not carefully integrated into the overall roadmap.

Perhaps most important, metro regions without a long-term sustainability roadmap are at risk. Like corporations, they face uncertainties around volatile energy costs, coming carbon regulations, and the long-term scarcity of resources.

1 A national benchmarking report released by the Pew Charitable trusts in 2009 demonstrates that Oregon has one of the fastest growing clean energy economies in the country and a larger proportion of its workforce employed in the clean energy sector than any other state. Oregon led the nation with just over 1 percent of all of its jobs focused on the clean energy economy in 2007. See table on page 10.

2 See "Other Regions' Efforts" on page 10.

3 As documented in the Urban League's State of Black Oregon, Coalition for a Livable Future's Equity Atlas and the Coalition of Communities of Color's report, An Unsettling Profile.

A Vision for the Region

To become a beacon of the clean economy that achieves more economic prosperity and community vitality and produces less environmental impact—given the region's assets and size—than any other region in the world.

Goals for Portland-Vancouver

- The metro region becomes the most energy efficient metro in the US by 2030. This is achieved by setting specific targets and implementation mechanisms for lowering energy and carbon intensity and increasing regional renewable and low carbon energy production.
- The metro region becomes a national center for energy efficiency and ecosystem services financing.
- The metro region creates the country's most successful clean tech cluster for renewable energy, energy efficiency, ecosystem services and green development in the US.
- The metro region's clean tech investors, businesses and universities create an effective and scalable renewable energy, smart grid and green building commercialization strategy.
- The metro region establishes itself as the country's recognized early adopter consumer test bed for green practices and technologies.
- The metro region becomes a national exemplar for green jobs creation and training across every level of the economic and demographic spectrum.

The Portland-Vancouver Metro Region

The footprint of the greater Portland-Vancouver metro area crosses two states, seven counties and 61 cities and towns. It is built on a rich history of sound land-use and planning decisions, leading to a culture and infrastructure ripe for sustainable development.

It is a magnet for the "creative class" and boasts a highly educated populace. In addition, it has connections to the Pacific rim, sits in a central west coast location and has one of the country's lowest tax burdens for C-corps.

Being a bi-state region is an asset for economic developers, as the distinctiveness of the north and south sides of the river means a greater array of options for businesses looking to locate or relocate. But with these assets come challenges, among them state tax policies that stop at the river and uneven governance in general across the Columbia.

Climate Prosperity envisions alignment throughout the entire metro area around a clean economy approach to economic development.

The Region's Success:

Portland-Vancouver distinguishes itself among peers as a community of eager inventors and early adopters of green innovation. It is characterized by a deep and long history of environmental activism and has gained a reputation as a "living laboratory" for sustainable urbanism. The region's green ethos characterizes and informs sustainable business practice as well with global sustainability leaders such as Vestas, Iberdrola, Solarworld, Intel and Nike setting the pace.

Defining Clean Economy Success:

- National leadership in green industries
- Quality job and income growth
- Growth and retention of existing companies
- Attraction and creation of new companies
- Transformation of the region's broader economic base

Portland-Vancouver has created literally hundreds of "green" success stories for which its business and civic leaders and citizenry should rightfully be proud.

- The region has created thousands of high paying "green jobs" by attracting the largest concentration of solar manufacturing firms in the country.[4]
- The state is a leader in the production of wind energy with Portland serving as home to North American headquarters of two of the largest global wind energy companies — Vestas and Iberdrola.[5]
- Portland's major electric utility companies are ranked number 2 and 3 respectively in the nation for renewable energy sales.[6]
- A 2008 estimate of the impacts of the green building cluster across three counties in the metro region estimates between $355-960 million in annual wages.[7]
- Bucking national trends, Portland has reduced carbon

4 The region's solar cluster is anchored by SolarWorld in Hillsboro. SolarWorld is projected to employ 1,000 employees at full capacity. Other notable firms in the region's solar cluster include Solaicx and Sanyo.

5 Over 2,600 MW of capacity is already installed or under construction in Oregon and Washington, who rank 7th and 5th in national wind installation, respectively

6 The U.S. Department of Energy's National Renewable Energy Laboratory released its annual assessment of leading green power programs in May. Ranked by renewable energy sales (kWh/year), Austin Energy (Austin, TX), Portland General Electric (Oregon), and PacifiCorp (Oregon and five other states) ranked first, second and third in the nation.

7 Jennifer H. Allen and Thomas Potiowsky, Portland's Green Building Cluster, 2008.

emissions below 1990 levels.[8]

- The region has tamed sprawl and vehicle miles traveled through implementation of an urban growth boundary resulting in a "green dividend" of more than $1 billion.[9]
- The region is characterized by abundant mass transit (including busses, light rail and streetcars) linking Portland and surrounding communities.
- The value of bicycle-related industries in Portland is about $90 million per year and growing, providing 850-1150 jobs in 2008.[10]
- The region boasts among the highest recycling rates, transit ridership rates, bicycle commuting rates and hybrid vehicle ownership rates in the nation.

These success stories and others have led Portland-Vancouver to become a darling of the national media and a magnet for young, creative talent.[11] The city and region routinely top national comparative rankings with respect to sustainability and livability.[12]

The Region's Challenge:

Portland-Vancouver's early adopter advantage diminishes as other cities and metropolitan regions—armed with greater resources and aggressive strategic partnerships and coordination—adopt the green mantle.

Unlike many regions, Portland-Vancouver's challenge is not to discover the benefits of living, working or thinking green. Rather, the challenge is to fully and strategically engage the business community, government and citizens in ways that keep the region at the forefront of the clean economy. Few of us are satisfied with the level of progress the region has made creating green jobs or deploying innovative policy and financing structures that can scale broadly to reach the vision we all share for a sustainable economy.

Put simply, the region is not guaranteed a leadership position in the fast-moving, global clean economy unless it invests in and organizes itself for success.

8 City of Portland and Multnomah County, Climate Action Plan 2009. Portland instituted the first city local action plan on global warming in 1993. In 2008, Multnomah County emissions were 1% below 1990 levels, with a target to be 10% below in 2010, 40% below in 2030 and 80% below 1990 levels in 2050.

9 CEOs for Cities, Portland's Green Dividend, 2007

10 Alta Planning, The Value of the Bicycle-Related Industry in Portland, 2008.

11 Greater Portland and Austin, TX lead the nation for attracting and retaining 18- to 34-year-old talent, 30% more than the national average.

12 Portland was rated the most sustainable city in the US in 2008, and one of the top 50 most livable cities in the world in 2009.

Business and civic leaders across Portland-Vancouver need to take concerted action today to create more linkages among key players around shared market interests, regional business planning and signature projects. In addition, there is great need to increase the region's capacity to respond quickly and effectively to federal funding opportunities that will drive clean technology innovation and economic growth for years to come.

The region's past accomplishments have put our community at the forefront of green innovation, but fragmented governance, a propensity toward process, long-standing ambivalence about "big business" and wealth, and a commitment to do-it-yourself culture hold the region back. Regional business and civic leaders must not become complacent thinking that current approaches are good enough for Portland-Vancouver to keep pace with the competition.

Here's the reality: they aren't.

Other Regions' Efforts

Several regions across the country are organizing to capture the benefits of the clean economy.

Austin, TX is investing in projects like the Pecan Street Project, standardized green job training and a clean energy park for businesses. Nearby San Antonio recently released "A Vision for Sustainability" aimed at boosting its economic development potential.

Vancouver, B.C.'s "Green Capital" brand and "Greenest City Initiative" are bringing together their economic development and sustainability goals.

Meanwhile, partner Climate Prosperity pilots Denver and Silicon Valley are organizing their own efforts to stake a claim in the clean tech and sustainability space.

Key Growth Opportunities Identified by Research 2008-2009

Study	Clean Edge/Climate Solutions 2008, "Carbon Free Prosperity 2025"	Greenlight Greater Portland's Industry Cluster Research 2008	Portland Development Commission's Industry Cluster Research 2009	Pew Study 2009, "The Clean Energy Economy"
Purpose of Study	Identify Oregon and Washington's biggest Clean Tech Growth Opportunities	Identify Portland MSA's biggest strengths by concentration of companies and talent	Identify Portland region's biggest opportunities for job creation	Document current state of clean tech activity across 50 states
Major Areas of Strength or Opportunity Identified	Solar PV Manufacturing	Solar PV Manufacturing	Solar PV Manufacturing	Clean Energy
	Wind Power Development	Wind Power Development	Wind Power Development	Training and Support
	Green Building Design and Services	Green Building Design and Services	Green Building Design and Services	Environmentally Friendly Production[1]
	Smart Grid Technologies	Environmental Services and Recycling Technologies	Energy Efficiency	Energy Efficiency
	Sustainable Bio-Energy		Transportation and Energy Storage	Conservation and Pollution Mitigation[2]

1 PEW definition of Environmentally Friendly Production includes green building design and construction, alternative transportation fuel development, electric vehicle and equipment production, and sustainable agriculture

2 PEW definition of Conservation and Pollution mitigation includes environmental consulting, recycling, waste treatment, emissions control and monitoring, and water/wastewater treatment

The Region's Opportunity:

The Portland metropolitan region has the opportunity to convert its green advantage into ***widespread economic and competitive*** advantage. In the decade to come only a handful of metropolitan regions will cement their position as leaders in the clean energy economy. Portland-Vancouver has the opportunity to leverage its current leadership position and expertise in sustainability to grow and thrive in the global clean technology marketplace. The clean economy can create badly needed jobs, investment and wealth for the region.[13]

> Those companies, communities, governments, and regions that embrace clean-energy technologies... stand to benefit immensely by creating new jobs; becoming center of technological, business, and sustainability excellence; and leading the next wave of global innovation. Those that do not embrace this new wave, and continue to depend as much as they always have on carbon-intensive, increasingly costly and volatile fossil fuels, risk falling behind economically, socially and environmentally.
>
> ***— Carbon Free Prosperity 2025***

As several reports recently note, the Northwest is already leading in a number of critical and emerging clean energy segments. In 2009, the Pew Charitable Trusts released a national comparative report entitled, "The Clean Energy Economy: Repowering Jobs, Businesses and Investments Across America." The report shows that jobs in Oregon's core green economy sectors grew seven times faster than all jobs in the state between 1998 and 2007. At 1% of total employment, Oregon enjoys a larger share of employment in core green sectors than any other state. Oregon is one of only three states that the Pew report classified as a "large and fast growing" clean energy economy. Core green sectors in the state include energy efficiency, energy generation and recycling technology.

What is the Clean Economy?

A clean energy economy generates jobs, businesses and investments while expanding clean energy productions, increasing energy efficiency, reducing greenhouse gas emissions, waste and pollution, and conserving water and other natural resources.

— Pew Charitable Trusts, The Clean Energy Economy

13 Portland's median income lags that of other west coast cities such as San Francisco and Seattle and its poverty rate is higher

Climate Solutions and Clean Edge reached similar conclusions in their 2008 report, "Carbon-Free Prosperity 2025." Their analysis determined that the Northwest already has unique competitive advantages in five key areas: solar PV manufacturing, green building design and services, wind power development, sustainable bio-energy and smart grid technologies. Clean Edge estimates that these five sectors alone could provide from 41,000 to 63,000 new jobs for Oregon and Washington by 2025.[14]

With focus and determination the region can seize a market leadership position in the clean energy economy. As Carbon Free Prosperity notes, however, "it is critical that the (Northwest) region prioritize investments in carefully selected areas in which it is most likely to be a leader in global markets, leverage existing and emerging assets, and build out vibrant clusters of expertise. The 'play to your strengths' strategy that often creates success for leading businesses and sports teams applies to clean-tech economic development as well."[15]

The region's leadership position will reap short-term and long-term rewards. Immediately, the quick wins of energy efficiency and renewed competitive advantage will bolster businesses' ability to compete in the current economic climate. Over time, Portland-Vancouver will continue to build a broad foundation of knowledge to respond to the challenges of climate change and resource volatility. As these issues become larger forces in the world, regional businesses will have enormous opportunities to grow and export their expertise —all while enhancing the quality of life of Portland-Vancouver's citizens.

14 Carbon Free Prosperity 2025, pg. 5
15 Carbon Free Prosperity 2025, pg. 9, op. cit.

Why does the region need a Greenprint?

There is no lack of activity in the Portland metropolitan region that addresses the environment, the economy or equity. But existing plans and initiatives are often disjointed, leading to suboptimal outcomes for the region as a whole.

What's missing is a mechanism for linking organizations and goals, coordinating policy, and directing investment to maximize impact at the regional scale.

As a region, we can and must do better.

The Portland Metro Greenprint provides a roadmap to accelerate leadership in green development and clean technology. It starts with the premise that Portland-Vancouver can simultaneously strengthen its economy, reduce carbon emissions and maintain a focused leadership position in the global clean economy — but only if business and civic leaders take a hard look at current deficiencies and address them head on.

Through implementing the Greenprint, the region will see direct economic development benefits and maintain its name as a leader in sustainability and the clean tech economy. But it will also do more. The Greenprint's actions will provide citizens with on-the-ground benefits that go beyond economic growth to provide greater social capital and livability — two characteristics that will only support greater success in implementing the Greenprint's economic development goals.

Speed, Scale and Impact

The goal is speed, scale and impact. As regions face the uncertainties of climate change and resource volatility, they must be able to act and adapt as challenges arise. Portland-Vancouver can follow business as usual or it can set its sights higher. Business and civic leaders can choose to work together in creative and effective ways, harnessing the collective energy and talent of the region's people, institutions and jurisdictions to build one of the world's most prosperous and resilient clean economies.

The Greenprint provides a roadmap and strategic framework to cohere the component parts of the region's green agenda. It will help regional business and civic leaders:

- **Speak with one voice to keep pace with the competition.** Portland-Vancouver is a small metro region (23rd in US market size). The region's efforts will garner more national attention and a greater share of federal funding if a single powerful voice narrates the region's innovative capacity and competitive advantages in clean technology. Only by combining—rather than dividing up—the region's collective assets can it hope to keep pace, especially with larger metropolitan areas.[16]

16 In the past decade, Oregon generated only 1/10 the number of patents that California generated.

- **Leverage scarce resources.** Portland-Vancouver is a resource-constrained region. The region cannot afford to work in an uncoordinated fashion that breeds inefficiency and duplicates effort. By setting clear priorities, the Greenprint can get key public and private actors working off the same page to maximize existing human and financial resources.
- **Produce more innovation.** Real breakthroughs come at the intersection of different disciplines and diverse viewpoints. The Greenprint will help connect individuals, organizations and sectors working on related aspects of the green agenda.
- **Achieve widespread buy-in and grow social capital.** The more that jurisdictions, industries and residents of the region participate in and benefit from the growing green economy, the more likely the region will sustain innovative policies and partnerships to keep it at the forefront of the green frontier. If the clean economy is perceived to be (or actually is) limited to certain cities, environmental elites, or a narrow band of occupations, it is likely to devolve into intraregional disputes that stall progress and roll back earlier gains.
- **Focus on prosperity.** The Portland metropolitan region trails other west coast regions in terms of wages, earnings and post-secondary enrollment. The Greenprint provides a concerted focus on clean tech job creation and related education and training to drive the growth of family wage jobs.[17]

Delivering the Greenprint's Action Items requires the region's business, civic and environmental leaders to let go of some long-held practices. Instead of singular "do-it-yourself" efforts, the region needs to leverage individual efforts to achieve greater impact. With no strong regional framework or platform in place, Portland-Vancouver struggles to coordinate policy and scale investment to maximize impact. We must let go of any ambivalence around economic development, recognizing that economic and environmental progress are not mutually exclusive. To support that, we need to supply capital and business infrastructure to bring innovation to market.

It's time for Portland-Vancouver to raise its game and take the clean economy to the next level.

17 In 2008, median wage in Oregon was $15.22/hr and 2/3 of green jobs paid $15/hr or more, making it statistically more likely for green jobs to fall in the "high wage" category.

The National Climate Prosperity Framework

The Climate Prosperity Project

Climate Prosperity asserts that metropolitan regions can simultaneously grow their economies and reduce greenhouse gas emissions. It rejects the notion that the economy and environmental protection are incompatible and embraces the belief that we can strengthen both through innovation. The Portland metropolitan region has been designated as a pilot Climate Prosperity Project.[18]

This initiative is led by the newly formed Climate Prosperity Project, Inc., a national nonprofit working with select regions across the country to align and advance economic development and environmental actions to reduce emissions while stimulating economic prosperity. The project has developed a powerful framework, above, to serve as a useful guide for regional collaboration.

18 The four pilots in the national Climate Prosperity Project are Silicon Valley, Portland, St. Louis, and Denver. Portland joined as a pilot in February 2009, when a number of representatives from the region attended a national Climate Prosperity meeting in Silicon Valley. The Portland representatives returned to form a working group and begin the pilot process. In summer 2009, the group received $25,000 from the Rockefeller Brothers Fund to develop a Greenprint for the region. Since then, the group has conducted a regional inventory of activity in the clean economy, engaged over 200 regional leaders, and drafted the Greenprint.

Climate Prosperity is a hybrid, borrowing from the established fields of environmental sustainability and economic innovation. It recognizes that steps can be taken towards sustainability by reducing emissions through better energy efficiency and greater use of lower-emission alternatives. It also recognizes that innovation—which has opened up new frontiers in other fields such as information technology and biotechnology—can transform the energy field. A new wave of innovation can be a catalyst for prosperity that both addresses climate change and creates economic opportunity for people and communities.

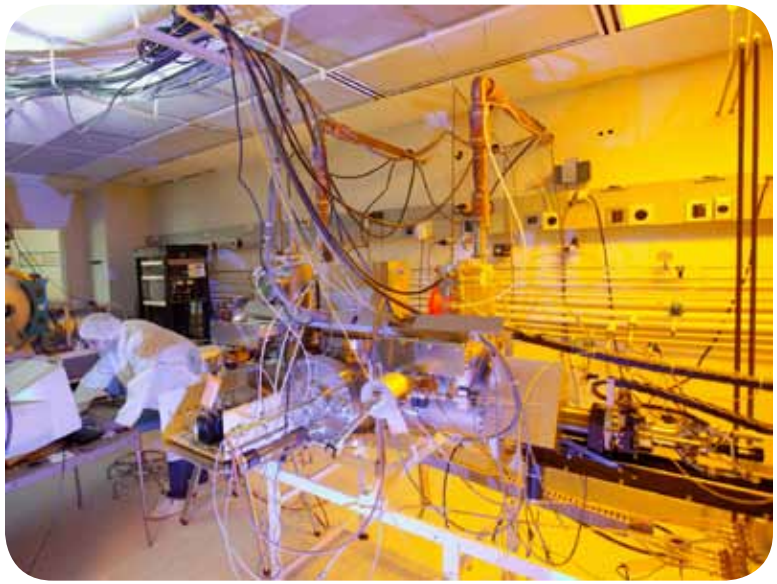


Photo: State of Oregon

The regional climate prosperity framework includes supply and demand components that together produce multiple economic and environmental benefits. By encouraging demand and supply together, a region can simultaneously reduce greenhouse gas emissions, improve energy savings, expand business opportunities and grow green talent and jobs. To provide the "glue" to connect and align both supply and demand strategies, as well as track the benefits accrued, the framework suggests an organizational component that reflects the unique characteristics of each region. Each pilot region engaged in the national Climate Prosperity initiative has created or is in the process of developing such an organization.

Portland Metro Climate Prosperity Actions

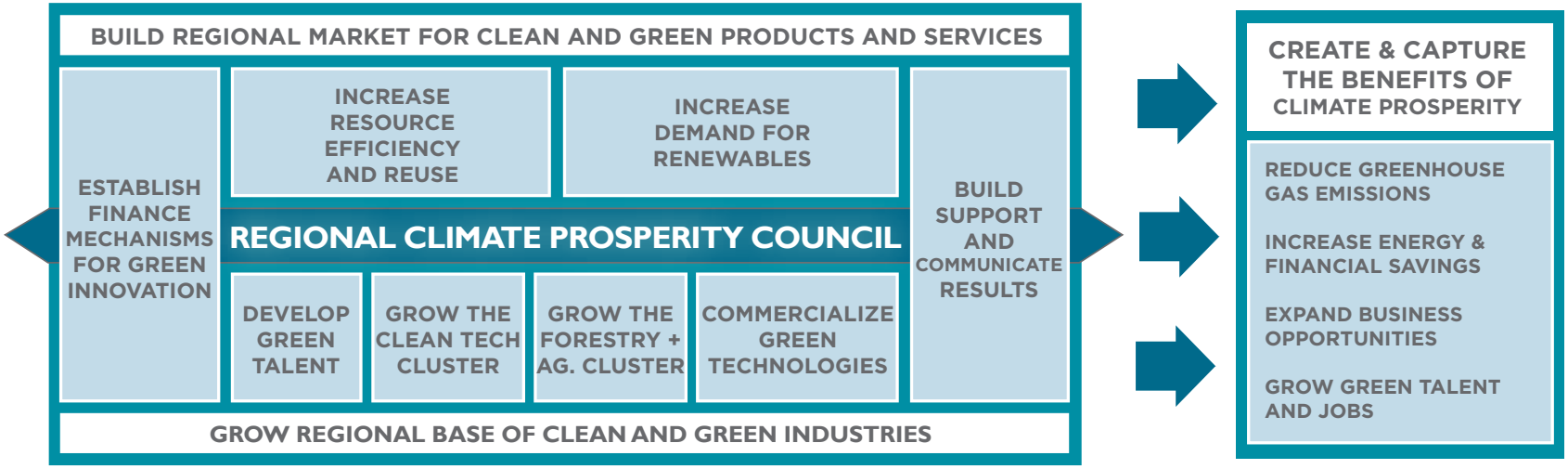
The actions of the Greenprint are designed to transform Portland-Vancouver into the nation's beacon of the clean economy. The majority of action items are already underway. Now, it's time to strengthen and scale these efforts through a coordinated and focused leadership strategy. Each strategy has a time horizon of three to five years, and all help build toward long-term economic and competitive advantage for the region.

The actions and strategies are intentionally framed at a high level. The magnitude and complexity of the region's work in this area is more than a single report can cover. So while there is substantial depth behind each strategy, the Greenprint charts a high-level roadmap, refraining from providing implementation detail. The collaborations and work that occur throughout implementation will address these issues further.

The Greenprint's Seven Actions:

1. Expand Green Project Finance
2. Accelerate Energy Efficiency and Clean Energy
3. Commercialize Green Technologies
4. Cultivate the Clean Tech Cluster
5. Cultivate the Forestry and Agriculture Cluster
6. Develop a Pipeline of Green Talent
7. Build Support and Communicate Results

The Climate Prosperity Framework for the Portland-Vancouver Region



Regionalizing the Framework

Portland-Vancouver has customized the national Climate Prosperity Framework to its regional needs. It consists of three ingredients: demand, supply, and "enablers".

In a region long known for the strength of the demand side of its economy, the Greenprint's efforts to build demand are centered on increasing resource efficiency and use of renewable energy sources.

Portland-Vancouver's efforts to shore up supply focus on developing green talent, growing promising business clusters and providing avenues for technology commercialization.

One of the most important parts of the region's Greenprint comes in the form of enabling mechanisms — the tools needed to build the supply and demand of a successful clean economy. New finance mechanisms and regional communication are key ingredients to allow the growth of critical clean tech and sustainability projects across the region.

Together, these three components promise to bring the benefits of the clean economy to the region.

Action 1:
Expand Green Project Finance

Building the clean economy requires predictable and consistent project finance instruments to build new markets, spur innovation and support the growth of businesses and jobs. The region needs to develop more diverse, stable and available funding to retrofit buildings, develop distributed and renewable energy projects and expand green infrastructure.

Strategy 1.1

Establish energy efficiency retrofit financing program throughout metro region

In Oregon, a broad partnership of local and state governments, utilities, labor organizations, nonprofits and financial institutions launched a $120 million comprehensive building retrofit program, Clean Energy Works Oregon (CEWO), to increase energy efficiency in thousands of residential and commercial buildings over the next three years. The City of Portland received a $20 million Department of Energy grant to kick start the effort as seed capital in the form of loan guarantees, credit enhancement, and business development funding and is actively seeking further funding to grow the program to other communities throughout the state. Next steps include expanding CEWO to the metro region and creating an aggregation and risk mitigation policy framework to bring substantial private capital into the retrofit market and accelerate building retrofit activity.

Strategy 1.2

Develop regional investment strategy to support green infrastructure, smart growth and sustainable development projects

Smart infrastructure and green development are critical to maintaining and enhancing regional economic growth, competitiveness, productivity and quality of life. Due to inadequate and unpredictable public funding, the region has a growing backlog of infrastructure repairs and limited funding to support green infrastructure and smart growth. Metro has begun convening public, private and nonprofit partners to develop an integrated investment strategy to help the region accomplish its goals of more effective targeting of existing resources, strategic positioning for future state and federal funding and exploration of needed new funding mechanisms to support public infrastructure projects. Recommendations are expected in 2011.

Strategy 1.3

Develop utility service and revenue recovery models to accelerate resource efficiency and smart grid technologies

Utilities have a unique combination of long-range business models, access to capital and direct relationships to their customers. Innovative finance models such as dynamic pricing, on-bill repayment of energy retrofits or fee-for-service rather than fee-for-energy use present major opportunities to transition to clean energy. This strategy supports the adoption of new policies that give permission and encourage the Oregon Public Utilities Commission to direct utility investment in energy efficiency, distributed generation, related infrastructure and energy systems that achieve zero or near-zero greenhouse gas emissions.

Strategy 1.4

Develop a regional green bank strategy that explicitly directs loans into energy efficiency and renewable energy investments

Homeowners and businesses need access to capital to make clean energy investments, yet very few lenders are focused on making these kinds of loans. A statewide and publically financed green bank framework in partnership with the Oregon Treasurer's Office can help provide a range of stable and potentially lower cost of debt financing options.

Strategy 1.5

Encourage the Oregon Investment Council to invest a portion of the state treasury portfolio into local clean technology and efficiency projects

The Oregon Investment Council (OIC) oversees the investment of most funds managed by the State Treasury, including the Public Employees Retirement Fund. The OIC ensures that money in the funds is invested and reinvested to earn the greatest possible returns for the beneficiaries. Whereas the OIC cannot, as a matter of policy, invest in specific Oregon companies, it could potentially recommend that the state invest in a fund with a specific investment strategy that appears to offer an attractive risk/return profile relative to other investments in the same asset class. For example, the OIC might recommend investing Public Employee Retirement System funds in a regionally-focused renewable energy fund that leverages private capital, federal loan guarantees, federal tax credits and Business Energy Tax Credits to yield above-market returns.

Strategy 1.6

Create replicable ecosystem services marketplace for sustainable forestry, watershed and agriculture projects

The region is a hotbed for ecosystem service financiers, researchers and innovative nonprofits helping to develop a broad ecosystem marketplace for sustainable forestry, agriculture and watershed restoration projects. With the build out of an ecosystems services marketplace, organizations and landowners could tap into additional resources to cover the incremental costs of innovative projects. While many potential projects would be too small to attract the interest of large project developers, these projects could be bundled into a single "programmatic" project, thus reaping the benefit of economies of scale. Additionally, soil carbon and forestry project protocols are still new and the region has the opportunity to leverage its existing base of carbon expertise and its forestry and agriculture practitioners to become a center of excellence for thinking and implementation of the next generation of emission reduction projects.

Strategy 1.7

Enhance state incentives and policies for clean technology

Oregon has a long history of supporting clean tech innovation through incentives, loans and commercialization efforts. Even as the state struggles to balance its budget, Oregon must continue to provide a stable and predictable investment climate for the clean tech sector.

Specifically, Oregon should extend the Business Energy Tax Credit (BETC) program beyond its current 2012 sunset, at a reduced funding level for the biennium, while ramping back up as the economy improves and adjusting the targeted incentives and sectors from time to time as sectors mature. It also should expand availability of the State Energy Loan Program (SELP) and extend SELP loans to construction financing. To reduce reliance on the BETC, Oregon also should expand availability of the solar feed in tariff program to wave, biomass and small scale wind projects. Funding for commercialization efforts like the Oregon Wave Energy Trust (OWET), Oregon Built Environment and Sustainable Technologies Center (BEST) and the new proposed Drive Oregon initiative for electric vehicles also needs to be provided at a level that will enable those efforts to commercialize technologies and grow clusters in Oregon.

Action 2:
Accelerate Energy Efficiency and Clean Energy

More efficient use of energy and resources directly impacts both economic savings and greenhouse gas emission reductions. Through eliminating waste and optimizing use, efficiency lays a solid foundation for economic growth and is a key driver to economic recovery. The region also needs a long-term local energy production strategy to strengthen and diversify the region's energy supply. Coupled together, local clean production and efficient use—at all scales—can help reduce businesses' operational expense, increase local consumer spending power and aid the region in meeting emission reduction goals.

Strategy 2.1

Establish a regional energy policy for efficiency and local clean energy production

Spur future gains in energy efficiency and production through clear, transparent goal-setting. Specific actions include:

- **Establish energy efficiency and greenhouse gas reduction targets for the metro region**
  Currently, only the state and City of Portland have adopted either efficiency and/or carbon reduction goals. The 30 local jurisdictions that make up Metro Portland have not adopted similar targets, creating a fragmented policy landscape. Without them, the region jeopardizes the state's ability to meet their greenhouse gas emission reduction goals. An aligned set of targets and goals will help guide public investments in land use, transportation, smart growth and energy related investments and position our region for federal and eventual regulated carbon market funding opportunities.
- **Establish energy performance scores for all commercial and residential buildings**
  Expand the Energy Trust of Oregon's pilot Energy Performance Score program by making it a requirement of the Clean Energy Works Oregon energy retrofit program.
- **Promote industry adoption of energy efficiency goals for energy intensive industries**
  Food processing and manufacturing are two regionally significant industries that can accrue massive benefits from the elimination of inefficiencies and waste in their production and processes. The creation of industry-wide energy efficiency goals will help make the region's manufacturing base more cost competitive over time.
- **Support efforts to meet a state target for greenhouse gas emission reduction from transportation sources**
  Oregon House Bill 2001 requires the Metro region to develop and select a preferred set of transportation and land use strategies to enable the region to meet state greenhouse gas emission reduction goals. This strategy supports the process through advocating the integration of land use and transportation, engaging public and private sector leaders, technology innovation, workforce training and alignment with regional investment and economic development strategies.

Strategy 2.1, continued

- **Develop a regional clean energy generation strategy**
  A clean energy generation policy and investment roadmap would set aggressive energy production and emissions-reduction targets, identify high-impact project opportunities and remove barriers to implementation. As renewables become more commonplace, there is a need for coordination between municipalities to prioritize lowest cost and highest impact renewable energy generation investments, including a clear policy framework to encourage renewable-based district energy systems in key redevelopment sites.

Strategy 2.2

For major redevelopment sites, adopt high-performance building and infrastructure standards

Major redevelopment sites throughout the metro region present a significant opportunity to test emerging green building and infrastructure practices and technologies. This requires the development of cost effective and transparent high-performance building and infrastructure standards that encourage energy and water efficiency and waste reduction, provide for a broad range of transportation alternatives and protect human health. The Portland Sustainability Institute, through its EcoDistricts Initiative, has developed a set of standards and tools to guide green neighborhood development to meet high-performance standards.

Strategy 2.3

Accelerate bulk procurement of on-site clean energy systems

Accelerate bulk procurement of on-site clean energy systems through key public purchasing and market programs. Bulk procurement allows greater investment in clean energy systems by aggregating many smaller investments, while affording greater savings for each small investor. Spur the creation of demand for clean energy systems through bulk purchasing from the following sectors:

- **Greatly expand metropolitan jurisdictions bulk purchase of photovoltaic and solar thermal technology for their facilities**
  Leverage the buying power of metropolitan jurisdictions to move the market toward greater demand for clean energy systems.

- **Support expansion of region-wide residential bulk purchasing agreements**
  Support the aggregate purchase of residential clean energy systems, such as the Solarize Portland model, by organizing individual households to purchase at scale.

Energy Performance Scores

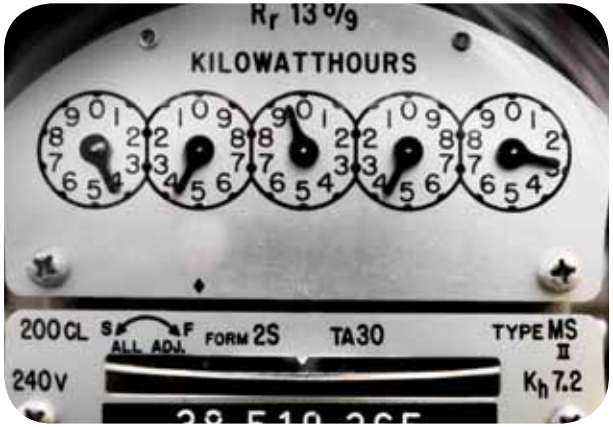


Photo: Portland Bureau of Planning and Sustainability

With support from Energy Trust of Oregon, local nonprofit Earth Advantage has developed an energy performance score (EPS) for commercial and residential buildings to estimate energy use and carbon emissions for buildings. With widespread use, the EPS will act as a miles-per-gallon rating for buildings. It will fuel consumer awareness of building efficiency, grow the market for efficiency retrofits and technologies and provide a national model for energy scoring.

Strategy 2.4

Create unified customer energy literacy campaign for the region

An informed, energy literate public is a necessary part of transforming our region's energy infrastructure, policy and use. Current efforts to educate the region's citizens on energy use and efficiency are disjointed, with little formal dialogue between stakeholders. A committee of educators, marketers and energy providers would provide alignment between existing, yet disparate, energy literacy programs — strengthening the effectiveness of programs dedicated to helping energy customers manage their energy demand.

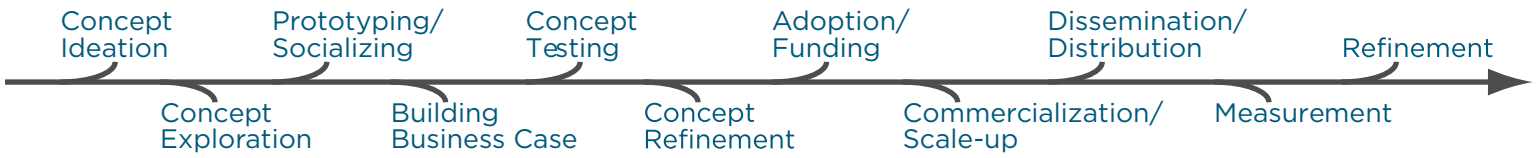
Strategy 2.5

Support transportation electrification throughout the region

Electrification of the American transportation sector is one of the imperatives of our time. Transportation electrification is the use of hybrid electric and all-electric vehicles instead of all-petroleum vehicles. The technology for electrification of transportation is well-proven, widely used and, from an energy point-of-view, highly efficient. Electrifying transportation will achieve substantial oil substitution within 10 to 15 years through a combination of market forces, government action to facilitate the quick and efficient achievement of these market forces, and transforming the means that government uses to promote and provide transportation.

Action 3:
Commercialize Green Technologies

Businesses's ability to move green technologies to market quickly and efficiently will play a pivotal role in growing the clean economy. Our current platform for helping businesses invent, develop and commercialize clean products and services needs improvement. A robust infrastructure is necessary to help businesses move promising ideas through the lifecycle of product and service development. Academic institutions, government and nonprofits contribute to this effort, which would have the additional benefit of sending a stronger signal to global investment capital that Portland-Vancouver is an appealing destination for investors.



Strategy 3.1

Create a "one stop" commercialization resource center for businesses

The region is home to a myriad of resources available to businesses pursuing the various stages of commercialization. Businesses and entrepreneurs would benefit greatly from a "one stop" resource center for clean technology commercialization. Local governments, universities, state Signature Research Centers and small business development centers offer services to businesses, such as connections to university research and development or aid in writing a business plan. While a variety of resources exist, a comprehensive assessment of resources available and a coordinated mechanism to access them do not.

Strategy 3.2

Create a commercialization gap fund through the State of Oregon's Signature Research Centers

This fund will enable promising companies to move beyond the early stages of technology commercialization, past the common—and often deadly—financing gap stretching between research and product development. The fund will be modeled on the success of the ONAMI (Oregon Nanoscience and Microtechnologies Institute) commercialization gap fund, and supported by all of Oregon's signature Research Centers.

Strategy 3.3

Organize companies into consortia to work together on proof-of-concept new buildings, energy technologies, and retrofit projects to develop and commercialize innovative technologies

If effectively leveraged, infrastructure, construction and development activity will help regional firms establish and maintain a competitive advantage as green building, renewable energy, and smart grid innovators. Complementary companies and competitors, through working together with the region's educational institutions, will develop new knowledge and technology in the fields of green development, renewable energy and smart grid.

- Support Oregon BEST's advanced building consortium launching in parallel with the Oregon Sustainability Center, an advanced commercial building currently under design in Portland's University District.
- Support Oregon Institute of Technology's Renewable Energy and Smart Grid Technology consortium, geared to commercialize technologies in the areas of advanced renewable energy, electic power, energy storage and smart grid/embedded systems.

Research and Technology at OSC

Companies and university researchers are finding common ground—and common questions—in the design and construction of the Oregon Sustainability Center.

Slated to achieve net-zero energy and water performance, OSC is fertile ground to test new technologies around energy efficiency, demand management and wastewater treatment. With companies and researchers at the table from the beginning of design, OSC acts as a living laboratory — a hub for innovation from blueprint to operation.

Action 4:
Cultivate the Clean Tech Cluster

The Clean Tech cluster is poised to become one of the region's strongest business sectors, coalescing a diverse set of companies to create a center of gravity for innovation and economic growth. The cluster has a solid foothold in the region, but requires focus to amplify the region's competitive advantages to solidify a national leadership position. A combination of traditional economic development tools and targeted cluster work will help build a diversified Clean Tech supply chain to respond to growing demand regionally and nationwide.

The following economic development activities, targeted at Clean Tech companies, will provide a foundation for the cluster-specific strategies that follow:

- Continue the work to convene and organize firms to identify industry-specific opportunities for and barriers to regional growth
- Provide business resources and assistance, such as Economic Gardening programs, and targeted financial assistance to increase revenues, improve operating efficiencies and facilitate business expansion work
- Recruit firms from outside the region to locate facilities and operations within the region
- Facilitate access to workforce training
- Develop policies to help drive demand for products and services from regional firms

What is a cluster strategy?

A cluster strategy organizes traded sector industries in a coordinated manner to make more efficient use of resources and to capture synergies in otherwise unrelated activities. It creates in-depth knowledge to fuel catalytic initiatives and to strategically invest resources for maximum effect.

Strategy 4.1
Support the regional wind energy industry

- Support training and re-tooling of local manufacturers' processes to meet wind farm supplier requirements around maintenance and supply of replacement parts. As regional wind turbine warranties expire, turbine owners are looking to local suppliers for their operation and maintenance needs.
- Organize and market regional manufacturers, and broker connections with wind farm operators in the Northwest and on the West Coast with maintenance, repair and replacement needs.
- Support development of new energy storage technologies and standards to improve wind energy reliability and efficacy.

Strategy 4.2
Support the regional solar energy industry

- Work with original equipment manufacturers (OEMs) to identify their supply chain needs.
- Develop and expand the local supply chain for manufacturers and installers by helping regional manufacturers train and re-tool to meet OEM supply needs and, when regional manufacturers are unable, recruiting strategically valuable suppliers from outside the region. Create a deployment program that enables regional manufacturers to put systems into operations quickly, with full monitoring on performance.

Strategy 4.3
Support the regional green development industry

- Utilize public finance mechanisms and public policy to drive local demand for retrofitting large commercial buildings for optimized energy, water and materials performance.
- Develop catalytic green infrastructure projects in the region in the areas of including green streets, district energy and water system upgrades.
- Develop a local supply chain to provide products and materials to be used in green infrastructure and building projects.

Electric Vehicles and Smart Grid

The emerging electric vehicle and transportation electrification cluster is poised to take full advantage of the Portland region's eagerness to test new green technologies. Designated as one of 5 areas nationwide to test the roll-out of the Nissan Leaf, the region is also receiving a portion of the $100 million federal grant to Ecotality for the installation of charging infrastructure.

The widespread adoption of electric vehicles not only supports the growing sector of electric vehicle companies in the region, it further strengthens the case for a smart electric grid. Emerging trade associations Drive Oregon and Smart Grid Oregon are leading the region's efforts.

Strategy 4.4

Support the regional transportation electrification, battery storage and smart grid industries

- Educate the public on the benefits of transportation electrification through a widespread partnership with local utilities, public agencies and companies.
- Accelerate the deployment of electric vehicle charging infrastructure by providing financing assistance and minimizing permitting barriers.
- Develop a metro region and statewide smart grid strategy that includes the establishment of two-way energy storage standards, smart meter deployment, smart appliances and tiered pricing. Establish a set of neighborhood demonstrations to test and monitor "last mile" technologies.

Action 5:
Cultivate the Forestry and Agriculture Cluster

In addition to opportunities in development of a robust Clean Tech cluster, the region is also rich in agriculture and forestry-related resources, including abundant land, good soil, robust forests and a climate conducive to high yields of a diverse number of crops. By leveraging these assets, the region can develop a dedicated forestry and agriculture economic development cluster to provide jobs, a unified foodshed and a steady source of wood products and biomass stocks, all with high economic multiplier effects due to the potential to keep most of the income generated within the region.

Strategy 5.1

Support efforts to strengthen the regional food system as an economic development cluster

- **Conduct economic analysis of opportunities for the regional food economy to refine market strategies**
  Clackamas and Multnomah Counties are in the early stages of launching an economic analysis of the opportunities associated with strategic investments within the agricultural sector, including agro-tourism, the creation of a strong regional foodshed and the use of agricultural and forest refuse for waste-to-energy projects. The opportunities of agricultural sector extend region-wide.
- **Support development of a mid-level aggregator for regional food producers**
  Farmers have few opportunities to connect with local buyers beyond farmers markets and CSA programs. With access to a centrally located aggregator, individual producers can gain greater access to food buyers and also benefit from better marketing and packaging for large-scale distribution.
- **Implement market research to develop "Willamette Valley Local" regional food products branding and marketing campaign**
  To increase brand recognition and to command a higher premium, food grown in the seven counties will be marketed as local to the region. Products would be fully traceable with background stories to enhance branding.
- **Accelerate development of new farmer incubator programs**
  Emerging farmer incubator programs within Multnomah County will provide direct support to small- and mid-scale farms by promoting access to capital, land, information and marketing opportunities. Support could include the provision of working capital, pooled insurance or equipment.

Strategy 5.2

Support the emerging regional biomass industry

As a result of its abundant agricultural and forestry resources, the region possesses plentiful reserves of energy-producing material, including farm manure and greenhouse waste, urban landfill waste, by-products of forest thinning efforts, unused Christmas tree stock and cellulose crop stock. Deployment of these resources through development of a locally serving biomass industry would allow the region to better meet carbon reduction and Renewable Energy Portfolio targets and would also help the region in becoming the leader in bio-fuel and bio-CHP (combined heat + power) production.

- **Support Clackamas County's development of an introductory "bio-grid" system**
  Clackamas County is seeking to develop a set of demonstration projects to support its growing base of on-site producers of bio-energy in the agriculture and forestry industries, which would serve as proof-of-concept projects for the region. Projects could include anaerobic digestion of animal waste, gasification of horse manure and use of woody biomass as a replacement for fossil fuels

- **Grow the bio-grid to include small to medium energy generating facilities region-wide**
  Develop policy and funding support at the state and regional level to support a range of regional biomass projects at commercial and institutional facilities through the EcoDistricts initiative.

Neighborhood-scale Innovation

EcoDistricts are green neighborhood development pilot projects that provide a platform to test promising technologies: including biomass district energy plants, integrated smart grid strategies and urban agriculture. Forged by their residents, EcoDistricts provide incredible commercialization opportunities for businesses to test out new technologies that capture efficiencies at the neighborhood scale.

The Portland Sustainability Institute is partnering with the City of Portland and neighborhood stakeholders in five EcoDistrict pilots and is looking to expand through the region.

Action 6:
Develop a Pipeline of Green Talent

As the region's green industry grows, a diverse talent pool is needed to supply the skills necessary to build the clean economy. At the same time, economic transformation provides the opportunity for individuals in the region's workforce to find new pathways to personal prosperity. Preparing workers for careers in the energy efficiency and renewable energy sectors is a critical component to fuel climate—and individual—prosperity.

Strategy 6.1

Forecast workforce needs

This strategy supports modeling the number and type of jobs that will be created by state and local policy. As policies are enacted, they will be immediately analyzed for the demand created for workforce. These analyses will allow schools and training entities to teach skills in demand while simultaneously allowing workers to make informed decisions in their career choices.

Strategy 6.2

Strategically invest in post secondary programs that will result in family wage green jobs

Target college, university and apprenticeship program investments for high-leverage outcomes:

- Invest significant dollars to produce a few key programs to lead the nation such as Oregon Institute of Technology's Renewable Energy Engineering program and Portland State University's green building programs. Targeted investments should build on the strengths of colleges and universities with strong connections and responsiveness to clean tech business needs.
- Invest in "educational innovation fund" to target money to implementation of key green curriculum outcomes.
- Refine apprenticeship models to integrate green technologies and processes.

Strategy 6.3

Integrate green curriculum into metro region school districts (K-12)

- Endorse successful local and national best practice models and support regional schools and teachers to integrate green curriculum into existing or new courses.
- Create opportunities for companies to partner with and influence schools through mentorships, career related learning experiences and support for curriculum and labs.

Strategy 6.4

Create pathways to employment for all through sustainable workforce retraining programs

- Develop career pathway maps that are easily accessible to all residents of the region. There are a multitude of degree and certificate programs available in the region to prepare residents for high-demand green jobs. Local workforce investment boards and educational entities can improve access by articulating pathways that provide the education and training needed for a full range of green jobs within all the targeted industry categories.
- Focus attention and access on historically underserved and disadvantaged populations.

Green Training for Green Jobs

A recent recipient of a federal $5 million Green Jobs Training grant, the Portland-Salem-Vancouver region is immediately training to build skills that are 'in demand' for the renewable energy and energy efficiency sectors.

But the focus isn't solely on the short term. As part of the grant activities, the Oregon Manufacturing Extension Partnership is analyzing the skills and production requirements of these sectors, while simultaneously identifying good candidates to develop and manufacture new product lines to support the industry.

Action 7:
Build Support and Communicate Results

The region must align around common goals, forge new avenues of communication and collaboration and reorganize itself to fully realize the promise of Climate Prosperity. Immediate collaboration will position the region for timely opportunities emerging from the federal government. Longer-term, cross-jurisdictional collaboration will build capacity for economic development on a scale to compete with other leading metros. Further, regional collaboration will serve to highlight the roles available to—as well as the roles occupied by—businesses and organizations, avoiding duplication and fragmentation. Communication is as important as collaboration; the region must tirelessly communicate the results of its actions and its growing set of competitive advantages both within its borders and to the outside world.

Strategy 7.1

Create Climate Prosperity Leadership Council

Working with the new regional public-private economic development corporation, Greenlight Greater Portland, a CEO level leadership council will be created to drive and align actions, coordinate policy and help to scale investments across the region around the Climate Prosperity actions.

Strategy 7.2

Set up a measurement system to track quarterly and annual progress on key clean economy metrics

Create a set of robust indicators that are tracked annually to guide work planning and educate policy and business leaders about the importance of a clean economy strategy for the region. See Appendix 1 for more details.

Strategy 7.3

Broaden support for Greenprint implementation

Build widespread public support for growing the region's clean economy through a rigorous public relations campaign that includes social and electronic media to engage regional public and private sector leaders, an earned media strategy and signature events in partnerships with OBC, OBA and Greenlight Greater Portland.

Next Steps

To meet the ambitious objectives in the Greenprint, the region must immediately invest in building a regional governance framework and focus on targeted priorities and actions with the most capacity, strength and opportunity.

1. Lead

Launch a CEO- and elected-level Leadership Council to guide the region's efforts and align resources to implement the Greenprint.

2. Integrate

Integrate the Greenprint into the forthcoming regional economic development strategy — the first priority of the newly reformed Greenlight Greater Portland.

3. Engage

Engage business and political leaders throughout the region to broaden support for the Greenprint's implementation.

4. Implement

The final step is to implement the vision and strategies of the Greenprint. With the roadmap and leadership in place, the work to reach the goals of the region begins.

First Year Priorities

Out of the 7 actions and 28 strategies listed in the Greenprint, the following strategies merit strong support and leadership in this critical first year of action:

1.1: Support the expansion of Clean Energy Works Oregon across the metro region

1.2: Support development of a regional green infrastructure funding strategy

2.1/5.2: Develop regional clean energy generation strategy with an emphasis on biofuels

2.3: Adopt high-performance building and infrastructure standards in major redevelopment sites

3.3: Organize company consortia to commercialize green building and energy technologies

4.5: Support regional efforts to electrify transportation systems

6.4: Expand sustainable workforce retraining programs

7.1: Create the Climate Prosperity Leadership Council

To stay up to date and find out how to get involved visit www.pdxinstitute.org/climateprosperity

Appendix 1: Metrics

To gauge the effectiveness of the Greenprint and communicate its progress, a suite of metrics is needed to directly track each action.

Constraints

A couple of concerns arose while developing these metrics. While the Greenprint's actions dictate what the most suitable metrics should be, the availability of free or affordable data to track these metrics is limited. In addition, the Portland Metro Greenprint is only the second Greenprint created through the national Climate Prosperity Project. As an early project, the Greenprint's metrics will ideally provide a reproducible roadmap for other regions undertaking similar efforts. Further, Portland-Vancouver's metrics should allow for quantitative comparisons among other Climate Prosperity regions.

Recommended Metrics

On the following pages are metrics by which to track the progress and efficacy of the Portland Metro Greenprint. Sources of free data, when known, are included with each metric. Research into existing data is ongoing, as are efforts to cultivate new sources of data.

The metrics selected balance the needs of having indicators that track directly to Portland-Vancouver's actions with indicators that generally track existing and emerging Climate Prosperity pilots in other regions.

Promising Sources of Data

While some data will come from municipal sources, two emerging initiatives have the potential to provide the bulk of the information needed to track the Greenprint's implementation: The Regional Indicators Project and the Triple Bottom Line Metrics Project.

Neither project has formally launched, but both are open to suggestions on regional data tracking needs. While funding is not finalized for the Regional Indicators Project, the Triple Bottom Line Metrics project has received dedicated funding in a $495,000 grant from the U.S. Commerce Department.

The Regional Indicators Project will focus on indicator development through June 2011, and the current framework addresses the following nine sectors:

1. **Economic opportunity**
2. **Education**
3. Arts and culture
4. Civic engagement
5. **Healthy people**
6. Safe people
7. **Access and mobility**
8. **Quality housing and communities**
9. **Healthy, natural environment**

(Emphasis added to sectors likely to align with the Greenprint.)

Greenprint Action	Recommended Metric	Data Source	Metric Rationale
A1: Establish Finance Mechanisms for Green Innovation	Total number patent registrations in clean technology, by technology	Oregon BEST	Tracking patents not only allows for an understanding of overall growth in innovation, but also illustrates what kinds of technologies are flourishing. Tracks directly to all of A1.
	Venture capital investment in clean technology, by technology (US $)	Oregon BEST	Given the increasingly rigorous hurdles to garner venture capital funding, VC is considered a leading indicator of innovation. This metric is used widely, including by Silicon Valley, Pew, St. Louis, and the national Climate Prosperity dashboard. Tracks directly to all of A1.
	Existing Clean Energy Works Oregon metrics	Clean Energy Works Oregon	It is efficient to use metrics adopted by programs that the Greenprint seeks to support. Tracks directly to strategy 1.1.
A2: Accelerate Energy and Resource Efficiency	Absolute energy consumption, over time	TBD	Total energy consumption is a widely used metric. While it has the potential to indicate whether the region is delivering net reductions, it does not take into account growth in population, new businesses, etc. Tracks directly to all of A2.
	Per capita energy consumption, over time	Greenlight Greater Portland	Constraining energy use by per capita allows the ability to control for population changes. Tracks directly to all of A2.
	Electricity generation by renewable sources, over time	TBD	Allows for an understanding of the changes in the electricity generation mix. Tracks directly to all of A2.
	Total greenhouse gas emissions, over time	Metro	Greenhouse gas emissions are an industry standard for measuring efficiency and adoption of cleaner generation sources. Tracks directly to all of A2.
	Per capita greenhouse gas emissions, over time	Metro	Constraining GHG emissions by per capita allows the ability to control for population changes. Tracks directly to all of A2.
	Total vehicle registrations for alternative fuel vehicles	Data available from ODOT or CleanEdge for a fee	Tracks directly to strategy 2.4 of electrifying transportation. Tracks indirectly to strategy 2.1 of reducing greenhouse gases.
A3: Commercialize Green Technology	Total capital (US $) provided to commercialize new technologies	TBD	Provides a direct measure of the funding being deployed to drive commercialization. Tracks directly to all A3 strategies.
	Oregon BEST metrics	Oregon BEST	Part of the Greenprint process is to support existing programs. Therefore, it is efficient to include metrics already being tracked by these programs.

Greenprint Action	Recommended Metric	Data Source	Metric Rationale
A4: Cultivate the Clean Tech Cluster	Total new jobs in the core green economy, by green segment	TBD	Illustrates demand for green jobs as well as the segments of the green economy with the fastest growth in employment. National Climate Prosperity dashboard metric.
	Clean business establishment revenue growth relative to total economy	TBD	National Climate Prosperity dashboard metric.
	Total regional GDP (US $) compared to green economy GDP	TBD	Comparison allows for control of general economic factors affecting businesses in the region. Could be used in place of the above metric of clean business establishment revenue growth relative to total economy
	Total new jobs in the core green economy versus total new jobs across economy	TBD	Allows control for factors affecting job growth in general across the region
A5: Cultivate the Forestry and Agriculture Cluster	Total number biomass projects in region, by project type/input	TBD	Illustrates most adopted project types/inputs, such as animal waste, woody biomass, etc
	Total generation capacity of biomass projects in region, in kW or MW	TBD	Measures size of projects and can serve as proxy for greenhouse gas emissions avoided
	Percent of regional farms participating in a regional labeling program	TBD	Indicates reach of a new regional labeling program
	Annual revenue from goods sold with a regional label	TBD	Shows change in revenue year after year associated with regional labeling program
A6: Develop a Pipeline of Green Talent	Total number of individuals in region receiving certificates or degrees in high-demand green occupations	OED or WSI, WICCO, regional universities and colleges	While this does not monitor the quality of job training programs, it does provide a measure of the efficacy of outreach for job training and for the demand for training
	Total number of individuals earning certificates or degrees, by economic bracket, ethnicity, etc.	TBD	Provides a measure of success in reaching underserved populations. Tracks to strategy 6.4
A7: Build Support and Communicate Results	% completion of strategy	Greenprint steering committee to track	Action 7 strategies focus on qualitative, not quantitative, outcomes. Therefore the metrics will need to focus on the ongoing completion of the process

Appendix 2: Engagement

A high level of engagement throughout the region was critical to informing the Greenprint's development. The Climate Prosperity Working Group relied heavily on the feedback, ideas and opinions of over 200 regional leaders from over 150 organizations. Engagement around the Greenprint's development took place in two phases.

1. Idea Generation

In November 2009, a series of meetings drew in over 150 people to generate ideas for regional action around the clean economy. Participants were invited to four meetings to brainstorm goals and strategies to grow Portland-Vancouver's markets, talent, innovation and companies. The results of these meetings directly informed the first version of strategies for the region.

2. Greenprint Refinement

The Working Group released a draft version of the Greenprint in summer 2010 at Greenlight Greater Portland's annual Economic Summit in front of 400 regional business leaders. The audience was asked to comment and provide feedback on the strategy.

In addition, the Working Group distributed the draft to the attendees and invitees of the November meetings. Feedback pathways included an online survey, email feedback and a Listening Session held at Nike in August 2010. The Listening Session drew over 40 people and focused on defining the missing pieces and priorities within the document.

In addition, members of the Working Group reached out to a targeted list of organizations and leaders who could play a critical role in the Greenprint's implementation. The organizations participating in the development of the Greenprint are listed on the following pages.

Over 150 organizations took part in the development of the Greenprint:

AHA! Writers
Bank of America
Beam Development
Beaverton City Council
Berger Abam
Bicycle Transportation Alliance
Birtcher Development
Blue Tree Strategies
BOMA
Bonneville Environmental Foundation
Brightworks
Burgerville
Business Oregon (OBDD)
Carbon Concierge
Center for Diversity & the Environment
CH2M Hill
City of Beaverton
City of Hillsboro
City of Portland
City of Sherwood
Clackamas Community College
Clackamas County
Clackamas County Business Development Department
Clark County Commission
Clean Economy Development Center
Clean Future
Clean Water Services
Climate Solutions
Climate Trust
Coalition for a Livable Future
Cogan Owens Cogan
Columbia Corridor Association
Construction Apprenticeship & Workforce Solutions
David Evans & Associates
David Evans Enterprises
Decisions Decisions
Designs for a Sustainable World
DNV (Det Norske Veritas)
Earth Advantage Institute
EcoLogistics
Ecology & Environment, Inc.
Ecos Consulting
Energy Trust Better Living Show
Environmental Management Systems
Environments NW
Epiphany Projects
Fluid Market Stategies
Focus the Nation
Formos
Freshwater Trust
GBD Architects
Gerding Edlen
Gladstone School District
Green Building Initiative
Green Globes
Greenlight Greater Portland
Greenstone Architecture
Group Mackenzie
Hoffman Construction
Housing Authority of Portland
Intel
Intel Capital
Island Marketing
JobCorps
KeyBank
Lane Powell
Manufacturing 21
Marylhurst University
McKinstry
Mercy Corps NW
Meridian International Institute
Metro
Metro Council
Metro Policy Advisory Committee
Metro Technical Advisory Committee
Moore Company
Mt. Hood Community College
Multnomah County
Neil Kelly
Nike
nLight Photonics
New Seasons Market

Normandeau Associates
Northwest Energy Efficiency Alliance
Northwest Natural
Northwest Renewable Energy Institute
Novatech
NW Food Processors
NW Sustainability Consortium
OHSU
Optimization Technologies, Inc.
Oregon Ballet Theater
Oregon BEST
Oregon Business Alliance
Oregon Business Association
Oregon Business Council
Oregon Department of Energy
Oregon Environmental Council
Oregon Forest Resources Institute
Oregon Institute of Technology
Oregon Iron Works
Oregon Technology Business Center
Oregon Tradeswomen, Inc
PacifiCorp
Pareto Global
Partners for a Sustainable Washington County Community
PGE
PGE Renewable Power Program
Pivotal Investments
Port of Camas
Port of Camas Washougal
Port of Vancouver
Portland Bureau of Planning and Sustainability
Portland Business Alliance
Portland Community College
Portland Development Commission
Portland General Electric
Portland Mayor's Office
Portland Public Schools
Portland School Board
Portland State University
Portland Sustainability Institute
Portland/Multnomah County Sustainable Development Commission
Public Sector Sustainability Coordinators
Pyramid Communication
Reference Capital Management
Regional Partners
Renewable Energy Institute
Renewable Northwest Project
Reuse Recycle Reclaim
Schnitzer Steel
SERA Architects
Sergio Dias Consulting
Siltronic Corporation
Skyron Systems
SolarWorld
Snyder and Associates, PC
Stoel Rives LLC
The Climate Trust
The Moore Company
The Standard
The Trust for Public Land
Total Reclaim
University of Oregon, Center for Sustainable Business Practices
University of Oregon, School of Law
urban development partners
Urban League of Portland
VOIS
Walsh Construction
Washington County Commission
Washington Employment Security Department
Waste Management
Westside Economic Alliance
Weyerhaeuser
WICCO
Worksystems, Inc.
Young Professionals of America

Appendix 3: Regional Inventory

One of the Working Group's first actions was to conduct a regional inventory of activity in the clean economy. The inventory's framework follows the structure of the national Climate Prosperity framework by separating initiatives into the twelve defined areas of the clean economy (see below). The inventory seeks to catalog various programs, initiatives, policies and mandates that contribute to these areas.

This is not a comprehensive document. Rather, it paints a picture of the activity inherent in the region. Data from public sources was readily available, yet data about private-sector activity was hard to find in a systematic way. The result is an emphasis on public-sector activities within the inventory.

The Working Group used the inventory as a working document to inform the strategies and actions of the Greenprint.

The National Climate Prosperity Framework

Program, Initiative, Mandate or Policy	Purpose
Grow Renewable Energy Use For example: financial incentives, regulatory streamlining, utility-scale shifts to renewable energy sources	
Community Energy Planning Tool	A Community Energy Plan is a means for reviewing and evaluating community design options for a more efficient and sustainable use of energy. Since energy use is a component of every community project, planning for energy and resource use can help communities achieve long-term sustainability. This is a voluntary planning tool. http://www.oregon.gov/ENERGY/GBLWRM/docs/CommunityEnergyPlanningTool.pdf
Oregon Renewable Energy Action Plan	Description of how state renewable energy goals to be reached by 2020. http://www.oregon.gov/ENERGY/RENEW/docs/FinalREAP.pdf
Oregon Renewable Energy Standard	The Act establishes a Renewable Energy Standard that requires Oregon's largest utilities to acquire 25% of their electricity from new, homegrown renewable energy sources by 2025. Smaller Oregon utilities must meet smaller renewable energy targets of 5% or 10% of their electricity by 2025.
Portland Renewable Fuel Standard	The Portland City Council voted July 12, 2006 to approve a citywide renewable fuels standard (RFS) beginning July 2007 that requires a minimum 5 percent blend of biodiesel for all diesel fuel sold in the city limits. Gasoline sold in the city is required to contain at least 10 percent ethanol. In addition, the RFS for biodiesel rises to 10 percent blends as of July 2010.
State law requires PGE, Pacific, and EWEB to provide 25% of their power from "new" renewable sources by 2025, with interim targets.	See Oregon Renewable Energy Standard. Good summary at http://www.oregon-rps.org/ENERGY/RENEW/docs/Oregon_RPS_Summary_Oct2007.pdf.
Energy Trust of Oregon rebates for renewables	Various cash incentives for businesses, homes, appliances and renewables
Solar Now!	The Solar Now! campaign connects Oregonians with the resources and assistance they need to choose solar energy. Provided by City of Portland in partnership with Energy Trust and Solar Oregon
Senate Bill 838	See Oregon Renewable Energy Standard. SB 838 requires that 25% of Oregon's electric load come from new renewable energy by 2025.
1.5% for solar in public building projects	Public entities spend 1.5 percent of the total contract price of a public improvement contract for new construction or major renovation of a public building on solar energy technology, took effect January 1, 2008.
Oregon Innovation Council Investments	OIC's mission is to expand markets for Oregon companies, create jobs across the state and leverage Oregon's strengths to compete in the global economy. To do this, OIC has identified Oregon's top innovation-driven growth opportunities to maximize the state's competitive advantages and establish Oregon's niche in the global economy. Direct investments into ONAMI, Oregon BEST and OWET support renewable energy development.

Program, Initiative, Mandate or Policy	Purpose
Oregon Solar Highway	http://www.oregon.gov/ODOT/HWY/OIPP/docs/OregonInspiration.pdf http://www.oregon.gov/ODOT/HWY/OIPP/inn_solarhighway.shtml
State goal of purchasing 10% renewable power by 2010 for its own operations.	See Oregon Renewable Energy Action Plan
Provide a New Energy Infrastructure For example: smart grid, smart metering	
Pacific Northwest Smart Grid Demonstration Project	The Pacific Northwest Smart Grid Demonstration Project was one of 16 smart grid demonstration awards totaling $435 million announced by the Department of Energy on Nov. 24, 2009. The team combines energy providers, utilities, vendors and research organizations. http://www.bpa.gov/Energy/N/smart_grid/PN.cfm
Smart Grid Oregon	Emerging trade association dedicated to enabling, promoting, and growing the smart grid industry and infrastructure in the State of Oregon
Transform Business Products and Practices For example: private-sector efforts to transition to greener product lines, new materials, more efficient machinery, redesigned production	
E-PEAT	EPEAT is a system to help purchasers evaluate, compare and select electronic products based on their environmental attributes. The system currently covers desktop and laptop computers, workstations and computer monitors.
Oregon Manufacturing Extension Partnership	OMEP helps Oregon manufacturers reduce costs, increase sales, and create jobs by becoming more competitive and productive in the global marketplace. OMEP consults with companies to adopt lean manufacturing practices, reduce waste, and increase efficiency.
Northwest High Performance Enterprise Consortium	NWHPEC's mission is to provide a forum for education and the exchange of information regarding ways to develop, implement, and improve practices and processes of enterprises in the Pacific Northwest region of the United States.
Northwest Food Processors Association	Long-standing trade organization is helping companies set goals and reduce energy consumption in production processes
Zero Waste Alliance	The Zero Waste Alliance is a national leader providing assistance to industry sectors and organizations for development and implementation of standards, tools and practices that lead to a more sustainable future through the reduction and elimination of waste and toxics. http://www.zerowaste.org/index.htm
BEST Business Center	The BEST Business Center provides free tools and advice to help businesses in Portland, Oregon become more profitable and sustainable. It is a partnership of city and regional government programs and energy utilities, including the City of Portland Bureau of Planning and Sustainability, City of Portland Water Bureau, Metro, Pacific Power, Portland Development Commission and Portland General Electric

Program, Initiative, Mandate or Policy	Purpose
Oregon Natural Step	The Natural Step Network serves U.S. based business, governmental, and educational organizations interested in using The Natural Step (TNS) framework for sustainability. The Natural Step Network believes that businesses and organizations can reduce their impact on the environment while enhancing their overall efficiency and effectiveness. It is a way to balance diverse agendas of the participants to identify common language, common goals and a common path toward success.
Oregon Sustainability Awards	The Oregon Sustainability Board gives out the Oregon Sustainability Awards annually to recognize leaders in the business, nonprofit and government sectors.
Improve Building Efficiency For example: green building standards and programs, building energy audits and energy efficiency efforts	
The Living Building Initiative	The Living Building Challenge is comprised of seven performance areas, or 'Petals': Site, Water, Energy, Health, Materials, Equity and Beauty. Petals are subdivided into a total of twenty Imperatives, each of which focuses on a specific sphere of influence. Northwest-based program.
Better Bricks Initiative	Program focused on increasing efficiency in the commercial real estate market. BetterBricks encourages organizations to incorporate energy-related business principles and products into the design, construction and operations of their buildings. BetterBricks is currently focused on driving high performance buildings in the healthcare, grocery and office real estate markets.
OSU Industrial Assessment Center	Industrial Assessment Centers were created in 1976 to help small and medium-sized manufacturing facilities cut back on unnecessary costs from inefficient energy use, ineffective production procedures, excess waste production, and other production-related problems. The Oregon State University IAC has recommended more than $86 million in annual cost savings to over 500 manufacturers, fifty-five percent of which have been implemented, equaling $26 million in savings to manufacturers.
Earth Advantage National Center	Facility designed to help homebuilders, architects, contractors and homeowners design houses that use energy and resources wisely. The Center has a lighting display and demonstration center, Earth Advantage display house, meeting space and is staffed by a team of green building professionals that provide consulting assistance.
Green Building Hotline and Resource Center	The Green Building Hotline, the main service of the Center, provides comprehensive green building resources and technical info for Metro region: residents, designers, contractors & real estate professionals, businesses and k-12 schools
Energy Savings Performance Contracting	An energy savings performance contract is an agreement between an energy services company (ESCO) and a building owner. Agreements with ESCOs are typically five to seven-year agreements. The ESCO provides an array of services: Conducts a facility energy study, Identifies cost-effective projects, Designs all aspects of the chosen projects, Hires subcontractors, Manages the project installation, Finances the project. If an owner chooses, the ESCO: Guarantees savings (if utility savings are less than the lease cost, the ESCO pays the school district) and Provides maintenance services.

Program, Initiative, Mandate or Policy	Purpose
State Energy Loan Program	The purpose of the State Energy Loan Program (also known as SELP) is to promote energy conservation and renewable energy resource development. The program offers low-interest loans for projects that: Save energy; Produce energy from renewable resources such as water, wind, geothermal, solar, biomass, waste materials or waste heat; Use recycled materials to create products; and/or Use alternative fuels. Many commercial projects qualify for both the Business Energy Tax Credit (BETC) and a low-interest loan. Amount: Typically $20,000 - $20 million http://www.oregon.gov/ENERGY/LOANS/selpqa.shtml
Residential Energy Tax Credits	Oregon Department of Energy provides Residential Energy Tax Credits for a specific list of premium efficiency appliances and equipment, and renewable energy systems installed in Oregon
Appliance and Equipment Energy Efficiency Standards	In June 2005, Oregon passed legislation setting minimum energy efficiency standards for 11 appliances. Those products are regulated by Oregon law and not currently covered by federal standards. The standards became effective in progressive stages, beginning January 1, 2007 and becoming fully operative January 1, 2009. Manufacturers certify to the Oregon State Department of Energy that products meet efficiency standards.
Oregon Energy Code for Buildings	In 2006, Oregon Governor Ted Kulongoski mandated a 15% increase in energy performance by new residential construction by 2015. In response to this, the Oregon Building Codes Division (BCD) and Dept. of Energy cooperatively submitted an energy code change proposal. This proposal was enacted in March 2008 and became effective July 1, 2008.
Northwest Energy Star Home Certification	The Northwest ENERGY STAR Homes program is a regional initiative intended to promote the construction of energy-efficient homes using the guidelines set forth by the EPA.
Earth Advantage New Home Construction Certification Process	Certification involves: inspection by a third-party to certify the home is 15% more energy efficient that a standardly built home; inspection of the ventilation system; ensuring use of low or no VOC products in construction, compact florescent light fixtures and energy efficient appliances; and oversight on the use of construction materials and their disposal.
Earth Advantage Home Remodeling Certification	Update homes of any age to comply with Earth Advantage guidelines (60 percent of the home and all mechanical systems must be renovated).
LEED Certification for Homes	Earth Advantage, Inc. is responsible for working with those entities that wish to build their projects to the LEED for Homes standard. This includes performance testing and compliance with the pilot rating system.
BPA "Change a Light, Change the World" Program	This program offers incentives to CFL specialty manufacturers at six large retail partners. It increases the production of CFLs and availability in local markets

Program, Initiative, Mandate or Policy	Purpose
Energy Smart Grocer Program	The EnergySmart Program provides business owners and facility managers with: No-cost energy audits and Information about energy efficient technology, operations, and management. Field Energy Analysts work with companies to maximize incentive dollars and reduce cost. The EnergySmart Program provides rebates for a wide variety of energy saving measures. These rebates generally cover at least 20% and up to 100% of the project cost.
Energy Trust of Oregon	Energy Trust of Oregon is an independent nonprofit organization dedicated to helping Oregonians benefit from saving energy and tapping renewable resources. It provides services, cash incentives and solutions for residential, business, industry + ag, and public + nonprofit sectors.
State Home Oil Weatherization (SHOW) Program	Oregon homeowners and renters who heat with oil, wood, propane, kerosene, or butane are eligible for home-weatherization rebates of up to $500. A variety of measures, including insulation, HVAC, and gas technologies qualify for the rebates, which go directly to the homeowner. Maximum Incentive: $500/household
State Energy Efficiency Design (SEED) Program	SEED, codified in state law, directs state agencies to work with the Oregon Department of Energy to ensure cost-effective energy conservation measures (ECMs) are included in new construction and major renovation projects of public buildings. Leased buildings are also required to be more energy efficient.
City of Portland Green Building Policy and LEED Certification Policy	In 2001, the City of Portland adopted a Green Building Policy requiring new construction and major renovations of all city facilities to meet the Certified level of LEED*. This policy was amended in 2005 to increase the requirement for new public buildings to LEED New Construction (NC) Gold. Additionally, all city-owned, occupied, existing buildings must achieve LEED Existing Buildings (EB) at the Silver level. The policy was then amended again by the Portland Development Commission (PDC) Board of Commissioners to include requirements for private development projects. http://www.portlandonline.com/bps/index.cfm?c=41590
Portland Climate Action Plan	Adopted in 2009, the CAP lays out objectives to meet by 2030 in eight areas: Buildings and energy, Urban form and mobility, Consumption and solid waste, Urban forestry and natural systems, Food and agriculture, Community engagement, Climate change preparation, and Local government operations
Increase Community Resource Efficiency and Reuse For example: efficient water use and reuse, waste recycling and energy generation, efficient land use strategies	
Statewide Planning Goals	Oregon's 19 Statewide Planning Goals set forth guidelines to engage the public in determing 19 aspects of how Oregon changes. General purpose: inventory and evaluate cultural and natural resources for the purpose of conserving, preserving, efficiently maximizing and maintaining land and resources for housing, industrial, recreational and other cultural uses.

Program, Initiative, Mandate or Policy	Purpose
Oregon Bottle Bill	Oregon's Bottle Bill was introduced in 1971 as the very first bottle bill in the U.S. The bill was created to address a growing litter problem along Oregon beaches, highways and other public areas.Under the Oregon Bottle Bill, people pay a 5-cent container deposit when they buy beer and soft drinks and can return the containers to stores and get paid the 5-cent refund value for each container returned
Vehicle Inspection Program	The Vehicle Inspection Program (VIP) in the Portland-metro and Rogue Valley areas helps to retain the quality of Oregon's air. Oregon implemented the Vehicle Inspection Program to help stay within federal guidelines and reduce air pollution.
Oregon Electronics Recycling Law	Oregon's Electronics Recycling Law enacted in 2007 (House Bill 2626) creates and finances a statewide collection, transportation, and recycling system for desktop computers, portable computers, monitors, and televisions (covered electronic devices or CEDs).
Oregon E-Cycles	Oregon E-Cycles is a new statewide program that requires electronics manufacturers to provide responsible recycling for computers, monitors and TVs. The program is an example of product stewardship.
Solid Waste Program Grants	The Oregon Department of Environmental Quality (DEQ) awards grants each year to local governments for recycling and solid waste prevention or reduction projects. Due to budgetary constraints, DEQ will not award any Solid Waste Grants in 2010.
Cleanup Program	Oregon DEQ can help remove environmental barriers to redevelopment by providing assistance for the investigation of potentially contaminated properties and oversight during the cleanup of the properties.
Voluntary Cleanup Program	The Voluntary Cleanup Pathway (VCP) is the original voluntary cleanup path, where DEQ provides oversight throughout the investigation and cleanup. This option is available for voluntary high-priority sites, as well as lower priority sites, with contamination in any environmental medium (soil, groundwater, sediment, surface water, or air).
Biosolids Program	Oregon DEQ implements a statewide program that encourages the beneficial use of biosolids generated by domestic wastewater treatment facilities in Oregon. Local governments make the decision whether to recycle the biosolids as a fertilizer, incinerate it or bury it in a landfill.
Water Reuse Program	Oregon DEQ implements a statewide program that encourages water reuse. The use of reclaimed water for purposes such as irrigation and commercial and residential applications is an environmentally sound way to manage wastewater, while conserving water supplies in Oregon. http://www.deq.state.or.us/wq/reuse/intro.htm
Oregon Senate Bill 820	The law requires the Oregon DEQ to work with interested parties to develop a report on the opportunities and barriers associated with wastewater reuse in urban areas.
Oregon DEQ Waste Prevention Strategy	A framework for DEQ's work to reduce solid waste generation in Oregon over the next ten years, and a summary of actions DEQ is proposing to undertake in the next two to three years. Strategy has four focus areas: Design, Construction, Remodeling and Demolition of Buildings; Business Practices; Consumer Education and Foundation Research and Analysis.

Program, Initiative, Mandate or Policy	Purpose
Industrial Pretreatment Program	The communities approved to implement the pretreatment program have the legal authority to issue industrial user permits, conduct inspections of industrial and commercial sources, sample industrial discharges and enforce regulations to improve water quality.
Region 2040 Growth Concept Plan	The Growth Concept states the preferred form of regional growth and development and includes the Growth Concept map. The preferred form is to contain growth within a carefully managed Urban Growth Boundary (UGB). The concept guides how the region's urban growth boundary (UGB) is managed in order to protect the community characteristics valued by the people who live here, to enhance a transportation system that ensures the mobility of people and goods throughout the region, and to preserve access to nature. It outlines a vision for concentrating growth around regional and town centers. It is designed to ensure that the transportation system provides the connectivity between and among those regional and town centers.
Regional Framework Plan	This plan implements concepts in the Region 2040 Growth Concept.
Urban Growth Management Functional Plan	The functional plan provides tools that help meet goals in the 2040 Growth Concept. Contains very specific land use and transportation requirements, which must be addressed by the 28 jurisdictions within the Portland metropolitan area.
2008-2018 Regional Solid Waste Management Plan	The RSWMP guides Metro's solid waste planning and recycling efforts. Metro works with local governments to promote increased recycling and recovery in the region.
Urban and Rural Reserves	At the end of 2009, Clackamas, Multnomah and Washington counties and Metro entered into agreements that determine the location and scale of urban development for the next 40 to 50 years through setting aside urban and rural reserves.
Business Recycling Requirements	Program requires local businesses to recycle all types of paper and certain containers such as plastic bottles, aluminum cans and glass.
Brownfields Recycling Program	With funding provided by grants from the U.S. Environmental Protection Agency (EPA), Metro's Brownfields Recycling Program promotes the efficient use of land through redevelopment of brownfield sites.
Metro Recycling Information Hotline	The Metro Recycling Information hotline provides recycling and disposal information and referrals in the Portland metropolitan area.
Fork It Over!	Fork It Over! is Metro's food donation program to reduce hunger and waste in the Portland metropolitan area.
Recycle at Work	The Recycle at Work program provides free, customized assistance to all types of businesses throughout the Portland metropolitan area. The Recycle at Work program is a partnership between Metro and local governments throughout the Portland metropolitan area.
Toxics Reduction Strategy	The Toxics Reduction Strategy for government operations outlines actions that will help to minimize the procurement, use and release of toxic substances.

Program, Initiative, Mandate or Policy	Purpose
Construction and Maintenance Recycling	The Portland Office of Transportation's Sunderland Recycling Facility processes 30,000 to 50,000 cubic yards of recycled materials annually.
Biodiesel and Ultra-low Sulfur Diesel	All diesel vehicles and equipment that use the City of Portland's fueling stations are currently fueled by a 20% biodiesel blend (20% biodiesel/80% diesel, also known as B20). In the near future, City Fleet will also switch to an ultra-low sulfur diesel (ULSD) and biodiesel blend.
Portland Recycles!	The Portland Recycles! Plan will guide the City's garbage and recycling initiatives through 2015. Goals for Portland's waste and recycling system: Zero growth in the waste stream; Increase recycling rate to 75 percent by 2015; Make the whole system more sustainable: safer for garbage haulers and neighborhoods and Reduce toxics and greenhouse gases.
Portland Composts!	A partnership of Metro and the Portland Bureau of Planning and Sustainability. The Portland Composts! program is a voluntary program designed for food producing businesses to divert food scraps and food soiled paper from the landfill. Businesses in the City of Portland can contract with waste haulers to collect food waste and food-soiled paper for composting.
BEST Business Center	The BEST Business Center is a "one-stop shop" for businesses in Portland that want to become greener and more profitable. Center provides a free evaluation of a company's operations in the areas of energy, water, waste and recycling, purchasing, green building and transportation.
Ecoroof Incentive Program	The City of Portland is offering financial grants as incentives to property owners and developers to increase the number of ecoroofs in the city. The grants are part of Portland's Grey to Green initiative to increase sustainable stormwater management practices.
Expand Cleaner Transportation Options For example: shifts to alternative fuel vehicles, alternative fuel infrastructure, expand and promote public transportation	
Employer Trip Reduction Programs	Metro Regional Travel Options staff walk business owners through the planning, marketing and execution of a trip reduction program customized to their worksite. They provide help establishing carpools or vanpools and increasing use of bicycle commuting and transit.
BETC Transportation Projects	Oregon businesses can receive a state tax credit for projects that reduce energy used in transportation.
Hybrid Electric and Alternative Fuel Vehicles Residential Tax Credits	The Residential Energy Tax Credit provides tax credit incentives of up to $1,500 to encourage Oregonians to purchase hybrid electric vehicles. The Business Energy Tax Credit offers a tax credit for business owners who purchase hybrid electric vehicles for business use.
Regional Travel Options Grants	Travel options and individualized marketing grants support a range of projects and programs. Individualized marketing projects identify people within a specific geographic area who want to change the way they travel. The projects use personal, individualized contact to motivate travel behavior change. Projects in the city of Portland and more than 300 cities around the world have achieved significant reductions in the number of people driving alone and increased the number of people cycling, walking and using transit.

Program, Initiative, Mandate or Policy	Purpose
Employee Commute Options (ECO) Program	Under the DEQ ECO program, employers with more than 100 employees must provide commute alternatives to employees designed to reduce the number of cars driven to work in Portland and surrounding areas.
The Transit Investment Plan	The TIP lays out TriMet's strategies and programs to meet regional transportation and livability goals through focused investments in service, capital projects and customer information.
Transportation System Planning Grant	TGM grants support integrated transportation and land-use plans, Transportation System Plans (and TSP updates), and other planning activities that give Oregonians more transportation choices through improved pedestrian, bicycle, transit, and multi-modal street facilities.
Oregon Bicycle Bill	The Bicycle Bil requires the inclusion of facilities for pedestrians and bicyclists wherever a road, street or highway is built or rebuilt. It applies to ODOT, cities and counties. It also requires ODOT, cities and counties to spend reasonable amounts of their share of the state highway fund on facilities for pedestrians and bicyclists.
Oregon Bicycle and Pedestrian Plan	The Bicycle and Pedestrian Plan, driven by the Bicycle Bill's mandates and goals, is the planning and design manual for pedestrian and bicycle transportation in Oregon. The Bicycle and Pedestrian Plan also sets up training programs for engineers and planners, advises cities and counties on their programs and projects, and develops maps for touring bicyclists.
ODOT Bicycle and Pedestrian Grant Program	The Pedestrian and Bicycle Grant Program is a competitive grant program that provides approximately $5 million dollars every two years to Oregon cities, counties and ODOT regional and district offices for design and construction of pedestrian and bicycle facilities.
Oregon Bicycle Advisory Committee	This eight-member committee, appointed by the governor, acts as a liaison between the public and ODOT. They advise ODOT in the regulation of bicycle and pedestrian traffic and the establishment of bikeways and walkways.
Oregon Public Transit Division	The Public Transit Division provides grants, policy leadership and technical assistance to communities and local transportation providers to provide transportation to people. The division also develops and encourages the use of transit, ridesharing, telecommuting, alternative work schedules, walking, bicycling and other alternatives to driving alone.
Drive Less, Save More Campaign	Jointly launched in 2006 by the Oregon Department of Transportation, Metro, TriMet, Washington County and many other public and private partners, the Drive Less, Save More Campaign aims to increase public awareness about transportation choices to reduce single person car trips.
ODOT Sustainability Program	Program goals: Reduce demand for raw material and energy; Eliminate material and energy waste; Incorporate the life cycle costs of a system/facility, and consider the costs of off-site impacts; Protect and conserve the natural environment; Design for low maintenance and durability.
Transit-Oriented Development Program	Metro's Transit-Oriented Development Program takes planning development projects from the conceptual to the actual by investing in development projects in key locations throughout the region. To help overcome market barriers, Metro offers incentives through the TOD Program that foster the public-private partnerships needed to support transit-oriented development.

Program, Initiative, Mandate or Policy	Purpose
Regional Transportation Plan	The Regional Transportation Plan is a 20-year blueprint for the Portland metropolitan region's transportation system. The plan deals with how best to move people and goods in and through the region.
Intelligent Transportation Systems	ITS is the application of advanced technology to address transportation problems. ITS makes use of advanced communication and computer technology to address these problems and enhance the movement of people and products. Many areas within the Portland MSA have ITS plans in place.
The Transportation Planning Rule	It defines the characteristics of acceptable transportation plans, establishes standards for transportation system performance, and requires explicit links between local land use and transportation planning processes.
Oregon Transportation Plan	The state's long-range multimodal transportation plan. The OTP considers all modes of Oregon's transportation system as a single system and addresses the future needs of Oregon's airports, bicycle and pedestrian facilities, highways and roadways, pipelines, ports and waterway facilities, public transportation, and railroads through 2030.
Integrated Land Use & Transportation Planning Grant	TGM grants support integrated transportation and land-use plans, Transportation System Plans (and TSP updates), and other planning activities that give Oregonians more transportation choices through improved pedestrian, bicycle, transit, and multi-modal street facilities.
Oregon's Electric Vehicle Charging Network	On Sept. 29, 2010, Governor Kulongoski announced that ODOT will receive $700,000 in federal stimulus funds to install up to eight EV fast charging stations in southern Oregon from Eugene to Ashland. On Oct. 15, 2010, Governor Kulongoski and Senators Wyden and Merkley also announced that ODOT will receive an additional $2 million from the TIGER II program of the U.S. Department of Transportation for up to two dozen EV fast charging stations.
Biofuel Renewable Fuel Standard	The 2009 Oregon Legislature passed House Bill 3463, immediately activating the renewable fuel standard to blend diesel fuel with a minimum of 2% by volume biodiesel.
Columbia-Willamette Clean Cities Coalition	The primary objective of the Columbia Willamette Clean Cities Coalition is to "promote the use of domestically-produced alternative transportation fuels"
SmartTrips	SmartTrips is a comprehensive approach to reduce drive-alone trips and increase biking, walking, public transit ridership, carpooling, car sharing and combining trips. Key components include biking and walking maps and organized activities which get people out in their neighborhoods to shop, work, and discover how many trips they can easily, conveniently and safely make without using a car.
CarpoolMatchNW	Ridesharing program for Oregon and SW Washington.
Transportation Management Associations	ATMA provides: Effective transportation programs and services with clear member benefits; A forum for businesses and neighborhood associations to work together; Coordination of effective committees working directly on district transportation issues; Assistance with ECO Rule compliance; Advocacy at the local, regional and state level on behalf of businesses. Areas with TMAs include: Lloyd TMA, Clackamas Regional Center TMA, Gresham Regional Center TMA, Swan Island TMA, Westside Transportation Alliance

Program, Initiative, Mandate or Policy	Purpose
Safe Routes to Schools	Safe Routes to School is an international effort to increase the number of kids walking and bicycling to school. Oregon Walk + Bike to School is a partnership between the Bicycle Transportation Alliance, Willamette Pedestrian Coalition, the Oregon Walk to School Committee, and teachers, parents, community members and schools throughout Oregon.
Build the Green Value Chain For example: Brokering linkages among green industry segments; buyers and suppliers; local firms and global partners	
Ecotrust	Ecotrust's mission is to inspire fresh thinking that creates economic opportunity, social equity and environmental well-being. Ecotrust has created a range of programs in fisheries, forestry, food, farms and children's health, and developing new scientific and information tools to improve social, economic and environmental decision-making.
Food Alliance	Food Alliance is a nonprofit organization that certifies farms, ranches and food handlers for sustainable agricultural and facility management practices. By choosing Food Alliance Certified products, consumers and commercial food buyers can be assured they are supporting safe and fair working conditions, humane treatment of animals, and good environmental stewardship.
Create a Pro-Green Regulatory Climate For example: Alignment of local standards, policies and processes; advocacy of state-level support of green economic development	
Greenhouse Gas Reporting	In 2008, the Environmental Quality Commission approved GHG mandatory reporting rules. The rules are needed to gain a better understanding of the sources of greenhouse gas emissions in Oregon, and to track progress toward meeting GHG emission reduction goals. The rules govern the collection of data regarding GHG emission sources in Oregon.
Oregon Global Warming Commission	The Commission's general charge is to recommend ways to coordinate state and local efforts to reduce Oregon's greenhouse gas emissions consistent with Oregon's goals and to recommend efforts to help the state, local governments, businesses and residents prepare for the effects of global warming.
Oregon Strategy for Greenhouse Gas Reductions	Recommendations for Oregon's response to climate change. The Advisory Group's list of recommended actions fall under seven major areas: Integrating Actions; Energy Efficiency; Electric Generation and Supply; Transportation; Biological Sequestration; Materials Use, Recovery and Waste Disposal; State Government Operations
West Coast Governors' Global Warming Initiative	The Governors have committed to act individually and regionally to reduce greenhouse gas emissions below current levels through strategies that promote long-term economic growth, protect public health and the environment, consider social equity, and expand public awareness.
Reducing global warming pollution from transportation	Under House Bill 2186, Oregon will adopt a low-carbon fuel standard to reduce the greenhouse gas emissions from transportation fuel 10% by 2020. The bill also establishes a task force to evaluate using metropolitan planning organizations to incorporate global warming concerns into land use and transportation planning.

Program, Initiative, Mandate or Policy	Purpose
Oregon House Bill 2186	HB 2186 is wide-ranging legislation that seeks to reduce Oregon's greenhouse gas emissions. Section 10 requires creation of a Metropolitan Planning Organization (MPO) Greenhouse Gas Emissions Task Force to evaluate alternative land use and transportation scenarios that would meet community growth needs, while reducing greenhouse gas emissions and recommend future legislative action to support such efforts.
Oregon Senate Bill 79 — Cementing Oregon as the National Leader in Green Building	Senate Bill 79 directs the creation of a "reach code" or a set of optimal construction codes to increase the energy efficiency of new buildings over time. Under the bill, the code will require an increase in efficiency of non-residential buildings between 15% and 25% and residential buildings between 10% and 15% by 2012. From there, the state will use a step-wise process to continue strengthening the code as technology and building techniques improve. In addition, the bill authorizes a task force to examine creating Energy Performance Scores for new and existing buildings and report back to the Legislature.
Oregon House Bill 2626 — Making Energy Efficiency Improvements Affordable	The Energy Efficiency and Sustainable Technology Act (EEAST) will help make affordable improvements to help Oregon homes and businesses use energy more efficiently. Under the bill, the Oregon Department of Energy, Energy Trust of Oregon, utilities and local governments will facilitate making cost-effective improvements, including providing a project manager and advocate to explain financing options, help select a contractor and help ensure projects are done properly. It will also assist those in need by creating a fund to support low income energy efficiency upgrades, and by simplifying repayment options for renters and low-income homeowners.
Oregon House Bill 3039	House Bill 3039 included a HCP priority, establishing a feed-in tariff program for solar energy, but also contains provisions that significantly water down Oregon's Renewable Energy Standard.
Healthy Climate Partnership	The Healthy Climate Partnership, a coalition of over 100 public interest groups and businesses from across Oregon, is working to get Oregon's economy back on track and build a clean energy future.
Citizens' Utility Board of Oregon	The CUB mission is simple: to represent the residential utility customer. The Citizens' Utility Board of Oregon is the only group in the state funded by Oregon ratepayers to challenge rate increases and other matters brought before the Public Utility Commission and State Legislature by the private utility companies.
Climate Solutions	Climate Solutions' mission is to accelerate practical and profitable solutions to global warming by galvanizing leadership, growing investment and bridging divides.
Environment Oregon	Environment Oregon, the new home of OSPIRG's environmental work, is a statewide, citizen-based environmental advocacy organization.
Oregon Environmental Council	For over 40 years, the Oregon Environmental Council staff and volunteers have worked across the state to advocate on behalf of all Oregonians
Renewable Northwest Project	The Renewable Northwest Project works for a clean energy future by: Working with local organizations and energy companies to get workable renewable projects in the ground; Actively promoting policies that support renewable energy development; Encouraging utilities and customer groups to invest in new renewables; Nurturing the development of a market for renewables.

Program, Initiative, Mandate or Policy	Purpose
1000 Friends of Oregon	1000 Friends of Oregon was founded in 1975 as the citizens' voice for sound land use planning. 1000 Friends staff focus on education and advocacy, to engage Oregonians in a fresh conversation about Oregon's future, and how to make sure it's a future wanted by all.
Bonneville Environmental Foundation	BEF was founded in 1998 to support watershed restoration programs and develop new sources of renewable energy. Funding for these efforts has been provided in a way that would be called unusual for most foundations. BEF, a non-profit organization, markets green power products to public utilities, businesses, government agencies and individuals.
NW Energy Coalition	The NW Energy Coalition is an alliance of more than 100 environmental, civic, and human service organizations, progressive utilities, and businesses in Oregon, Washington, Idaho, Montana, Alaska and British Columbia. They promote development of renewable energy and energy conservation, consumer protection, low-income energy assistance, and fish and wildlife restoration on the Columbia and Snake rivers.
Climate Leadership Initiative	The Climate Leadership Initiative is a research and technical assistance collaboration between the University of Oregon Institute for a Sustainable Environment and The Resource Innovation Group.
Sustainable City Government Partnership	The goal of the Partnership is to foster a collaborative, City of Portland-wide effort to integrate sustainable practices and resource efficiency into municipal operations. Based on employee and bureau-level innovation, the Partnership promotes the City's sustainability goals and strengthens existing policies and efforts.
Portland Climate Action Plan 2009	Adopted in 2009, the CAP lays out objectives to meet by 2030 in eight areas: Buildings and energy, Urban form and mobility, Consumption and solid waste, Urban forestry and natural systems, Food and agriculture, Community engagement, Climate change preparation, and Local government operations
Educate and Train Green Workforce For example: Preparation of workers of all levels for new green jobs and existing jobs that require new green skills	
Oregon BITS Goal: Increase Existing Licensed Electricians for Solar Installation	This program helps to provide additional job skills to electricians who are underemployed due to the economic crisis and expand their available sellable skills.
Solar Voltaic Manufacturing Technology Certificate of Completion	Program qualifies graduates to work in the solar industry as operators after only one term. The COC in Solar Voltaic Manufacturing Technology is a short program consisting of approximately 13 credits, majority of them transferable to the Solar Voltaic AAS degree (which consists of 95 credits). Solar World is hiring from this program.
Manufacturing Foundations Training	Open to all job seekers interested in machine manufacturing. Leads to operator level jobs in Fuel Cell Companies – such as Clear Edge Power and Solar Crystal Growing Companies such as Solaicx or XSunX.
Sustainable Building Advisor Training	The program is designed for learning professionals with 9 monthly week-end classes, expert instructors, interactive format, hands-on exercises, demonstrated competencies, field trips, integrated approach, cross-sector-applicability and more.

Program, Initiative, Mandate or Policy	Purpose
AAS Degree in Solar Voltaic Manufacturing Technology	Portland Community College Degree
Certificate of Completion in Solar Voltaic Manufacturing Technology	Portland Community College Certificate
Microelectronics Technology AAS Degree	Portland Community College Degree
Electronics Engineering Technology	Oregon Institute of Technology Degree
Mechanical Engineering Technology	Oregon Institute of Technology Degree
Manufacturing Engineering Technology	Oregon Institute of Technology Degree
M.S. in Manufacturing Engineering Technology	Oregon Institute of Technology Degree
Renewable Energy Engineering	Oregon Institute of Technology Degree, first such degree in North America
Software Engineering Technology	Oregon Institute of Technology Degree
Renewable Energy Technology 1-year certificate	Columbia Gorge Community College Certificate
Renewable Energy Technology 2-year AAS	Columbia Gorge Community College Degree
Energy Management Technician 2-year AAS	Lane Community College Degree
Renewable Energy Technician 2-year AAS	Lane Community College Degree
NWEEI: Energy Management Certification	Lane Community College, Northwest Energy Education Institute Certificate
NWEEI: Building Operator Certification	Lane Community College, Northwest Energy Education Institute Certificate
NWEEI: Residential Energy Auditor Certification	Lane Community College, Northwest Energy Education Institute Certificate
NWEEI: BPA Residential Inspector Certification	Lane Community College, Northwest Energy Education Institute Certificate
B.S. in Renewable Energy Systems	Oregon Institute of Technology Degree
Facilities Maintenance Certificate	Portland Community College Certificate
Energy Start Energy Trust Technical School Outreach	The Energy Star Energy Technical School Outreach initiative is an innovative educational opportunity that provides schools with an opportunity to incorporate cutting edge curriculum and project-based learning experiences into existing technical programs.
Residential Electrician Apprenticeship	National Electrical Contractors Association, International Brotherhood of Electronic Workers Apprentice Program, 2-year

Program, Initiative, Mandate or Policy	Purpose
Inside Electrician Apprenticeship	National Electrical Contractors Association, International Brotherhood of Electronic Workers Apprentice Program, 5-year
Limited Residential Electrician Apprenticeship	Central Electrical Training Center Apprentice Program, 2-year
Inside Electrician Apprenticeship	Central Electrical Training Center Apprentice Program, 5-year
Lineman Apprenticeship	Northwest Line Construction Industry Joint Apprenticeship Training Committee, 3-year
Steamfitter Apprenticeship	Plumbers & Steamfitters Local 290 Training Center, 5-year
Plumbing Apprenticeship	Plumbers & Steamfitters Local 290 Training Center
Carpenter Apprenticeship	Willamette Carpenters Training Center, 4-year
Industrial Maintenance Millwright Apprenticeship	Willamette Carpenters Training Center, 4-year
Sheet Metal Worker Apprenticeship	HVAC & Metals Institute/SMW Local 16, 5-year
Ironworker Apprenticeship	Pacific NW Ironworkers & Employers Apprenticeship Training Center, 4-year
Glazier Apprenticeship	Glaziers Local 740 JATC, 4-year
Heat/Frost Insulator Apprenticeship	Heat & Frost Insulators & Allied Trades Local 36, 4-year
Painter Apprenticeship	Painters JATC, 4-year
Roofer Apprenticeship	Roofers JATC, 3-year
Solar Installer Apprenticeship	Renewable Energy Joint Apprenticeship Training Committee/OSEIA, 1-year
Renewable Energy Technician Apprenticeship	For Renewable Energy Technician License, Renewable Energy Joint Apprenticeship Training Committee/OSEIA, 2-year
SEED: Seeding the Oregon Workforce	SEED will work with schools, universities and Oregon's software and technology companies to place 120 students and 12 educators into real-world, internship environments in 2006 to learn how companies do business in Oregon.
StRUT — Students Recycling Used Technology	Students Recycling Used Technology - StRUT is a program incorporated into schools where students take donated computers and computer components and upgrade them for the use in schools.
Oregon House Bill 3300 - "Green Jobs" Legislation	The measure calls for the Oregon Workforce Investment Board to develop a green jobs work force plan, including strategies that steer low-income Oregonians to high-wage, high-demand environmental-oriented professions. The board must also invest in new training programs that educate workers about green-industry jobs.
SkillsUSA — Benson High School Partnership	SkillsUSA is an applied method of instruction for preparing America's high performance workers enrolled in public career and technical programs.

Program, Initiative, Mandate or Policy	Purpose
Merlo Station School of Science & Technology 12th Grade Internship Program	An internship in a business setting helps students learn important skills that they will apply to future goals and educational experiences. Participating businesses include: Intel, Tektronix, Vernier Software, Mentor Graphics, Merlo Computer Science, Architecture Firms, Medical Technology firms
Business Education Compact	The BEC creates and leads working partnerships with business and education, engaging students and teachers in hands-on, innovate learning experiences such as internships that transform classroom teaching and learning.
Westview High School Career Pathways	Strong science focus in four areas: 1) Medical Diagnosis & Treatment; 2) Medical Technologies; 3) Engineering & Technologies; 4) Natural Science & Technologies
PAVTEC Education Consortium	The purpose of PAVTEC is to enhance the access of high school and PCC students to quality professional technical education. This encompasses a broad scope ranging from career development and guidance programs to technical skill development instructional programs.
College Now Program at Umpqua Community College	The Program supports the concept of assisting high school students as they begin planning and carrying out a learning continuum that begins in high school and extends through the college experience to a degree or a professional certificate.
College Now — Clackamas Region with C-TEC	C-TEC promotes a high quality system of Career and Technical Education and career related learning for all students through a coordinated delivery of services in secondary and post-secondary education.
High School Connections R-TEC	R-TEC (Regional Technial Education Consortium) are career/technical courses not available at high schools. These programs help currently enrolled high school students make the transition from high school to college. Program at Lane Community College.
Mid-Willamette Education Consortium	Programs in: Building technology, network technology, business technology, civil technology, computer programming, drafting technology, electronics technology.
National Association for Tech Prep Leadership	The vision of Tech Prep is to provide every student an opportunity to participate in a seamless educational system that includes the academic and technical knowledge and skills required for continued education and workforce readiness.
Mt. Hood Regional Consortium	CTE (Career & Technical Education) courses provide credit that counts towards one of the associate of applied science programs such as early childhood education, computer applications or automotive service technology.
Facilitate Green Company Expansions For example: Help with firm site location requirements, expansion financing, and related growth needs	
Business Energy Tax Credit	The Oregon Department of Energy offers the Business Energy Tax Credit to those who invest in energy conservation, recycling, renewable energy resources and less-polluting transportation fuels. The three main categories of projects are: Renewable Resources, Energy Conservation, and Renewable Energy Resource Equipment Manufacturing

Program, Initiative, Mandate or Policy	Purpose
Standard Enterprise Zone Exemptions	Designed to encourage business investment in specific areas of the state primarily with property tax relief. In exchange for locating or expanding into an enterprise zone, eligible (generally non-retail) businesses receive total exemption from the property taxes normally assessed on new plant and equipment for at least three years (but up to five years) in the standard program.
Electronic Commerce Zones	Several of Oregon's 50-some enterprise zones have received special status to further encourage electronic commerce or ""e-commerce,"" investments.
Oregon Investment Advantage	This income tax exemption program helps businesses start or locate in most Oregon counties with a 10-year income tax holiday.
Strategic Investment Program	The Strategic Investment Program exempts a portion of large capital investments from property taxes. The program is available statewide for projects developed by "traded-sector" businesses, most often used for manufacturing firms.
Construction-in-Process Property Tax Abatement	A simple, annual filing with the county assessor can exempt non-utility, business facilities from property taxes for up to two years, while any such facility is under construction and not in use on January 1 of the assessment year. This exemption is generally available for manufacturing projects anywhere in the state.
Biomass Producer or Collector Tax Credits	House Bill 2210 provides Oregon businesses with tax credits to support the production, collection and use of biomass and biofuels to improve Oregon's environment, economy and energy resource diversity.
Qualified Research Activities Credit	Corporate tax credit for qualified research and basic research conducted in Oregon. "Qualified research" and "basic research" are research in the fields of: Advanced computing; Advanced materials; Biotechnology; Electronic device technology; Environmental technology and Straw utilization.
Alternative Fuel Vehicle Refueling Stations Corporate Tax Credit	25 percent of cost of the fueling station, but not more than $750.
Emission Reducing Production Technology or Process Tax Credit	For the installation of a certified pollution-eliminating production technology or process. The maximum credit allowed in any one tax year shall be the lesser of the tax liability of the taxpayer or one-tenth of the cost. Certification of a project is for five years.
Reclaimed Plastics Recycling Tax Credit	The taxpayer claiming the credit must have been recycling, collecting, transporting, processing, or manufacturing a reclaimed plastic product during the tax year for which the credit is claimed.
Oregon Business Development Fund	The Oregon Business Development Fund is a revolving loan fund that provides term fixed-rate financing for land, buildings, equipment, machinery and permanent working capital. Participants must create or retain jobs and must be a traded-sector business in manufacturing, processing or a regionally significant tourist facility.
Oregon Business Retention Service	The Business Retention Program provides consulting services to assist Oregon companies facing difficult times. The program offers companies consulting services that are delivered by some of the best and most experienced private sector consultants in the state. A consultant is matched with a company based on specific needs and industry requirements.

Program, Initiative, Mandate or Policy	Purpose
Oregon Capital Access Program	This program helps lenders make more commercial loans to small businesses. For profit or non-profit businesses seeking funds for most business purposes.
Oregon Credit Enhancement Fund	The Oregon Credit Enchantment Fund is designed to help businesses that are having difficulty accessing conventional financing. The Credit Enhancement Fund provides lenders with addition security, thereby encouraging greater lender activity to Oregon businesses.
Entrepreneurial Development Loan Fund	The Entrepreneurial Development Loan Fund provides initial direct loans to help companies get started in Oregon. This fund: assists micro-enterprise and small businesses; fills a niche not provided through traditional lending markets; and offers small-business counseling through Certified Entities.
Industrial Development Revenue Bonds	Tax-exempt bonds issued by the state of Oregon on behalf of qualified businesses. Bonds finance job creation and business growth of Oregon traded-sector, value-added manufacturers and processors by providing long-term debt financing for land, buildings and other fixed assets at a rate below prime.
Energy Loan Program	The purpose of the Energy Loan Program (also known as SELP) is to promote energy conservation and renewable energy resource development. The program offers low-interest loans for projects that: Save energy, Produce energy from renewable resources such as water, wind, geothermal, solar, biomass, waste materials or waste heat, use recycled materials to create products and/or Use alternative fuels.
Green Gain Program	The Sustainable Business Assistance GREEN GAIN program provides matching grants up to $15,000 from the Portland Development Commission and technical assistance from the Zero Waste Alliance.
Green Features for Business	The Green Features Grant Program is intended to generate interest in sustainable design and practice in Portland's neighborhoods. Funds are currently available through the Portland Development Commission in the Interstate Corridor and Lents Town Center Urban Renewal Areas (URAs).
Shorebank Enterprise Cascadia	Shorebank Enterprise Cascadia, a non-profit affiliate of Shorebank Pacific, aims to invest in people and their communities to create economic equity and a healthy environment. Shorebank's collaboration with the non-profit arm allows them to exceed normal lending amounts, up to 85% loan-to-value, for green building projects.
Tenant Improvement Guide	The City of Portland Bureau of Planning and Sustainability offers a free, downloadable brochure to inform small businesses how to make green choices in construction of tenant improvements that save money, increase efficiency, and great a healthy workspace.
BEST Business Center	The BEST Business Center is a free program that helps businesses identify opportunities to green their operations. It is a partnership of city and regional government programs and energy utilities, including the City of Portland Office of Sustainable Development, City of Portland Water Bureau, Metro, Pacific Power, Portland Development Commission and Portland General Electric. Contact the BEST Business Center for a free sustainability audit, advice, and technical assistance.

Program, Initiative, Mandate or Policy	Purpose
Energy Star Portfolio Manage	Energy Star Portfolio Manager helps companies track and assess energy and water consumption within individual buildings as well as across building portfolios. The Portfolio Manager account helps companies benchmark building energy performance, assess energy management goals over time, and identify strategic opportunities for savings and recognition opportunities.
Quality Jobs Program	Portland companies able to obtain some financing from private sources or lenders, but not enough to achieve their objectives, are potential candidates for a PDC business finance loan. Applicants must show that their business will create new or retain existing jobs paying competitive wages and benefits, with real opportunities for advancement.
Economic Opportunity Fund	The Economic Opportunity Fund is designed to recognize factors beyond just investment. Initial incentive amounts can be boosted via a number of variables, including whether the company is a small business, removing blight, establishing a headquarters or locating in a distressed area. Through Portland Development Commission.
Direct Tax Increment Loan	Designed to assist new and existing businesses that are located in an urban renewal area (URA), with a focus on small businesses (20 or fewer employees). Funds may only be used for property acquisition and improvement. Provided by Portland Development Commission.
EDA Revolving Loan and Real Estate Fund	Designed to assist new and existing small businesses citywide, with emphasis placed on distressed communities. Funds for the EDA program are provided by the U.S. Department of Commerce Economic Development administration, and may be used for working capital, equipment purchase, property acquisition or tenant improvement. Through PDC.
North/Northeast Business Assistance Loan Fund	Also known as the Hatfield Loan Program. Primary objective is to build community wealth through local ownership of businesses, creation and retention of jobs in the inner north/ northeast part of the city. The program seeks to attract businesses that provide needed goods and services in the neighborhoods. Provided by Portland Development Commission.
Near Equity Fund	A flexible loan program focused on creating wealth, and increasing presence of small businesses and minority & women-ownership. Primarily for direct business support – working capital and equipment purchase rather than real estate-related transactions. Provided by PDC.
Storefront Improvement Program	A 50/50 matching grant of up to $20,000 to assist property owners and lessees in rehabilitating their storefronts in urban renewal areas and target areas outside of URAs. Program goals are to revitalize neighborhood commercial areas, eliminate blight and enhance the livability of surrounding neighborhoods. Provided by PDC.
Encourage Green Innovation For example: Increasing R&D investment, securing patents, providing access to testing facilities, facilitating commercialization	
Oregon Innovation Councl (Oregon InC)	The Oregon Innovation Council is a single point of contact for the Governor and Legislature for program, policy and budget recommendations regarding innovation and economic development. It reviews proposals across state programs and advises the Governor, legislature, public and private post-secondary educational institutions, public agencies that provide economic development and the private sector on issues.

Program, Initiative, Mandate or Policy	Purpose
Oregon Nanoscience and Microtechnologies Institute	ONAMI, the Oregon Nanoscience and Microtechnologies Institute, is the first Oregon Signature Research Center. A cooperative venture among government and world-class nanoscience and microtechnology R&D institutions and industry in the Northwest, ONAMI was created to cultivate research and commercialization to advance theleading economic sector in Oregon, and expand the benefits of technology innovation to traditional and natural resource industries.
Oregon Built Environment and Sustainable Technologies Center (BEST)	AN ECONOMIC CATALYST, Oregon BEST connects the state's businesses with our university-based network of shared-user labs and expertise to commercialize and transform sustainable built environment and renewable energy research into on-the-ground products, services, and jobs that power Oregon's green economy. An Oregon Signature Research Center.
Wave Energy Initiative	Oregon Wave Energy Trust is a nonprofit public-private partnership funded by the Oregon Innovation Council in 2007. Its mission is to serve as a connector for all stakeholders involved in wave energy project development – from research and development to early stage community engagement and final deployment and energy generation – positioning Oregon as the North America leader in this nascent industry and delivering its full economic and environmental potential for the state.
Oregon State University	The College of Engineering sponsors several research clusters: Energy Systems, ONAMI@OSU, Biological and Enviromental Systems, Transportation, Information Usability and Mixed Signal Integration. Each research cluster is a network of researchers each focused on different aspects of innovation within the clusters above.
Solar Radiation Research Monitoring Lab	The University of Oregon SRML is a regional solar radiation data center, whose goal is to provide sound solar resource data for planning, design, deployment, and operation of solar electric facilities in the Pacific Northwest.
Industrial Initiative — Northwest Energy Efficiency Alliance	This initiative encourages manufacturing companies to make energy efficiency an integral part of their corporate and plant operations. The Industrial Initiative is currently focused on implementing Continuous Energy Improvement (CEI) within the pulp and paper, and food processing industries, which has the potential to increase production capacity, improve equipment reliability, and reduce operating costs and energy use by 5% to 20%.
Center for Inverse Design at Oregon State University	Oregon State University's College of Engineering and College of Science have been notified by the U.S. Department of Energy and the White House that it will receive a five-year, $3 million grant to help develop a Center for Inverse Design. The OSU Center for Inverse Design will use theory, computation and other experimental methods to identify materials that can make solar power more efficient and less costly. OSU experts will work with researchers from the National Renewable Energy Laboratory, Northwestern University and Stanford University.
Promote Regional Products and Services For example: Marketing products and services locally and globally, promoting a unique identity/niche in the global green economy	
Trade show presence	Business Oregon and various cities within the region promote Oregon products through trade missions, trade show participation and hosting/attending conferences. These efforts are not structured under a policy or program.

Brand Oregon	Brand Oregon is one of Governor Kulongoski's top economic development priorities. His commitment to marketing Oregon under a unified "brand" recognizes the need to leverage statewide marketing efforts to create more impact and bring about positive economic returns to Oregon businesses and the state's economy. Brand Oregon marketing also is one of 12 key initiatives identified in the Oregon Business Plan. Marketing campaigns branded industries.
First Stop Portland	First Stop Portland organizes Study Tours around livability and sustainability for delegations visiting Portland, Oregon, USA. They provide logistical and planning support for those interested in learning the story behind Portland's sustainability practices.
VOIS	VOIS is uniting forward-thinking business leaders, nonprofits, policymakers and individuals to create a prosperous and sustainable future for our region. By joining together to create a large, coordinated community of like-minded sustainability professionals, VOIS creates a Voice for Oregon Innovation & Sustainability.
Sustainable Business Network of Portland	The network's primary goal is to build a strong local network of community-based businesses, non-profit organizations and supportive individuals fostering a truly sustainable local economy in the Portland metropolitan area.

A GREENPRINT FOR THE METRO REGION

Rethink financing.
Increase efficiency.
Commercialize.
Grow clean tech.
Green forestry + ag.
Develop green talent.
Work together.

www.pdxinstitute.org/climateprosperity

Prepared by:
portland sustainability institute
info@pdxinstitute.org