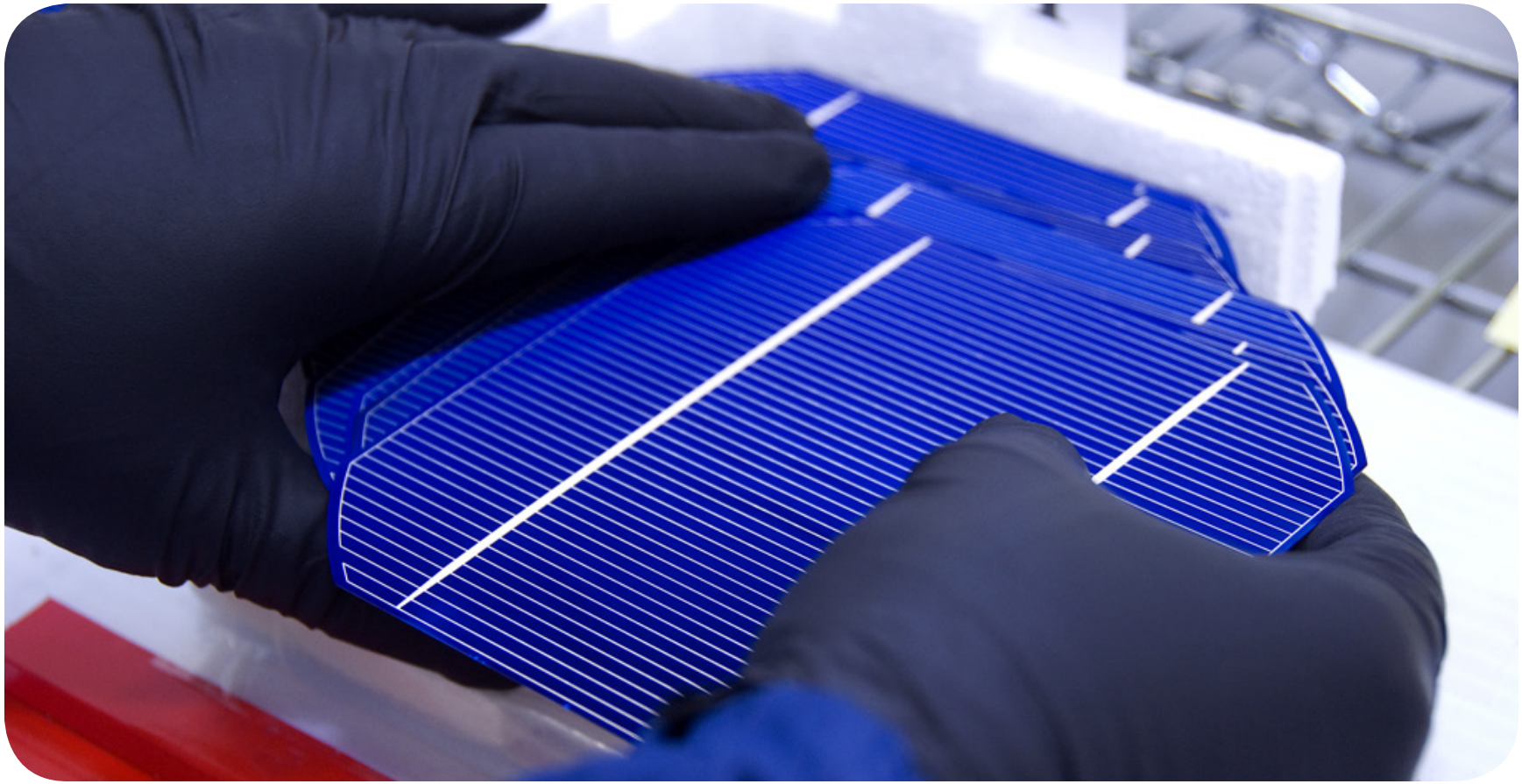
The
Portland Metro
Climate Prosperity
Project

A GREENPRINT FOR THE METRO REGION

DRAFT June 2010



A Letter from the Working Group

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 reduce emissions while stimulating economic prosperity. We asked the question: how does the Portland region successfully curb emissions, expand business opportunity, and increase savings across jurisdictional boundaries?

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. 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, and significantly reduce our environmental impacts.

Over the coming months, we will engage the region's business and civic communities to drive action. We will create a CEO-level leadership council to guide implementation and track progress. Success will require a united and aggressive effort over the next three years 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, Inc.

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.

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

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.

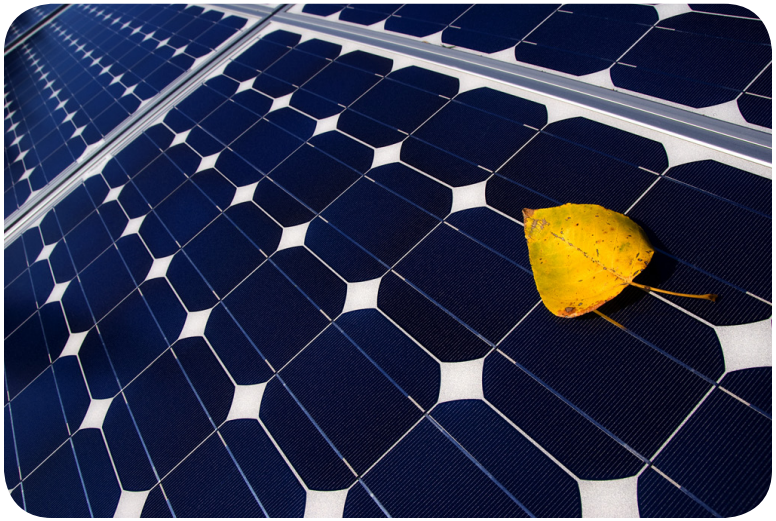
The Portland metropolitan region's challenge is not to discover the benefits of living, working, or thinking green. Rather, the challenge is to fully and strategically engage our business community, different levels of local and regional government, and our citizens in ways that keep the region at the 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 green 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 funding opportunities that will drive clean technology innovation and economic growth for years to come.

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 green economy.

The Greenprint is a regional call to action that identifies six green actions and recommends key strategies to achieve them. The six strategic priorities were developed in consultation with more than 150 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 strategies proposed require true regional collaboration — no individual jurisdiction, sector, or institution 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.



ACTION 1:
Establish Finance Mechanisms for Green Innovation

- Establish clean energy finance programs
- 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
- Develop regional green bank strategy that explicitly directs a portion of its 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 projects

ACTION 2:
Accelerate Energy and Resource Efficiency

- Establish clear goals and targets for efficiency in the metro region
- Accelerate bulk procurement of on-site clean energy systems
- Adopt high-performance building and infrastructure standards for major redevelopment sites

ACTION 3:
Commercialize Green Technologies

- Create a commercialization gap fund through the State of Oregon's signature Research Centers
- Educate and drive businesses to existing resources for commercialization
- Develop a consortium of companies to work together on proof-of-concept new buildings and retrofit projects to develop and commercialize innovative technologies

ACTION 4:
Cultivate the Regional Clean Tech Cluster

- Direct a dedicated portion of the region's economic development resources to 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 electric vehicle, battery storage, and smart grid industries

ACTION 5:
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 6:
Build Support and Communicate Results

- Create Climate Prosperity leadership council to manage, promote, and track Greenprint actions
- Create a single, regional public-private economic development strategy
- Set up a measurement system to track quarterly and annual progress on key economic and environmental measures

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.

The Portland-Vancouver Metro Region

The footprint of the greater Portland-Vancouver metro area encompasses seven counties and 61 cities and towns.

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 it poses challenges as well, among them state tax policies that stop at the river and poor communication in general across the Columbia.

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

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.

The Region's Success:

The Portland metropolitan region 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 Intel and Nike setting the pace.

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 tamed sprawl and vehicle miles traveled through implementation of an urban growth boundary resulting in a "green dividend" of more than $1 billion[2]
- The region is characterized by abundant mass transit (including busses, light rail and streetcars) linking Portland and surrounding communities
- The region boasts among the highest recycling rates, transit ridership rates, bicycle commuting rates and hybrid vehicle ownership rates in the nation
- The region has created thousands of high paying "green jobs" by attracting the largest concentration of solar manufacturing firms in the country[3]
- 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[4]
- Portland's major electric utility companies are ranked number 2 and 3 respectively in the nation for renewable energy sales[5]
- Bucking national trends, Portland has reduced carbon emissions below 1990 levels[6]

These success stories and others have led the Portland metro to become a darling of the national media and a magnet for young, creative talent.[7] The city and region routinely top national comparative rankings with respect to sustainability and livability.[8]

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

3 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.

4 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

5 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.

6 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.

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

8 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.

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 energy economy can create badly needed jobs, investment, and wealth for the region.[9]

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

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

9 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 advantage 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.[10]

> 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***

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."[11]

10 Carbon Free Prosperity 2025, pg. 5

11 Carbon Free Prosperity 2025, pg. 9, op. cit.

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 Challenge:

The Portland region'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, the Portland metro'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 green 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 Portland metropolitan region is not guaranteed a leadership position in the fast-moving, global green economy unless it invests in and organizes itself for success.

Business and civic leaders across the region 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 (DIY) hold the region back. Regional business and civic leaders must not become complacent thinking that current approaches are good enough for the Portland metro to keep pace with the competition. Here's the reality: they aren't.

The Portland Metro Greenprint:

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 green economy — but only if business and civic leaders take a hard look at current deficiencies and address them head on.

As a region, we can and must do better.

Imagine if our business and civic leaders committed to scaling up the best ideas and strategies developed within our region, made growing our regional green economy a priority, and organized accordingly without worrying about jurisdictional boundaries, organizational credit, or individual recognition? What if jurisdictions and organizations agreed on a set of shared priorities, then invested heavily in dollars and talent to make the kind of major impact that none of the parties could have produced on their own?

The Climate Prosperity Greenprint provides a roadmap for just this type of collaboration. It is a regional call to action that identifies six green actions and recommends key strategies to achieve them. The six strategic actions were developed in consultation with more than 150 individuals and the Greenprint Working Group. In each case the strategies proposed require regional collaboration — no individual jurisdiction, sector, or institution has the full range of assets and expertise to succeed on its own.

The Big Audacious Goal?

To become the nation's beacon in climate prosperity by enhancing community vitality and livability, achieving more economic growth and resiliency and producing less environmental impact—given the region's assets and size—than any other region in the world.

What is Climate Prosperity?

The Portland metropolitan region has been designated as a pilot Climate Prosperity Project.[12] 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. Based on a scan of communities, regions, and states across the country, the national effort has developed a powerful framework (see next page) to serve as a useful guide for regional collaboration.

> "McKinstry is growing through a tough economic climate... By increasing the efficiency of hospitals, schools, campuses, and commercial buildings operating expenses, energy, water and waste consumption is curbed dramatically while sustaining a regional construction industry. McKinstry is an example that what is good for the environment is good for business."

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. Climate Prosperity moves beyond climate protection by seeking specific ways to grow and capture economic growth through environmental progress. It offers an alternative to economic development practices that regard climate action as primarily a burden or drain on the economy.

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.

12 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 150 regional leaders, and drafted this Greenprint.

The regional climate prosperity framework includes demand and supply components that together produce multiple economic and environmental benefits.

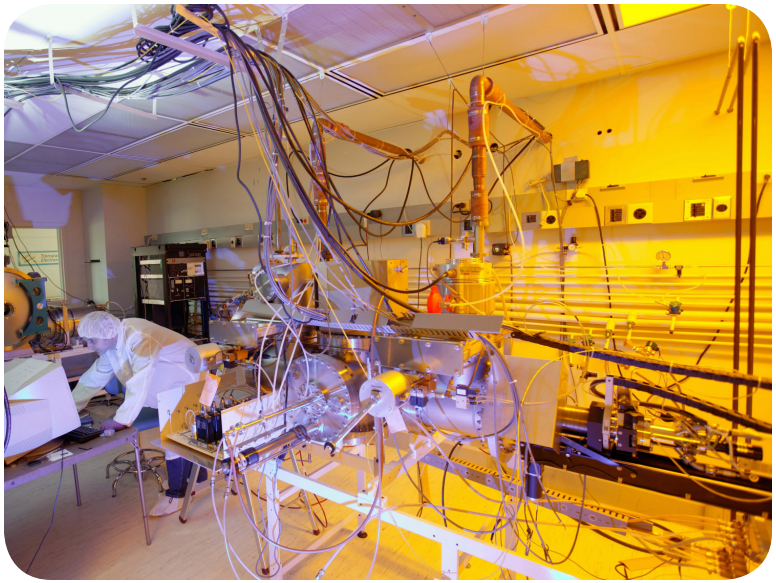
The "demand" side of Climate Prosperity involves growing the regional base of clean and green industries. While a region can increase its market for clean and green products and services, this demand can be met by local firms or firms based outside the region. The more that regional demand is met by local firms, the more economic benefits accrue to the region.

When a region actively encourages both clean and green demand and supply, it can maximize its environmental and economic benefits: reducing greenhouse gas emissions, improving energy savings, expanding business opportunities, and growing green talent and jobs.

The framework also suggests an organizational component to provide the "glue" to connect and align both demand and supply strategies, and track economic and environmental benefits. A regional Leadership Council can take many forms—but should reflect 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 a council.

Why does the region need a Greenprint?

There is no lack of sustainability plans and initiatives in the Portland metropolitan region. But existing plans and initiatives are often disjointed leading to suboptimal outcomes for the region as a whole. The region can work smarter. What's missing is a mechanism for linking organizations and goals, coordinating policy, and directing investment to maximize impact at the regional scale.



The goal is speed, scale and impact. As a region we can be satisfied with individual (but not collective) successes, remain good at starting (but not scaling) businesses and innovative initiatives, and continue to involve some (but not most) of the residents, businesses, and jurisdictions in the region's growing green economy.

Or, the region 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 green economies.

The Greenprint provides a roadmap and strategic framework to cohere the component parts of the region's green agenda.

The Greenprint will help regional business and civic leaders:

- **Speak with one voice.** Portland-Vancouver is a small metro region (ranked 23rd in US market size). The region's efforts will garner more national attention and a greater share of federal funding if we speak with a single powerful voice about our innovative capacity an competitive advantages in clean technology.
- **Leverage scare 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.
- **Keep pace with the competition.** The competition for investment, companies, and top talent is intensifying as regions worldwide view green industry as one of the most promising sources of economic prosperity. Only by combining—rather than dividing up—the region's collective assets can we hope to keep pace, especially with larger metropolitan areas.[13]
- **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 social equity.** The more that jurisdictions, industries, and residents of the region participate in and benefit from the growing green economy, the more likely we will sustain innovative policies and partnerships that will keep the region at the forefront of the green frontier. If the green 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.
- **Drive results.** By highlighting and coordinating promising efforts, the Greenprint will focus scarce resources on scaling-up the most effective strategies, spreading the economic and environmental benefits widely and creating a growing regional market for locally produced green products and services.
- **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.[14]

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

14 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.

Delivering the Action Items contained in the Greenprint requires the region's business, civic, and environmental leaders to let go of some long-held practices and step up in new arenas.

- **DIY culture.** The tendency to "do-it-yourself" discourages regional collaboration that could leverage individual efforts to achieve greater impact. To scale the green economy and reduce carbon emissions, the region needs to adopt a "do-it-together" mantra.
- **Institutional fragmentation.** The region's efforts are largely aligned from a substantive standpoint, but there is no unifying mechanism for coordinating policy and scaling investment to maximize impact. The lack of a strong regional framework or platform on which to base collaborative green economy efforts has held back progress.
- **Economy and environment at odds.** The region's strong environmental ethic has spawned green innovation, but it has also created ambivalence about economic development. Some groups in our region see economic and environmental progress as mutually exclusive, rather than mutually supportive under the right circumstances.
- **Bringing innovation to market.** The region must get better at commercializing and capitalizing on homegrown green innovations, good ideas are too often lacking the capital and other business infrastructure to transform promising prototypes to profitable green products.

It's time for Portland-Vancouver to raise its game and take the green economy to the next level. The region must not pass up the opportunity to create the critical mass necessary to sustain innovation in key green industries.

Action 1:
Establish Finance Mechanisms for Green Innovation

The clean economy requires the development of new public and private finance instruments to kick start innovation, build new markets, and grow business. Such instruments can effectively leverage the metro region's commitment to green building, smart infrastructure and reducing greenhouse gas emissions (e.g. building demand for new business services and products). At the same time, the region needs to develop more diverse and stable funding to replace aging services and expand new infrastructure and support smart growth and green development.

Strategy 1.1

Establish clean energy financing programs

In Oregon, a broad partnership of local and state governments, utilities, labor and nonprofit organizations, and financial institutions launched Clean Energy Works Oregon, a $120 million comprehensive building retrofit program designed to increase the energy efficiency in thousands of residential and commercial buildings over three years. Currently in pilot in Portland, the City of Portland and State of Oregon received a $20 million federal grant from the US Department of Energy to accelerate and expand the program statewide. A new nonprofit, Clean Energy Works Oregon, is in development to support expansion throughout the region and state.

Strategy 1.2

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

Sound infrastructure and sustainable 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 smart growth. Metro is 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 new funding mechanisms to support focused public investment.

Strategy 1.3

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

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 (e.g. hot water) rather than fee-for-energy use present major opportunities to transition to clean energy, as do smart grid infrastructure projects and district heating and cooling systems.

Strategy 1.4

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

Individual homeowners as well as businesses need access to capital to make investments in energy efficiency, renewable energy and other green projects, yet very few lenders are focused on making loans for these kinds of investments. The creation of a regional green bank strategy is critical to financing the work slated to happen in our region.

Strategy 1.5

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

Action 2:
Accelerate Energy and Resource Efficiency

More efficient use of energy and resources directly impacts both economic savings and greenhouse gas emissions reductions. Whether through elimination of waste or optimization of use, efficiency lays an essential foundation for economic growth. In fact, it is a key driver to economic recovery. Efficiency—at all scales—can help reduce businesses' operational expense, increase consumer spending power, and aid the region in meeting emissions reduction goals.

Strategy 2.1

Establish clear goals and targets for efficiency in the metro region

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

- **Establish energy efficiency and greenhouse gas reduction targets for the metro region**
  The metro region is the economic engine for Oregon and SW Washington. If it does not meet regional targets, the region jeopardizes the established states' goals. Further, it contextualizes regional strategies while eliminating the fragmentation caused by thirty separate local targets. An aligned set of targets and goals helps position our region for federal funding opportunities.

- **Establish energy performance scores for all commercial and residential buildings**
  Support the expansion of Energy Trust of Oregon's pilot Energy Performance Score program into a metro region and ultimately state program. Support its growth through inclusion in 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. This strategy supports the creation of industry-wide goals around energy efficiency, spurring the implementation of energy-saving processes in existing and new manufacturing systems.

Strategy 2.2

Accelerate bulk procurement of on-site clean energy systems

Accelerate bulk procurement of on-site clean energy systems. Spur the creation of demand for clean energy systems through bulk purchasing from a number of 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.

- **Expand Solarize Portland model to allow for region-wide residential bulk purchasing agreements.**
  Support the aggregate purchase of residential clean energy systems, organizing individual households to purchase at scale.

Strategy 2.3

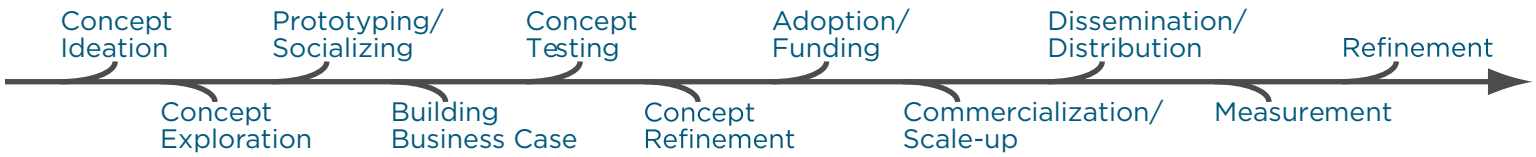
Adopt high-performance building and infrastructure standards for major redevelopment sites

High-performance EcoDistrict standards[1] will accelerate the implementation of district energy, smart grid, green streets and other district scale innovations and green building best practices in large-scale developments. The EcoDistricts Initiative includes a set of methods—assessment, governance, and policies—to guide catalytic projects that knit buildings, infrastructure, and behavior together and capture efficiencies at the district or neighborhood scale. Currently in pilot in five Portland neighborhoods, EcoDistricts provide an innovative frame for metro-wide adoption in regional and town centers.

1 www.pdxinstitute.org/ecodistricts

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. A robust infrastructure is necessary to help businesses move promising ideas through the lifecycle of product and service development. Academic institutions, government and nonprofits each play roles in supporting the pipeline for promising ideas.



Strategy 3.1

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 3.2

Educate and drive businesses to existing resources for commercialization

The region is home to a myriad of resources available to businesses pursuing the various stages of 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. This strategy promotes compiling these resources to streamline connections between available resources and businesses and entrepreneurs.

Strategy 3.3

Develop a consortium of companies to work together on proof-of-concept new buildings and retrofit projects to develop and commercialize innovative technologies

If further leveraged, construction and development activity will help regional firms establish and maintain a competitive advantage as innovators in the built environment. Complementary companies and competitors, through working together, will develop the knowledge and technology necessary for the design, construction, and operation of next generation buildings.

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

While building the metro region's clean economy, special attention must be paid to the growth of the Clean Technology cluster. The cluster is poised to become one of the region's strongest competitive advantages, housing a diverse set of companies that together create a center of gravity for innovation and economic growth. The cluster has a solid foothold in the region, but targeted support will cement its role as a national and global leader. With this leadership position, companies have greater reason to locate in the region, driving revenue from supplying next-generation clean products and services.

Strategy 4.1

Direct a dedicated portion of the region's economic development resources to the Clean Tech cluster

- **Continue the work** of the Jobs Grow Here program and other efforts to convene and organize firms to identify and address industry-specific opportunities 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 expansions work
- **Recruit firms** from outside the region to locate facilities and operations within the region
- **Facilitate access to workforce training**
- **Support and develop state and local 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 4.2

Support the regional wind energy industry

- **Organize and market individual manufacturers as larger groups**
  Organize and market as a group capable of meeting a wide range of wind farm maintenance, repair, and replacement needs.

- **Support training and re-tooling of local manufacturers' processes**
  Update and train to meet wind farm supplier requirements around maintenance and supply of replacement parts.

- **Broker connections**
  Connect regional manufacturers with wind farm operators in the Northwest and on the West Coast in search of regional suppliers.

Strategy 4.3

Support the regional solar energy industry

- **Identify supply chain needs**
  Work with original equipment manufacturers (OEMs) to identify their supply chain needs.

- **Develop and expand the local supply chain**
  Build out the local supply chain for OEMs 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.

Strategy 4.4

Support the regional green development industry

- **Drive demand for commercial retrofits**
  Utilize public finance mechanisms to drive local demand for retrofitting large commercial buildings for optimized energy, water, and materials performance.

- **Develop local supply chain**
  Develop a local supply chain to provide products and materials to be used in building retrofits.

The emerging electric vehicle 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 eTec 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.

Strategy 4.5

Support the regional electric vehicle, battery storage, and smart grid industries

- **Educate the public on the benefits of electric vehicles**
  Provide education throughout the region on the benefits of electric vehicles.

- **Deploy charging infrastructure**
  Accelerate the deployment of charging infrastructure by providing financing assistance and minimizing permitting barriers.

- **Accelerate deployment of a smart grid strategy**
  Establish standards for two-way energy storage and accelerate deployment of a smart grid strategy to provide infrastructure that benefits from and supports widespread adoption of electric vehicles.

Action 5:
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 5.1

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 5.2

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 buildings programs.

- **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 5.3

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

- **Adopt successful local and national best practice models and integrate into regional schools**
- **Create opportunities for companies to partner with and influence schools**
  through mentorships, career related learning experiences, and support for curriculum and labs

Strategy 5.4

Create pathways to employment for all through sustainable workforce retraining programs

- **Develop career pathway maps**
  Articulate pathways for everyone within the targeted industry categories.
- **Focus attention and access on historically underserved and disadvantaged populations**

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 6:
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 6.1

Create Climate Prosperity leadership council to manage, promote, and track Greenprint actions

A leadership council will act as a mechanism to align actions, coordinate policy and scale investment across the region around the Climate Prosperity actions.

Strategy 6.2

Create a single, regional public-private economic development strategy

Create a strategy with widespread support and buy-in from business and the public sector to lead Climate Prosperity implementation. Other leading metro regions have singular entities that provide cohesion among economic development efforts, enabling them to compete more effectively for companies, resources and other opportunities.

Strategy 6.3

Set up a measurement system to track quarterly and annual progress on key economic and environmental measures

Use information to educate about the concept and benefits of Climate Prosperity among the public, as well as governments, businesses, and others throughout the region and beyond.

The Oregon Way was launched by Governor Kulongoski in 2009, drawing public and private sectors together to steer catalytic projects toward emerging federal funding. The goal was to gain an edge for Oregon in the stiff competition for billions of dollars in stimulus.

From this effort, a group of policy and business leaders informally convened to build a medium-term strategy for Oregon and metro Portland. Dubbed the "Sustainable Jobs War Room," it is envisioned as a transformational policy and financing architecture to immediately accelerate the number of new green jobs created.

Building from this solid base of collaboration, the Climate Prosperity Leadership Council will provide a regional landing place for ongoing goal-setting and collaboration.

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 where there is the most capacity and strength. The next steps are to engage, lead, and implement.

1. Engage.

It is time to bring together the region's stakeholders in the clean economy. A 45-day feedback and comment process will refine the Greenprint and start to cohere the companies and organizations ready to seize the opportunities of Climate Prosperity.

2. Lead.

Key decision-makers and organizations in the region must sign on to support the action. Over the coming months, CEO-level and political leaders will be asked to join the Climate Prosperity Leadership Council, charged with guiding the region's efforts and aligning resources around common ends.

3. Implement.

With a Leadership Council in place and wide-spread support throughout the region, all that remains is to act. A final version of this Greenprint will provide the roadmap to guide Portland-Vancouver's clean economy strategy, providing a framework for future decisions, collaborations, and actions.

First Year Priorities

Out of the 6 actions and 23 strategies listed in the Greenprint, the following seven strategies merit strong support and leadership in this critical first year of action:

1.1: Support the launch of Clean Energy Works Oregon

1.2: Help Metro develop a regional investment strategy for infrastructure

2.3: Expand the EcoDistricts Initiative metro wide

3.1: Create a commercialization gap fund housed within Oregon's signature Research Centers

4.5: Support the regional electric vehicle and charging infrastructure roll-out

5.4: Support sustainable workforce retraining programs

6.1: Create the Climate Prosperity Leadership Council

The challenge of Climate Prosperity is great — but so is the opportunity.

We urge you to join us.

To stay up to date and find out how to get involved
visit www.pdxinstitute.org/climateprosperity
or contact Liz Hopkins, lhopkins@pdxinstitute.org

CLIMATE PROSPERITY

Rethink financing.

Increase efficiency.

Commercialize.

Grow clean tech.

Develop green talent.

Work together.

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