



New Energy
Solutions

Thurston County, WA

January 22-23, 2010

Leadership



AND



OCTOBER 2008



CARBON-FREE PROSPERITY 2025

How the Northwest Can Create Green Jobs, Deliver Energy Security, And Thrive in the Global Clean-Tech Marketplace



New Energy Solutions

MEDIUM GROWTH JOBS ESTIMATES

Year	Solar PV Manufacturing	Wind Power Development	Green Building Design Services	Bioenergy	Smart-Grid	TOTALS
Current:	800	2,217	3,826	3,207	1,280	11,330
2010	1,863	3,043	4,284	3,224	1,491	13,905
2015	3,677	2,650	6,899	4,100	1,715	19,041
2020	9,260	3,408	10,137	5,688	2,209	30,703
2025	14,182	4,507	12,937	6,946	2,669	41,241

ACCELERATED GROWTH JOBS ESTIMATES

Year	Solar PV Manufacturing	Wind Power Development	Green Building Design Services	Bioenergy	Smart-Grid	TOTALS
Current:	800	2,217	3,826	3,207	1,280	11,330
2010	1,912	3,749	4,284	4,030	1,935	15,910
2015	4,643	3,861	7,719	6,151	2,781	25,155
2020	13,080	4,541	12,432	8,533	4,478	43,064
2025	22,550	6,083	16,834	10,419	7,212	63,107



CARBON-FREE PROSPERITY 2025

*How the Northwest Can Create
Green Jobs, Deliver Energy
Security, And Thrive in the
Global Clean-Tech Marketplace*

10-POINT ACTION PLAN AT-A-GLANCE

1. Put a price on carbon
2. Increase Washington RPS to 25% by 2025
3. Implement low carbon fuel standards
4. Pass aggressive green building codes
5. Foster regional cooperation
6. Ensure public funding for clean technology via public employees retirement system investments and through targeted clean-tech funds
7. Implement effective tax credits for renewables development
8. Deploy clean-tech workforce development programs
9. Establish government procurement policies for clean-tech products and services
10. Build out regional smart grids and 21st century transmission backbone

- One of the largest planned wind farms in the world
- Largest U.S. solar crystalline photovoltaic (PV) manufacturing facility
- World's first silicon feedstock production facility completely dedicated to solar
- Most LEED-certified buildings in the U.S.
- Top global manufacturer of advanced meter readers (AMR)



CARBON-FREE PROSPERITY

2025

How the Northwest Can Create Green Jobs, Deliver Energy Security, And Thrive in the Global Clean-Tech Marketplace

We're Not Alone

Oregon and Washington may be leading in a number of critical ways, but other regions are aggressively pursuing the clean-tech opportunity. In the U.S. alone, dozens of cities, states, and regions large and small have set up initiatives to claim their piece of the clean-tech prize. Below is a sampling of some recent studies that outline how some of these regions are positioning themselves to participate in, if not dominate, various clean-tech sectors.

Title	Authors/Producers	Release Date
<i>A Strong Clean Energy Cluster Can Bring \$1 Billion in Incremental Investment to New England by 2012</i>	New England Clean Energy Council; Topline Strategy Group	June, 2008
<i>Energizing Michigan's Economy</i>	Environment Michigan	February, 2007
<i>Cleantech: A New Engine of Economic Growth for New York State</i>	The New York City Investment Fund	January, 2007
<i>Creating the California Cleantech Cluster: How Innovation and Investment Can Promote Job Growth and a Healthy Environment</i>	NRDC; Environmental Entrepreneurs (E2)	September, 2004 (with updates since)
<i>Harnessing San Francisco's Clean-Tech Future</i>	Clean Edge; SF Dept. of Environment	October, 2004
<i>Enriching Economy and Environment: Making Central Texas the Center for Clean Energy</i>	Austin Clean Energy Initiative; IC2 Institute, University of Texas at Austin	November, 2002

New Strategies



New Energy Solutions

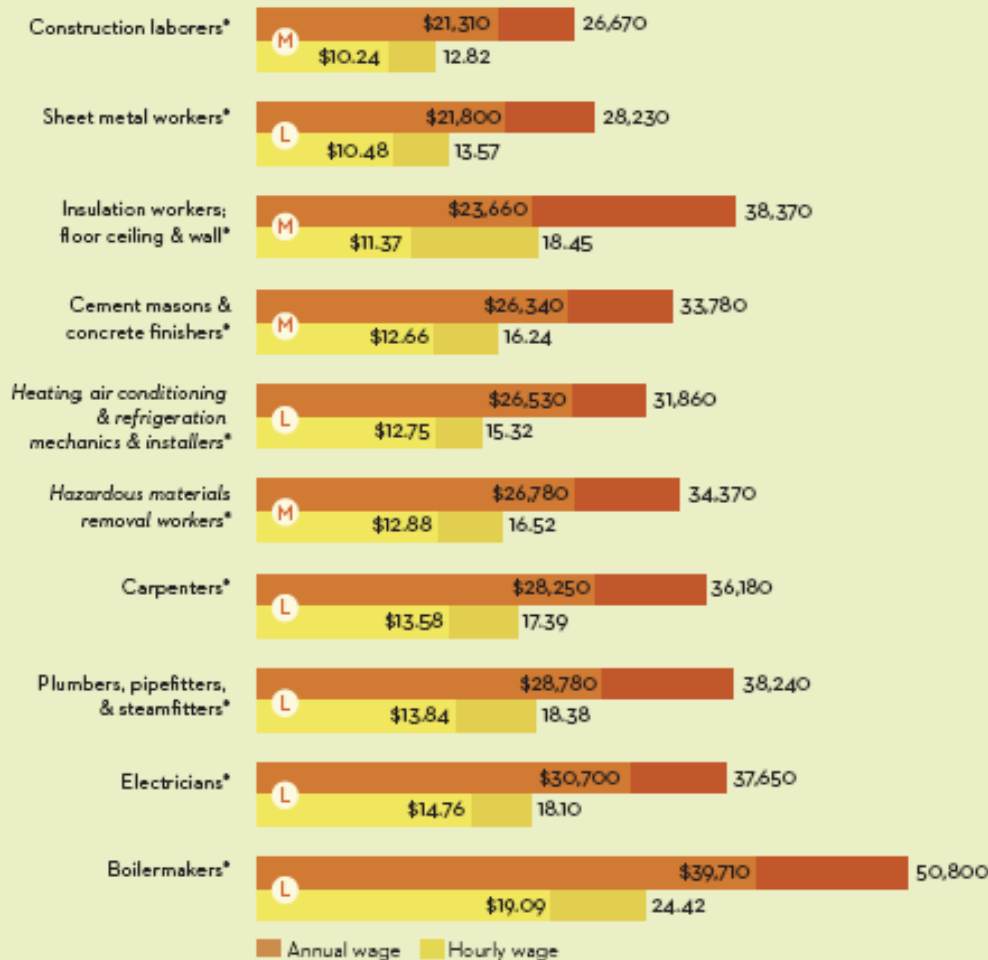
February 2009

Climate Prosperity A Greenprint for Silicon Valley



Thinking about Green Jobs

ENERGY EFFICIENCY JOBS AT-A-GLANCE



NOTES

This chart depicts national wage data for selected middle-skill occupations in the residential building construction industry.

■ The 25th percentile describes wages at the lower end of the labor market.

■ Median wage marks the center of the wage distribution in a given occupation.

Italics indicate that BLS projects faster than average growth for this occupation across all industries over the next decade.

* In-Demand occupation per DOL, regardless of overall occupational growth levels, because the work is central to a high-growth industry, like energy or construction.

Regional wage ranges and more precise occupational projections by industry can be run on a state-by-state basis.

Typical education and training path:

M *Moderate-term on-the-job training*: Requires from one to twelve months of training, which typically occurs at the workplace.

L *Long-term on-the-job training*: Requires more than one year of on-the-job training, or combined work experience and classroom instruction, and may include apprenticeships of up to five years.

These are general indicators; there may be other pathways into the occupation, as well as additional educational, training or licensing requirements.



ECONOMIC DEVELOPMENT STRATEGY

*A Five-Year Plan for Promoting Job
Creation and Economic Growth*



Investing in Portland's Future

PDC
PORTLAND DEVELOPMENT COMMISSION

www.pdxeconomicdevelopment.com

THE OPPORTUNITY:

Portland is poised to become the capital of the global green economy

FARSIGHTED INVESTMENTS IN LAND USE, TRANSIT, DENSITY AND CENTRAL CITY REVITALIZATION **POSITION PORTLAND TO THRIVE**

- Large and growing concentration in Clean Tech industries
- Deep manufacturing capacity to design and supply parts and components
- Shared values & decades of leadership regarding environmental impact
- Public policy environment that fuels innovation and experimentation
- Remarkable influx of talent

THE GOAL:

Create 10,000 Net New Jobs Within Five Years

PORTLAND WILL UTILIZE ITS HISTORIC ASSETS AND LEVERAGE THE CREATIVITY AND ENERGY EMBODIED BY NEW TALENT TO CREATE **THE WORLD'S MOST SUSTAINABLE ECONOMY**

Sustainable Economy definition: an economy that creates wealth and health for people and restores the environment

THE STRATEGY:

Maximize Competitive Environment

ECONOMIC SUCCESS DEPENDS ON CREATING AN ENVIRONMENT **WHERE INNOVATION CAN HAPPEN** MORE QUICKLY THAN IN OTHER REGIONS

Cluster Strategy
International Focus
Higher Education
Workforce Development

THE STRATEGY:

Drive Urban Innovation

NEXT GENERATION BUILT ENVIRONMENT

Oregon Sustainability Center, Eco-Districts

VIBRANT CENTRAL CITY

Redevelopment focused on job creation and higher ed

MARKET/BRAND PORTLAND

Own the Brand

THE STRATEGY:

Neighborhood Business Vitality

SCALE SMALL BUSINESSES WITH HIGH GROWTH POTENTIAL

Economic Gardening/Grow Our Own

COMMERCIAL CORRIDOR REVITALIZATION

Main Streets Program

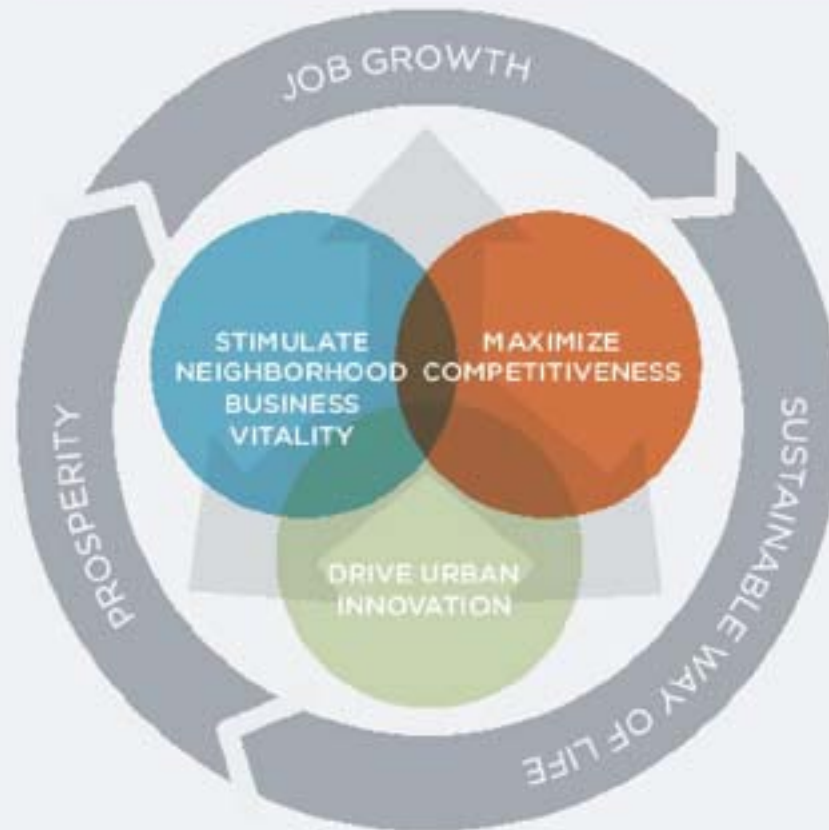
COORDINATE SMALL BUSINESS SERVICES

Small Business Web Portal

THE APPROACH:

Align Strategic Partners Behind 3 Key Goals

BUILDING THE SUSTAINABLE ECONOMY



Three Big Levers

Strong, forward-looking policies

- Energy & climate change
- Buildings & communities
- Land use & transportation
- Economic inclusion & participation
- Housing affordability
- World-class education & training

Engage community, connect collaborative networks

- Center of excellence - place for collaboration
- Business networks - engaged & supportive
- Community engagement - social marketing linked to values

Mobilize new investment resources

- Public finance - innovation & leverage
- Private - access to patient capital

The greatest sustainability challenges are not technological or economic. They are institutional.

Dr. John Robinson
IPCC Lead Author; UBC

Myth

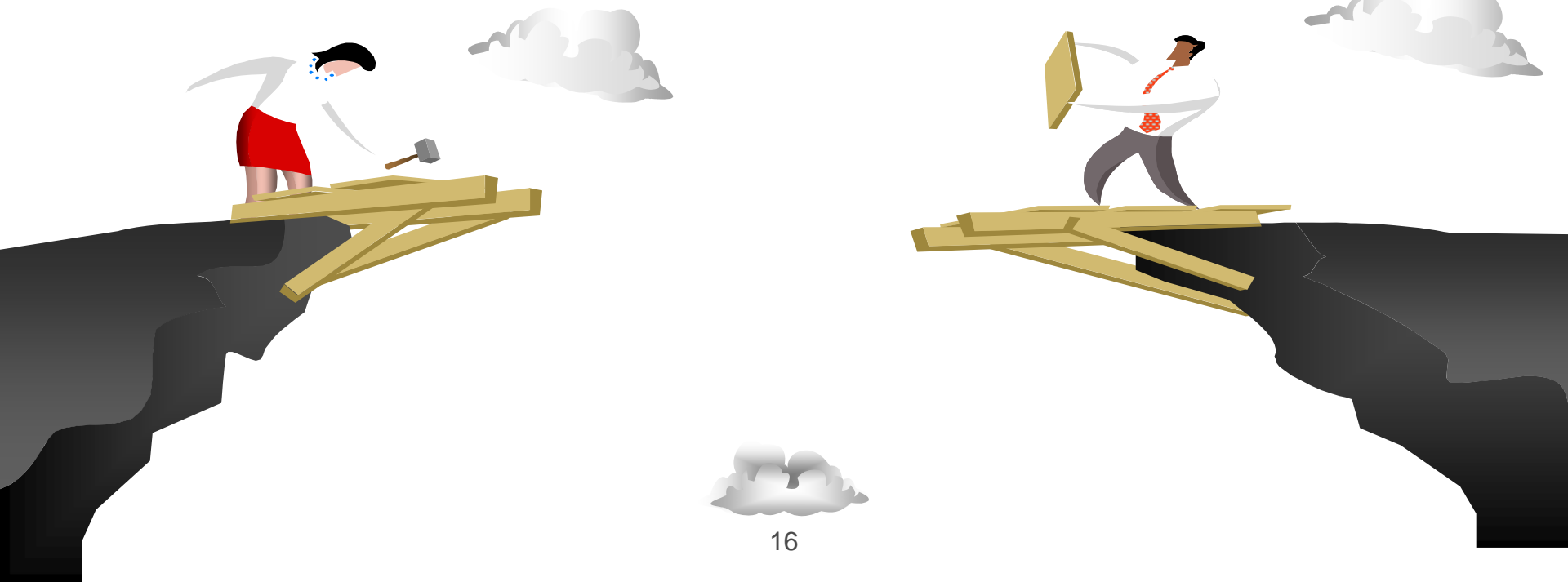
concern + best practice knowledge = action

Reality

concern + best practice + institutional capacity = action

Alex Boston
HB Lanarc

New Energy Solutions



A central question for communities in the 21st Century is how to deliver key community services – e.g., energy, water, waste/recycling – at a scale that allows for system-level planning & change?

Economical
Adaptable
Resilient
Engaged
Self-generating
Innovative
Nimble

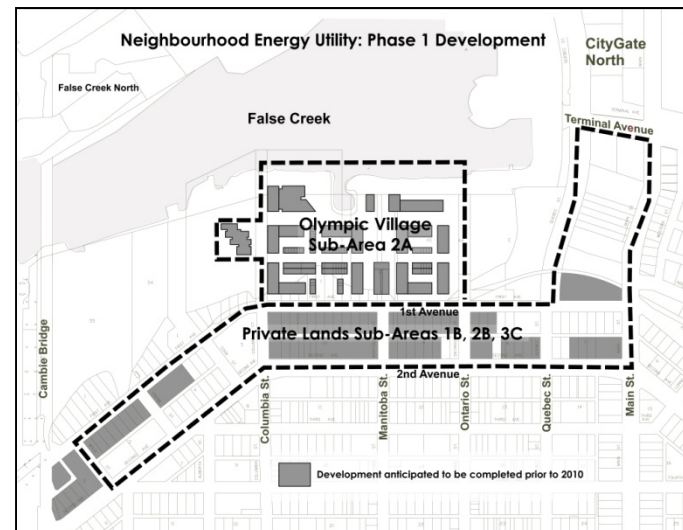


Sustainable
Community
Development



Critical Role of Local Government

- Create scale
- Accelerate & deepen actions
- New tools to bridge finance gap
- Enable through rate regulation
- Tie to better performance
- Reduce revenue risk
- Regional economic development
- Connect to other policy goals



New Energy Solutions



Our challenges require a level of change that demands that we engage people in order to start making changes

Need to offer a positive vision of where we are headed, without getting tied into having all the answers