



OREGON WORKFORCE
PARTNERSHIP

Better Skills • Better Jobs

BUILDING A GREENER WORKFORCE

Better skills, Better jobs, and Greener Industries for Oregon's Economy

A White Paper
Developed by the Oregon Workforce Partnership
August 7, 2009

The Oregon Workforce Partnership (OWP) is an association of the seven Local Workforce Investments Boards (WIBs) leading Oregon's workforce, training and job placement systems to meet the needs of job seekers and businesses. Each year, OWP members invest more than \$40 million throughout the state to educate and train more than 16,000 citizens and assist hundreds of employers. **We do this because Oregon's future depends on keeping skilled workers and good companies thriving in our state.**

- We are a public/private partnership driven by business leadership across the state. More than 160 Oregon companies serve on WIBs to increase Oregon's competitiveness in today's and tomorrow's global economy.
- We work community-by-community, so that education, training and job placement efforts are aligned with the unique needs of local industries and citizens.

For more information please contact
Agnes Balassa
OWP Executive Director
agnesbalassa@comcast.net

Introduction

Over the last 20 years, Oregon has experienced a rapidly changing economy, fluctuating with alarming speed between the highest economic growth rates and the highest unemployment rates in the nation. The members of the Oregon Workforce Partnership (OWP), Oregon's seven Local Workforce Investment Boards, have experienced both the opportunities and challenges as first line responders to these dynamics. In the process they have gained skills, developed strategies, and built partnerships for innovation.

Today, even in the midst of the current recession, Oregon faces a new opportunity – the promise of a budding green economy. Oregon has already established itself as a leader in the green economic movement through legislative and regulatory action. This year the Oregon Legislature passed and the Governor signed seven “green economy” bills, including one that requires the Oregon Workforce Investment Board (OWIB) to build a “green workforce” development plan.

Clearly Oregon realizes that one of the many challenges to its goal of becoming a national “green economy” leader is its ability to match the skills of its current and future workforce to the needs of its business. Before, and even during, the current economic downturn, Oregon companies have had difficulty recruiting the skilled workforce that they need to succeed.

In some ways the opportunity presented by the greening of the economy is not unlike the one presented in the mid-1980's, when the high tech industry created Oregon's silicon forest. What is different is that this new approach to economic development is built on the concept of long term sustainability, which could be the key to stabilizing Oregon's economy. In order to capitalize on this opportunity, Oregon needs to respond with a comprehensive set of strategies to maximize the return on this new way of doing business.

OWP applauds the efforts of Oregon's businesses, citizen and public officials to take advantage of the promise of greening the state's economy. While recognizing the green jobs currently make up only a small percent of all employment, OWP seeks to partner with OWIB and others working to expand this opportunity. OWP brings a number of resources to assist with this effort, including: a comprehensive knowledge the local industry training needs and local training capacity, experience facilitating successful private/public partnerships, experience re-skilling unemployed and underemployed Oregonians, and more than \$40 million annually in leveraged workforce development and training investments to benefit of Oregon's businesses and workers. This white paper lays out our recommendations to successfully green Oregon's economy and its workforce.

Defining Green Jobs

In 2009, Oregon adopted legislation to define a “green job” as one that provides a service or produces a product that: increases energy efficiency; produces renewable energy; prevents, reduces or mitigates environmental degradation; cleans up and restores the natural environment; or provides education, consultation, policy promotion, accreditation, trading and offsets or similar supporting services for any of the activities identified in this subsection. OWP has used this definition to develop this white paper.

The Oregon Workforce Partnership Principles for Greening of Oregon's Economy and Workforce

If Oregon is to succeed in its efforts to build a greener and more sustainable economy, it must have a workforce that can meet the demands of current and new businesses. Efforts to develop an economic and workforce strategy for “green jobs” must be built on the following 5 principles:

1. **Transitioning to a Green Economy Requires Systems Thinking & Enhanced Strategic Partnerships.** Green is not a specific industry or sector; sustainability is being practiced increasingly across all Oregon industries and economic sectors. As federal and state investments build upon existing market forces and increase the momentum for Oregon’s economy to “go green,” Oregon must develop a comprehensive, systemic approach to catalyze transformation and align investments, strategies, policies, and incentives. This can only be achieved by creating strategic partnerships of players who do not typically work together, including, but not be limited to: Governor’s Office, The Oregon Way, Oregon Business Development Department, Oregon Workforce Investment Board, Oregon Workforce Partnership, Department of Transportation, Energy Department, Oregon Employment Department, Department of Environmental Quality, Organized Labor, Housing and Community Services, Bureau of Labor and Industry, Community Colleges, Universities, Private Training Vendors, and key Business and Industry Associations.
2. **Focus First on Real Jobs & Real Demand.** The development of a green/sustainable economy must be demand-driven, led by private/public sector partnerships identifying the specific needs of high-growth, high demand industries, rather than starting with specific jobs titles or training curriculums. Local Workforce Investment Boards are skilled in convening these sector partnerships and provide logical forums for grounding proposed training and skill enhancement initiatives in the real world demands of industry for green economy workers.
3. **Skill-Up All Oregonians.** Investments into the green/sustainable economy must address Oregon’s persistently high cyclical unemployment and poverty rates. The *Greening of Oregon’s Workforce* report, recently released by the Oregon Employment Department, shows that while green jobs only make up 3% of our current economy, they provide higher than average wages and greater potential growth. While there are many entry level green jobs, nearly one-third require a special license or certificate, and “high-wage green jobs are more likely to require post-secondary education.” Investments meant to grow the green/sustainable economy must integrate a career pathways approach to workforce development to assure that ***all Oregonians***, even those with skill gaps and other barriers to success, are able to take advantage of the current and future green/sustainable career opportunities.
4. **Stay the Course with Oregon’s Existing Workforce Strategy.** Many “new” green/sustainable jobs already exist in our economy. The Oregon Workforce Investment Board’s comprehensive plan, *Winning in the Global Marketplace* provides a strategy for addressing existing skills shortages that will be exacerbated by the requirements of the growing green economy. This plan should be the foundation for Oregon’s green/sustainable workforce development strategy.
5. **Think Globally, Act Locally.** The comprehensive framework and statewide plan to achieve Oregon’s future green/sustainable economy must recognize that economic and workforce development happens at the local level. Use the existing local infrastructure to support the state’s green economy goals. Use the opportunity created by the growing green economy to increase state and local alignment of economic and workforce development strategies to further green goals.

A Framework for Green Jobs and Economic Transformation

Economies are transformed when workforce education and training works hand-in-hand with economic development to meet the requirements of industry and workers to support innovation. National research by the Aspen Institute’s Workforce Strategies Institute and the National Network of Sector Partnerships, as well as Oregon’s own experience, shows that this type of transformation requires the assistance of workforce intermediaries. Workforce intermediaries:

- Convene public/private partnerships, translating between these two very different worlds.
- Act as knowledgeable brokers, finding effective services to meet industry and worker needs.
- Warehouse and distribute information about a complex array of public and private resources related to education, training, social services, etc.
- Manage projects, navigating complex systems and removing obstacles to success.
- Pilot new approaches.
- Evaluate and share what works and what does not.
- Sometimes invest directly into the solutions developed.

OWP's members have spent the last five years developing and fine tuning these skills. OWP has adopted a framework developed by the U.S. Department of Labor to illustrate how a comprehensive workforce development system designed to support economic transformation should work (see page 4). The framework defines the space where workforce intermediaries are most effective, bringing alignment to the vast network of potential players involved in economic transformation. The framework clarifies the role of all of the parties engaged and shows how they can all work together most effectively.

OWP believes that Oregon's efforts to green its economy provide the opportunity to fully implement the model to do more than just create jobs; implementing the model will lead to systems transformation.

A Workforce System Framework for *Green Jobs*

FOUNDATIONAL	Policy Drivers/Interests	Economic Recovery & Job Creation	Legislation/ Funding	Economic Competitiveness	Social-Equity	Energy Independence, Efficiency & Security	Environmental Protection
	Transforming Industrial Sectors & Occupations	Energy Generation/Efficiency/Security					
	Skill Changers	New Technologies		New Processes		New Materials	

Local Workforce Investment Boards (LWIB - OWP)																
Develop Regional Workforce Plan, Align Policies, Invest Resources, Promote Best Practices, Evaluate Outcomes																
OPERATIONAL	ROLES	Workforce Intermediary		Education & Training				Strategic Partnerships for Workforce Solutions				Workforce Information				
		WorkSystems WICCO Enterprise for Emp. & Ed. Linn/Benton/Lincoln WIB, Lane Workforce Partnership Rogue Valley WDC. TOC/OWA		Youth Pipeline	Pre-apprenticeship	Registered Apprenticeship	Community Colleges	WorkSource	4 year Universities	Industry	Labor	Education at all Levels	State, Local Government	CBO's	Labor Market Intelligence	Skills & Competencies
ACTIONS	<ol style="list-style-type: none"> Align "green" strategies with regional economic recovery and growth Engage/convene strategic partners Map assets to share/leverage knowledge, products, and resources Focus program resources on re-skilling/re-employing in green jobs Build on & leverage existing sector initiatives & green workforce solutions Focus program policy & investments on green strategies and opportunities Facilitate collaboration on green initiatives Analyze & report program outcomes Define quality standards for workforce development programs & certify providers 		<ol style="list-style-type: none"> Map "green" education pathways leading to portable and industry recognized credentials-short term/long term Identify and leverage existing green education & training resources/investments Educate & train to green industry standards/ credentials Build capacity of programs & services to deliver green curriculum and credentials Refine/develop "green" apprenticeship models Prepare workers for emerging green industry occupations Report program outcomes Provide access to green skills development and green jobs 				<ol style="list-style-type: none"> Define workforce challenges Develop innovative workforce solutions Develop agreements to promote transparency, accountability, and alignment Pursue opportunities for integration of resources and services Use the public workforce system [WorkSource Portland Metro] to list green jobs, find qualified candidates, and track & report results Promote access to green training and employment opportunities for unemployed, laid-off, and economically disadvantaged populations 				<ol style="list-style-type: none"> Collaborate to develop & leverage new and existing data/information sources Identify, define and project workforce demand and skills gaps for new and existing green jobs Refine/develop competency models, assessment tools & career ladders/lattices Adapt and refine career guidance tools Collaborate to disseminate data Build & nurture a "green jobs" community of practice 					

OWP's Green Workforce Development Efforts

OWP's members believe that their role as workforce intermediaries has been strengthened by their commitment to invest in the solutions identified by the private/public partnerships they have convened and facilitated. The next section of this paper focuses on current investments OWP members have made to support training for green jobs and greater sustainability across industries.

Lean Enterprise Investments

OWP members began to support sustainability more than four years ago with investments into lean manufacturing. OWP members have partnered with the Oregon Manufacturing Extension Partnership and funded dozens of projects, trained thousands of workers in hundreds of companies, and spent tens of thousands of dollars encouraging sustainable business practices through lean enterprise training. OWP members honed their workforce intermediary skills by convening private/public/partnership to better leverage lean manufacturing efforts, and often found ways to work across regional jurisdictions to align services based on industry needs. The experience gained by OWP members in their efforts to support lean enterprise has helped many Oregon companies that are not producing or providing green products and services contribute to the state's sustainability efforts.

Green Jobs Training and Capacity Building Investments

In addition to investments into lean enterprise, OWP's members made a significant investment into training and capacity building to develop a more highly skilled "green" workforce. The tables below (pages 6-19) offer a sampling of current OWP member investments into green jobs development and training. These projects training youth, current workers, and those dislocated from jobs. The projects range from comprehensive training efforts to capacity building initiatives to pilot projects. **In sum, these projects represent an estimated investment of \$4,349,922 to support green jobs in Oregon.**

Portland Metro Area

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Sandy River Habitat Restoration Youth Crew	Worksystems funded a summer jobs project for youth to restore and protect critical habitat for native salmon runs. Non-native invasive plant removal, stream restoration, trail building, and other natural resource projects better salmon habitat. Environmental education centered on the themes of sustainability, eco-systems, watersheds, native plants, and natural habitat restoration is embedded in the work. This project is funded with ARRA funds	Natural Resources and Mining	Mt. Hood Community College Natural Resources, Fisheries, and Outdoor Education programs; Project YESS	33 youth in Multnomah County	<ul style="list-style-type: none"> a. 80% of youth will have gains in Work Readiness Competencies b. 80% of youth will successfully complete their summer work experiences c. 80% of youth meet standard for punctuality d. 80% of youth meet standard for attendance e. 70% of worksites will report being satisfied with their summer experience f. 70% of youth will report being satisfied with their summer experience 	\$97,200
Clean Technology	Worksystems established a Clean Technology Industry Skill Panel to guide regional workforce training investments. The panel identified training needs for workers within the industry related to: Virtualization, Cloud Computing, Energy Consumption Measurement, Effective Management of People Separated by Time and Space, Choosing the Right Hosting Alternative and Extending IT Systems Management to the Physical Environment. Training will run September through December 2009. This project is funded with WIA Employer Workforce Training Funds.	Other Services – Software/ Clean Tech	CH2MHill, Inspiration Software, Intel, Energy Trust of OR, Ant Hill Marketing, Standard Insurance, Factory IQ, IBM, Portland CC	100-175 current workers in Portland Metro Area	100-175 incumbent workers will be trained in the identified curricula	\$200,000

Portland Metro Area

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Green Futures / Green Building Pathway convening, training and advising project.	To prepare job seekers from all readiness levels and Portland area communities, Worksystems is working with the Construction Industry Skill Panel through CAWS (Construction Apprenticeship Workforce Solutions) and local training providers to build an articulated <i>Green Futures Pathway</i> , a continuum of training opportunities leading to employment in Green Building. Based on experience and aptitude, individuals can enter the pathway at various points to receive a range of academic skills remediation services, short and/or long term occupational training leading to certification or degrees. This program offers a bridge out of poverty and an opportunity to retool highly skilled dislocated workers for green jobs. This project is funded with WIA and ARRA funds.	Construction, Manufacturing	Employer and Labor Members of CAWS (Construction Apprenticeship Workforce Solutions), SE Works, businesses participating in the Construction Industry Skills Panel	Customers of Work Source interested in pursuing training related to Green Jobs - approximately 200 to 300 job seekers	Occupational Skill certificates, an increased pool of qualified workers with knowledge on energy efficiency/ retrofit skills, as well as Green Building and Green Manufacturing principles and practices	\$200,000
Adult/ Dislocated Worker Greening Up the Trades Training, Advising and Convening Project	In partnership with CAWS and Local 16, Worksystems is developing “green” curriculum and training specifically designed to skill up the region’s idled construction workforce. Construction workers who have been laid off will be trained in green and sustainable concepts and practices in their industry—knowledge and skills that will enable them to take full advantage of emerging green construction opportunities. This project is funded by WIA formula and ARRA funds.	Construction	WSI Construction Skills Panel, AGC, Hoffman, Tice Electric, P & C Structures, Port of Portland, Providence Health Systems, Laborers’ Union Local 296, Int’l Brotherhood of Electrical Workers, Pacific NW Regional Council of Carpenters, Sheet Metal Workers Local 16, PCC, Willamette Carpenters Training Center, IBEW-NECA, HVAC Training Center	100 Adults and Dislocated Worker customers of WorkSource Portland Metro	50 Certificates of completion for targeted trainings, and 50 will gain skills in NABCEP, PVT Installation, Brazing, Installations, etc.	\$100,000

Portland Metro Area

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Green Training for Solar Industry Employees	As a result of the partnership between the Oregon Solar Energy Industry Association (OSEIA) and Worksystems, solar industry workers received one of five tracks of professional training at the Northwest Solar Expo (April 28th-May 2nd). The five tracks included courses on residential and commercial Solar Photovoltaics, Solar Thermal, North American Board of Certified Energy Practitioners (NABCEP) pre-certification, and a Solar Business track. This project is funded with Employer Workforce Training Funds.	Construction Utilities	Oregon Solar Energy Industry Association (OSEIA)	300 current workers	Nearly 300 incumbent workers were trained in solar thermal, photovoltaic, and solar business practices; 130 of whom received NABCEP pre-certification training and took the exam.	\$54,000
Clean Energy Works Portland	Worksystems has been chairing the City of Portland Clean Energy Fund's Workforce Committee. Its efforts are targeted toward a large scale residential retrofit project that is nationally recognized as the first on-bill, self-financed model partnering a city with utilities. The City is using Recovery Act dollars to eliminate upfront costs associated with energy efficiency retrofits by offering low-interest, long-term financing. All jobs created through this retrofit project will be posted with the region's public workforce development system, WorkSource Portland Metro, and Worksystems will invest WIA funds in training necessary to address the demand for new workers as this project goes to scale. Additional resources are provided by CAWS.	Construction Utilities	Construction Green Building, CAWS, Laborers' Union Local 296, International Brotherhood of Electrical Workers, Pacific Northwest Regional Council of Carpenters, Regional Weatherization training agencies, City of Portland, Multnomah County, PGE, PacifiCorp, Northwest Natural Gas, Shore Bank, Energy Trust of Portland, PCC, MHCC, Oregon Trades Women, ETAP, Irvington Covenant	Customers of Work Source interested in pursuing training related to Energy Efficiency retrofits. Also benefiting will be area weatherization small business owners -50 to 100 job seekers, 5 to 20 businesses	75 will complete the program, 75 will gain industry specific certifications. Wage replacement of \$15.12/hour	\$150,000

Portland Metro Area

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Green Building On-the-Job Training	Worksystems is investing in On-The-Job Training (OJT) to provide Portland area jobseekers with experience and training in the industry and an interest in a career in green building trades with access to employment with businesses involved in Green Building projects. CAWS will identify a pool of qualified workers and match them to a pool of interested employers involved in Green Building projects through the WorkSource Portland Metro System. This project is funded via WIA and ARRA funds.	Construction, Manufacturing	CAWS (Construction Apprenticeship Workforce Solutions), Portland CC, Mt. Hood CC, SE Works	25 Work Source customers	20 WorkSource Oregon customers participating on Green Building OJT's will complete an OJT and be retained by their employer	\$ 75,000
Greening the Work Source System Training And Advising Project	Worksystems is developing a set of "green" training products that will provide job seekers of all ages and skill levels with a competitive edge in the greening economy and culture: Green Jobs Workshops offered at all WorkSource Portland Metro Centers to educate job seekers on current and emerging opportunities, the functions and aspects of a job that makes it "green", knowledge and skill requirements for those jobs, and training and job search resources and how to access them; a modularized "Sustainability Curriculum" that covers sustainability principles, concepts, philosophy and practices that can be inserted into any existing program of training or course of instruction; and additional curriculum that covers the application of sustainability principals in Manufacturing, Healthcare, Office and Green Building industries. These curriculum modules will be available in August '09. This project is funded via WIA and ARRA funds.	Construction, Professional and Technical Services, Manufacturing, Healthcare	Portland Community College, Mt. Hood Community College, Sustainable Product Works, Green Building Services	This is a curriculum development project - it does not yet provide specific services to individuals	Curriculum modules to serve customers of the Work Source System, organized labor, k-12 and business community. Regional Business Services staff with specialized knowledge of green and sustainable practices and training resources in targeted growth industries.	\$100,000

Portland Metro Area

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Increasing Regional LEED Training Capacity	Worksystems is funding training for members of the Willamette Valley Carpenters Training Center Instructional Team that will lead to the US Green Building Council's Leadership in Energy and Environmental Design (LEED®) accreditation for each instructor. The goal of the project is to enable the WVCTC Instructional Team to become sustainable building experts and to develop, deliver and disseminate the first applied green building curriculum for union carpenters. This project is funded via Employer Workforce Training Funds.	Construction	WSI Construction Skills Panel, AGC, Hoffman, Tice Electric, P & C Structures, Port of Portland, Providence Health System, Pacific Northwest Regional Council of Carpenters, Willamette Carpenters Training Center	10 current workers	Over 100 hours of sustainable building training to as many as 150 Carpenter apprentices and journeymen throughout Multnomah and Washington counties over the next 12 months and LEED Accreditation for each worker/instructor	\$35,000

Clackamas County

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Sustainable Building Advisor Training Program, Energy Analyst Training Project	The Workforce Investment Board of Clackamas County (WICCO) is partnering to provide trainings that will result in recognized state and national certifications in the following occupations: <ul style="list-style-type: none"> • Architects and Engineers • Tenant and Developer Representatives • Project Managers • Other Building Industry Professionals • Resource Conservation Specialists This project is funded with WIA and ARRA Funds.	Construction	Clark College and Mt Hood Community College	10 dislocated workers/ disadvantaged adults in Clackamas County	Completions, skill gains, placements, retention	\$45,000
Wind Power 2009	WICCO provided funding for Miles Fiberglass to attend the American Wind Energy Association Wind Power 2009 conference to learn to install wind power wind turbines. Miles Fiberglass has targeted this as a market that will help it grow and create hundreds of jobs. This project is funded via WIA Employer Workforce Training Fund.	Construction, Manufacturing, Other Services (Environmental services)	Miles Fiberglass	6 incumbent employees in Clackamas County	Training including the executive team's attendance at the American Wind Energy Association Conference resulted in clear goals to secure 2 manufacturing bids and 3 service agreements for maintenance in addition to participation in the development of a new patented wind tower	\$6,550
Virtual Paint Sprayer	WICCO provided funding for Oregon and S.W. Washington Painters Apprenticeship to implement a computerized virtual reality program that simulates spray painting onto a rear-projection screen that apprentices use as a palate for practice of paint applications. Eliminates air contaminants, wasted paint and clean up. This project is funded via Employer Workforce Training Funds.	Construction, Manufacturing, Other Services (Environmental services)	Oregon and S.W. Washington Painters Apprenticeship	161 current workers in Clackamas, Multnomah and Washington counties	No paint is used during training resulting in less waste, VOC put in the air, more accurate reporting on performance and flexibility of training location.	\$41,000

Clackamas County

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Youth Crew Opportunities Summer 2009 Training Project	WICCO funded work experience in subsidized crew models to help youth in Clackamas County gain work experience, skills in teamwork, work readiness, and appropriate work behaviors. This project is funded with ARRA funds.	Construction, Administrative and Waste Services, State & Local Government, Services (Environmental Services), Educational and Health Services	Clackamas Community College Community Solutions, Metropolitan Family Services, The Inn, Todos Juntos, Wilderness International, WOAPE, Mollalla Police Activities League, high schools, CC Office of Children and Families, North Clackamas School District	213 youth in Clackamas County	Performance standards are 65% completion rate (expected to far exceed this); 90% of participants increase work readiness by at least 12%.	\$381

Marion, Polk & Yamhill Counties

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Greening the Entry Level Credential	In partnership with the Mid-Willamette Metals Consortium, the Enterprise for Employment and Education created an industry recognized Entry Level Credential (ELC) for Marion, Polk, Yamhill, Linn, Benton, and Lincoln county metal manufacturers. The ELC is currently being expanded into the secondary wood/construction industry. Those in the program are also earning the statewide Career Readiness Endorsement. Curriculum on new green technologies is being added to these Entry level credentials.	Construction, Manufacturing	Metals, Food Processing, Secondary Woods, High Performance Consortia, SEDCOR, McMinnville Economic Development Partnership, Oregon Business Development Department, Chemeketa CC, Linn Benton CC, Willamette ESD, ARBOR, HALO, Salem/Keizer School District, Greater Albany School District, Community Services Consortium, Boys & Girls Club, Staffing Association, Employment Department	75 youth	75 youth will attain the Entry Level Credential, have an interview with a manufacturing company that leads to work experience or job placement.	\$30,000
Green Jobs Training Project	The Enterprise is offering a green trade training that is a continuum of modularized training courses and certifications available to all populations through on-line training providers. Offerings range from Sustainability 101 to senior sustainability professional certifications. Training topics include: LEED Certifications, Photovoltaic, Wind Energy Technology, Green Building Skills Professional, Certified Indoor Quality Manager, Certified Microbial Investigator, Certified Indoor Environmentalist (assessments), Energy Auditing Software Training, Home Energy Consultants, Commercial Energy Consultant, Weatherization Energy Auditor (DOE), Building and Home Energy Analyst, Green Building for Contractors, Fundamentals of Solar Hot Water Heating, Waste Water Operations Certificate, Green Supply Chain Certification, Senior Certification Sustainability Professional, etc.	Construction, Administrative and Waste Services, Professional and Technical Services, Manufacturing, Utilities	Metals, Food Processing, Secondary Woods, High Performance Consortia, Construction, Bioscience, Youth Apprenticeship Programs, SEDCOR, MEDP, OECD, Chemeketa Community College, Arbor, HALO, Staffing Association	150 youth	Youth will attain various learning and certificate levels. There are various modules in the training.	\$15,000

Linn, Benton & Linn Counties

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Summer Natural Resource Crews	Community Services Consortium/the Linn/Benton/Lincoln Workforce Investment Board have partnered to implement Summer Natural Resource Youth Crews. The crews work on projects including: riparian area restoration, marine estuary research projects, water sampling, environmental clean up in forest areas, pioneer cemetery preservation, invasive species eradication, native plant reintroduction and sustainable agriculture. There is a heavy mix of science education, career exploration and green practices. Funding for this project comes from OYCC, OYEI, WIA/ARRA and foundation grants.	Construction, Administrative and Waste Services, Natural Resources and Mining, Professional and Technical Services, State & Local Government, Educational and Health Services	US Forest Service, US Fish and Wildlife, Port of Newport, Port of Toledo, The Nature Conservancy, Nestucca Bay Wildlife Refuge, Pioneer Cemeteries, Linn and Benton Counties, City of Monroe, Alsea School and Linn County Head Start, OSU Extension, Hatfield Marine Science Center, Mid-Coast Watershed Council, and Career Tech High School, OYC, OYEI, and CSC	139 youth in Lincoln, Benton, and Linn Counties.	95% program completion. Youth will gain skills in environmental and earth Science, technology (GPS tracking), research techniques, and green practices. Youth will gain transferable job skills including: team building, leadership, record keeping, responsibility, reliability, conflict resolution, communication and support skills. These unemployed youth will earn a wage or stipend while in the program.	\$486,500
Weatherization Training Program	Through its local weatherization program, the Community Services Consortium has partnered to create a weatherization training facility and flexible programs to meet the needs dislocated workers, unemployed/underemployed adults, and youth.	Construction, Utilities	Oregon Energy Coordinator's Association, and the Northwest Energy Education Institute at Lane Community College	40 youth, 42 dislocated workers and 28 unemployed/underemployed adults.	100% will gain weatherization, science, lead based paint safety, & workplace safety skills. 95% will complete, 85% will pass the certification exam. 85% of exam completers will be hired or go on to further education. 75% are expected to retain employment/continue in education. 75% of youth will improve their wages.	\$178,000

Lane County

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Aprovecho Training Project	Aprovecho Research Center will employ and train youth in a multidisciplinary laboratory in green technology, sustainable forest management, perm culture and sustainable agriculture. Hands-on projects include water conservation, storage and abatement; lumber processing, basic carpentry and natural building; small scale aquaculture systems; and solar hot water system design and installation. Participants who display appropriate aptitude and work readiness skills may become interns in Aprovecho's summer "Sustainable Living Skills" Program. Apprenticeships are under development through a partnership with Aprovecho, the South Lane School District and BOLI's Apprenticeship Preparation Program. This project is funded with \$66,000 of WIA formula and ARRA funds.	Construction, Natural Resources and Mining, Other Services, Educational and Health Services	Aprovecho, South Lane School District, Bureau of Labor and Industry	20 youth in South Lane County	90% will complete high school and connect with a career pathways 90% will improve work readiness skills	\$66,000
CleanTech/Green Industry Cluster Exploration	Lane Workforce Partnership is working with the community and local governments in Lane County to better define clean tech/green cluster in our area. The goal of this project is to determine workforce needs and the potential economic impact. This project is being supported with Workforce Investment Act funds.	Clean Tech/Green as defined in The Greening of Oregon's Workforce	Good Company, OR Business Dev't, Lane County Economic Dev't, City of Eugene, Lane CC, experts and employers in green/clean	This is a convening project. While the entire county will benefit, specific individuals will not be served.	Strategies to grow a clean/green cluster in Lane County	\$7,000
Summer Youth Farm Training Project	Lane Workforce Partnership is funding Food for Lane County to run a summer youth farm to help youth develop skills in sustainable food growing. The garden program is a model of responsible land stewardship. Organic methods incorporate companion planting to encourage bird and insect populations, compost, and preserve water by irrigating with low flow systems. Youth learn about growing organic produce, using tools, reusing and recycling resources, preventing degradation of the natural environment, increasing energy efficiency and the impact their food choices have on the environment. This project is funded with ARRA funds.	Wholesale and Retail Trade, Natural Resources and Mining	LCC instructors, experts and employers in green/clean employers	12 youth in Lane County	90% will complete and 90% will gain work readiness skills	\$34,141

Lane County

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Summer Green/Clean Youth Project	Lane Workforce Partnership is funding Riverfront Alternative School to partner with Green/Clean Technology industry employers to host internship placements, provide tours, arrange for guest speakers and assist with curriculum development. Youth participate in a training program that integrates energy efficiency concepts in the classroom and experience in the field. Projects include weather stripping, installing attic insulation, caulking, repairing ductwork, and installing power strips, low-flow shower heads, plug insulators and compact florescent bulbs. Youth receive experience auditing water and electric use. Tours of the Lane Community College's Energy Management Program will introduce youth to Green/Clean Technology career pathways. Counseling and assistance will be given to students interested in pursuing the two-year Energy Management Program in the fall. This project is funded with ARRA funds.	Construction, Natural Resources and Mining, Educational and Health Services, Utilities	LCC instructors & experts & employers in green/clean, Looking Glass Youth and Family Services	10 youth in Lane County	90% will complete and 90% will gain work readiness skills	\$25,000
Energy Management Training Scholarship Project	Lane Workforce Partnership awarded training scholarships to 6 low-income adults and dislocated workers entering Lane Community College's Energy Management Program. This program includes cooperative education providing opportunities for students to develop skills, explore career options, and network with professionals and employers. Program completion leads to high wages in this high demand occupation. This program is funded with WIA and ARRA funds at an approximate cost of \$5200 per scholarship.	Construction, Administrative and Waste Services, Natural Resources and Mining, State & Local Government, Manufacturing Utilities	local green tech employers & experts in green/clean tech, Utility Boards	6 dislocated workers/ dis-advantaged adults	95% will complete the program and get jobs.	\$31,200
Lane Community College: Energy Management Training and Work Experience Project	This project has been designed to assist dislocated workers get back to work within the high-demand energy industry sector and to introduce low-income adults to this sector. It includes implementation of a three strand training program: residential weatherization installer training, residential and commercial energy auditors training, and green construction. The green construction strand enables trades and construction workers to learn practices of green construction in building design and constructions. This six month training provides general building contractors with the knowledge to build within a "green environment". All trainings are accelerated and run 3-6 months. This project also provides trained journey-level electricians and plumbers with refresher training specifically to install renewable energy systems. This project is funded with ARRA resources.	Construction, Natural Resources and Mining, Utilities		80 Adults, and 120 Dislocated Workers	90% will complete & gain industry recognized skills. 75% of those will be employed in the energy management field upon completion.	\$180,000

Jackson & Josephine Counties

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Solar Photovoltaic Grid Installation Certification Training Project	The Crater Lake Electrical Joint Apprenticeship Training Committee (JTAC) determined a need for journeyman electricians to become qualified to install, troubleshoot and maintain photovoltaic systems. They partnered with The Rogue Valley Workforce Investment Board to obtain funding for Oregon Energy Trust approved certification training. This project is funded with WIA Employer Workforce Training Fund dollars	Construction Utilities	4 Local Electrical Contractor Firms	30 current workers in Jackson and Josephine Counties	Participants will receive 24 hours of continuing education credit, a completion certificate and be eligible for Level 1 Installer Exam for NABCEP Certification	\$6,700
Oregon Youth Employment Initiative (OYEI) Project	This project is a partnership among Oregon Youth Conservation Corp/Oregon Youth Employment Initiative/The Job Council. OYC has provided funding for youth crews doing natural resource conservation/restoration and fuels reduction work in the forests and surrounding recreational areas of Jackson and Josephine County. The work provides improved access for the general public and environmental education for youth. Deferred maintenance and fire dangers to public lands would result without this project. .	Natural Resources and Mining, State & Local Government Other Services	Oregon Dept. of Forestry, BLM, USFS, County Government	30-42 Youth in Jackson and Josephine Counties	30-42 youth will gain work readiness skills. and learn about natural resource conservation, stewardship, work ethics, restoration, work experience, field study, environmental education and awareness	\$100,000
SusTEENability	Rogue Valley Workforce Development Council/The Job Council provides curriculum/classroom activities to explore the basics of solar energy and green technology and provide youth with hands-on skills/ experiences and education related to solar energy and exploration of job skills needed in solar/renewable energy sectors. This is funded by ARRA funds.	Construction Utilities		12 Youth in Jackson County	Skills learned regarding solar energy awareness, hands-on work constructing solar devices, and school credit earned	\$15,000
Verde Village – Green Build Development	The Job Council's YouthBuild project is partnering to give youth hands on experience building a 15 unit green built, energy efficient affordable housing complex in Ashland, Oregon. The YouthBuild crew will provide a significant part of the labor while gaining on-site construction skills, green-build applications, and academic skills. This project is funded by DOL YouthBuild Funding in partnership with city and community based organization funding.	Construction	Rogue Valley Community Dev't Corp., Rogue CC, local union reps, local construction employer reps., Kolpia Counseling, Americorps	50 youth in Jackson County	50 youth will increase basic skills and 35-45 youth will obtain GED, 50 youth will obtain First Aid/CPR cert., OSHA cert., 50 youth will demonstrate competency in 60 construction skills	\$500,000

Oregon's Rural Counties

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Green Training scholarships	The Oregon Workforce Alliance is targeting 40% of the 1,000 scholarships it is providing for disadvantaged adults and dislocated workers to attend community colleges and other training programs on green industries. These scholarships are funded via WIA and ARRA resources	Sustainability, Utilities, Construction Conservation, Education	Clatsop CC, Tillamook Bay CC, Columbia Gorge CC, Central Oregon CC, Southern Oregon CC, Umpqua CC, Blue Mt. CC, Treasure Valley CC, TEC, MTC, UTE, SCBEC, COIC, CAPECO	approximately 400 disadvantaged Adults, dislocated workers and youth	Training in skills appropriate for emerging industries, some leading to degrees and certifications	\$900,000
ARRA Summer Solar & Green Training Project	The Oregon Workforce Alliance is funding partnership projects in solar installation, weatherization, cob building, and geothermal installation. This project is funded via WIA and ARRA funds.	Construction	EO Solar Group, Klamath CC, Southern Oregon CC, South Coast Business and Ed. Consortium, Trng. and Education Consortium, Central Oregon Intergovernmental Council, U.S. Forest Service	200 dislocated workers/ disadvantaged adults and 50 youth in rural Oregon	90% will complete and gain college credits	\$400,000
The Living Machine	20 students on Oregon's North Coast are being trained the utilization of the Living Machine (low energy waste treatment facility).	Construction Natural Resources & Mining, Utilities	Clatsop CC and Clatsop Economic development Alliance	20 individuals	College Credit	\$45,000
North Coast Green Skills development	Community Colleges are developing non-credit courses for weatherization, lead removal and other building specializations, drawing participants from local construction companies. The Automotive Technology degree & certificate program is incorporating alternative fuel and green principals. The Historic Preservation and Restoration degree & certificate program is incorporating green principals to increase recycling and built environment efficiency while keeping a historical prospective. TBCC is developing a certificate of completion in alternative energy technology "greening" curricula in industrial maintenance, maritime technology, construction, etc. Courses will be developed to introduce students to alternative energy careers.	Construction Natural Resources and Mining, Manufacturing	Various small businesses throughout the region-Clatsop CC, Principle Power Inc., Tillamook Bay CC, Clatsop Economic Development Resources (CEDR), WorkSource NW Oregon/ MTC Works, WorkSource NW/Oregon Employment Department, and Oregon Coast CC	55 students	Certificate or AAS, AGS degree. Students at the TBCC program will gain skills in alternative energy production and graduates will gain employment in wind energy or other alternative energy fields.	\$123,750

Oregon's Rural Counties

Project	Description	Industry Focus	Partners	Who is served	Projected Outcomes	Estimated Investment
Great Northern Energy Systems	The Oregon Workforce Alliance Employer Workforce Training Funds were utilized in the La Grande area to help Great Northern Energy Systems, LLC attend North American Board of Certified Energy Practitioners entry level certification. The certification will qualify Great Northern Energy Systems to sign off on PV solar systems for customer so they can receive tax credits.	Utilities	Klamath CC, Southern Oregon CC, Training and Education Consortium	1 current worker	Certification	\$5,000
ROV / Oregon Underwater Exploration Team	OWA funded youth from across the 24 county area and 10 Linn county Community College Students are discovering the technology necessary to explore the depths of our lakes and oceans. Youth are learning about conservation practices, geology and much more.	Conservation, Manufacturing	Linn Benton CC, Central Oregon CC, Clatsop CC	10 adults and 34 youth	CC Credits; Certification as Research Assistant	\$50,000
Wind Tech Training	The Oregon Workforce Alliance was an initial investor in the Wind Technician Training Program in the Columbia Gorge. OWA continues to support the program by providing scholarships to about 10 students per year.	Maintenance / Utilities	Mid-Columbia Council Of Governments, Columbia Gorge CC	10 students this year	CC Associates Degree	\$22,500
PV Powered Executional Excellence	PV Powered is a manufacturer of solar inverters which are critical components of solar energy systems. The Oregon Workforce Alliance utilized Employer Workforce Training Funds for 58 employees to receive lean/continuous improvement training. As a result eight additional jobs have been created.	Manufacturing	Central Oregon Investment Council, PV Powered, Ten X Ventures (trade school)	Incumbent Workers in Central Oregon	Skills Upgrades	\$25,000

Conclusion

The Oregon Workforce Partnership offers this white paper as:

1. A recommendation regarding how Oregon should proceed,
2. An example of what is already in process, and
3. As an offer of partnership.

To support that offer we have documented what we feel the members of OWP can bring to Oregon's collective efforts to create a greener economy. The members of OWP are interested in utilizing their resources to build the workforce needed to further Oregon's goals.

OWP's members have a strong understanding of the current workforce development and training system, and are in a position to make recommendations on how to better align the system to support the development of green jobs under the framework established by the Oregon Workforce Investment Board. The organization also brings expertise in convening private/public partnerships to develop workforce solutions. OWP has invested more than \$4 million in resources into capacity building, direct services and pilot projects to create a more highly trained, greener workforce. This represents roughly 10% of the annual workforce development investment of OWP members provide. And, most importantly, the Oregon Workforce Partnership is committed to seizing this opportunity to grow Oregon's Economy.

We look forward to working with you.