

Michigan NWLB Green Jobs Initiative

Across the country people are talking about the economic promise of alternative energy and many states are working to develop policies and resources that support economic development in this emerging sector. While Michigan is also making investments to support the production and use of alternative energy, the Governor is committed to putting jobs at the heart of this work. To that end, Michigan is taking the lead by investing \$6 million in an initiative that links global warming solutions with opportunities to invest in developing the state's workforce in the growing alternative energy, energy efficiency, and resource conservation sectors.

Michigan leaders understand that turning Michigan into the leading green state in the nation can't happen unless citizens are educated and trained to do the work needed to help grow emerging industries in solar, wind, wood, flex and hydrogen fuels, "green" buildings, and other areas of the economy. This transformation will be driven by Michigan's abundant renewable resources, manufacturing experience and skilled workforce. Growing in all these fields represents a great way to diversify our economy and provide better, family-supporting jobs for citizens.

The Governor's Office, together with the Department of Labor and Economic Growth (DLEG), the Michigan Economic Development Corporation (MEDC), the Departments of Environmental Quality, Natural Resources, and Agriculture and other public and private-sector partners, is launching a Green Jobs Initiative as part of the state's No Worker Left Behind program.

The two primary goals of this initiative are to:

1. Help companies in the renewable energy and other related sectors grow by providing them with a strong supply of well-trained, highly-skilled workers and
2. Continue to grow a more diverse, sustainable economy for Michigan.

Specific objectives include:

- Increasing the number of industry sectors and businesses that have or are creating green jobs;
- Supporting urban renewal and the creation of green jobs and training opportunities for a diverse mix of people;
- Aligning and increasing the resources and expertise needed to grow the workforce capacity for these emerging and changing jobs;
- Investing in worker education and training to prepare for green jobs;
- Increasing education and training capacity to support green job growth; and
- Improving statewide networking, partnership building, and learning about green jobs and education and training opportunities.

We must begin now to help cultivate green jobs by helping Michigan's citizens get the skills they need to fill every green job employers can create on these two, beautiful peninsulas. This will ensure a more diverse, competitive economy for Michigan and a better quality of life for everyone, now and for future generations to come.

Defining Green Jobs in the Alternative Energy and other Sectors

As a starting point, DLEG is defining "green jobs" as those in three important and emerging sectors:

- **Alternative Energy Production and Efficiency**, which includes jobs in wind energy; bio-fuels and bio-materials; solar and energy storage; energy efficiency; and advanced technology vehicles.
- **Green Building Construction and Retrofitting**, which includes jobs in energy efficient building, construction, and retrofits; energy efficiency assessment serving the residential, commercial, or industrial sectors; materials recycling and reuse; architecture and design; land use/site analysis; building materials; and construction/rehab.
- **Agriculture and Natural Resource Conservation**, which includes jobs in food systems (production and distribution); green chemistry; water quality; forest, land, and water management; and Brownfield redevelopment.

Alternative energy production and efficiency related jobs are those in the emerging renewable energy industry that are focused on the development of new technologies that reduce or eliminate the environmental impact of primary energy production and consumption. Currently in the State of Michigan, these jobs are focused primarily on the production of renewable energy equipment, their operation and use in creating electricity or clean fuels, and research and development leading to breakthroughs in renewable energy. Wind power, solar energy, hydroelectric and water power, geothermal energy, biomass, and biofuels are the primary technologies comprising the renewable energy industry.

We're also defining "green jobs," as those in emerging technologies and other industry sectors such as manufacturing that produce sustainable products using environmentally sustainable processes and materials.

We will continue to evolve this definition as we learn more about what is happening with existing and emerging businesses in Michigan and their focus on renewable energy, energy efficiency, and sustainability. It is our expectation that these industry sectors will expand significantly, and that new ones will emerge that provide many jobs both directly and indirectly related to renewable energy and energy efficiency.

Working with Business and Industry to Create Green Sector Skills Alliances

We know that the long-term success of the Green Jobs initiative requires the support and involvement of the industry sectors and businesses that have created or are currently creating green jobs.

The key strategy to involve employers is the creation of new Green Sector Skills Alliances comprised of business, labor, and education leaders that are focused on workforce development to support the creation and retention of green jobs.

DLEG Resource Commitments:

DLEG will develop a set of guidelines and provide \$1.5 million for the creation of these new Green Sector Skills Alliances. DLEG will put out an RFP for organizing and planning grants and convene forums around the state that bring together different partners and stakeholders to discuss the initiative and the opportunity to engage in the initial research and planning phase.

These Alliances will be formed in the areas noted above: Alternative Energy Production and Efficiency; Green Building Construction and Retrofitting; and Agriculture and Natural Resource Conservation.

Through these alliances, regional and community partners and stakeholders will identify industry sectors and businesses that have or are creating green jobs and help them align the resources and expertise needed to grow their workforce capacity.

Investing in Worker Education and Training to Prepare for Green Jobs

Industry sectors, businesses, labor unions, and education and training institutions all have an important role to play in clarifying the skills needed for existing and emerging green jobs and in helping to teach those skills to the next generation of workers.

DLEG Resource Commitments:

Once the Green Sector Skills Alliances have formed and created a plan for meeting workforce development needs, DLEG will make \$3 million available to the alliances for engaging people in education and training activities tied to existing education and training programs and/or the creation of new ones.

Many unions are involved in developing state-of -the-art training and apprenticeship programs to prepare workers for careers in the renewable energy sector. DLEG will work with key stakeholders in Michigan on creating Green Sector Skills Alliances that help support workforce development in the manufacturing, construction, installation, and maintenance of renewable energy and energy efficiency systems.

The emerging green economy also holds great promise for Michigan’s cities. Every city and community in the Michigan has some potential to capitalize on this new economy, whether through good wind or solar resources or through retrofit programs to bring old, dilapidated buildings up to energy efficiency codes. DLEG will work with DEQ and MSHDA to ensure that Green Sector Skills Alliances are formed in ways that support urban renewal and the creation of green jobs and training opportunities for people who have limited skills and access to viable economic opportunity.

Increasing Education and Training Capacity to Support Green Job Growth

We want to ensure that there are “green” curricula and programs at every community college and university in the state. Many Michigan community colleges and 4-year colleges and universities have positioned themselves to work collaboratively with existing and emerging businesses in the renewable energy sector to develop education and training programs. In addition, some are working proactively with high schools and adult education programs to develop education and training geared towards green jobs opportunities.

The Governors Office, DLEG, and the Michigan Community College Association (MCCA) are working with 11 community colleges in Michigan to obtain and leverage federal earmarks to support alternative energy education and training program enhancement and development. This is an unprecedented and important effort for the Governor’s Office to work with the community colleges in leveraging resources for renewable energy education and training. These grants would help to build the capacity of community colleges to meet emerging business and industry needs and to have a significant impact on the growth of green jobs in Michigan.

Some examples of existing and emerging programs include:

- Mid-Michigan – Solar Array, Hybrid Vehicle Components, Biodiesel, Clean bio-fuel, and bio-energy technology; general STEM related skill development; integrated manufacturing; and welding technology.
- Southeast Michigan – Transportation and energy technology; energy management (including wind, bio-fuels, solar and geothermal, and facilitates management); nuclear engineering technology; renewable and sustainable energy certificates; and alternative energy power generation and delivery systems.
- West Michigan – Wind energy generation technicians; wind turbines, photovoltaic energy, and energy management; construction technology and LEED certifications; alternative energy and renewable resources (photovoltaic, commercial wind turbines, passive solar greenhouse and organic farming, sustainable design and construction).
- Northern Michigan – alternative energy technicians; alternative energy business incubator; and government services and energy efficiency.

DLEG Resource Commitments:
In addition to pursuing federal earmark grants, DLEG is committed to investing \$1.5 million in innovation related grants to support community colleges throughout the state build the institutional capacity to educate students and workers in the competencies required to succeed in green jobs.

DLEG will also work with the Presidents Council of State Universities, the MCCA, the Michigan Association of Community and Adult Education, and the Michigan Department of Education, to look for additional resources to support education and

training provider capacity building statewide and to encourage more collaboration and partnerships across secondary and post-secondary education institutions.

DLEG will also work with Michigan Economic Development Corporation on the creation of the alternative energy centers of excellence and the development of education and training related programs to support these centers.

Supporting Green Jobs Related Research, Information Sharing, and Learning

DLEG will also invest resources to support statewide networking and learning about green jobs and education and training opportunities through the following activities:

- **Convening a Green Jobs Conference** – DLEG, together with a range of partners, will convene a statewide green jobs conference that will bring together the different networks and alliances from around the state to learn more about what’s going on in terms of the development of green jobs and the education and training programs for building the capacity of the workforce across the state.
- **Conducting Ongoing Labor Market Research** – DLEG has begun to analyze the current labor market and projected job growth in green sectors, the current and projected skill requirements of green sector employers, the wage and benefits ranges of jobs within the green sectors, and the education and training requirements of entry-level and incumbent workers within those sectors. This research along with the research and planning efforts of the Green Sector Skills Alliances will inform the state’s investment in the development of new green sector education and training programs.
- **Creating an Information Clearinghouse** – The primary source of information about the Green Jobs initiative will be the web site. The web site will serve as a clearinghouse for information on internships and jobs, education and training opportunities, and collaborative partnerships and initiatives between businesses, educational institutions, and government. This will allow the state to facilitate information sharing that strengthens the linkages between green sector research and business development efforts and the development of education and training programs for current and future green sector jobs.

Through this website, the state will be able to:

- ✓ *Respond to Existing and Emerging Business Needs for Workers and Training.* Companies growing in renewable energy and conservation who need trained workers can go to our No Worker Left Behind Green Jobs web site and tell us what they need.
- ✓ *Connect Companies with Colleges and Universities offering Education and Training programs.* Companies will also be able to find education and training programs that are being developed and offered through a number of community colleges and four-year colleges and universities.

- ✓ *Connect Workers and Students with Companies, Jobs, and Training.* Workers interested in earning degrees and certificates in these burgeoning fields can visit the same web site to find opportunities to learn and earn in ways that help sustain the earth and grow Michigan strong.

Convening a Blue Ribbon Advisory Group to Help Guide the Initiative

Through the State Council for Labor and Economic Growth's (CLEG), Industry Sector Strategy Committee, a Blue Ribbon Advisory Group will be formed to provide guidance for the initiative. This Advisory Group will be comprised of approximately 20-25 leaders and representatives from the following sectors:

- State, Regional, and Local Government;
- State, Regional, and Local Associations or Councils;
- Regional Skills Alliances;
- Michigan Works! Agencies;
- Colleges and Universities;
- Labor Organizations;
- Alternative Energy Organizations;
- Building and Construction Organizations;
- Environmental Sustainability Organizations; and
- Faith and Community Based Organizations.

Participants on the advisory group will ideally be able to provide perspectives on existing and emerging sectors needs and opportunities for creating and supporting green jobs in the areas of: Alternative Energy Production and Efficiency; Green Building Construction and Retrofitting; and Agriculture and Natural Resource Conservation.

We will engage this group for at least one year to help us launch, develop, and manage the implementation of this initiative. Advisory group members will specifically help with the creation of new networks or alliances of business, labor, and education leaders that are focused on workforce development to support the creation and retention of green jobs. The advisory group will be asked to engage in these primary activities:

- Providing input on overall initiative design and direction;
- Helping define the research needs, outcomes, and measures;
- Identifying and helping engage the necessary regional and local partners;
- Reviewing outcomes and providing recommendations on initiative improvements and changes; and
- Assisting with planning for initiative sustainability.