

Michigan's Green Jobs Initiative: *and the partnerships that drive it*



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Michigan's Green Jobs Initiative

Partnership
Alliance
Collaboration
Cooperation

....



Obama Administration

Energy and Workforce Goals:

- Invest in alternative and renewable energy
- End our addiction to foreign oil
- Address the global climate crises
- Create millions of new jobs



Obama Administration

American Recovery and Reinvestment Act (ARRA)

- February 17, 2009
- US DOL awarded approximately \$53 Billion
- Over 90,000 jobs created



Governor Granholm's Leadership

Perfect alignment with Obama Administration

- Create jobs by transforming Michigan's economy
- Reduce reliance on foreign fuels
- Emit less CO₂
- \$18 billion (US DOE)



State Partnership

- Integrating economic and workforce development
- Department of Energy, Labor & Economic Growth (DELEG)
 - Bureau of Workforce Transformation
 - Bureau of Energy Systems
 - Bureau of Labor Market Information and Strategic Initiatives
 - Michigan Public Service Commission
- Michigan Economic Development Corporation (MEDC)



Regional Partnership

- **State Energy Plan**
 - Renewable Portfolio Standard
 - 10% by end of 2015
- **Midwestern Governors Association**
 - Comprehensive policy strategy
- **Governors Wind Energy Coalition**
 - Dramatically expand wind collaboration



State Partnership

- **Energy Optimization Plan**
 - Utility partnerships
- **Clean Energy Manufacturing**
 - Grants and Loans
 - Tax Incentives
 - Supply chain management
- **Renewable Energy Production**
 - Policy and legislation



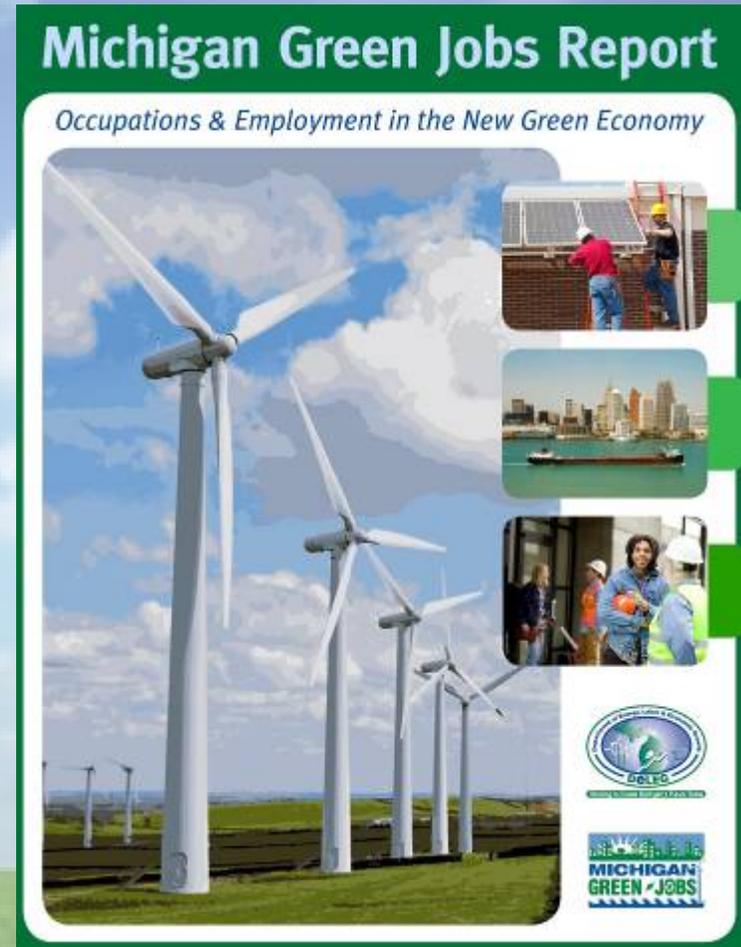
Green Jobs Initiative

- Invest in worker education and training to prepare our workers for green jobs
- Define green jobs
 - Agriculture and natural resource conservation
 - Clean transportation and fuels
 - Increased energy efficiency
 - Pollution prevention or environmental cleanup
 - Renewable energy production



Green Jobs Report

- In Michigan:
 - 109,067 total green jobs (private sector)
 - 96,797 direct
 - 12,300 support
 - 3% of private sector employment



Green Jobs Report

- 2005 to 2008, more than 2,500 Green jobs to Michigan (7.7% expansion)
 - Overall Michigan employment -5.4%
- Higher wages
- Wide range of occupation
- Education and training



Green Jobs Initiative

- **\$6 Million Committed**
 - \$1.5 M Green Skills Alliances (GSAs)
 - \$1.5 M Capacity Building to Community Colleges
 - \$3 M Training
- **Green Partnership Team**
 - Industry Leadership
 - Strategic Direction
- **Green jobs website -**
www.michigan.gov/greenjobs



Green Sector Skills Alliances

- **Key Strategy: Green Jobs must be Employer-Demand Driven**
- **Partnerships between business, labor, and education leaders**
- **Identify employer needs and create collaborative solutions to fill those needs.**
- **Current and future GSSAs:**
 - MI Academy for Green Mobility
 - MI Emerging Markets Skills Alliance
 - Solar, Energy Efficient Construction, etc.



MI Academy for Green Mobility

- 1000 engineers over the next 5 years trained in hybrid & electric vehicle design
- Vehicle propulsion and vehicle component design, manufacturing and maintenance
- Rapid/accelerated training and re-training
- Partnerships between General Motors, Ford Motor Company, Chrysler, Detroit Diesel, Eaton, Delphi, Lear, Ricardo, Compact Power, Nissan, Michigan Tech University, Lawrence Tech, Wayne State, Kettering, UDM, Macomb CC, Henry Ford CC, ESD, SAE, ASI, Denso, NextEnergy



MI Emerging Markets Skill Alliance (MEMSA)

- MI has most tool and die in USA
- Many firms: 1-2 automotive customers
- Need to train 400 individuals
 - Work Life Skills
- Partnerships create learning & apprenticeship opportunities
 - targeted, innovative, flexible
 - hands-on practical experience



Energy Conservation Apprenticeship Readiness (ECAR)

- Nine week program that prepares participants to compete for skilled trades apprenticeships
- 120 Students (2009-2010)
- Target Populations:
 - Women
 - Minorities
 - Economically Disadvantaged



State Energy Sector Partnership Grant

- \$5.82 Million
- 1000 Participants
- *“Applicants must assemble a comprehensive and representative partnership reflecting the energy efficiency and renewable energy industries within the State.”*
- 4 project teams
 - *“Local and regional project teams are strongly encouraged to develop and/or strengthen relationships with the various partner organizations...in their local and regional areas as appropriate, in order to effectively support these activities.”*



SESP

Energy Efficient Construction

- **Genesee and Shiawassee counties**
 - Employers: Genesee County Land Bank Authority, Genesee County Community Action Resource Department, Detroiters Working for Environmental Justice (DWEJ), Flint Housing Commission, Habitat for Humanity
 - Other Key Partners: Mott Community College (MCC), Baker College of Flint, Church of God in Christ Alliance, Michigan Laborers Training & Apprenticeship Institute, Flint Area Reinvestment Office
- **225 Participants**
 - Energy auditors, weatherization, environmental site management, green construction, deconstruction and landscaping



SESP - Solar

- **Great Lakes Bay Region**
 - Employers: Dow Corning, Dow Chemical, Hemlock Semiconductor, Evergreen Solar, Suniva
 - Other Key Partners: Delta College, Economic Development Partnership, Saginaw Future, Bay Future, Midland Tomorrow, Region 7B Michigan Works! Great Lakes Bay Michigan Works!
- **355 Participants**
 - Chemical process technicians



SESP - Solar

- **SEMWAC Region**
 - Employers: ECD Unisolar Ovonics, Power Panel, Solar Works LLC, Harland Electric LLC, Xtreme Power, Clairvoyant, Luma, GM Engineers and Associates, Casa de Santiago, Power Panel, Mechanical Energy Systems
 - Other key partners: Macomb-St. Clair County Michigan Works!, Livingston County Michigan Works!, Henry Ford Community College, Next Energy
- **82 Participants**
 - Renewable Energy technicians and installers



SESP

Advanced Energy Storage

- **SEMWAC Region**
 - Employers: A&D Technology, Inc., A123 Systems, ABB, ALTe, Compact Power, Dow Kokam, Exoca, Fanuc, General Motors, Battery Lab, Hirata, Lotus Engineering, Johnson Controls, Magna, Mahle, Rousch
 - Other key partners: Macomb-St. Clair County Michigan Works!, Southeast Michigan Community Alliance (SEMCA) Michigan Works!, Wayne State University (WSU), Michigan Technological University (MTU), Detroit Regional Chamber, Engineering Society of Detroit, Macomb Community College (MCC)
- **620 Participants**
 - Design, development or test engineers and technicians, assemblers, technologists



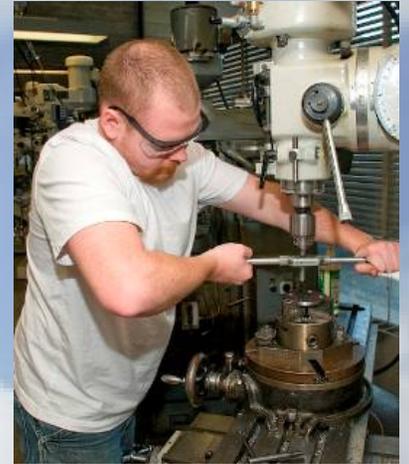
Electric Workforce Training Grant

- Michigan Utility Workforce Development Consortium
- \$4.4 million
- 588 Participants
- **Collaborators:** Council for Labor & Economic Growth; Detroit Edison; Consumers Energy; Lansing Board of Water & Light; NextEnergy; ITC Holdings Corporation; International Brotherhood of Electrical Workers; Utility Workers Union of America, AFL - CIO; Michigan Municipal League; Michigan Community College Association; Michigan Works! Association; Michigan Electrical Contractors Association; Michigan Municipal Electric Association; Michigan Electric & Gas Association; Michigan State University; Five Michigan Works! Agencies and six Community Colleges.



Clean Energy Advanced Manufacturing

- **\$15,500,000**
- **713 jobs**
 - Astraeus Wind Energy (Eaton Rapids)
 - Energetx Composites (Holland)
 - Loc Performance Products (Plymouth)
 - Luma Resources (Rochester Hills)
 - Merrill Technologies Group (Saginaw)
- **New Opportunity**
 - \$20,000,000
 - Grants and Loans



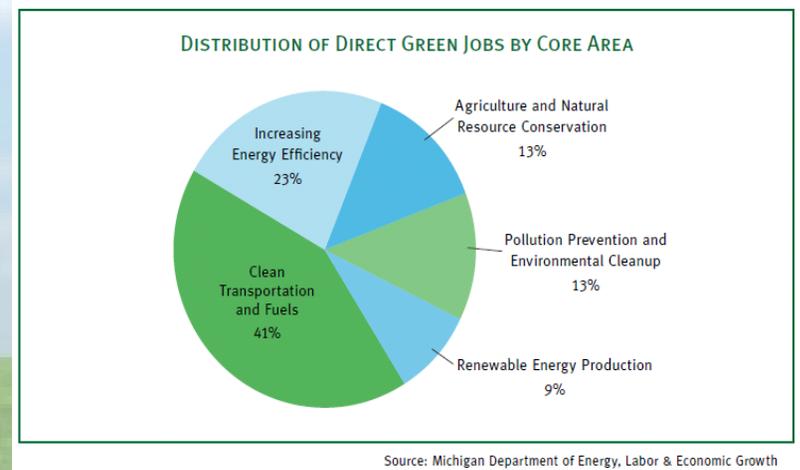
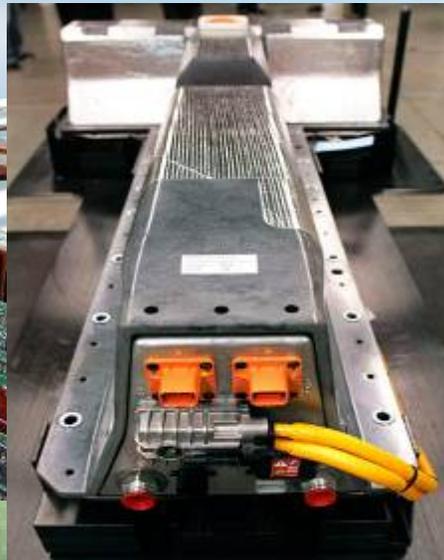
Wind and Solar

- Core competency in advanced manufacturing
- Regional transportation advantages
- Partners in wind and solar movement
- Established companies in supply chain
- Investments in new companies



Advanced Energy Storage

- Positioned to become the leader in battery development
- Automotive manufacturing strength
- Total new business investment of \$9.14 billion



Energy Efficient Construction

- **“Supply and Demand”**
- **Programs to Stimulate Market Drive**
 - **Mi Saves**
 - **Weatherization Assistance Program**
 - **EECDBG**
 - **Retrofit Ramp Up**
 - **HPwES**
 - **Home Star - “Cash for Caulkers”**



Other Pieces of the Puzzle

- Smart Grid
- Geothermal
- Biofuels, biomanufacturing, bioproducts
- Plastics
- Recycling



How Can You Be a Part of Michigan's Green Economy?



Partnerships



Thank You

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