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Growing Michigan's Clean Energy Economy

Governor Jennifer M. Granholm set a clear goal of making Michigan the international hub of the clean energy economy. By capitalizing on our unique natural resources and world-class workforce, her administration has worked tirelessly to target critical sectors of this economy – including advanced battery, energy efficiency, wind and solar energy – and attract the jobs they are creating to Michigan.

Michigan is already home to more than 109,000 green jobs. The governor's efforts in the past few years to diversify Michigan's clean-energy economy into four specific sectors – advanced-energy storage, solar energy, wind energy and bio-energy – are projected to create another 80,000 additional jobs in coming years. And now that the nation's energy agenda aligns with Michigan's plan, the governor has fought for billions in additional funding for clean-energy initiatives in the state.

In this year's State of the State address, Governor Granholm highlighted several of the major changes occurring in communities across Michigan resulting from her administration's efforts in creating a clean-energy economy. She announced new investment and new jobs that will be coming to Michigan this year and outlined the next steps in this critical effort.

Bringing Clean-Energy Jobs to Michigan

2009 was a successful year in the administration's efforts to diversify Michigan's economy in six target sectors, including clean energy. Key successes included:

- The governor signed legislation in January 2009 to create state advanced-battery tax credits that were awarded to four companies this past spring.
- Last August, Michigan won \$1.35 billion in U.S. Department of Energy grants – more than all other states combined. Battery investments in Michigan total \$3.4 billion and will create nearly 40,000 new direct jobs by 2020.
- The state's first photovoltaic tax credit was signed into law by the governor in October, raising total solar energy manufacturing investment over the last five years to more than \$3.5 billion. The Saginaw Valley area is rapidly becoming a hub for solar manufacturing, with Suniva and GlobalWatt announcing they'll be joining Hemlock Semiconductor in the area.
- Another solar manufacturing company, Clairvoyant, also announced it is coming to Michigan this year and will help redevelop Ford's former Wixom Assembly plant into a renewable energy park.
- In December, Michigan awarded funds from the Recovery Act to five small manufacturing firms to help them diversify into renewable energy system and component manufacturing, creating or retaining another 700 jobs.

In her State of the State address, the governor highlighted LG Chem/Compact Power, one of the recipients of state tax incentives and the federal battery grants earlier this year. The company is expected to locate a plant in Michigan and has been looking closely at the Holland area where Johnson Controls-Saft is expanding its operations thanks to a battery grant and state incentives as well.

The governor also highlighted Dow Chemical Corporation, a company known worldwide for its innovative products. Dow will soon manufacture its new PowerHouse shingle, a revolutionary product that captures solar power to provide electricity to a home for little more than the cost of traditional shingles. Dow is close to finalizing a decision to locate its manufacturing facility for the Powerhouse shingle in Michigan.

Targeting Wind Energy

Building on the success in creating jobs in the advanced battery and solar manufacturing sectors, the Granholm administration will focus in 2010 on a targeted strategy to increase jobs in the wind energy sector which offers a tremendous opportunity for economic growth in Michigan. Wind energy installations across the United States have been growing at an average of 39 percent for the past five years, and strong growth is expected to continue. Not only can we harness the wind to make our own electricity, but we can also create thousands of jobs manufacturing wind turbines and their component parts. The federal Department of Energy (DOE) has said that Michigan is in the top five states for wind power generation potential and in the top four states for wind manufacturing jobs potential, with the potential to create over 30,000 jobs by 2030.

Michigan's advanced manufacturing and engineering expertise is a perfect fit for the needs of the growing wind industry. The clean-energy business incubator NextEnergy estimates that Michigan is already home to over 100 wind energy companies, and 1,000 more – auto suppliers and others – could diversify into supplying the wind manufacturing industry. The state has partnered with NextEnergy to connect Michigan companies with the world's major wind turbine manufacturers. In just a couple of years, this matchmaking has resulted in over \$675 million of business for Michigan. This process will continue in 2010.

In December, the Department of Energy, Labor and Economic Growth (DELEG) awarded \$15 million in Recovery Act grants to four small Michigan companies who are diversifying into wind turbine manufacturing:

- Astraeus Wind Energy - \$7 million for a joint venture between Dowding Machining and MAG Automation in Eaton Rapids, which will create 100 jobs manufacturing large wind turbine hubs and advanced composite wind turbine blades.
- Energetx Composites - \$3.5 million to allow this spinoff of a family boat-building business to diversify into the manufacture of large, advanced composite wind turbine blades, creating 280 jobs in Holland in the first phase of the project alone.
- Merrill Technologies Group - \$3 million to diversify and partner with Vermont-based Northern Power to manufacture a next-generation utility scale wind turbine in Saginaw that is more reliable and costs less than traditional turbines. The investment will create 113 new jobs.
- LOC Performance Products - \$1.5 million to diversify into the manufacture of planetary gears and gearboxes for utility scale wind turbines, creating 118 jobs in Plymouth.

In January 2010, the Michigan Economic Development Corporation (MEDC) began accepting applications for the second round of funding for the state's Centers of Energy Excellence program. This program provides seed funding for clean-energy projects that create jobs in clean-energy sectors like wind energy by leveraging the state's research and development expertise in advanced-manufacturing, engineering and materials sciences.

The governor will also continue working with the Obama administration to provide federal seed funding for wind manufacturing. Michigan received 10 percent of \$2.3 billion in clean-energy tax credits that President Obama announced last month. These tax credits help provide needed funding to create new jobs, and the governor will fight to expand these tax credits so more Michigan businesses can receive them. She will also continue to fight for a federal program that provides access to financial capital for manufacturers seeking to diversify.

DOE has also approved the assignment of staff from the Oak Ridge National Laboratory in Tennessee to Michigan where they will work with MEDC to establish and conduct research and development programs with Michigan's auto companies as well as our cutting-edge energy companies in all of our key areas – batteries, wind-development, solar and others. Having closer ties to the National Laboratories complements the presence of TARDEC and increases our ability to attract additional federal research and development funds, create more high-tech jobs and support our growing companies by giving them access to some of the world's best scientists. Oak Ridge researchers have a particular focus on developing and commercializing advanced materials and manufacturing techniques, which will be important for next generation of wind turbines, photovoltaics, and energy storage.

Saving Money, Creating Jobs through Energy Efficiency

Michigan already has over 22,000 people employed in the energy-efficiency sector of our economy. These jobs are growing fast thanks to an influx of energy-efficiency funding from the Recovery Act and the energy law that Governor Granholm signed in 2008, which requires utility companies to invest in energy-efficiency rebate programs for their customers. Michigan will continue to grow jobs in this sector in 2010.

In her 2009 State of the State address, Governor Granholm announced the creation of the MI Saves program – a simple financing system to help Michigan homeowners install new energy technology and energy-efficiency products in their homes and pay for the upgrades through the savings on their utility bills. The program is a win-win for Michigan. Homeowners use less energy and reduce their monthly bills while increasing the demand for energy-efficiency and renewable-energy products like high-efficiency appliances, insulation, windows, small wind turbines and solar shingles.

The Michigan Public Service Commission launched the program with an initial trust fund of \$6.5 million, and homeowners in the Grand Traverse area will be the first to benefit. The governor announced in her State of the State address that Cherryland Electric Cooperative, in partnership with Members Credit Union and a network of contractors led by Brown Lumber Installed Sales & Service, has launched a pilot MI Saves program. Throughout 2010, Cherryland's residential customers will be able to install energy-efficiency upgrades. The partner organizations will assist customers from the initial inquiry through the loan approval process and all the way to installation.

In the second week of February, the governor also will announce the launch of a rebate program for consumers purchasing energy-efficient appliances, a program funded through the American Recovery and Reinvestment Act. The goal of Michigan's Appliance Rebate Program is to complement existing utility energy optimization programs by providing rebates for energy-efficient appliances not covered by existing utility-run programs. In addition, the program will reach rural areas not served by utility natural gas programs. Rebates will be available for washing machines, refrigerators, dishwashers, furnaces and water heaters. The rebate will vary depending on the appliance.

The Bureau of Energy Systems within DELEG will administer the program for the state of Michigan. Visit <http://www.michigan.gov/energyoffice> or call 517-241-6228 for more information.