



## Energy + Innovation = Jobs + Investment

By: Andy Guy



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Michigan and energy innovation go together like Popeye and spinach.

That's the encouraging conclusion of two new ground-breaking studies just put out by several respected public interest institutions. The first report, released earlier this month by Michigan State University, projects the state could generate tens of thousands of jobs, leverage billions in private investment, and toughen up a wimpy economy over the next two decades by targeting aggressive growth in the wind power industry.

The second report, led by a coalition of economic and civic leaders in West Michigan, localizes the possible economic benefits of expanding the alternative energy business. The first-of-its-kind local study, officially released on December 18, 2007 at the Michigan Alternative and Renewable Energy Center in Muskegon, reveals that in five short years the region could establish more than 4,300 new jobs and attract \$1.2 billion in new investment by beefing up the research, development, and manufacture of modern renewable energy equipment and services.

[Taken together with a notable report issued by leading environmental advocates in February 2007](#), the studies present the most comprehensive analysis yet of the alternative energy industry's potential to stem Michigan's economic decline and boost the competitiveness of its cities, regions, and manufacturers in the 21st century.

"[Alternative and renewable energy] is the fastest growing market in the U.S.," according to the new report published jointly by the West Michigan Strategic Alliance and the Right Place, Inc., two organizations focused on accelerating the region's transition from the Industrial Era to Digital Age. "[But] right now the market is not looking at Michigan as a place to do business. The region needs to take immediate steps to establish itself in the market."

Indeed, America seemingly now stands on the cusp of a new energy economy. Mounting concerns about rising fuel prices, climate change, national security, and growing demand for power are driving incredible investment in the renewable energy business. Today a \$71 billion market, the industry is expected to achieve a national value of nearly \$170 billion in the next decade, according to recent research. It's also expected to generate an estimated 850,000 new jobs doing everything from stringing power lines to



established a strategy to promote green  
capitalize on the growth.

But not Michigan. The state and its regions  
workforce, a robust manufacturing  
the globally connected transportation  
be a major player in the modern energy  
public policies and spending decisions  
favor traditional energy sources like coal  
the expense of a more diversified portfolio  
wind, and other high tech alternatives.



patenting a better  
solar panel. Not  
surprisingly, two  
dozen states -  
including  
Wisconsin, Illinois,  
and Pennsylvania -  
have formally  
power and

have the trained  
infrastructure, and  
routes required to  
economy. Yet  
overwhelmingly  
and natural gas at  
that includes solar,

What this new wave of research confirms is that that position is bad for business, especially in a global marketplace driven by innovation, technology, and the philosophy of sustainability. In fact, the lack of a focused green power strategy ultimately limits the state's ability to attract private capital, grow jobs, and profit from what many now call one of the century's most significant economic opportunities.

#### **Discovering the Power of Wind**

[The new MSU report, for instance, predicts that establishing a reasoned policy to promote renewable energy would spur hundreds of new windmill installations and lead to substantial economic payoffs for Michigan.](#)

Specifically, the report found the wind industry could create approximately 22,000 new construction jobs and stimulate \$25 billion in construction spending in the next two decades if Michigan adopted a policy to promote it. The report projects the sector could also support more than 3,000 permanent jobs and fuel approximately \$4.4 billion in additional spending related to the ongoing maintenance and management of new wind power facilities. That could translate into \$96 million in permanent annual wages for Michigan workers by 2029.

The report also suggests promoting the wind business in Michigan would unleash new manufacturing opportunities, boost the potential of exporting Michigan-made energy-related equipment around the world, and increase the taxes paid to local governments as energy companies lease land for wind turbines from property owners.

"The employment and income impacts of manufacturing wind components in Michigan, for installations in Michigan, could be huge, perhaps as high as \$6 billion a year," the report says. "Given [the state's] recent history of manufacturing job loss, wind appears to be an interesting option."

#### **Time to Lead**

[The separate study led by the West Michigan Strategic Alliance and the Right Place, Inc. only strengthens that argument.](#) The report revealed, for instance, that West Michigan could capture more than \$800 million in new investment and generate more than 4,250 new jobs by devising and executing a plan to expand the manufacturing of alternative energy components such as wind turbine blades.

It also found the region could lure approximately \$400 million in energy investment and establish an additional 85 jobs by building wind fields, solar stations, and other modern electricity generating facilities to diversify its own power grid. In fact, the potential for long-term investment in wind energy along the eastern shore of Lake Michigan, one of the windiest places in the nation, approaches \$4 billion.



So, what must West Michigan do to seize these new growth opportunities? Well, the research confirms that the region – which includes Grand Rapids, Muskegon, Holland, and other cities – has the industrial acumen to play a significant role in the alternative energy business. Assets include an extensive network of manufacturing companies, a highly skilled workforce with a strong Midwest work ethic, and an unmatched quality of life to attract young talent and modern firms.

But the report also reveals several serious shortcomings that negatively influence the region's ability to fully engage the modern energy business. The lack of existing energy companies, for example, limits the region's ability to build on a firmly established industrial base. A shortage of venture capital

restricts the potential to support entrepreneurial startups. And the lack of a popular research university makes stimulating activity and interest in the emerging industry more difficult, especially among the outside players the region seeks to attract.

To overcome those weaknesses, and leverage its strengths, the report recommends several specific actions. They include marketing West Michigan and its manufacturers more aggressively to the worldwide energy industry; expanding research and education in the fields of alternative energy and sustainability; and advocating for state and national policies that promote green energy.

"West Michigan has the opportunity to become a world-class leader in this sector, just as we have in the automotive and office furniture sectors," the report concludes. "The time to act is now."

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Photos:

*Photovoltaic roof panels at Grand Valley State University (courtesy of GVSU)*

*A household wind turbine, parts of which will be manufactured in Grand Rapids by Cascade Engineering (courtesy of Cascade Engineering)*

*Production worker at Cascade Engineering. Green energy could mean a boom in job growth for Michigan. (courtesy of Cascade Engineering)*

*Wind turbine in Scotland (courtesy of Cascade Engineering). Foreign energy firms have explored locating in West Michigan but the lack of a state energy policy discourages the investment.*

*High temperature molten carbon fuel cell - Grand Valley State University (courtesy of GVSU)*