Michigan Wind Energy Manufacturing Working Group Member Update – September 20008



NextEnergy is the lead organizer of the Michigan Wind Energy Manufacturing Working Group with the support of the Michigan Economic Development Corporation, Michigan Public Service Commission, Michigan State Energy Office, Michigan Manufacturing Technology Center and Western Michigan University. The mission of this group is to advance the capacity and capabilities in the state of Michigan for designing, engineering, and manufacturing wind systems. This group allows wind turbine companies and the skilled Michigan manufacturing supply chain to establish mutually beneficial relationships to help improve the efficiency of wind energy systems and the state's manufacturing infrastructure to support growth in the North America. Contact Dan Radomski at NextEnergy to get involved at 313-833-0100 ext. 150 or danr@nextenergy.org

SPONSOR MESSAGE:

The Michigan Wind Energy Manufacturing Working Group is sponsored by Charter One: Managing a successful company in today's global marketplace requires connections, vast resources and experience. Backed by the strength of our corporate parent RBS (The Royal Bank of Scotland Group plc), one of the world's leading financial services providers in over 50 countries, Charter One delivers a full range of solutions that help you stay competitive. <u>www.charterone.com</u> Contact Susan Leithauser, Vice President, Commercial Middle Market Banking at (248) 226-7822 <u>susan.leithauser@charteronebank.com</u>

BUSINESS/PARTNERSHIP OPPORTUNITIES

Dear Michigan Wind Working Group member;

1. GAMESA again has to postpone their visit to Michigan to meet with state manufacturing firms that can potentially serve as suppliers for their product. The meetings originally scheduled at the NextEnergy Center in Detroit on Wednesday, October 8 and Thursday, October 9 are being postponed until February or March 2009. You will be offered a time slot to meet with them when they commit to new dates in the 09 calendar year if you fit their supplier needs. In the meantime, I have included contact info for the GAMESA sourcing staff so you can begin to accelerate the relationship. Please keep me informed of how things progress. GAMESA General Supplier Needs: Small castings Machining (of small castings) Machining (small and medium size forged parts) Metal fabrications (cut, formed and welded with potential finishing requirements) Short run stampings (transfer press, not "prog" dies - due to low volumes) GAMESA Supply Chain/Sourcing Contacts: John Andrews, Supply Chain Manager, 215-428-9750, JANDREWS@gamesacorp.com Tom Kutzer, Mechanicals Commodity Manager, tkutzer@gamesacorp.com Peter Zou, Processed Metals Commodity Manager pzou@gamesacorp.com Jose Ignacio Llorente, jillorente@gamesacorp.com Emmanuel Garcia De La Pena, egpena@gamesacorp.com Wim Geldhof, wgeldhof@gamesacorp.com 400 Gamesa Drive, Fairless Hills, PA 19030

Office #: 215-459-9750 www.gamesa-us.com

2. We are working with the purchasing staff at Vestas, the global market share leader for large utility scale wind turbines, www.vestas.com, in an effort to connect them to skilled Michigan manufacturing suppliers. Vestas has announced a nacelle assembly production facility in Colorado and is in immediate need of critical suppliers for the nacelle and drivetrain components. They are currently looking for fabrication and welded structure-type components and secondly for large machined components. They are also interested in suppliers that can support the mfg of the main shaft and hub (includes castings, forgings), but this is not the top priority. Companies with large composite structural capabilities are being courted as well to produce the nacelle housing. I am helping Vladimir Tsimberg, Global Purchasing & Supply Chain, Vestas Nacelles America GP & SC, with identifying companies so he can begin to send RFQ's. Your company has been identified as a likely candidate to support their nacelle mfg needs. Attached is their Non Disclosure Agreement (NDA) which is a requirement to be signed/executed and returned before you can receive the RFQ and component prints. If interested, please compete the NDA and send directly to Vladimir to move your relationship forward with Vestas. We will also be scheduling private meetings for suppliers and Vladimir with Vestas on Oct. 21-22 in Grand Rapids. More details to follow. Vladimir Tsimberg Director, System Leader North America Structure & Hub Global Purchasing & Supply Chain Vestas Nacelles America GP & SC

T: 1-773-628-6407 M: 1-847-716-0096 VL<u>TSI@vestas.com</u>



Disclosure Agreement

3. Michigan Aerospace Corp. (MAC) provides engineering services and products for defense, homeland security, industrial, and biomedical industries. Our technologies include Light Detection and Ranging (LIDAR) and related optical systems for atmospheric measurements, Chem/Bio/Radiological/Nuclear/Explosives (CBRNE) detection systems, mechanical launch/retrieval systems for air, space, land and marine applications, and anomaly detection, machine learning, and image processing software. The LIDAR technology developed by Michigan Aerospace measures wind speed and direction for short range applications (hundreds of meters) as well as long range applications (kilometers). We envision using our technology to increase the efficiency of wind turbines and farms by improving site assessment capabilities and steering of turbines to harness the wind by knowing the state of the wind far ahead of current methods. The technology would also aid in reducing the fatigue on wind turbine blades. We are seeking potential customers and/or investors. If interested, please contact: Cliff S. Williams

Director of Product Development Michigan Aerospace Corporation 1777 Highland Drive, Suite B Ann Arbor, Michigan 48108 Phone: 734-975-8777 x155 Fax: 734-975-0239 cwilliams@michaero.com

4. Small Wind Turbine Rep Looking for Tower and Bolt Suppliers in Michigan

We are working with a representative of small wind turbine, SkyStream, who is interested in sourcing towers and bolting systems to Michigan manufacturing firms for his local installations. The tower specs and the bolt specs are: 1 1/4" stock, ASTM 1554 -55(yellow) These bolts are 48" of stock, of which the last 6" are bent 90deg on a 3" radius. at the bottom. The top 7 1/2" are threaded for nuts, this gives us a 42" J bolt. The bolt is galvanized also. A "KIT" consists of 8 bolts, 19 nuts and 16 washers. Pricing should reflect the tower prices,, 1-4 \$\$ 5-9\$\$ 10 + \$\$. Note to manufacturer: Most sales would be in the 1-4 range due to the fact that 5 units with towers are beyond the means of most dealers. These tower units could support other units as well, with an adapter plate used. I am only one of the 5 dealers in Michigan, but with competitive prices these would be able to be marketed to states in our immediate area.. Dealer wholesale price is \$439 for 1 Kit,, it's the shipping from Portland Or. that is killing us. Garth Ward Michigan Wind Power 231-645-4479

Garth@michiganwindpower.net

5. Relats looking for Reps:

Relats, is a manufacture of protective fabrics (e.g., heat, rodents, moisture), and is looking for a distributor for their products, which are already used in some wind installations. Please contact Gary Phillips if interested... Gary B. Philips Key Accounts Manager Phone: 386-445-2785 Fax: 517-947-6043 Cell: 248-376-2613 gary_philips@relats.com

6. Alternity Wind Looking for Wind Project Partners

Alternity Wind Power, an affiliate of The Conti Group is exploring the Michigan wind market and is reaching out to potential partners in Michigan. Alternity Wind Power participates in the wind power industry as a late stage integrated developer and self-performing builder of utility-scale wind projects in North America. Alternity Wind Power partners with early stage wind power developers and provides them with the financial, engineering, procurement, construction and commissioning expertise they need to get their projects up and running.

Drawing upon the expertise of The Conti Group, a 102-year old diversified construction firm, Alternity Wind Power is one of the few firms that bring project development, construction, commissioning and operation of large-scale wind power farms under a single roof. This enables Alternity Wind Power to significantly reduce the frictional costs which often occur when different entities control the various construction phases of a project.

Alternity Wind Power partners with early stage wind project developers to:

- o Raise financing
- o Procure wind turbines
- Negotiate Power Purchase Agreements (PPA's)
- Secure federal, state and local tax credits
- Design and engineer wind projects
- Construct and commission projects
- Oversee O&M Services

Alternity Wind Power is actively looking for partners in the Michigan market to develop wind projects. Our approach is one of Partnership. If you are looking for a partner to help with your wind project please contact me and visit our website at

www.alternitywindpower.com to learn more about Alternity Wind Power.

Thank you for your consideration.

Anthony Blommel Project Manager Alternity Wind Power An Affiliate of The Conti Group One Cragwood Road South Plainfield, NJ 07080 Phone: (908) 791-4837 Cell: (908) 403-4972 www.alternitywindpower.com

NEXTENERGY EVENTS

Michigan Clean Transportation Expo & Awards Gala

September 24, 2008 4:00 pm - 9:00 pm Rock Financial Showplace in Novi The event is being organized by NextEnergy, the Greater Lansing Area Clean Cities, and the Clean Energy Coalition, and focuses on clean technologies, fuels, vehicles, and innovations to educate fleets, business leaders, and the general public on options available today and into the future for cleaner transportation solutions.

http://www.nextenergy.org/events/2008/mcte.aspx http://www.mct-expo.com

SBIR/STTR Proposal Preparation

Department of Energy and National Science Foundation October 1-2, 2008 Wednesday, 10/1 9:00 am – 4:00 pm Thursday, 10/2 9:00 am - 12:00 pm NextEnergy Center, 461 Burroughs Drive * Detroit, Michigan To registration: <u>http://www.bioconsultants.com/registration_form.html</u> By phone: Please call Kris on 734-930-9741 More information about BBC and course descriptions available at <u>www.bioconsultants.com</u> For more information about BBC's Grant Development Assistance services offered under our 21st

For more information about BBC's Grant Development Assistance services offered under our 21 Century Jobs Fund Consulting Services Program contact Lisa Kurek (<u>lisa@bioconsultants.com</u>) at BBC.

AET Connect & Collaborate 2008

October 10, 2008

NextEnergy Center, Detroit, MI

NextEnergy is hosting the AET Connect & Collaborate 2008 forum in Detroit on Friday, October 10, 2008. A unique event where alternative energy researchers will present a brief snapshot of their work in a "pitch-style" format to select industry representatives who are interested in, and actively looking for opportunities to collaborate with university researchers. Companies will also present information on their technology challenges and specific research needs across various alternative energy applications. Confirmed company participants to-date include: Dow Chemical, DTE Energy, Delphi, and Eaton. This is a one-of-a-kind opportunity to showcase your alternative energy research, and then meet and network with potential industry collaborators and funders – all in the same day. This event is in partnership with MEDC, NextEnergy's Statewide AET Network university partners, and Shepherd Advisors.

http://www.nextenergy.org/events/2008/2008014.aspx

WIND ENERGY AND OTHER EVENTS

AWEA Wind Power Finance & Investment Workshop October 6 - 7, 2008 New York City, NY http://www.awea.org/events/finance08/

MREP Renewable Energy Program Citizen Meetings

Escanaba Oct 9 - BIOMASS Ann Arbor Oct 13 - SOLAR Cadillac Oct 23 - WIND Tom Stanton, Coordinator Michigan Renewable Energy Program -- <u>http://www.michigan.gov/mrep</u> voice 517-241-6086, stantont1@Michigan.gov

Fundamentals of Wind Power Development

October 14-17, 2008 Madison, WI http://epd.engr.wisc.edu/webJ953

Illinois Wind Power Supply Chain Workshop

October 28, 2008 1:00 pm - 6:00 pm Sofitel Chicago O'Hare <u>http://www.gaccom.org/en/no_cache/events-</u> <u>photos/event/index.html?tx_mjseventpro_pi1%5BshowUid%5D=121</u>

If interested, please contact... Mark Tomkins Director, Consulting Services Direct phone: +1-312-494-2172 Email: tomkins@gaccom.org German American Chamber of Commerce of the Midwest, Inc. - GACCoM DEinternational / AHK Chicago 401 N Michigan Ave, Suite 3330, Chicago, IL 60611 Phone: +1-312-644-2662, Fax: +1-312-644-0738 www.gaccom.org, www.ahk-usa.com, www.ahk.de

LPI Michigan Citizen Planner Event: Wind Energy Siting and Policy Issues Wednesday, October 22, 2008 Caledonia Charter Township Hall, Owosso, Michigan http://www.landpolicy.msu.edu/modules.php?name=Event_Calendar&op=showEvent&sp_id=643

CanWEA 2008: Fast Forward to Wind Vancouver Convention Centre, British Columbia October 19-22, 2008 http://www.canwea.ca/events/en/ConferenceAndEvents.html

AWEA Wind Power Health & Safety Workshop October 29 – 30, 2008 Denver, Colorado http://www.awea.org/events/safety08/

Citizen Planner to Host Wind Energy Workshops in Fall 2008

As public interest in renewable energy increases, planning and zoning for wind power are beginning to come of age in Michigan. Publication of new wind potential maps in 2004 helped fuel an increase in landowner interest in wind energy across the state (USDOE, 2004). Wind power companies are prospecting for new sites among landowners, and when landowners inquire at their local government offices about local permits, they often discover the rules are unclear. Very few Michigan jurisdictions have wind system siting laws on their books. As part of the effort to encourage wind energy in Michigan.

http://www.citizenplanner.msu.edu/events.htm

Wind Expo LAWEA 2008 Conference & Expo

November 5-7, 2008 Guadalajara, Mexico http://www.windexpo.org/

Pennsylvania Wind Energy Symposium

November 17 and 18, 2008 Penn State University Park State College, Pennsylvania http://www.conferences.psu.edu/wind-energy.

AWEA Wind Energy Fall Symposium 2008

November 19 – 21, 2008 Palm Desert, CA http://www.awea.org/events/symposium08/

AWEA Wind Power Supply Chain Workshop

December 8 – 9, 2008 Cleveland, OH http://www.awea.org/events/supplychain2/

AWEA Wind Power Asset Management Workshop

San Diego, CA January 12 - 13, 2009 http://www.awea.org/events/

Wind Energy German/US Match Making Event Planned in Germany

Information on the German Chamber of Commerce Midwest wind match making event is being planned for February, 2009 in Hamburg or Berlin and will focus on opportunities for partnering in the supply chain. If interested, please contact... Mark Tomkins Director, Consulting Services Direct phone: +1-312-494-2172 Email: tomkins@gaccom.org German American Chamber of Commerce of the Midwest, Inc. - GACCoM DEinternational / AHK Chicago 401 N Michigan Ave, Suite 3330, Chicago, IL 60611 Phone: +1-312-644-2662, Fax: +1-312-644-0738 www.gaccom.org, www.ahk-usa.com, www.ahk.de

AWEA Wind Power Project Siting Workshop Seattle, WA February 24 - 25, 2009 http://www.awea.org/events/

European Wind Energy Conference & Exhibition March 16-19, 2009 Parc Chanot, Marseille, France www.ewec2009.info

WIND POWER EXPO 2009 March 29-April 1, 2009 Shanghai, China http://www.windpower-expo.cn http://www.windpower-expo.com

WINDPOWER 2009 - AWEA Wind Conference and Exhibition

May 4 – 7, 2009 Chicago, IL (new date and location) www.awea.org

National Summit - Technology, Manufacturing, Energy & the Environment

June 15-17, 2009 Ford Field, Detroit, MI www.nationalsummit.org

WINDPOWER 2010 Conference & Exhibition

Salt Lake City, UT May 16 – 19, 2010 http://www.awea.org/events/

<u>NEWS</u>

Michigan Legislature OKs RPS Energy Plan

The Michigan legislature passed Senate Bill 213 yesterday permitting, among other things, a Renewable Portfolio Standard of 10% by 2015 for Michigan. Once the Governor signs this bill, which is not as aggressive as her desire for a 25% by 2025 RPS (NextEnergy supports a more aggressive RPS as well) Michigan will become the 28th state in the U.S. (including D.C.) to put these economy-driving laws into place. The RPS aids a state's economy by creating a market into which renewable energy developers can sell their products and services. The more aggressive the RPS, the stronger the new market. Several states have started with modest RPS goals (like Michigan's) but have made them more aggressive as they see the economic forces working to their benefit. RPS- Overview: Requires 10% by 2015, 1% will be set aside for energy efficiency programs. While includes renewable resources (solar, wind, biomass, geothermal, tidal) also leaves room for carbon sequestration plants and reduction of carbon by 70% of Coal plants to count towards the 10%. There will be competitive bidding for 50% of the projects needed to meet a utility's 10% goal.

http://hosted.ap.org/dynamic/stories/M/MI_ENERGY_PLAN_MIOL-?SITE=MIDTN&SECTION=HOME&TEMPLATE=DEFAULT

Net Metering Also Tackled by Legislature

The bill states that customers that install renewable energy systems that are 20 kW and under will receive "true net metering" This means that you can be credited at the full retail rate for putting electricity back on the grid. Interconnection fee is capped at \$100. Cost of additional meters or tests on renewable energy systems born by utilities. Renewable Energy Credits generated by customers stay with the customers and can be sold. SB 213 does provide for net metering for all systems with a modified program up to 150 kW. SB 213 does provide for net metering for biomass systems up to 550 kW in size, but there are additional costs and it is also a modified program.

Mariah Power Windspire Vertical Wind Turbines to be Built In Manistee, Michigan

A Nevada manufacturer will partner with a Manistee tooling maker to build more urban-friendly vertical wind-turbines in this Northern Michigan community that will generate hundreds of new jobs after the Manistee County Board approved a \$400,000 grant Tuesday. Mariah Power of Reno, Nevada, approved the partnership with MasTech Manufacturing Inc. in Manistee on Monday night, contingent upon commission approval of the grant. The company claims to have a backlog of more than 3,500 orders, or more than a year's production. The unit stands about 30 feet high and operates with three sets of airfoils that catch wind and rotate around a vertical axis. The Windspire turns a 20-foot tall rotor that generates electricity, and an inverter converts electricity from direct current to alternating current for residential or commercial use. The unit can generate approximately 2,000 kilowatt hours per year with average winds speeds of 12-mph, and sells for around \$5,000, plus installation costs. The joint venture will create 40 plus jobs initially with the promise of 120 new jobs in this rural region near Lake Michigan within three years. Michigan would be the only place in the world where this cutting-edge, clean technology will be built. Mariah and MasTech will now partner with Mariah to churn out 300 Windspires each month, with plans to expand production to more than 1000 a month by 2011. http://www.mitechnews.com/articles.asp?id=9250

Vestas Americas Selects Colorado for New Blade and Nacelle Assembly Operations

Aug. 18 -- Vestas Americas A/S plans to build two windmill component manufacturing facilities in Colorado to meet increasing U.S. demand for wind power. Both plants, a new blade factory and a nacelle assembly factory, will be in Brighton, Colo., and should begin production in 2010. The nacelle plant is the first in the United States for Denmark-based Vestas Wind Systems A/S. It operates another blade factory in Windsor, Colo. Vestas Americas also is planning to build a tower factory in Colorado, which will have an annual production capacity of 900 towers. The nacelle assembly operation will produce 1,400 nacelles annually and the additional blade plant will produce 1,800 blades per year. Vestas also has a blade production operation in Windsor, CO producing 1,800 blades per year.

http://www.wastenews.com/email.html?id=1219071726

Siemens seeks to expand its wind-power operations

The Wall Street Journal (9/12, B4, Becker) reports that Germany's Siemens AG "plans to expand its international wind-power operations, including producing more wind-turbine parts in the U.S., as part of a move to increase its share of the market, a company official said." According to Andreas Nauen, chief executive of Siemens's wind-power unit, the company "plans to manufacture nacelles for wind turbines in the U.S., in addition to the rotor blades it already makes at a plant in Iowa." The Journal explains that "in a wind turbine, the nacelle houses the generating components." Nauen said that "Siemens is looking at three to five locations in the U.S. for a plant to manufacture nacelles for 2.3-megawatt turbines." Nauen indicated that Siemens "plans to build a factory in China, and alsosees India as an expansion target." By increasing its "manufacturing capacity," Nauen said that "Siemens is getting in gear for the expected long-term growth of the world-wide wind-power market."

DOE Signs MOU with Wind Turbine Manufacturers

The U.S. Department of Energy (DOE) has signed a memorandum of understanding (MOU) with six wind industry turbine manufacturers: GE Energy, Siemens Power Generation, Vestas Wind Systems, Clipper Turbine Works, Suzlon Energy and Gamesa Corp. The two-year collaboration is designed to promote wind energy in the U.S. through advanced technology research and development, and siting strategies aimed to advance industrial wind power manufacturing capabilities.

- manufacturing advances in design, process automation and fabrication techniques to reduce product-to-product variability and premature failure while increasing the domestic manufacturing base, and

http://www.nawindpower.com/e107_plugins/content/content_lt.php?content.2392

Moventas New Turbine Component Manufacturing Facility to Locate in Minnesota

Moventas, a global supplier of mechanical power transmission equipment, plans to open a new wind turbine gear manufacturing facility in Minnesota. The new plant will be in Faribault, Minn., about 45 miles south of Minneapolis, and will employ about 100 workers. http://www.nawindpower.com/e107_plugins/content/content_lt.php?content.2759

Moventas Receives Orders For Wind Turbine Gearboxes

Mechanical power transmission company Moventas, which has offices in Finland, Germany and the U.S., has received orders for wind turbine gearboxes worth 140 million euros. The gearboxes will be delivered to leading wind turbine manufactures, from where they will be distributed to wind energy projects around the world. The delivered gearboxes will be installed in 1.5 MW to 2 MW wind turbines. Deliveries are expected to take place in 2009.

GE Drivetrain Technologies Unveils Wind Drive Train Concept

GE Drivetrain Technologies, a division of GE Transportation, has announced the development of the IntegraDrive, a new system engineered to take the wind energy industry to a new level. IntegraDrive integrates GE Drivetrain Technologies' proven planetary gearing and medium-speed generator technologies into one system. The product is an integrated geared generator that is lighter and more compact than conventional three-stage gearbox generator systems and - with fewer gears and bearings - is both more reliable and more efficient, according to the company. http://www.nawindpower.com/e107_plugins/content/content_lt.php?content.2769

Dowding Purchases Wind Turbine Machining Systems

Dowding Industries, a contract supplier of fabricated and machined components, has purchased two machining systems from MAG Industrial Automation Systems for production of wind turbine components and large, critical parts for other big-machine makers. A MAG Cincinnati U5-1500 five-axis profiler and a MAG Giddings & Lewis PT 1800 horizontal boring mill are the centerpieces of a new, state-of-the-art, 35,000 square-foot machining facility in Eaton Rapids, Mich. http://www.nawindpower.com/e107_plugins/content/content_lt.php?content.2763

Ann Arbor's Kaydon expects big financial gains with wind energy

For 20 plus years, Ann Arbor-based <u>Kaydon</u> has made its money manufacturing ball bearings for military vehicles, like tanks and Humvees. Today it is diversifying its business plan beyond military contracts to the burgeoning alternative energy sector. Some of the firm's customers approached the company a few years ago about making ball bearings for wind turbines, specifically bearings that allow the turbines to rotate with the direction of the wind. Sales of those ball bearings have gone from nothing two years ago to \$90 million of the company's \$590 million in revenues today. And Kaydon expects to hit \$175 million in revenues from wind turbine ball bearings by the end of next year. "It's a very steep growth rate that we have been preparing for," says Jim O'Leary, chairman and CEO of Kaydon. Growth that the O'Leary expects will help create some more jobs in Kaydon's ranks. The firm employs about 2,000 people worldwide, including 30 in its Ann Arbor headquarters. O'Leary can see the company hiring a handful of people locally to help accommodate the growth.

Climax Portable Machine Tools Releases Portable Flange Facer

Climax Portable Machine Tools Inc., a provider of comprehensive on-site machining solutions, has released the Climax FF6100 flange facer, the industry's smallest vertical-profile flange facer developed for re-facing flanges and repairing bearing fits and seals in cramped or restricted areas at the work site. According to the company, Climax flange facers are increasingly being adopted to efficiently machine wind turbine towers as well as equipment in the shipbuilding, power generation, heavy construction and service and engineering industries. http://www.nawindpower.com/e107_plugins/content/content_lt.php?content.2770

MLS Electrosystem To Inaugurate New Global Headquarters

MLS Electrosystem LLC is hosting an open house by invitation on Sept. 18 to celebrate its recently established global headquarters at 1300 Commerce Drive in Moon Township, PA. MLS designs, engineers and manufactures custom, modular servo blade pitch control systems for utility-grade wind turbines. The systems feature power control and emergency power modules coupled with electric servo motors that provide individual blade pitch control. http://www.nawindpower.com/e107 plugins/content/content lt.php?content.2745

GenNx360 Capital Partners To Acquire Precision AeroPower

New York-based GenNx360 Capital Partners has entered into a definitive agreement to acquire Precision AeroPower Group, an integrated provider of precision manufacturing and engineering services for the commercial aerospace, defense and power generation industries. Precision AeroPower, which is projected to generate \$260 million in revenues this year, provides original equipment manufacturers and tier-one suppliers with mission-critical components used in aircraft engines, aircraft structures and hardware, military vehicles and communications equipment, weapons systems, industrial gas turbines and wind power equipment. The company serves global customers through its nine production facilities in the U.S., the U.K. and China. http://www.nawindpower.com/e107_plugins/content/content_lt.php?content.2708

AMSC Launches Power Converter For The Wind Industry

American Superconductor Corp. (AMSC), an energy technologies company based in Devens, Mass., has launched its proprietary PowerModule PM3000W power converter, a fully programmable, flexible and modular power converter developed specifically for wind power applications. This highly scalable solution is designed for rapid integration into a wide range of wind turbines with power ratings from 750 kW to 6 MW.

http://www.nawindpower.com/e107_plugins/content/content_lt.php?content.2768

Global Wind Power Takes Over Windbrokers

Global Wind Power BV, a subsidiary of India-based Reliance ADA Group, has taken over Windbrokers New Equipment. Windbrokers will focus on its core business of selling used wind turbines. Global Wind Power is expanding its activities to a worldwide level, with a special focus on the U.K., Ireland, Eastern Europe, and North and South America. Global Wind Power recently opened a production facility with an annual production capacity of 600 MW. This facility will manufacture modern wind turbines with a capacity of 750 kW and 1.5 MW. The smaller wind turbine will be available from October onwards, while the latter is expected to reach the market in mid-2009. The company is also developing a 2 MW wind turbine, designed by Lagerwey Wind. In 2009, a first prototype will be tested in the Netherlands, while a second one will be erected on a test field in India. Production is expected to begin in 2010.

Pennsylvania: Wind Energy Supply Chain Initiative to Boost Manufacturing, Job Creation

Pennsylvania is launching a new wind energy initiative to better connect wind energy companies and their suppliers and boost the growth of Pennsylvania's wind power industry. The Wind Energy Supply Chain Initiative (WESCI) is part of the \$650 million Energy Independence Strategy Governor Edward G. Rendell (D) signed in July, and is designed to create jobs and expand Pennsylvania's manufacturing base.

Manufacturers retool for wind power industry

http://www.mlive.com/rebrandingmichigan/index.ssf/2008/09/manufacturers_retool_for_wind.html

Michigan looks to wind for power and jobs

http://www.mlive.com/rebrandingmichigan/index.ssf/2008/09/michigan_looks_to_wind_for_pow.html

Report Says U.S. Market For Wind Turbines Worth \$60B

According to a new technical market research report from BCC Research, titled "Wind Turbines: The U.S. Market," the domestic market for wind turbine components and systems will be worth \$60.9 billion in 2013. This represents an increase from the 2007 market value of \$7.9 billion and the estimated 2008 market value of \$11.2 billion. The compound annual growth rate (CAGR) between 2008 and 2013 is expected to be 40%.

http://www.nawindpower.com/e107_plugins/content/content_lt.php?content.2725

Michigan Not Yet Ready For Harnessing Lakes' Wind

http://www.publicbroadcasting.net/michigan/news.newsmain?action=article&ARTICLE_ID=13529 72

Transmission Superhighway Advised in White Paper

In yet another beat of the drum to build a nationwide transmission superhighway, a white paper from a prominent transmission player echoes multiple key items on the transmission policy agenda that is urged by the wind energy industry: the U.S. needs a national transmission backbone consisting of extra-high voltage (EHV) lines in order to both improve reliability on the aging transmission grid and tap much-needed renewable energy resources, the paper asserts. http://www.anbaricholding.com/whitepapers.htm

FERC Accepts Midwest ISO Queue Reform Proposal

The Federal Energy Regulatory Commission (FERC) has conditionally accepted the Midwest ISO's proposed reforms to its generation interconnection queue process. The reform proposal submitted to FERC in June was designed to speed the development and integration of more than 84,000 MW of requested generation.

http://www.nawindpower.com/e107_plugins/content/content_lt.php?content.2723

U.S. Wind Energy Installations Surpass 20,000 Megawatts

The U.S. wind industry has raced past the 20,000-megawatt (MW) installed capacity milestone, achieving in two years what had previously taken more than two decades, the American Wind Energy Association (AWEA) said today (the 10,000-MW mark was reached in 2006). Wind now provides 20,152 MW of electricity generating capacity in the U.S., producing enough electricity to serve 5.3 million American homes or power a fleet of more than 1 million plug-in hybrid vehicles.

FEDERAL AND OTHER FUNDING OPPORTUNITIES

The U.S. Department of Energy's Wind & Hydropower Technologies Program

DOE on August 5th announced funding awards to seven national laboratories to address challenges to the integration of substantial amounts of renewable energy into the Nation's electric system. The awards, which total \$4.057 million, will fund research and industry collaboration on wind energy integration at the National Renewable Energy Laboratory, Pacific Northwest National Laboratory, Oak Ridge National Laboratory, Lawrence Livermore National Laboratory, Argonne National Laboratory, Sandia National Laboratory, and Los Alamos National Laboratory. www.eere.energy.gov/news/progress_alerts/progress_alert.asp?aid=278

DOE Loan Guarantee Program

Now allows for loans for manufacturing of renewables

http://www.lgprogram.energy.gov/ http://www.science.doe.gov/sbir/

DOE SBIR 2009

The Department of Energy FY 2009 Funding Opportunity Notice will be issued mid-September, 2008. Research areas of interest are posted at http://www.science.doe.gov/sbir/Solicitations/FY%202009/09topiclist.htm

Clean Renewable Energy Bonds

The federal Energy Tax Incentive Act of 2005, under Title XIII of the federal Energy Policy Act of 2005 (EPAct 2005), established Clean Energy Renewable Bonds (CREBs) as a financing mechanism for public sector renewable energy projects. This legislation originally allocated \$800 million of tax credit bonds to be issued between January 1, 2006, and December 31, 2007.

Eligible Renewable Technologies:

Solar Thermal Electric, Photovoltaics, Landfill Gas, Wind, Biomass, Hydroelectric, Geothermal Electric, Municipal Solid Waste, Small Irrigation Power <u>Eligible Applicants:</u>

Local Government, State Government, Tribal Government, Municipal Utility, Rural Electric Cooperative

http://www.irs.gov/irb/2007-14_IRB/ar17.html

DOE Loan Solicitations Include Renewable Energy

The U.S. Department of Energy (DOE) has announced three solicitations for a total of up to \$30.5 billion in federal loan guarantees for projects that employ advanced energy technologies that avoid, reduce or sequester air pollutants or greenhouse gas emissions. The three solicitations are in the areas of energy efficiency, renewable energy and advanced transmission and distribution technologies; nuclear power facilities; and advanced nuclear facilities for the front end of the nuclear fuel cycle. This marks the second round of solicitations for DOE's loan-guarantee program, which encourages the commercial use of new or significantly improved energy advanced transmission and distribution projects. "Loan guarantees from the department will enable project developers to bridge the financing gap between pilot and demonstration projects to full, commercially viable projects that employ new or significantly improved energy technologies," says Jeffrey F. Kupfer, acting deputy secretary of energy.

American Trust Launches Alternative Energy Funds

Lebanon, N.H.-based American Trust Investment Advisors LLC has launched the no-load American Trust Energy Alternatives Fund. The new fund will seek to identify domestic and international publicly traded companies that will play a role in meeting increased worldwide energy demand. The American Trust Energy Alternatives Fund's investment objective is long-term capital appreciation. The fund will seek companies that are either directly involved in some capacity in alternative energy production or that are likely to benefit from the development of these technologies. The fund will screen almost 300 energy-related companies worldwide to evaluate the economic viability and scientific soundness of their products and services. The alternative energy companies included will cover a broad range of technologies, including solar, wind, geothermal, hydro, tidal, biofuel and other energy-generation or -storage technologies. The minimum initial investment in the Fund is \$5,000 for regular accounts and \$2,500 for individual retirement accounts. The minimum subsequent investment is \$100.

California - Transportable Wind Generators

The Naval Air Warfare Center Weapons Division, announces its intent to seek quotes for 8 Transportable Wind Generators to support the Fire Science and Technology Office in China Lake, CA. The Transportable Wind Generators shall provide a minimum of 30 knots of wind at a distance of 100 feet. The solicitations will be released on or about 7/22/08. For more info, contact Derrick Hu at <u>derrick.hu@navy.mil</u> or go to: <u>https://www.fbo.gov/?s=opportunity&mode=form&id=03a5a7c18975d8dd147</u> 617ddbdaae707&tab=core&_cview=0. Refer to Sol# N6893608R0066. (FBO 7/9/08)

Renewable Energy - Massachusetts

Taunton Municipal Lighting Plant seeks up to 260,000MWh per year of energy and dependable capacity starting in the calendar year 2009 from eligible renewable resources to meet the Massachusetts RPS requirements. Responses due 12/1/08. For more info, contact Scott Whittemore at <u>Renewables@TMLP.com</u> or go to: <u>http://personal.tmlp.com/tmlpesp/RFP08-</u> 01-renewable-resource/. (Green Power Network 7/28/08)

Wind Energy – Ontario

The Ontario Power Authority (OPA) has issued a request for proposals (RFP) for projects larger than 10 MW in Ontario. This bidding will mark the first phase of a renewable energy supply (RES) procurement process - one that is intended to combat climate change by adding 2,000 MW of new green power to Ontario's electricity supply. The 500 MW RES III RFP process is designed to bring renewable capacity to the province in areas where it is most needed. Proposals will be evaluated for technical capability, financial strength, previous experience, management skills and a variety of other criteria to ensure the successful bidders will complete their projects on time and on budget. A fairness advisor will monitor the process. OPA will process and evaluate the bids. Successful projects are expected to be announced in December. Deadline: Oct. 28

For more information: powerauthority.on.ca

STATE FUNDING OPPORTUNITIES

Michigan Gov. Granholm Announces Invest Michigan!

Governor Jennifer M. Granholm today officially announced the Invest Michigan! program and introduced members of the Business Leadership Council that will support the initiative. Granholm proposed Invest Michigan! in her 2008 State of the State address. "This program is designed to grow the state's pension fund by investing in Michigan-based companies," Granholm said. "Invest Michigan! will help diversify Michigan's economy by retaining, attracting, and building successful small and medium-sized businesses and, in turn, creating jobs for Michigan workers." Through Invest Michigan!, the State of Michigan Retirement Systems has committed \$300 million divided equally between a Growth Capital Fund, which will make direct investments targeting venture capital and expansion-stage companies, and a Michigan Opportunities Fund, which will target potential acquisitions and buyouts. The Growth Capital Fund will be managed by cogeneral partners Beringea and Credit Suisse. The Michigan Opportunities Fund will be managed by Glencoe Capital. Each of the general partners has offices in Michigan and a successful track record in the industry.

http://www.michigan.gov/gov/0,1607,7-168--197405--,00.html

Michigan Enacts \$45M Centers of Energy Excellence Program

Gov. Jennifer Granholm today signed legislation creating Centers of Energy Excellence, a program designed to bring companies, academic institutions, and the state together to create jobs in alternative and advanced energy. The initiative, passed with overwhelming bipartisan support, is part of an overall job creation and economic stimulus package proposed by the governor in her State of the State address earlier this year (see the Jan. 30, 2008 issue of the *Digest*). To be administered through the Michigan Economic Development Corp., the Centers of Energy Excellence will support the development, growth and sustainability of alternative energy industry clusters in Michigan by identifying and/or locating a base company in a geographic region with the necessary business and supply-chain infrastructure. These centers will match the base company with universities, national labs and training centers to accelerate next-generation research, workforce development and commercialization. Under the new law, which is effective immediately, the Michigan Strategic Fund (MSF) is authorized to allocate up to \$45 million from

the 21st Century Jobs Trust Fund to establish and operate the program. Grants will be made available to for-profit companies that meet the following criteria:

- Match a federal, foundation or international investment;
- Accelerate the commercialization of an innovative energy technology or process; or,
- Assist in activities of the center, including workforce development and technology demonstration.

The centers will be located in areas where the MSF determines that the state has competitive advantages in workforce, intellectual property and natural resources, but where technical and supply-chain hurdles could prevent the commercialization process. More information will be available in the near future at: <u>http://www.michiganadvantage.org</u>

21st Century Job Fund Update

The SEIC Board this month selected the proposals that would proceed to the Oral Interview stage of the process.Following is an overview of the numbers for the competition: 117 proposals received; 96 through the Compliance stage and into Written Review <u>Proposals that made it through Compliance to Written Review</u>: 24 in Advanced Manufacturing (requesting \$89MM) 10 in Alternative Energy (\$28MM) 15 in Homeland Security / Defense (\$35MM) 47 in Life Sciences (\$146MM) <u>Proposals recommended by Reviewers for Oral Interviews</u>: 7 (of 24) in Advanced Manufacturing (\$18MM) 1 (of 10) in Alternative Energy (\$1MM) 7 (of 15) in Homeland Security / Defense (\$10MM)

22 (of 47) in Life Sciences (\$40MM)

Michigan Pre-Seed Fund

The Michigan Pre-Seed Capital Fund supports high-tech start-up companies as they near commercial viability by providing access to early-stage capital to accelerate company development. Supported by a consortium of Michigan SmartZones and administered by Ann Arbor Spark and Automation Alley, these funds will extend the personal investment of entrepreneurs during the critical stage when they are developing their businesses to the point of readiness for outside investment. These needs might include hiring key management executives or specialized consultants, regulatory review, contract manufacturing agreements, marketing strategies and sales plans, etc. At this stage, the Pre-Seed Fund will be able to fund \$50,000 to \$250,000 per company alongside their investment partner who will provide a minimum dollar for dollar match. The goal of the Pre-Seed Fund is to position these companies for follow-on investment.

http://www.annarborspark.org/business-resources/business-growth-expansion/pre-seed-fund/pre-seed-faqs/

For more information contact: Skip Simms at 734-646-3173 or email skip@annarborspark.org

Michigan Renaissance Zones

Renaissance zones are virtually free of all state and local taxes for businesses located within their boundaries. There are over 150 geographic areas in Michigan that are designated as renaissance zones.

http://ref.michigan.org/medc/services/sitedevelopment/renzone/index.asp?WT.svl=Home_Feat_Links_4

Michigan Emerging Technology Fund

Effective January 30, 2008, the Emerging Technology Fund (ETF) will be monitored by the MI-SBTDC, not the MEDC. This program provides state matching dollars to federal SBIR/STTR awards to help companies bring their projects to commercialization. More information can be found in the attached guidelines document or on the web at www.mietf.org.

DTE Energy, UM create cleantech entrepreneurship contest

To help move clean energy technologies from the laboratory to commercial production, DTE Energy has joined with the University of Michigan to conduct an annual entrepreneurship competition that will challenge teams from Michigan colleges and universities to develop the best plan for bringing new clean-energy technologies to market. The prize pool for the 2009 competition will be \$100,000, which will be divided among the winning teams. For subsequent years, it is expected that the prize pool will be \$200,000.

http://www.wwj.com/DTE-Energy--UM-Create-Cleantech-Business-Contest/2196588 www.dtecleanenergyprize.com

Automation Alley Seed Fund

Automation Alley is a 501(c)6 non-profit and accomplishes this through a collaborative culture that focuses on workforce and business development initiatives. Automation Alley attracts the creators and consumers of diverse technologies from a variety of industries around the world. The Automation Alley region encompasses Genesee County, Livingston County, Macomb County, Monroe County, Oakland County, St. Clair County, Washtenaw County, Wayne County and the City of Detroit. Automation Alley provides seed funding for unique technology companies with intentions to create jobs in SE Michigan.

Thomas E. Anderson, PhD, MBA Senior Director, Automation Alley 2675 Bellingham (click for map) Troy, MI 48083 Ph - 248.457.3302 FAX - 248.457.3210 http://www.automationalley.com

Great Lakes Angels

GLA is a membership of a number of individual investors (approx 40) including associate members. The typical investment from GLA is \$50-300K per company. Investments normally are structured as equity, sometimes convertible debt. GLA will also syndicate deals with other angel networks when appropriate.

Requirements for Venture to Apply:

- Your company can be a pre-revenue, but should have a proof of concept
- You must have a national or global business opportunity with at least a niche need
- Revenue potential should be \$25-50 million over next 5 years (5-10x return)

• You need a good management team (or are addressing holes in management team) Rick Galdi, President

Great Lakes Angels Golf View Lane Rochester, MI 48309 <u>www.glangels.org</u> 248.648.4747 rick@windfallprojectz.com

Bridge Loan Option

\$1,800,00 Bridge Loan is available from a local investment firm. If interested contact: Joseph Alam or Michael Alam Mid-States Capital, LLC
Wayne State University Research and Technology park
440 Burroughs, Suite #517
Detroit, MI 48202
313-263-4037, fax: 313-228-4506
jpa@midstatescapital.com

Grand Angels

Ms. Jody Vanderwel 10720 Adams Street Holland MI, 49423 T: (616) 546-4559 F: (616) 396-2424 info@grandangels.org vanderwelj@grandangels.org http://www.grandangels.org/

Michigan Venture Capital Firms

http://www.michiganvca.org/membership_info/members.html

Michigan Growth Capital Association

http://www.michiganvca.org/

STATE WIND ENERGY RESOURCES

List your company in our new Michigan Directory of Alternative Energy Technology Suppliers.

The purpose of the *Directory* is to catalog Michigan companies with interest in and ability to supply developers of Alternative Energy Technologies (AET). We are expanding our supplier match making work in the wind industry to other growing energy markets. The range of equipment and product types in these markets – as well as its growth potential – is huge. The AET sector encompasses wind turbines, biofuels refineries, hybrid electric vehicles, advanced batteries and energy storage devices, photovoltaics, and passive solar heating systems. Clearly, many Michigan companies – whether or not they have prior experience in AET markets—have the know-how and competencies to contribute to the AET value chain. In order to be listed in the *Michigan Directory of Alternative Energy Suppliers* – and to receive RFQs and invitations to future supplier events – you must fill out this form completely. Note that you may skip sections that do not apply to your company. Especially critical is an e-mail address, as RFQ alerts and invitations will be distributed via e-mail. If you would prefer to complete this questionnaire online, go to <u>www.nextenergy.org/rfqsurvey.asp</u> and "click here to get on the list!"

Michigan Economic Development Wind Energy Business Development Manager

MEDC is working hard to provide incentives and support for companies interested in developing projects, manufacturing operations and new technology to drive a strong wind energy industry in Michigan. Please contact Eric for more information.

Eric Shreffler – MEDC Sector Development Managere Renewable Energy <u>shrefflere@michigan.org</u> 734-953-1531

Wind Energy Manufacturing Research:

Consortium for Advanced Manufacturing of Alternative and Renewable Energy Technologies (CAMARET) held a meeting at the NextEnergy Center on December 14, 2007, which included the five universities, MEDC, NextEnergy and several Michigan based manufacturers. The focus of the discussion was on research ideas for wind turbine manufacturing. Wind turbine manufacturing was targeted as the initial activity as the state has much activity and critical mass in manufacturing of wind turbines, through the efforts of WMU, NextEnergy, MEDC, and others. Potential Manufacturing Research projects/ideas discussed include the following... To learn more or join the group, please contact John Patten, Western Michigan University at

john.patten@wmich.edu

New MSU Land Policy Institute Tool for identifying best locations for wind energy projects in Michigan

The Wind Prospecting Tool (WPT) will be divided into two segments, first an analysis and interactive map tool to find and highlight the best areas in Michigan for utility scale wind farm development. This will showcase from the perspective of large scale development, the largest and most commercially viable areas in the state. Second, a separate tool will be developed targeted at community wind development potential, and produce a community wind profile for each community with wind resources in Michigan. This tool is an initial step in informing the wind development process, and bringing stakeholders accurate reliable, and timely information. A third tool, which is a future project, will closely examine off-shore targets for wind deployment http://www.landpolicy.msu.edu/wpt/

MSU Land Policy Institute, John Warbach, PhD 310 Manly Miles Building, 1405 South Harrison Road East Lansing, MI 48823 517-432-8800 Ext. 107 warbach@msu.edu www.landpolicy.msu.edu

Michigan State University Extension Program

MSU Extension is working with landowners in Michigan to explore their options for wind energy. The State Energy Office of Michigan and the U.S. Department of Energy are sponsoring this effort to encourage more on-farm wind energy in the state. MSU Extension also manages the Michigan Anemometer Loan Program that donates testing towers to qualifying applicants across the state.

http://web1.msue.msu.edu/wind/. Contact Steve Harsh at 517-353-4518 or harsh@msu.edu

Great Lakes Wind Speed and Power Density maps.

Upon clicking on the link, the file will start downloading. http://ftp.awstruewind.com/files/NREL/NREL_GreatLakes_Final_PDFMaps.zip http://ftp.awstruewind.com/files/NREL/NREL_GreatLakes_Final_PDFMaps_20May08.zip

Great lakes wind resources/facts

http://greatlakeswiki.org/index.php/Great_Lakes_Wind http://greatlakeswiki.org/index.php/Wind_energy

Michigan Energy Overview

http://www.dleg.state.mi.us/mpsc/reports/energy/energyoverview/

OTHER WIND ENERGY RESOURCES:

Wind Energy Basics

http://www.sandia.gov/wind/links.htm#BASICS

How much does a wind system cost?

The cost of individual components varies greatly by size and type of turbine design. Approximate costs should be obtained through the company you are trying to license from I would suspect. A small turbine can cost anywhere from \$6,000 to \$22,000 installed, depending upon size, application and service agreements with the manufacturer. <u>http://www.windpower.org/en/tour/econ/index.htm</u> <u>http://en.wikipedia.org/wiki/Wind_turbine</u>

Great Website on Wind Manufacturing including photos and tours of wind component manufacturing plants: http://www.windpower.org/en/tour/wtrb/comp/index.htm

National Renewable Energy Lab (NREL) Wind Research Center

The National Renewable Energy Laboratory's (NREL's) National Wind Technology Center (NWTC), located at the base of the foothills just south of Boulder, Colorado, is the nation's premier wind energy technology research facility. Built in 1993, the center provides an ideal environment for the development of advanced wind energy technologies. The goal of the research conducted at the center is to help industry reduce the cost of energy so that wind can compete with traditional energy sources, providing a clean, renewable alternative for our nation's energy needs. Projects include development of Low Wind Speed Technology, Utility Grid Integration, Environmental Issues and more...

http://www.nrel.gov/wind/nwtc.html?

AWS Wind Resource Maps

Albany, N.Y,-based AWS Truewind LLC has completed the first high-resolution wind resource map of the contiguous U.S. Covering a land area of over 9 million square kilometers. http://www.awstruewind.com/

Emerging Energy Research – Market and Supply Chain Studies

<u>http://www.emerging-energy.com/</u> <u>http://www.emerging-energy.com/user/marketstudies.aspx?catid=1&cattype=MarketStudies</u>

BTM Consult ApS - Market and Supply Chain Studies

http://www.btm.dk/ http://www.btm.dk/special-index.htm

Sandia Reports on New Blade Designs

http://sandia.gov/wind/topical.htm#ADAPTIVE

Sandia Wind Blade Design Tool

http://sandia.gov/wind/NuMAD.htm

Small Roof Mounted Wind Turbine Performance Study

http://www.awea.org/windletter/042908_AWEA_WL.pdf http://www.warwickwindtrials.org.uk/8.html

AWEA 2008 Small Wind Global Market Study and Other Small Wind Resources

http://www.awea.org/smallwind/pdf/2008_AWEA_Small_Wind_Turbine_Global_Market_Study.pdf http://www.awea.org/smallwind/

New members-only online community for small wind

A new online tool is now available to those members of AWEA interested in the small wind industry. The "e-community" resource is open to all levels of AWEA membership and enables users with similar interests to share information and ideas, collaborate on projects, and communicate securely online. AWEA offers other e-communities pertaining to turbine siting, utilities, industry statistics, human resources, and AWEA's leadership council.

To access the e-community, log in to the Members Only site at

<u>http://www.awea.org/membercenter/login.html</u> and select "e-communities" from the left navigation box. For more information on features and how to use the site, see the e-communities reference guide at <u>http://www.awea.org/reference-guides/AWEA ecommunities Reference Guide.pdf</u>.

DOE/AWEA 20% by 2030 Report

http://20percentwind.org/

U.S. Department of Energy released its "Annual Report on U.S. Wind Power Installation, Cost, and Performance Trends: 2007."

The report can be downloaded at:

http://eetd.lbl.gov/ea/ems/reports/lbnl-275e.pdf A PowerPoint presentation based on the report can be found at: http://eetd.lbl.gov/ea/ems/reports/lbnl-275e-ppt.pdf

In Pictures: America's Best Places For Alternative Energy http://www.forbes.com/2008/07/09/energy-solar-green-biz-energycx_bp_0709atlas_slide.html?thisSpeed=30000

Job Opportunities/Talent Recruiting

Solar Sales Engineer

A leading automation and systems engineering firm is looking for an experienced professional to represent the company's products and services on an assigned account to improve the company's competitive market position in the solar energy industry. The position will sell specific systems to designated accounts: Solar Cell Assembly Systems. If interested, please contact: Jenny Husby

Director of Human Resources KUKA Systems Corporation North America Phone +1 (586) 795-2000 (4135) Fax +1 (586) 649-4422 Email: jenny.husby@kukanao.com 6600 Center Drive, Sterling Heights, MI 48312 USA Internet: www.kukanao.com



Sales Engineer.doc

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MEDC Positions Open



Manager, 21st Manager, Capital Century Jobs Compet Markets Development

Ned Staebler | Vice President | Program Administration Michigan Economic Development Corporation 300 N. Washington Square | Lansing, MI 48913 Direct: (517) 241-8030 staeblern@michigan.org

Project Manager Position

Organization: Clean Energy Coalition (CEC) Status: Regular/Full-time Location: 124 Pearl St., Suite 402, Ypsilanti, MI 48197 Reports To: Executive Director Salary: \$30,000 to \$45,000 Filing Dates: Position Open Until Filled Sean Reed, Executive Director Clean Energy Coalition 124 Pearl St., Suite 402 Ypsilanti, MI 48197 email: reed@cec-mi.org Ph 888.818.0987 ext. 703 fax to 734.714.3075

Environmental Education Manager

<u>Urban Options, Inc.</u> in East Lansing is searching for an environmental education manager who will be responsible for developing and coordinating all programs, contracts and grant projects. The ideal candidate will also promote energy and sustainability programs in a proficient, energetic and effective manner resulting in education and market transformation in the energy and environmental field.

http://www.urbanoptions.org/

ESD 2008 Fall Engineering & Technology Job Fair

Monday, October 27, 2008 2:00 - 7:00 p.m. The Rock Financial Showplace, Novi Cost: \$15 Looking for a new job opportunity or a new career? More than 70 of Michigan's largest engineering, energy, technology and management companies are expected to recruit at the job fair. The entrance fee of \$15 includes admission to the job fair and a 1-year membership to The Engineering Society of Detroit (for new, first-time members). To register online, **visit here**. For more information, contact Leslie Smith at <u>Ismith@esd.org</u> or 248-353-0735, ext. 152. Presented by the ESD Job Bank and ESD Speakers Bureau.

AWEA Wind Energy Jobs Website

http://www.jobtarget.com/home/index.cfm?site_id=770

Career Opportunities in the Wind Energy Industry:

Positions in Project Development, Turbine Design, Manufacturing, Construction, Operations, Customer Service, and more... http://web.zackin.com/rd/cm_rdTracker.phtml?catid=919&pub=naw

Cleantech Jobs:

http://cleantech.jobthread.com/

Carbon Finance Jobs is promoted to a carefully selected list of more than 30,000 environmental finance and carbon finance specialists around the world http://www.carbon-financeonline.com/index.cfm?section=jobs

Other Energy Jobs:

www.EnergyCentralJobs.com

Michigan Land Use Job Opportunities

http://www.landpolicy.msu.edu/modules.php?name=Pages&sp_id=334

Aerotek, Inc. is a energy recruiting and staffing resources firm with more than 150 offices across the US and Canada provides talented professionals to an array of large national organizations and smaller local companies. 7301 Parkway Drive Hanover, MD 21076 410-694-5100 800-237-6835 www.aerotek.com **RSMR Global Resources** is the leader in retained executive search to the renewable energy industry. Since 1997, we have been working with "Green" clients, helping them find executives with the right mix of talent, vision and values to positively impact their organizations. Our knowledge of successful leaders in renewable energy, sustainability and green build is second to none.

Christopher Swan, CEO RSMR Global Resources, Inc. D 312.447.3011 M 312.399.5700 <u>swan@rsmr.com</u> <u>www.rsmr.com</u>

Velocity Talent is an affiliate of the largest recruiting and placement organization in the world with over 1,000 offices worldwide, Julie Dodds - President Rod Carlson – Wind Energy Specialist VELOCITY TALENT (503) 534-0240 ext. 200 julie@velocityt.com rod@velocityt.com

I hope this information was helpful

Best Regards,

Dan Radomski VP, Industry Services NEXTENERGY 461 Burroughs Detroit, MI 48202 P: 313-833-0100 ext. 150 F: 313-833-0101 danr@nextenergy.org

Subscribe free to receive NextEnergy's monthly e-newsletter...the Michigan Energy Report

http://www.wwj.com/pages/9363.php