



# The **MAREC** Minute

Fall 2009 : Volume 1, Number 2



**GRAND VALLEY  
STATE UNIVERSITY**  
MICHIGAN ALTERNATIVE AND  
RENEWABLE ENERGY CENTER

The Michigan Alternative & Renewable Energy Center (MAREC) is a program of Grand Valley State University. MAREC is part of the Muskegon Lakeshore SmartZone, a joint venture with the city of Muskegon, Grand Valley State University, and the Michigan Economic Development Corporation.

## *A Message From The Director*

We are pleased to update you with the fall edition of the MAREC Minute. A major accomplishment this summer was the completion of the MAREC Strategic Vision 2009. With the assistance of the MAREC Advisory Committee and a small ad-hoc work group (whose contributions and efforts are greatly appreciated!), a comprehensive outline of the mission, vision and future direction for MAREC was established.

*MAREC's mission is "to be an economic development catalyst, business accelerator, as well as research and development center that links business, education and government resources for the advancement of emerging technology with emphasis on alternative and renewable energy".*

The full Strategic Vision 2009 document is available for review at [www.gvsu.edu/marec](http://www.gvsu.edu/marec).

Through the efforts of Congressman Peter Hoekstra (R-Holland), Second Congressional District, GVSU/MAREC received a federal congressional award of \$1.4 million for development of an offshore wind project. The original project included a demonstration wind turbine in Muskegon Lake. Changes in federal match requirements and evolving wind generation technology have modified the project's design since it was first proposed in 2007. Following consultations with Department of Energy (DOE) and Michigan wind interests, a planning consortium was formed to help re-design the GVSU Offshore Wind Project.

With DOE endorsement, the consortium concluded that establishment of a Lake Michigan offshore platform to gather offshore wind data, lake bathymetry, evaluate deep water anchoring systems and floating platform technology on a year-round basis would be a valuable contribution to the development of the emerging offshore wind industry.

A preliminary review of available platform and other technology needed for the offshore wind project is now underway. Watch for further announcements as GVSU and MAREC prepare to take "*Laker Blue*" offshore in pursuit of Great Lakes wind.

~ **Arn Boezaart**, Interim Director ([boezaara@gvsu.edu](mailto:boezaara@gvsu.edu))



*T. Arnold (Arn) Boezaart*

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## Contact Us

### MAREC

200 Viridian Drive  
Muskegon, Michigan 49440

Phone: (616) 331-6900  
Local Phone: (231) 722-4371  
Fax Number: (616) 331-6910

## *Congressional Staffers Pay Visit To MAREC*

On August 5 & 6, GVSU & MAREC hosted a 12-member congressional staff delegation representing each of the Michigan congressional offices. The focus of the visit centered on gaining a better understanding of the use of traditional and renewable energy from a west Michigan perspective.

The fast paced day-and-a-half visit gave participants an opportunity to discuss renewable energy and related public policy trends. Senior GVSU staff and Consumers Energy representa-

tives accompanied the delegation. Stops included the den Dulk dairy farm's bio-digester plant in Ravenna, Consumers Energy's Muskegon B.C. Cobb coal fired power plant, Rogers Dam hydroelectric plant, the Ludington pumped storage facility, and Stoney Corners Heritage wind farm in southern Missaukee County.

"Energy is one of the priority issues in Washington right now and will be again next year," said Matt McLogan, GVSU vice-president for University Relations. "We invited our guests to help them better understand the importance of energy issues and advancement of renewable energy to GVSU and west Michigan. GVSU is an important resource in bringing public and private interests together to help advance the development of renewable energy technology throughout the lakeshore region."

The congressional staff visit was very timely given the current national focus on global climate change, greenhouse gas emissions and the controversial "Cap and Trade" legislation passed by the U.S. House of Representatives earlier this year. With numerous related programs such as the campus-wide sustainability initiative, MAREC, the Green Chemistry program, related interests of the Colleges of Engineering, Interdisciplinary Studies, Liberal Arts & Sciences and others, GVSU is well positioned to help lead our energy future.



## *Permanent MAREC Director To Be Selected Soon*

Finalists for the permanent MAREC director position will be visiting Grand Valley State University during the weeks of October 12 and 19. The community is invited to hear a brief presentation by each candidate with a "meet & greet" reception immediately following. Presentations and receptions will take place at MAREC. The schedule for the candidates is as follows:

**Nancy Ellwood**

Tuesday, October 13, 2009  
4:00-4:30 PM Presentation  
4:30-5:30 PM Reception

**Nathan Long**

Thursday, October 15, 2009  
3:30-4:00 PM Presentation  
4:00-5:00 PM Reception

**T. Arnold (Arn) Boezaart**

Thursday, October 22, 2009  
4:00-4:30 PM Presentation  
4:30-5:30 PM Reception

## *MAREC Hosts Carbon “Cap And Trade” Seminar*

On September 10, MAREC and the Michigan Small Business Technology Development Center (MI-SBTDC) co-hosted *COMING TO TERMS WITH A CARBON CONSTRAINED ECONOMY: A Seminar for Regional Business and Policy Leaders*. This free seminar, attended by more than 60 participants, provided an overview of carbon technology, the challenges and opportunities presented by greenhouse gas emissions, the reality of living in a carbon-constrained economy, the proposed “Cap and Trade” emissions program under consideration by congress, and related topics. The goal of the seminar was to provide participants from business and industry with baseline knowledge about a subject that is gaining prominence and becoming a business planning reality.

Representatives from Viability Inc. and Danu Carbon & Energy Solutions LLC provided an overview of carbon economy basics followed by a more comprehensive review of the theories, economics, and business models linked to the emerging carbon regulated environment.

The seminar concluded with a briefing by GVSU student Luis Otavio Colaferro on efforts underway to develop a comprehensive carbon inventory and “carbon footprint” for the GVSU campus. The GVSU student-led carbon inventory management team is providing important leadership in helping west Michigan develop a greater understanding of a complex topic that has business development, public policy and economic implications for all us. We salute the efforts of our GVSU students!

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## *Colleges Gather To Plan Unique Strategy*

A consortium of nine regional community colleges plus Ferris State University and GVSU gathered at MAREC on August 10-11 to develop a shared vision and “business plan” for a West Michigan Wind Testing and Training Center. The participating institutions recognize the urgency and importance of preparing a skilled workforce for the emerging wind industry in our region. The costs and resource requirements to establish a fully equipped training facility are enormous. A collaborative strategy and a shared training facility would send a strong signal to both funding sources and the wind industry that west Michigan is prepared to support the workforce training needs of the future.

By working as a consortium, the institutions plan to pursue state and federal resources for a shared program that will enhance student training opportunities and achieve economies of scale. Arn Boezaart, Interim Director of MAREC, noted that “the goal is for the schools to take the best of what each has to offer and bring it together in a shared training environment.” Basic technical classroom work would continue to be provided at each academic location. Once the student is ready for field experience and “hands-on” training with full scale equipment they would have the opportunity to benefit from the envisioned West Michigan Wind Testing and Training Center. Included in the consortium are: Muskegon, Kellogg, Glen Oaks, Kalamazoo, West Shore, Grand Rapids, and Montcalm Community Colleges.

### *Did you know?*

Many people do not know that there is a difference between alternative and renewable energies. The term “alternative energy” is typically used to refer to sources of energy other than nuclear energy or fossil fuels (coal or oil). “Renewable energy” is any type of energy which comes from renewable natural resources, such as wind, rain, sunlight, geothermal heat, and tides.

## *MAREC Incubator Start-ups Are On The Move*

Business incubator tenants are on the move and taking advantage of the benefits gained from their start-up experience at the MAREC facility. Following a successful two-year stay in the MAREC incubator, Earthtronics, a distributor and manufacturer of EarthBulb brand energy efficient lighting products and developer of the Honeywell small wind turbine has “graduated” and moved into its own Muskegon based headquarters. Most recently Earthtronics announced plans to establish a manufacturing site for the Honeywell wind turbine, developed at MAREC, in Windsor, Canada.

Following right behind with its own growing success story is Smart Vision Lights, a MAREC start-up company in August 2007. Smart Vision Lights is developing capability in specialty LED luminaire design for manufacturing inspection. The company brings together the manufacturing technology, assets and experience needed to successfully compete in the LED vision lighting business, an increasingly important and fast-growing market segment in the development of LED lights for industry specific applications.

The most recent addition to the MAREC incubator family is Logical Lighting Systems, a Muskegon based start-up company that aspires to become a premier supplier of high efficiency lighting technology. Logical Lighting Systems will address the enormous potential for energy and cost savings in the country’s work places and public spaces. With an October 1, 2009 move in date, the company intends to become a complete high-efficiency lighting provider able to meet corporate, commercial, industrial, educational and residential markets. Logical Lighting Systems will use the business counseling, and networking resources available through MAREC to grow its business. The move to MAREC will provide Logical Lighting Systems and its two employees access to on-site laboratory facilities for product testing and evaluation. MAREC staff are pleased to have this new and promising company join its incubator program.

## *Staff Spotlight: Jon VanderMolen & Alek Kahlo*

Since May some friendly new faces have appeared at the MAREC reception desk. There to assist you are Jon VanderMolen and Alek Kahlo. Their assignments are to welcome and assist guests as they enter the building. They also work on special projects such as the newsletter and other publications, provide valuable project research assistance and give brief tours of the facility and the renewable energy technology present at the MAREC site.

Jon is a 2008 graduate of GVSU and also works as a research assistant at GVSU Annis Water Resources Institute. He recently completed a bachelor’s degree in Natural Resources Management and specializes in Geographic Information Systems and water sampling. In his spare time he enjoys sports, the outdoors and his family.

Alek is currently a GVSU senior enrolled in the College of Engineering and Computing and is completing an Information Systems degree. Through the diverse offerings of the program, Alek has studied programming, information system design, project development and systems management. In his spare time, Alek enjoys playing obscure and premium board and card games with his friends. Both of these young men are part of an overall strategy to make MAREC a more user-friendly environment.



Jon VanderMolen



Alek Kahlo

