

ShoreENERGY Newsletter

VOLUME 1, ISSUE 1

JULY 17, 2007

This is the first ShoreENERGY newsletter. This edition contains a review of the first nine months of ShoreENERGY and a look at future activities.

As you know we have formed a steering committee to provide direction for the program. The following members make up the steering committee:

Michael Pennington
Chuck Whitmore
John Allen
John Proctor
Shelton Lankford
Dave Downes
Tylor Claggett
Dan Ervin

Memo Diriker, Director of BEACON has provided valuable assistance and advice during the start-up phase of our program and deserves many thanks. Heidi Bishop, Senior Practice Manager at BEACON, was responsible for all of the logistics for the meetings at the University. She cheerfully fulfilled all of our requests. Heidi has graduated from the MBA program at SU and will start her career. We all wish her the best as she leaves BEACON and ShoreENERGY. Tyler Deaton will assume Heidi's responsibilities and we look forward to working with him.

At the last steering committee meeting, the decision to hold a conference on renewable energy was strongly supported. This is a timely subject and the conference is scheduled for October. More details for this possible conference are below.

We now have a website. The URL is:

www.salisbury.edu/shoreenergy

The website has some information at this point and more to come.

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Past Events

Transmission Grid Conference

The inaugural meeting examined transmission grid congestion. This forum provided an excellent venue for this important topic. I believe congestion can become an issue impeding economic development in several locations in the United States. The Department of Energy (DOE) released a report identifying the locations. Delmarva is named as an area needing transmission investment.

MAC GTL DOE Project

The Mid-Atlantic Consortium Genomics to Life Group (MAC GTL) applied for a DOE Grant. This grant will investigate plants and develop processes to manufacture cellulosic ethanol. The Consortium consisted of many universities and companies. The main players are:

- The University of Maryland
- The University of Maryland Biotechnology Institute
- Rutgers University
- North Carolina State University
- Brookhaven National Lab

These organizations have some of the top scientists in the different fields needed for this grant. It is unfortunate the Consortium's application did not make the second round of evaluation. Although we will not be involved in this grant, Tylor and I meet many people and developed long-lasting relationships.

DOE just announced three centers will be funded. There will be centers in Tennessee, Wisconsin, and California. We wish the winners good luck.



Past Events

Trip to ACUA

On March 9, 2007, at 7:00 AM, six PSB students and two professors traveled to the renewable energy and environmental protection facilities owned and operated by the Atlantic County Utilities Authority (ACUA). The students were: Jinwoo Kim, Joseph Early, Richard Betzel, Scott Forney, Rusi Karabaliev and Nyi Nyi Naing. Drs. E. Tylor Claggett and Danny M. Ervin lead the student group and accompanied them on the visit. During the various site visits, ACUA officials, Mr. Richard S. Dovey, President; Mr. Tom Lauletta, Vice President and Mr. Paul J. Gallagher, VP/ General Counsel discussed the historical and operational aspects of the various installations.

The ACUA facilities are near Atlantic City, NJ and they serve the communities that make up the eastern half of Atlantic County, NJ. ACUA's mission statement is: "The ACUA is responsible for enhancing the quality of life through the protection of waters and lands from pollution by providing responsible waste management services. The Authority is an environmental leader and will continue to use new technologies, innovations and employee ideas to provide the highest quality and most cost effective environmental services."

ACUA's primary and traditional purpose is to collect and treat the municipal waste water and solid waste from the several dozen communities in the eastern part of Atlantic County. But, when driving up to ACUA's waste water treatment facility, the most striking features are the five, 1.5 megawatt wind turbines that tower 380 feet above the complex. These are gleaming white structures capable of generating enough electric power to serve 2,500 homes. These wind turbines have been operational since December of 2005. On many days, the wind farm generates almost twice as much power as ACUA requires. Therefore, excess "green" power is sold to the local utility.

As impressive as the wind turbines are, ACUA has many more up-and-running, state-of-the-art projects. For example, there are five solar arrays with a combined rated capacity of 500 kilowatts or one-half of a megawatt. These are photovoltaic systems that convert solar energy directly into usable electricity. One array serves as an eye pleasing and convenient cover for an employee parking lot.

Several miles from its waste water treatment facility, ACUA owns and operates a state-of-the-art solid waste landfill and recycling center. The landfill is equipped with a sophisticated methane extraction system. There is more than enough methane available to power two generators; each with a rated capacity of well over one megawatt of electricity. This power is sold directly to the local utility. The recycling center separates household garbage into many marketable commodities such as recycled pasteboard, scrape aluminum and bulk plastics. In addition, trash or yard waste is converted to high grade mulch which is sold for local soil enhancement.

The students and faculty of the PSB toured all of the above facilities and were able to discuss the various creative financing, regulatory and technical maneuvers employed to make these innovative systems realities. The group returned to Salisbury at 7:30 PM. All and all, the trip provided a memorable experience for both students and faculty and should serve to encourage students to think "outside-the-box" when contemplating possible career paths.

Past Events

Annual Energy Forecast

On April 13th ShoreENERGY hosted its second event on the university's campus. This is the second energy forecast with the first one at the Chamber of Commerce's 2006 economic forum. Approximately 30 people attended the forecast. Forecasts for three hydro-carbon commodities (crude, gasoline, and natural gas) were presented. A forecast for electricity prices was also presented. The electricity prices were broken into three categories, residential, commercial, and industrial. One of the most enjoyable aspects of our conferences is the discussion that takes place. The forecast meeting was not an exception. Discussion and questions range over many topics including bio-fuels to transmission and generation assets.

Fortunately, the discussion was of much higher quality than the forecast. My forecast for gasoline was for it to reach a high price of \$2.85 per gallon for the summer. I believe two weeks later, the price was \$2.90 per gallon. Usually the price is higher in August and that is when I predicted the \$2.85. As Nils Bohr said "Prediction is very difficult, especially if it's about the future."

Regardless of the difficulty in accurately forecasting, we intend for this to be an annual event.

The Parke

Tylor and I traveled to Ocean Pines to meet with the Parke Home Owner's Association to discuss the many issues associated with the installation of solar collectors on residences within the Parke subdivision. Tylor's expertise and calm demeanor carried the day. The homeowner was permitted to place the solar panel in the optimal location.

Tylor's Solar Energy for Homeowner's article that appeared in the Chamber of Commerce's Business Journal is a result of this visit. You will be able to access the article on the website.



Future Events

Renewable Energy Conference

At the last steering committee meeting, we discussed the future conferences and forums ShoreENERGY would like to host. The committee decided the next event will be a renewable conference. Originally we planned to have the meeting in April, however, the logistics proved unworkable. This event is scheduled for the fall semester, most likely in October. You will be informed of the details as they are available.



Potential participants include:

- Representatives from Bluewater Wind Group
- Representatives from Delmarva Power and/or Pepco Holdings, Inc.
- Representatives from the Department of Energy
- Representatives from the Nuclear Regulatory Agency
- Representatives from Maryland Public Service Commission
- Dr. Willett Kempton, University of Delaware
- Dr. Jennie Hunter-Cevera, President, University of Maryland Biotechnology Institute
- Wayne Gilchrest
- Page Elmore
- Richard Colburn
- Norman H. Conway
- James N. Mathias, Jr
- J. Lewell Stoltzfus

Please pass any ideas for the conference to Dan Ervin at DMErvin@salisbury.edu. Any personal contacts with the people or organizations listed above will be very useful.

Annual Energy Forecast

I plan to host an energy forecast in the spring semester. This event will provide a venue for discussion on many different energy topics.

Conclusion

Tylor and I would like for each of you to become engaged in our program. Please send us any ideas or thoughts regarding energy, energy economics, or sustainability.

As for us, the summer is a time for completing research projects and preparing for the new school year. Many of our projects are related to energy and I will post each on the website as they become available.



ShoreENERGY

The Energy, Economics, and Sustainability Program of the Franklin P. Perdue School of Business at Salisbury University

*The unique characteristics of the energy markets on the Delmarva Peninsula, which consists of the Eastern Shores of Maryland and Virginia and the entire state of Delaware, drive the need for practical and academic research on topics of concern to all energy market participants in the region. Consequently, **ShoreENERGY™**, the Energy, Economics, and Sustainability Program of the Franklin P. Perdue School of Business at Salisbury University has been organized to develop an understanding of the energy needs of the Delmarva Peninsula. It is intended to foster and encourage a variety of emerging research and educational activities.*

Our overarching goal is to promote prudent and innovative use of state-of-the-art energy technologies that embody unbiased economic, social and environmental evaluations. This is necessary for correct and optimal public policy decisions.

*Ultimately, the goal of **ShoreENERGY™** will be to provide credible proficiencies, knowledge and factual data to members of the University and to the overall community. Accomplishing this will promote engaged and fruitful discussions that address the multitude of regional energy needs, both present and future. The end result will be the creation of optimal market structures suited to the ever changing greater energy realities.*

For more information about **ShoreENERGY™**, please contact:

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