



TREEDC - Tennessee Tech University Forum: July 29, 2011

TTU – STEM Center, Cookeville, Tennessee

From: Warren Nevad, MTAS Municipal Management Consultant

The Tennessee Renewable Energy and Economic Development Council (TREEDC) partnered with Tennessee Tech University (TTU), Tennessee Valley Authority (TVA), The University of Tennessee Municipal Technical Advisory Service (MTAS) and the City of Cookeville to provide a free community outreach forum to 101 Upper Cumberland area citizens and clean energy stakeholders at the TTU STEM Center on July 29, 2011. Attendees gathered together to examine ways to fast track clean energy development such as green diesel, solar, cellulosic ethanol, biodiesel, TVA Green Power programs and electric car charging infrastructure in Tennessee. Mayors from Byrdstown, Pikeville, Livingston, Cookeville, Gainesboro, Roane County, and Kingston also attended the forum. The objectives of this forum were to identify potential workforce development opportunities in clean energy and to offer project guidance in developing appropriate feedstocks to convert into alternative fuels. TTU Associate Director of Extended Services Dennis Tennant and MTAS Management Consultant Warren Nevad crafted the agenda which consisted of presentations from representatives with Hemlock Semiconductor, Frontline Bioenergy, Tennessee Solar Institute, 49 Green, Genera Energy, USDA Rural Development and Choice Solar & Geothermal.

Tennessee Tech University President Dr. Robert Bell thanked the TREEDC mayors in their role of promoting renewable energy in the Upper Cumberland region. TTU Vice President Dr. Susan Elkins gave a brief overview of the TTU Regional Economic Development Institute (REDI) which leverages university resources to facilitate efforts of federal, state and local governments as well as area businesses to bring economic development opportunities to the Upper Cumberland region. Dr. Elkins mentioned that TREEDC's alliance with the university could aid TTU's REDI's strategic objectives in developing energy and environmental partnerships which would foster market development of renewables to the region. Assistant Commissioner of State Department of Labor and Workforce Development Iliff MaMahan, Jr. complimented TTU's efforts to use the TREEDC forum as an opportunity to educate folks about workforce development opportunities in renewable energy.

Bill Lee, CEO of Frontline Bioenergy gave suggestions on how to develop regional feedstock delivery systems which would help create markets for renewable energy. He urged area

farmers to explore the feasibility of formulating a biomass feedstock cooperative. He noted that the Upper Cumberland Region had an abundance of biomass which could be converted to energy under the right conditions. Lee also commented that Frontline Bioenergy's partnership with SGC Energia would bring his firm a new focus on liquid hydrocarbons synthesis, also known as the Fischer-Tropsch process. Dr. Sam Jackson with Genera Energy and The University of Tennessee Institute of Agriculture Center for Renewable Carbon gave an overview of the Tennessee Biofuels Initiative. Dr. Jackson added that Dupont Danisco Cellulosic Ethanol (DDCE) is currently evaluating sites in Tennessee for a commercial scale cellulosic ethanol facility. Henning Bollerslev of 49 Green showed a video of Danish technology that converts municipal wastes into synthetic diesel by using a microwave conversion process that does not emit emissions. Bollerslev, a native of Denmark, expressed his appreciation to TREEDC officials for extending an opportunity to develop and commercialize his technology in Tennessee.

Dr. John Sanseverino of the Tennessee Solar Institute (TSI) gave an overview of the Solar Innovation funding distribution of grant awards under the program. Dr. Sanseverino gave updates regarding the Solar Institute's Photovoltaic code compliance training workshops and the upcoming TVA Solar Solutions Conference scheduled on August 9 -10. He also advised the audience that TSI is preparing a proposal to apply for a Department of Energy grant: "SunShot Initiative: Rooftop Solar Challenge to Induce Market Transformation". The purpose of the proposal is to identify bottlenecks to solar adoption, reduce costs and speed deployment. TREEDC is assisting TSI by encouraging local governments to conduct market assessments relating to permitting/interconnection policies, net metering, financing options and planning and zoning. The deadline to complete the forms is August 15th. Dr. Sanseverino added that the Southern Alliance for Clean Energy and TenneSEIA are also partners in this funding proposal. Terry Strange, Site Manager with Hemlock Semiconductor L.L.C informed attendees that Hemlock Semiconductor evaluated 60 sites in 5 continents to find a suitable location to build a polysilicon manufacturing facility in Clarksville, Tennessee. He cited the factors to select Clarksville included that the property was a TVA certified mega-site and the skilled workforce in Tennessee and Kentucky. Strange also described Hemlock's unique partnership with Austin Peay State University (APSU) and the development of an associate's degree program in chemical engineering technology. Recently, 60 students graduated from the program.

Dr. Sally Pardue, Director of the TTU STEM Center explained the role of the Center as a valuable entity for the teaching and learning of science, technology, engineering and mathematics for the Upper Cumberland region. The STEM Center is the result of a campus-wide initiative to enhance existing models and develop new educational strategies in STEM-related fields. Dr. Pardue gave an illustrative approach on how the outreach programs help nurture minds of future leaders in science and technology.

The networking lunch consisted of a presentation regarding clean energy activities by Kim Greene, TVA Group President, Strategy and External Relations. She gave an historical overview of the Green Power Switch (GPS) and Generations Partners program. TVA has encouraged consumer-owned renewable energy and created markets for local renewable power. Greene stated that as TVA looks to the future, balancing competitive rates with the need of renewable energy that is paid for by voluntary consumer contributions will be critical to the program's success. She urged more customers to join the GPS program which was built to fund the incentives offered to users that participate in the Generations Partners Program. Greene expressed her appreciation to TREEDC for their involvement with the redesign work of the GPS program. Greene also stressed that the TVA Integrated Resource Plan calls for a balanced portfolio of traditional and newer forms of power production and energy efficiency. She urged attendees to visit the TVA Raccoon Pump-Storage plant. TREEDC President/Pikeville Mayor Greg Johnson presented Greene with a TREEDC achievement award from UT President Emeritus Dr. Joe Johnson and the Executive Committee.

During the afternoon panel, Jamie Trevathan, producer of WCTE, Upper Cumberland Public acknowledged his appreciation of Cookeville Economic Development Director Melinda Keifer's contributions for WCTE's monthly series, *Live Green Tennessee*. This series takes you all over the Upper Cumberland region, talking with local Farmers, Gardeners, and Neighbors about how our agricultural heritage and local wisdom can help all of us lead greener, more prosperous and healthy lives. *Live Green Tennessee* airs the second Monday of the month, with an encore broadcast on the following Friday, only on WCTE-TV. Keifer discussed the City of Cookeville's Energy Efficiency partnership with Cummins Filtration which graduated 22 energy leaders to help the city mitigate \$1.8 million dollars in electricity costs. Will Dodson, USDA Rural Development Energy Coordinator gave an overview of the Renewable Energy for America (REAP) program that is designed to assist farmers, ranchers and rural small businesses with renewable energy and energy efficient improvement projects. This program provides grants and loan guarantees for renewable energy and energy efficiency projects. Details on this program along with all other presentations from the forum will be available at <http://www.mtas.tennessee.edu/public/web.nsf/Web/Economic+Development> .

Harvey Abouelata, Territory Manager with Choice Solar & Geothermal urged attendees to join TREEDC and discussed his firm's role with solar energy development in the state. Nevad gave an update regarding the ECotality electric vehicle charging infrastructure project in Tennessee. TREEDC is working with TTU to place charging stations on campus. ECotality recently installed 4 charging stations at Lowes Vanderbilt hotel in Nashville and plans to install more units at the Memphis Peabody hotel.

The next TREEDC forum is scheduled for October 7th and will be sponsored by Monroe County Economic Development Board and East Tennessee TREEDC Coordinator/Ducktown Mayor James Talley. The final forum for 2011 is scheduled for Memphis on November 18th.