



## **TREEDC – Hiwassee College Forum/TVA Green Power Switch Program Launch: February 24, 2012**

From: Warren Nevad, the University of Tennessee MTAS

The Mayors of the Tennessee Renewable Energy and Economic Development Council (TREEDC) held their first 2012 Community Energy forum at Hiwassee College on February 24, 2012. TREEDC 2012 Founding members Hiwassee College, the University of Tennessee's Institute for Public Service, Municipal Technical Advisory Service (MTAS), USDA Rural Development, Tennessee Valley Authority (TVA) and the Tennessee Gas Association sponsored this free community outreach forum for Hiwassee College students, staff and Monroe County area clean energy stakeholders. A diverse crowd of 74 attendees heard various presentations ranging from bioenergy to biofuels development along with the positive developments from the TVA Green Power Switch and Genera Energy Initiatives. This was the 12<sup>th</sup> statewide forum since 2009 organized by TREEDC, a statewide organization of 70 city and county mayors and businesses dedicated to creating a path to fast track renewables in Tennessee.

TREEDC President/Ducktown Mayor James Talley kicked off the event by expressing his appreciation to Monroe County Mayor Tim Yates and Hiwassee College President Dr. Robin Tricoli for their interest in bringing more renewable energy opportunities to Southeast Tennessee. Mayor Yates also welcomed the crowd and recognized Roane County Mayor Ron Woody and Kingston Mayor Troy Beets. Hiwassee College President Dr. Tricoli thanked the TREEDC mayors for their involvement with Hiwassee College. Dr. Tricoli stated that Hiwassee College is eager to become a trendsetter in sustainability by partnering with Madisonville and Monroe County to push economic development through renewable energy. She also expressed her appreciation for involving the students in a breakout session regarding campus sustainability. She advised the audience that she was looking forward to a return engagement by TREEDC to look at their numbers in meeting goals in energy efficiency. Dr. Tricoli thanked University of Tennessee President

Emeritus/TREEDC Chairman Dr. Joe Johnson and MTAS Executive Director Steve Thompson for their support of Hiwassee College and sustainability.

TREEDC Chairman Dr. Johnson gave an update of 2012 TREEDC membership drive. He explained that financial support from across the state allowed the mayors to effectively work with state and federal legislators and to use these forums as a springboard for clean energy projects. Over the past 3 years, TREEDC has had these free energy forums from Memphis to Franklin to Madisonville in order to connect the local officials with the emerging clean energy technology. The blueprint has been to work from the ground up to build a solid foundation of 70 mayors along with TVA, USDA Rural Development, Tennessee Gas Association, ECOTality, Tennessee Tech, the University of Tennessee, several state agencies, dozens of green businesses and now Hiwassee College to bring more awareness to the virtues of renewable energy. TREEDC has scheduled another 7 outreach and educational forums this year in places such as Columbia, Jackson, Murfreesboro and Kingsport. He commended TVA for their support of TREEDC.

TVA Green Power Switch Product Manager Jenny Wright gave a detailed powerpoint presentation regarding the historical review of TVA'S Green Power Switch (GPS) Program that was launched in 2000. She gave an excellent summary of current participants and discussed the incentives used to bring more renewables to the Valley. She also expressed her optimism in working with TREEDC to promote a grassroots approach to recruit voluntary residential and commercial subscribers to green power. Her powerpoint along with the others will be available shortly at

<http://www.mtas.tennessee.edu/public/web.nsf/Web/Economic+Development>

TREEDC Consultant Bill Owen urged participants to sign up for the TVA GPS program which only cost 14 cents a day. Enrollment in the TVA GPS program facilitates investment in Tennessee renewables. Go to [www.greenpowerswitch.com/treedc](http://www.greenpowerswitch.com/treedc) to enroll in the program. MTAS Management Consultant/TREEDC Director Warren Nevad gave a brief overview of the University of Tennessee Living Light Solar house which competed in the U.S. Department of Energy's Solar Decathlon. The UT students finished 8<sup>th</sup> in the country. A video of the features of this house can be viewed at <http://livinglightutk.com/tennessee-tour/>.

UT Graduate Student/MTAS Intern Candice Graham prepared the below report regarding the Hiwassee College student break out session held at the forum.

### **Student Session: Hiwassee College & The University of Tennessee**

During the student brainstorming session at the Hiwassee TREEDC forum, I was able to speak to Tim Watts about some of the great things Hiwassee College is working on to become more sustainable and energy efficient. I think the initiatives already in place at

Hiwassee, such as the Pigs in the Pond, are wonderful ideas and a great step in the right direction. I talked with Tim about some of the things UT does through their Make Orange Green initiative, and we brainstormed some of the ways Hiwassee could implement those projects as well. Here is a recap of what we discussed...

- **Turn off the lights when not in use.** Here at UT, we have stickers on every light switch in the dorms, reminding students to turn off the light when they leave a room. This is a simple and quick thing to do, and it can have a big impact.
- **Recycling bins all throughout campus and in each dorm room.** Tim said you all recycle already, which is great! I told him that UT hosts a friendly competition between dorms to see who can recycle the most materials over a month. This would be a neat idea to do at Hiwassee, and each dorm floor could compete to see who could save up the most paper, plastic, or cans over a month's time.
- **Trade in old light bulbs for newer, more efficient ones at the light bulb exchange.** This is hosted in the lobby of the dorms two times a year, and students can trade their old bulbs for new, efficient ones.
- **Come up with a unique idea!** Hiwassee could host a big competition to see which student could come up with the best idea on ways to be energy efficient, ways to get students involved, and how to get the word out about being energy efficient.
- **Gain involvement, awareness, and brainstorming groups.** Get a club or group together to meet frequently, even if it's just to discuss ideas over lunch. Being a part of an energy efficiency group would look great on a resume, and you could potentially make a big impact on campus! Get the word out by the school newspaper and the newspaper's Facebook or twitter site.
- **Tons of other project ideas.** – other things UT does with the Make Orange Green initiative can be found here <http://environment.utk.edu/activities.html>

Best of luck to everyone at Hiwassee on their future sustainability efforts!

Allan Gentry, Director of Technology at Cleveland State Community College Cleveland State Community College CBBI / Innovation Center discussed the schools accomplishments as a TREE Campus USA and their business incubator. Gentry also reviewed Cleveland State's Alternative & Renewable Fuels Development Program. Cleveland State utilizes waste vegetable oil to produce bio-diesel that is used in campus equipment, reducing campus annual fuel consumption. Dr. John Sanseverino of the Tennessee Solar Institute (TSI) gave an overview of the Solar Innovation funding distribution of grant awards under the program. He also gave an update about the Department of Energy grant: "SunShot Initiative: Rooftop Solar Challenge to Induce Market Transformation". The purpose of this grant is to identify bottlenecks to solar adoption, reduce costs and speed deployment. TSI is working with Project Partners/TREEDC Members Memphis Light Gas and Water, Knoxville Utilities Board, City of Franklin and City of Nashville to conduct market assessments

relating to permitting/interconnection policies, net metering, financing options and planning and zoning. He also encouraged everyone to attend the TVA Solar Solutions Conference in Memphis on April 10<sup>th</sup>.

Harvey Abouelata, President of ARiES Energy discussed a process to convert cellulosic biomass to hydrogen power for energy. The CHyP system uses a thermal gasification process that converts cellulosic material such as switchgrass into syngas by reacting it at very high temperatures. This system can provide power to 55 homes while consuming 1.6 tons of biomass and municipal wastes per day. A CHyP system is under construction at Wamplers Farm Sausage in Lenoir City, Tennessee. Mark McClure, Higher Education regional manager for Johnson Controls gave various energy efficiency initiatives that Johnson Controls has implemented at many colleges and universities across the country. Some of these higher institutions include Texas A&M, Lewis and Clark College, New York University and Tulane University. McClure proudly stated that Tulane University students were able to return to campus just 5 months after Hurricane Katrina. He is responsible for partnering with colleges and universities to meet their energy efficiency and technology goals. Ken Sparks, Grants Consultant gave an overview of the Tennessee Department of Environment and Conservation (TDEC) Clean Tennessee Energy Grant Program. According to Sparks, the purpose of this clean energy opportunity for local governments and businesses is to select and fund projects that best result in a reduction of emissions and pollutants. He gave examples of projects that could be funded such as biomass, solar, wind and energy conservation projects. He also gave pointers on how to effectively fill out an application and informed everyone he was available for assistance and that he would be speaking again at the next TREEDC forum in Columbia on March 9<sup>th</sup>.

During the networking lunch, Genera Energy President Dr. Kelly Tiller gave an update of the progress of the statewide Cellulosic Biofuels Initiative which was started by the University of Tennessee and the state back in 2007. The goal of this initiative is to develop 10 commercial biorefineries across the state which would create 6,000 direct jobs. Dr. Tiller also gave an interesting metric analysis comparing 2007 costs of manufacturing cellulosic ethanol and yields to 2011 levels. The cost of manufacturing cellulosic ethanol was \$3-4 per gallon in 2007 and in 2011 that cost dropped to \$2 per gallon including depreciation. Also according to Dupont Danisco Cellulosic Ethanol analysis, the ethanol yield has increased from 60-65 gallons of ethanol per ton of feedstock in 2007 to 80-85 gallons per ton of switchgrass feedstock in 2011. Dr. Tiller concluded her presentation that adequate infrastructure from local governments are needed to support the development of cellulosic ethanol across the state.

The next TREEDC forum is scheduled for March 9, 2012, in Middle Tennessee at Columbia State Community College in Columbia, Tennessee. We will also hold another TREEDC forum at Jackson State Community College in West Tennessee on April 12, 2012. Please

contact Ducktown Mayor/TREEDC President James Talley at [treedc08@yahoo.com](mailto:treedc08@yahoo.com) if your community or organization is interested in becoming a 2012 TREEDC member. Individuals or businesses that enroll under the TVA Green Power Switch program will be entitled to membership privileges for 2012. For more information about TREEDC, contact [warren.nevad@tennessee.edu](mailto:warren.nevad@tennessee.edu).