

TREEDC Newsletter, October 2016



Tennessee Renewable Energy and Economic Development Council

TVA Board Member Mike McWherter to Give Keynote Address at 2016 Annual Conference



TVA Board Member Mike McWherter at 2015 Annual Conference

The 101 TREEDC Mayors are proud to announce that 2014 TREEDC Champion/TVA Board Member Mike McWherter will provide the keynote address to the TREEDC 3rd Annual International Renewable Energy Conference slated for December 15-16, 2016 at TREEDC Founding Member Tennessee Tech University. McWherter will discuss future renewable energy related initiatives for TVA, one of the original founding members of TVA. [Click here](#) for conference details. Individual registration is only \$50 and sponsorship opportunities are available.

McWherter is owner and president of Central Distributors Inc. and Volunteer Distributing Co., Tennessee-based beverage distribution companies. McWherter previously practiced law in Nashville, Tenn., and clerked for the Tennessee Supreme Court. He also serves on the board of directors of The McWherter Institute, an entrepreneurial student program at the University of Tennessee at Martin, and as Chairman of The McWherter Foundation created by Governor Ned Ray McWherter.

TREEDC President/Dunlap Mayor Dwain Land Gives Presentation to TVA Board



TREEDC President/Dunlap Mayor Addresses TVA Board

On August 25, 2016, TREEDC President/Dunlap Mayor Dwain Land spoke to the Tennessee Valley Authority (TVA) Board regarding the progress of TREEDC which has grown from 4 mayors in 2008 to 101 today. Mayor Land complimented the University of Tennessee with forming the organization and expressed his appreciation to the TVA Board and Staff for working closely with TREEDC since 2008 with the assistance of funding a website, providing community solar systems and partnering with the Green Power Switch Program.

Mayor Land urged support for the construction of a biomass gasifier at Port of Cates Landing that would use Municipal Solid Waste (MSW) and construction/demolition debris as the feedstock. The gasifier will be located within the TVA service area at the Port of Cates Landing near Tiptonville, Tennessee.

The Project would accomplish the following objectives:

1. Provide electricity from renewable sources at market competitive rate;
2. Provide significant Renewable Energy Credits (in accord with the Paris Climate Agreement);
3. Provide reductions in demand for limited available MSW landfills; and
4. Assist with local development and new jobs in NW Tennessee and SW Kentucky

Mayor Land also advised the TVA Board that the Northwest Tennessee Regional Port Authority Board of Commissioners approved a Resolution on July 13, 2016 urging favorable consideration by TVA for the Port of Cates Biomass Gasifier Project.

TREEDC Member Hannah Solar Completes IKEA Memphis Project

TREEDC Member Hannah Solar recently entered into a partnership with Home furnishings retailer IKEA to complete the solar rooftop array atop its Memphis store - which is set to open in late Fall 2016. Once it has been commissioned, the installation will be the largest PV rooftop array in Tennessee. The store's array is comprised of a 1.46MW system, built with 4,424 panels that will generate around 2,000,000 kWh of electricity per year for the store - the equivalent of cutting 1,406 tonnes of CO₂ from the atmosphere.



Trisha Bevering, IKEA store manager, noted: "Installing the solar panels is another exciting and sustainable step in the progress towards opening the future IKEA Memphis. IKEA strives to create a sustainable life for communities where they operate, and IKEA Memphis is adding to this goal with Tennessee's largest rooftop solar array."

TREEDC Member Siemens Announces Energy Efficiency Project with TREEDC Member Montgomery County

Montgomery County is partnering with Siemens Industry Inc. to kick-start a \$5 million, self-funded efficiency project in the Clarksville-Montgomery County area.

"This project is very unique, as it will be funded through the savings that it generates over time." Mayor Jim Durrett said, "Government doesn't get to take on projects very often that pay for itself, so I'm really excited about this one. It's a win-win for us. We will not only be upgrading and replacing much need items like chillers, boilers and lighting, but at the same time installing equipment that is much more efficient, saving us money on utilities for years to come."

Siemens will undertake and complete the following list--

- Retrofit of over 23,000 lamps and fixtures to LED.
- Water efficiency upgrades - including the upgrade of over 600 toilets to low flush components.
- Replacement of 3 chillers and 4 boilers with new higher efficiency units and replacement of two 500 gallon hot water storage tanks.
- Installation of an Ozone Laundry Treatment System for the Jail.
- Refurbishment of 4 cooling towers.
- Upgrades to the HVAC building automation systems and variable frequency drive (VFD) installations to increase energy efficiency.



Ryan Ball of Siemens proudly wears his TREEDC hat

TREEDC Member NORESKO Announces Energy Efficiency Project with TREEDC Member Dunlap



TREEDC Members Algood City Manager Keith Morrison with Kevin Kunich and Brian Stone of NORESKO and MTAS Consultant Warren Nevad at TML Conference

TREEDC Member City of Dunlap recently announced the startup of a \$3 million self-funded energy efficiency project with TREEDC Member NORESKO. This project will provide improved water meter delivery, more efficient lighting and 700 kw of solar installation for Dunlap's municipal buildings and facilities. NORESKO will also work closely with Acres Energy to monitor progress of this project. TREEDC is very proud that a small rural city like Dunlap can become involved in a comprehensive energy efficiency project that will be a statewide model in Tennessee.

Apex Clean Energy Joins TREEDC

Apex Clean Energy of Charlottesville, Virginia has recently joined TREEDC as a Silver Member. Apex is actively working on the Crab Orchard Wind Project, which is expected to generate enough energy to power about 20,000 homes annually.

Cumberland County was selected after thorough examination of many candidate sites for the following reasons:

- Verified wind resource
- Existing high-voltage power lines
- Expansive commercial farmland
- Avoids sensitive military and environmental areas



Apex is working to inform state and local stakeholders about Crab Orchard Wind and important upcoming events. Apex will give a presentation at the TREEDC Annual Conference in Cookeville on December 15-16, 2016. Thank you Apex for helping local communities diversify their renewable energy portfolio in Tennessee.

Republic Industries Joins TREEDC



TREEDC President Land, Joe Salamone, General Manager of Republic Services and TREEDC Director Nevad wearing TREEDC hats.

Republic Industries recently joined TREEDC as our only municipal waste company member. Republic Services provides waste services to residential, municipal, commercial, and industrial customers nationwide. They are dedicated to bringing dependable solutions for local governmental recycling and waste challenges. They are committed to on-time service for municipal needs while bringing positive changes to the environment in ways such as expanding recycling offerings, responsibly handling waste, and adding low-emissions vehicles to fleets. Thank you so much, Joe Salamone, for all you do in waste management and renewable energy.

Tennessee Municipal Bond Fund Joins TREEDC

The Tennessee Municipal Bond Fund ("TMBF") recently joined TREEDC as a member and will operate a booth at our annual conference. TMBF creates and administers various types of loan programs for the benefit of cities and counties. As an entity of the Tennessee Municipal League, TMBF works closely with city officials to structure cost-effective and flexible borrowing options. Any governmental purpose project qualifies for financing through the TMBF programs. The loan size and/or repayment term typically determines which program a borrower utilizes. Types of projects include but are not limited to schools, roads, utilities, public buildings, jails, equipment, and any other project considered to be of benefit to the public. Project funds are available for any size government.

More than 160 local governments have utilized the services of TMBF resulting in tremendous cost savings for these borrowers. The interest rate on the popular variable rate pooled loan program has averaged under 3% since 1986.



TREEDC President/Dunlap Mayor Dwain Land, Chris Muscatello, TMBF and TREEDC Member Dayton Mayor Gary Louallen

TREEDC Member Pathway Lending to Help Local Governments Save with Energy Efficiency

Energy efficiency projects yield a high-return for existing facilities and will save thousands of dollars every year. These projects also result in increased employee satisfaction and reduced maintenance costs. Pathway Lending's Energy Efficiency Loan Program, is now open to local governmental entities. Under this expansion, those seeking to reduce energy consumption and costs can access affordable loan capital needed to make their projects a reality. The program offers up to six years of below-market rate financing for qualified energy efficiency and renewable energy projects to Tennessee local governmental entities including municipalities, counties, school districts and other similar public agencies.

Up to 100 percent of project costs may be financed, including design and installation fees. The loans are designed to allow for energy costs savings derived from each project to provide the repayment of the loan. Finance any project that reduces utility consumption across electric, gas or water. Some of the most common and effective improvements are:

- Efficient Lighting – Indoor & Outdoor
- HVAC Replacement
- Energy Management Systems
- Reflective Roofs
- Pumps & Motor Systems
- Efficient Production Equipment

The Energy Efficiency Loan Program is a collaborative effort between the State of Tennessee / Tennessee Department of Environment and Conservation (TDEC), the Tennessee Valley Authority (TVA), the U.S. Department of Energy, the U.S. Economic Development Administration and Pathway Lending.

TREEDC Member/Lebanon Mayor Craighead Reveals PHG Gasification Plant

Mayor Philip Craighead hosted his legislative counterparts from nearby municipal and county governments recently for a preview tour of the site. Mayor Craighead highlighted benefits of the new system as:

- Combines scrap tires, commercial wood waste and biosolids from the wastewater treatment plant as feedstock with a 64 tons/day throughput capacity;
- Produces sufficient electricity to power about 350 homes annually. Power will be used at the treatment plant to offset costs;
- Keeps 2,500 tons of carbon emissions out of the air each year;
- Fuel gas for power production and a high carbon biochar are the only outputs of the system. The biochar will be sold for agricultural purposes;
- Awarded a direct \$250,000 grant from the Tennessee Department of Environment and Conservation, and benefited from \$3.5 million in financing assistance through a Federal energy program.

PHG Energy provides design and construction for innovative clean technology gasification and waste-to-energy systems.

The University of Tennessee Institute for Public Service and TREEDC Conducts Philippines Mission Trip on Renewable Energy and Municipal Best Practices



TREEDC meets with General Santos' businesses

TREEDC and TREEDC Member Tennessee Solar Solutions returned to the Philippines from August 5 to August 21, 2016. Representatives from the University of Tennessee Municipal Technical Advisory Service (MTAS) and TREEDC visited the Bicol region, Metro Manila, Palawan and Mindanao. The objectives of this fact finding mission trip were to share Tennessee Municipal Best Practices in ordinance development, law enforcement training and renewable energy opportunities across the Philippines. Over 2,000 Philippine citizens representing the municipal, academic and business sectors participated in the recently completed mission trip.

The delegation visited Catanduanes State University to follow up on the TREEDC scholarship program and to inspect the campus for solar developmental opportunities. The delegation also included participation in the United Nations Association of the Philippines (UNAP) 17TH International Youth Day Conference at Pasig City University. The theme of the Conference was Eradication of Poverty through Global Partnership for Sustainable Development. Philippines Senators Sherwin Gatchalian and Cynthia Villar urged the audience to avail themselves of economic opportunities to help foster more innovation in the Philippines. MTAS Management Consultant Warren Nevad reviewed the TREEDC Community Outreach Program and recognized TREEDC Honorary International Affairs President Dr. April Alcazar of Pasig City University for her leadership in the TREEDC Renewable Energy Developmental Program in the Philippines.

The delegation visited Palawan State University to discuss solar and energy efficiency program planning on campus and followed up with the TREEDC Member Vis Solis Solar Array that was completed in April 2015 at Puerto Princesa City Hall. TREEDC Member Tennessee Solar Solutions Vice President Brandon Carter and John Jernigan of Northshore Renovations visited Naga Mayor John Bongat and Legazpi Mayor Noel Rosal to discuss solar opportunities for their community. They also visited with TREEDC-Philippines Ambassador Dr. Gina Basa of Technological University of the Philippines. TREEDC-Philippine Ambassadors Fred Perdon, Rosemarie Quinto-Rey and Honelet Bertis also organized various meetings with college representatives from Naga College Foundation, University of Northeastern Philippines and Southern Luzon Technological University to assess their energy management needs.

On August 16, 2016, Dr. Alcazar and Nevad presented the TREEDC International Exchange Program to University of Rizal System President Dr. Marita Canapi to share TREEDC President/Dunlap Tennessee Mayor Dwain Land's vision of implementing and integrating renewable energy facilities with student involvement. Nevad also shared IPS/MTAS training programs to extension faculty at the University of Rizal System. The visit concluded with a tour of the school's micro-hydro construction project.

The mission trip concluded with a 3 day site visit to the Mindanao region. TREEDC-Ambassador Tom Mariano organized meetings with Mayors and officials from M'lang, Cotabato, Maitum and Alabel. The delegation also visited the Governor's staff of Sarangani Province to conduct a solar assessment. The delegates were treated to a visit with Dionesia Dapridran- Pacquiao, the mother of boxing legend and Philippines Senator Manny Pacquiao



Tennessee Solar Solutions meets with Legazpi Mayor Noel Rosal and Southern Luzon Technological College Foundation President Dr. Rose Rey and Honelet Bertis.

