

# TREEDC Newsletter

July, 2017

## *Dunlap Industries Finishes Solar Project*

On April 21, 2017, Dunlap Industries held a ribbon-cutting Friday for their new array of solar panels that now cover the top of two buildings on Industrial Park Road in Dunlap. TREEDC members from Dunlap Industries, City of Dunlap, Sequatchie County, Tennessee Solar Solutions, and ENER3 were all present for the ribbon-cutting, along with employees that work at the zipper factory.

Dunlap Industries incorporated a new, rubberized roof with the solar installation. Its white color reflects heat away from the roof, which also helps with energy savings. The total cost of the project was \$661,000, but the U.S. Department of Agriculture (USDA) paid for 25 percent of the cost. Dunlap Industries President Robert Kwasnik said switching 90 percent of their energy consumption to the more than 500 solar panels will save his company about \$40,000 each year.

The University of Tennessee Municipal Technical Advisory Service (MTAS) Management Consultant Warren Nevad lauded the leadership of TREEDC President and Dunlap Mayor Dwain Land for being the community's role model in bringing solar energy to Dunlap. Mayor Land's goal is to solarize all of city owned properties and privately owned industries by the year 2025 which will make the city 40 percent less dependent on traditional electricity sources. Mayor Land wants Dunlap to become the greenest city in Tennessee and become the catalyst of municipal solar energy leadership across the state.



*Cutting the ribbon on the new solar array at Dunlap Industries. Front row, l-r are: Dee Nash, ENER3; Olivia Kararatakis, project manager and director of renewable energy; Michael Barker, Dunlap Industries; Betty Farley, Dunlap Industries; Chamber of Commerce Dir. Marlene Basham; Chamber Exec. Asst. Lorene Williams; Dunlap Industries Pres. Robert Kwasnik; TREEDC Dir. Warren Nevad; JDH Co. V.P. Ricky Miller; Dunlap City Comm. Jeff Johnson; Eric Serre, Dunlap Industries, and Dunlap Mayor Dwain Land*

## *TREEDC Member City of Dunlap Recognized by Tennessee Department of Environment and Conservation (TDEC) for Progress in Sustainability*

Dunlap, a town of around 5,000 people, is located in scenic Sequatchie County was recently recognized in a statewide publication by TDEC for being a role model in sustainability. Recently, the city entered into a contract with TREEDC member NORESKO, one of the largest U.S. energy services companies, to do some much-needed energy efficiency upgrades. These upgrades include new LED street lighting for 130 street lights, high-efficiency LED interior and exterior lights at all city buildings, water meter upgrades, and solar arrays on the roofs of city buildings in nine locations.

According to TREEDC President/ Dunlap Mayor Dwain Land, solar panels are being installed at city hall, the fire department, the police department, the city park, a 30,000 square-foot maintenance facility, a water treatment plant, a water lift station, a wastewater treatment plant, and a sewage lift station. “This is a deal that makes sense both for business and for the environment. It is a win-win situation, as it is good for Dunlap now and in the future. It is also good for the next mayor, and hopefully it starts a culture change here – where we think about the environment more.” Along with these energy efficiency upgrades, Mayor Land also aims to implement a curbside recycling program for about 3,000 homes, which will be free of charge to the residents. This program will be funded by the savings seen from the energy efficiency upgrades.

Mayor Land and his staff have been very active about going after grants. Since 2010, Dunlap has received over \$5.2 million in grant funding. These funds were used for various large projects, including streetscape and greenway projects, a housing rehabilitation in 2013, and a storm water project in 2016. Dunlap also focuses on small-scale changes. The city’s National Guard facility was even awarded a Clean Tennessee Energy Grant from the Tennessee Department of Environment and Conservation’s (TDEC) Office of Sustainable Practices for energy efficiency upgrades to the potable water heater.

It takes hard work and determination to secure grants and other funding, but Dunlap is striving towards sustainability, beatification, and continual improvement. Through all of these efforts, the city is definitely setting some great examples that other towns and cities in Tennessee can look up to.



New solar array under construction by TREEDC member Hannah Solar at Dunlap Wastewater Plant



Warren Nevad, MTAS; TREEDC President/Dunlap Mayor Dwain Land and Brian Stone, NORESKO

## *TREEDC Partners with MTAS and the University of Tennessee-Martin to Discuss Opportunities for Clean Energy in West Tennessee*

On May 26, 2017, the Tennessee Renewable Energy & Economic Development Council (TREEDC) conducted an educational forum highlighting best practices in renewable energy available for West Tennessee cities and counties. TREEDC members Environmental Defense Fund and the Nature Conservancy sponsored the forum held at Paris Landing State Park. The University of Tennessee – Martin provided tours of their state of the art mobile energy trailer for the audience of 41 local, state and university officials. Paris City Manager Kim Foster welcomed the attendees and discussed Paris' current energy efficiency project.

Martin Penny with Cooley Public Strategies urged local officials to support the growth of clean energy stating that this grassroots approach would also reap area economic benefits.

Max Shilstone, Director of Business Development for TREEDC Gold member Clean Line Energy Partners provided a powerpoint presentation to describe the Plains & Eastern Clean Line Project which will connect Tennessee to superb wind resources of Great Plains with a High Voltage Direct Current (HVDC) transmission line. This HVDC line focuses on connecting renewable resources to load centers. The transmission line uses narrower right-of-ways than equivalent Alternating Current and has lower line losses. This line which begins in Guymon, Oklahoma and ends in Tipton County, Tennessee will bring hundreds of direct jobs during construction. The \$300 million investment in transmission facilities in western Tennessee will provide significant tax revenues to Tennessee. He concluded his remarks by expressing his appreciation to TREEDC for helping him engage with community officials

Albert Tieche of the University of Tennessee Center for Industrial Services urged officials to develop plans for business continuity planning for disasters. Tieche used the Nashville floods of 2010 as a lesson for communities to have adequate disaster preparedness. TREEDC Board Member Pat Riley gave a presentation about the benefits of compressed natural gas for commercial and government fleets. Riley stressed the importance of local communities becoming energy independent for their transportation needs. Attendees also heard presentations relating to energy efficiency and solar energy from TREEDC members Siemens, Energ3, Lightwave Solar, Hannah Solar and Vis Solis.



TREEDC Holds reception: Milan Mayor DW Beasley, Max Shilstone, Clean Line Energy, Bill Owen, Asset & Equity, James Talley, Hannah Solar, Ryan Ball, Siemens, Dana Deem, MTAS, Mike McWherter, TREEDC Board Member, UT-Martin Chancellor Dr. Keith Carver, TREEDC Chairman, Warren Nevad, MTAS, Carlos Mayer, Vis Solis, Kim Foster, Paris City Manager, and Angela Garrone, Southern Alliance for Clean Energy.



Max Shilstone, Clean Line Energy Partners

## *TREEDC Member Aries Clean Energy Project Awarded State's Highest Environmental Stewardship Recognition*



Aries Clean Energy's biomass gasification plant just outside Nashville has been recognized as the driving force behind the City of Lebanon's receipt of a 2017 Governor's Environmental Stewardship Award, the most prestigious conservation award in Tennessee.

Now in its 31st year, the awards annually showcase exceptional voluntary actions that improve or protect the environment. Governor Bill Haslam and Tennessee Department of Environment and Conservation (TDEC) Commissioner Bill Martineau jointly announced the award in the energy and renewable resources category after a panel of 22 independent professionals representing conservation, environmental, agricultural and academic professionals judged nearly 90 entries from across the state.

Aries Clean Energy deployed its patented gasification technology in design and construction of the plant that was commissioned in late 2016. It is the world's largest downdraft gasification facility, and it utilizes a blend of wood waste from local industries, scrap tires from Wilson County and biosolids from the city's wastewater treatment plant to produce green electrical power. "We're reducing landfill use, creating clean energy and keeping thousands of tons of carbon out of the air each year, all with a positive cash flow," said Lebanon Mayor Bernie Ash. "This is a win all the way around."

Developing the project involved implementing a partnership between the city and county, as well as a private company, Rockwood Recycling, which specializes in logistics and preparation of commercial wood waste and scrap tires. The gasification plant can process up to 64 tons per day of material and produce 420 kW of electricity utilizing Organic Rankine Cycle (ORC) generators.

## *City of Chattanooga Wins Statewide Award in Excellence in Green Leadership*

On June 13, 2017, TREEDC Member City of Chattanooga was awarded a 2017 Statewide Award for Green Leadership by the Tennessee Municipal League for bringing solar energy opportunities to citizens who could otherwise not afford to install solar systems. Chattanooga Mayor Andy Berke, a member of the Tennessee Renewable Energy & Economic Development Council (TREEDC) created Chattanooga's first community solar installation through a partnership with TREEDC Members Vis Solis, Tennessee Valley Alternative Energy, Tennessee Valley Authority (TVA) and the Electric Power Board of Chattanooga. The renewable power generating facility located along Holtzclaw Avenue at the Electric Power Board's (EPB) Distribution Center generates 1.35 megawatts of solar power, which is enough to meet the needs of about 200 households that consume an average amount of power.



Through Solar Share, customers will be able to participate in the community solar project in three ways:

- For a one-time payment, customers may buy a 20-year license that entitles them to a monthly bill credit equal to the generation value of one or more panels. The amount of power generated by the number of panels selected by a customer will be credited to the customer's electric account on a monthly basis. This option is designed to provide the generation benefits of installing solar panels on your roof, but without the construction project.
- Customers may also buy a license by making a monthly payment that entitles them to a monthly bill credit equal to the generation value of the number of solar panels selected by a customer. As with the first option, the amount of power generated will be credited to their electric bill on a monthly basis.
- In addition, customers may purchase "Renewable Energy Credits" which will allow them to offset the environmental impact of activities like cooling their home or commuting to work.

Congratulations to Chattanooga!

## *TVA Awards Additional Solar Capacity to Local Power Companies*

On May 8, TREEDC member Tennessee Valley Authority (TVA) in partnership with the Tennessee Valley Public Power Association (TVPPA), announced that it is awarding 10 MW of additional solar capacity to seven local power companies who applied through TVA's Distributed Solar Solutions (DSS) pilot program. Once completed, these projects will generate enough solar energy to power more than 900 average homes.

DSS is a pilot program that encourages local power companies and solar developers to work together to create renewable energy projects at the community level. TVA announced the available capacity through the DSS pilot program in January. Applications were submitted for solar projects that ranged from 50 kW to two MW. The selection committee reviewed 13 proposals before selecting these projects to receive capacity:

- North Georgia Electric Membership Corporation
- Volunteer Electric Company
- Memphis Light Gas & Water (TREEDC Member)
- Electric Power Board of Chattanooga (TREEDC Member)
- Tullahoma Utilities Authority
- Jackson Energy Authority (TREEDC Member)
- Nashville Electric Service (TREEDC Member)

To date, TVA has contracted or installed around 400 megawatts of solar capacity in its generation portfolio, and currently has more than 1,200 megawatts of wind and over 50 megawatts of biomass. TVA's private renewable program, offered through participating local power companies, has resulted in over 100 megawatts of renewable capacity, with more than 3,000 systems operating across the region.

## *QECB Suballocations Approved for TREEDC Member Cities of Paris and Memphis Energy Projects*

On April 13, the Tennessee Local Development Authority (TLDA) approved a suballocation of \$2,532,500 in Qualified Energy Conservation Bonds (QECBs) to the City of Paris. The City is proposing to use the proceeds from the bond issuance for an energy savings performance contract to upgrade energy consuming systems through guaranteed energy savings. The proposed project will include an upgrade of street lights to LED lighting technology, conversion of lighting within select City-owned buildings to LED lighting technology, the addition of intelligent thermostats on HVAC systems, the addition of energy-saving vending machine controls, and an upgrade to the Civic Center's indoor pool dehumidifier. The project is expected to generate \$189,127 in annual energy and operational savings, reducing utility costs and consumption by 15-20% for the next 20 years.

On May 11, the TLDA approved a suballocation of \$2,142,850 in QECBs to the Economic Development Growth Engine (EDGE), which will serve as conduit issuer for the City of Memphis with regard to the Memphis Green Communities Program's Southbrook Towne Center project. The proposed project includes the replacement of community center's roof with an energy efficient roof system, an upgraded HVAC system, and an upgrade to the building's electrical power grid.



Paris, Tennessee City Manager Kim Foster

## *2017 TREEDC State, National, and International Renewable Energy Summit*

Hosted by Tennessee Tech University December 14 & 15, 2017



This conference will feature a wide selection of renewable energy approaches and dialogue for networking and fellowship among our supporters in Tennessee and the rest of the world. Our International Renewable Energy Conference will showcase renewable energy technologies, leaders and local governments and university best practices to our state, national and international members of TREEDC.

## Agenda Topics

- TREEDC Overview
- International Best Practices in Renewable Energy
- Volkswagen Diesel Settlement
- Solar PV Update
- Energy Service Contracts
- Waste to Energy Projects
- Compressed Natural Gas and Propane
- Large City Renewable Energy Programs
- Small Town Renewable Energy Programs
- State Government Best Practices
- Building Out Wind Energy Transmission Lines
- Jobs Outlook and Training from the University Perspective
- CEUs credit
- Grand Prize Drawing

## Registration

### Registration Options:

- Individual Registration | \$50
- Day of conference: \$75
- Booth Registration | \$200
- Reception and meals sponsor | \$1000

Contact: [warren.nevad@tennessee.edu](mailto:warren.nevad@tennessee.edu) for more information.

The 2017 TREEDC International Conference has gone mobile! Schedule, maps, twitter, alerts, more on your iPhone/Android, free! Get Guidebook at <http://guidebook.com/guide/21671> or scan the QRP and search TREEDC International Conference



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