



SAFER Southern Bioeconomy Case Study Series

TENNESSEE RENEWABLE ENERGY AND ECONOMIC DEVELOPMENT COUNCIL

By Linda Hoke

A number of recent newspaper headlines have proclaimed that Tennessee is “Turning over a New Leaf,” referring to the rollout of Nissan’s first electric Leaf cars produced in East Tennessee. In fact, the past few years have seen Tennessee turn over a new leaf in its focus on the clean technology economy as an economic development strategy, including the enactment of the Tennessee Clean Energy Future Act in 2009.

A June 2011 report by the Tennessee Department of Labor and Workforce Development indicated there were nearly 44,000 green jobs in the state in 2010.¹ In addition to the Nissan facility, several major clean technology investments made since 2008 will add significantly to this figure. These investments include Hemlock Semiconductor and Wacker Chemie AG, billion-dollar polycrystalline silicon manufacturing plants; Volkswagen’s new Passat manufacturing plant; eTec, a \$200 million investment in electric car-charging stations; the five-megawatt West Tennessee Solar Farm; and the Tennessee Solar Institute, a research partnership between the University of Tennessee and Oak Ridge National Laboratory. By 2014, these

seven facilities alone are expected to employ more than 4,500 workers and generate nearly 12,000 additional jobs via supplier industries and employee spending.²

A nonprofit grassroots organization, the Tennessee Renewable Energy and Economic Development Council (TREEDC) has emerged with the aim of helping ensure that the opportunities of the clean technology economy extend beyond these major headlines. TREEDC began in 2008 as a partnership between the University of Tennessee's Institute for Public Service, University of Tennessee President Emeritus Joe Johnson, four mayors and McBee/Bailey & Associates, a Knoxville-based construction and engineering firm. It now boasts 51 cities and 19 counties as members and such partner organizations as Oak Ridge National Laboratory, Tennessee Department of Agriculture, Tennessee Valley Authority and U.S. Department of Agriculture Rural Development.

Members are quick to note the uniqueness of the organization.

"We're not operated by special interest groups, only by mayors who want jobs for their communities," Greg Johnson, Mayor of Pikeville, Tennessee, said about TREEDC's economic development focus.³

The Council's mission is to:

Provide leadership in renewable energy and economic development by connecting technology and energy with sustainable rural economic development through a regional network of local communities that actively provide assistance, share ideas, resources and information and promote the development of renewable energy and economic development programs.

In keeping with its mission, networking and information sharing are hallmarks of the organization. TREEDC held its first statewide meeting in June 2009, drawing about 75 attendees, including state and local government officials as well as business representatives. In the two years since, forums have been held in seven of the nine geographic regions in Tennessee involving more than 500 attendees, including 45 businesses. The forums have provided both networking and educational opportunities – giving small business entrepreneurs the chance to showcase their work and technologies

to local officials while exposing local officials to new ideas from these business leaders as well as from other communities.

"We're the missing link," Warren Nevad, TREEDC executive director and University of Tennessee municipal management consultant, said in describing the important linkages being built between the public and private sector participants. "We bring in the local decision makers to help the industry."⁴

TREEDC Origins

Starting in 2006, several state government initiatives began raising awareness of the potential economic benefits of biofuels development, setting the stage for the formation of TREEDC. That year, Governor Phil Bredesen created the Governor's Interagency Alternative Fuels Working Group, charging the group with the task of developing a comprehensive alternative fuels strategy for Tennessee.

"Alternative fuels represent an opportunity to develop new markets for Tennessee farmers," Commissioner of Agriculture Ken Givens said at that time. "With this Executive Order, Governor Bredesen recognizes the potential of alternative fuel production and use for enhancing our rural economy, and it sets a course for making Tennessee a leader in the Southeast."⁵



Officials demonstrate biodiesel production in Crossville, Tennessee.

The 2007 launch of the \$70.5 million Tennessee Biofuels Initiative brought

further attention to the economic potential of alternative energy. It set a goal of producing 1 billion gallons of biofuels by 2022, with the expectation of it leading to the creation of as many as 4,000 new jobs in rural Tennessee and the generation of \$400 million in new state and local taxes.

The Governor's Conference on Biofuels came on the heels of the Biofuels Initiative in May 2007, further spreading the word about new economic opportunities and providing the spark for the creation of TREEDC. It was at this gathering that the mayors of four rural communities – Crossville, Gainesboro, Graysville and Pikeville – along with two members of the Governor's Working Group – Warren Nevad from the University of Tennessee's Institute for Public Service (IPS) and

Emanuel Bailey from McBee/Bailey – came together and conceived the idea of TREEDC.

Rather than allowing the idea to languish after returning home, Nevad kept the ball rolling, garnering support from Dr. Joe Johnson, president emeritus of the University of Tennessee, among others. The institute, with its 60-year history of providing technical assistance and training to municipal and county leaders, already had long-standing connections throughout the state. Dr. Johnson, who was appointed chairman of TREEDC's Advisory Committee, further strengthened the fledgling group's credibility and connections.

A four-day community development field summit in March 2008 organized by the institute and Tennessee Department of Economic and Community Development helped draw in additional supporters. The summit brought together resource agencies in the nine geographic regions of the state to share ideas and get to know one another better. In addition to representatives from the two host organizations, attendees included representatives from U.S.D.A. Rural Development, University of Tennessee Cooperative Extension Service, area development districts, community colleges and workforce development and tourism organizations. One of the tasks of each geographic cluster was to develop a 90-day work plan. Promoting biofuels and clean energy opportunities emerged as the focus of the work plan for the Upper Cumberland region.

In March 2009, every city and county mayor in Tennessee was invited to attend TREEDC's inaugural meeting and become members of the newly formed council. Dr. Johnson served as keynote speaker for the gathering. The group continues to grow.

Small and Large Communities Participate

TREEDC values the participation, expertise and experiences contributed by communities large and small. A recent forum in Crossville, for example, featured presentations from the major cities of Knoxville and Nashville as well as small towns, such as Athens.

"It all starts with the cities and counties, and (they) should be the key cog in the wheel," Warren Nevad told

the *Knoxville News Sentinel*.⁶

Membership benefits include access to TREEDC's green business networks, a green jobs listing, newsletters, sponsorship and presentation opportunities at forums, and notification of grant opportunities. TREEDC also offers legislative policy development and tracking services.

TREEDC's work is carried out by a network of regional resource planning caucuses and a statewide advisory board. The role of the regional caucuses is to:

- Compile, profile and share information on natural resources, energy assets and renewable energy opportunities in their region.
- Meet with businesses, farmers, developers, energy companies and state, federal and private resource agencies and policy makers to discuss and review ideas, plans or policies that might impact the caucus's service region.
- Discuss and advance proposals, projects, programs, policies and mechanisms that support the work and aims of the council.
- Work cooperatively to develop and share resources.⁷

East, Middle and West Tennessee have mayoral coordinators who reach out to area stakeholders to bring regional economic development opportunities in renewable energy to their area.

"We see this as an economic tool that can be used by communities to promote green jobs."

Ducktown Mayor James Talley

Focus Expands Beyond Biofuels

While the organization's initial focus was on biofuels production, its activities have since expanded along with the realization that other energy-related endeavors could also help communities' bottom lines.

Take the case of Ducktown, Tennessee, population 475.

"We're all about renewing and environmental...but at the same time, the primary thing we push for is the economy and jobs. We see this as an economic tool that can be used by communities to promote green jobs," said Ducktown Mayor James Talley.⁸ Ducktown was one

of six Tennessee communities that received help from TREEDC in successfully applying for a grant under the Energy Efficiency and Conservation Block Grant program. “We got enough grant money to put in a 14 kW system, but are hoping to build a 26-28 kW system by doing a lot of the work in-house,” Mayor Talley said about the city’s new solar farm. “This will generate about \$8,000 per year in revenue for the city, which will help offset a \$13,000 total utility cost.”

Biodiesel projects have also been initiated in several communities as a result of assistance provided by TREEDC. Crossville, Tennessee, one of the founding members of the organization, was already looking at ways to decrease its utility costs.

“We looked at all the utility bills the city of Crossville was enjoying and found that, next to wages, our electricity bills and fuel bills were the highest categories of monies the taxpayers had,” Mayor J.H. Graham III said.⁹ A presentation by Hoover, Alabama at a TREEDC meeting in Memphis provided the inspiration for a new cooking oil recycling and biodiesel production initiative to complement other activities already under way as part of the Crossville Energy and Sustainability Initiative. Crossville has partnered with Cumberland County to add a cooking oil collection tank at the county recycling center and is also providing free collection containers and pick-up for local businesses.

In addition to helping individual communities – ranging from investigation of the potential for wastewater sludge gasification to development of a long-term impact plan for a community affected by a fly ash spill – TREEDC has served as an educator and ambassador for green energy throughout the state. Notably, TREEDC was appointed ambassador to the Genera Energy/Dupont Danisco cellulosic ethanol development project, a partnership that has developed a biorefinery and also is working with farmers to develop a biomass supply chain and with researchers and extension agents to improve agricultural varieties and practices. TREEDC also partners with the Tennessee Valley Authority to promote its Green Power Switch program through which customers can purchase blocks of green power.

Advice to Others

Warren Nevad, TREEDC’s executive director, offers the following advice to others interested in replicating the TREEDC model in their states:

- Identify someone in the state others cherish and respect. Ask that person to be your figurehead.
- Start small. Involve key stakeholders in a specific

region and if that works out well, then go statewide.

- Engage the business community. “In our experience, knowing that local elected officials will be attending a forum is the motivating factor for business involvement.”
- Get the academic community and other resource agencies involved by asking them to co-host events.

For more information on TREEDC, visit: www.treedc.us

¹Arik, Murat and David Penn. *Green Jobs in Tennessee: Economic Impact of Selected Green Investments* (Murfreesboro, TN: Business and Economic Research Center, Jennings A. Jones College of Business, Middle Tennessee State University, 2011

²Kilpatrick, Dawn, Matthew Milam and Martha Wettemann. *Tennessee’s Green Jobs Report* (Nashville, TN: Tennessee Department of Labor and Workforce Development, Spring 2011

³March 29, 2011 testimony before the Tennessee General Assembly’s House Agricultural Committee

⁴Interview with Charity Pennock, Southern Growth Policies Board, May 2, 2011

⁵“Governor Bredesen Signs Executive Order Creating Alternative Fuels Working Group,” BIOTENN News Release, February 15, 2006

⁶Brass, Larissa. “Group Helps Small Cities Go Green,” *Knoxville News Sentinel*, Nov. 24, 2009

⁷Tennessee Renewable Energy and Economic Development Council Bylaws

⁸Interview with Linda Hoke, Southern Growth Policies Board, July 11, 2011

⁹Mullinix, Heather, “Going Green Has Economic Benefits,” *Crossville Chronicle*, March 10, 2011



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SAFER’s vision is to position the South as the national leader in renewable energy production. SAFER works toward this vision by providing strategic leadership to the agricultural and forestry sectors in advancing renewable energy initiatives. These initiatives focus on better policy, targeted research, efficient commercialization, and outreach and education.

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