Some people might say that renewable energy, like organic produce, is a luxury item better suited to larger utilities with customers who can support “fancy” products. Lincoln County Power District No. 1 (LCPD) begs to differ and offers its successful community solar project as proof that even a small utility can fit renewable energy into its portfolio.

Located about four hours north of Las Vegas, Nevada, Lincoln County is almost entirely rural. With a staff of 15, the public power district serves about 1,000, mostly agricultural and residential, customers of modest income. Nevertheless, a 2013 customer survey LCPD conducted uncovered a lot of interest in renewable generation, solar power in general and community solar in particular. “The big sticking point for most of our customers was cost,” noted General Manager Dave Luttrell.

One way to bring down the cost of installing a solar power system is to spread it among many customers in a community solar project, also called solar gardens. Community solar projects enable people who, for a variety of reasons, can’t own their own solar array to buy shares in a larger project. In the utility-sponsored model, customers may purchase a set amount of electricity at a fixed rate for a long term, such as 20 years. The rate is typically slightly higher than the current retail rate, but may provide protection and stability against rising rates for grid electricity.

In hopes of being able to offer its customers a renewable energy option, LCPD did an analysis of building a community solar project. “The pricing at the time just wasn’t feasible,” admitted Luttrell. “But we didn’t give up on the idea.”

Instead, Luttrell and the board of directors watched and waited and ran the analysis again one year later. The price of solar equipment dropped sharply in 2014 and, “The project began to look more competitive as an offering affordable alternative

LCPD divides the generation from its Community Solar Project between subscribers and its general power portfolio, so all customers can enjoy the economic and environmental benefits of renewable energy. (Photo by Lincoln County Power District 1)
alternative to purchasing power on the spot market,” Luttrell said.

Little outside help, lot of DIY
That is to say, more competitive, but not quite where it needed to be. Fortunately, there are state and federal programs to support renewable energy development available to utilities. LCPD worked with the Nevada Governor’s Energy Office and the Department of Agriculture’s (USDA) Rural Energy for America Program to get the funding needed to make the project feasible.

With funding lined up, LCPD took the do-it-yourself route for reasons that went beyond keeping costs under control. “Las Vegas is the nearest big city, so it would be tough to get a contractor to come all the way down here for a 90-kilowatt project,” Luttrell acknowledged.

The benefits of handling every aspect of development, from design to construction to marketing, soon became apparent to the utility. “Having a new challenge really motivated the staff,” recalled Luttrell. “They had built power lines and substations, but a solar array was something new.”

Far from being intimidated, the LCPD engineer and field crew discovered that installing solar is about as close to plug-and-play technology as you can get, Luttrell said. “And now they have the confidence to build more and the expertise to advise customers who want to build home systems,” he added.

Bringing community together
The solar system also proved to be a great public relations tool for LCPD. It is located on US Highway 93 where people could see the construction progress once ground was broken in spring of 2015.

Everyone knew about the highly visible site, Luttrell noted, and asked LCPD employees about it when they ran into them at church or the grocery store. “It created a lot of goodwill in the community and gave us a chance to educate customers about solar power,” he said.

Starting a year or more before energizing the solar array, LCPD ran stories about the solar farm in every issue of their bi-monthly newsletter, Ruralite. The local newspaper gave plenty of coverage to the project and, as construction neared completion, the utility sent a direct mailer to its customers.

A series of public meetings gave customers a chance to learn what to expect from owning a share of community solar. “We wanted them to be fully aware of the strengths and weaknesses of the resource,” Luttrell said. “For example, LCPD is actually a winter-peak utility, so maximum generation does not coincide with our customers’ highest energy use.”

Firing it up
When the project was energized on July 1, LCPD had yet to sign up any subscribers for solar shares at that point for a reason. “We wanted it energized and generating on a real-time basis before we offered subscriptions,” Luttrell explained.

Customers started signing up for solar shares in September and continued through mid-October. Half of the array is fully subscribed, Luttrell said, and the rest of the generation goes into the utility’s resource portfolio. “We decided early on that the solar project should be an economical resource to benefit all our customers,” he pointed out.

Supporters turned out in force for the October 5 dedication of the community solar array. The USDA state director and a representative from the Governor’s Energy Office joined the LCPD board president, middle school students and other customers for the occasion. At the dedication shareholders got to tour the site and meet other attendees.

See SMALL POWER PROVIDER, page 4
The Utility Energy Forum (UEF) generates a lot of ideas about energy efficiency and management, and it seems to have rubbed off on Granlibakken Tahoe, the event’s most frequent host. When the premier networking event for utility program managers in western states meets May 4-6, it will be in Placer County, California’s showcase project for the Better Buildings Challenge. “The Transformed Utility: Connecting for Success” is the theme for the 36th annual UEF. “So it’s fitting that the forum is taking place in a facility that has recently undergone an efficiency transformation,” observed Western Energy Services Manager Ron Horstman. “Energy efficiency is going to be a critical component in tackling the challenges utilities are facing.”

“We started focusing on transformation as a theme last year because so much is changing so fast in our industry,” acknowledge Mary Medeiros McEnroe, Silicon Valley Power Public Benefit Program manager and UEF president. “We need to be looking at the future, to see where we need to go with customer service and technology.”

Placer County demonstrated that forward-looking spirit when it took the Better Buildings Challenge. The upgrade combined innovative financing, public-private partnerships and high-tech solutions to reduce Granlibakken’s energy consumption by up to 43 percent. “That is the kind of flexibility and creative thinking utilities will need to meet new mandates and shifting customer expectations,” said Horstman.

Agenda highlights big issues
Those topics and more appear throughout the UEF agenda and in the pre-forum workshop for utilities and government representatives only. Eligible attendees voted on the issues they will be discussing Wednesday morning prior to the UEF kickoff. Their leading concerns include how utilities can benefit from energy storage technology, measuring energy savings from water conservation and the new roles being thrust on utilities. “One of the reasons the UEF has grown so much over the past few years is the work the planning committee has done in reaching out to identify relevant topics,” noted McEnroe.

The forum officially opens with a keynote address by Sue Kelly, president of the American Public Power Association, on possibilities for incorporating new technologies and services into their customer service options. The afternoon continues with the strategic policy panel discussion, co-chaired by Modesto Irrigation District Energy Services Supervisor Bob Hondeville. “Co-chairing different panels is always interesting and educational for me,” said the UEF veteran.

“Customers are asking for the thermostats and other smart tools, while utilities are still figuring out how to design effective programs with them,” said Medeiros McEnroe, who is chairing the session. “There is definitely a learning curve for both parties. I’m looking forward to hearing what Energy Star has to say about the technology.”

Vanessa Lara of Merced Irrigation District is co-chairing the “customer’s view” session later that day. The panel includes Ron Parson of Granlibakken Management Company, who will be discussing their retrofitting experience.

Technology is the subject of afternoon sessions, exploring the latest in programs and tools to improve building design, retrofitting and energy audits. Attendees will also learn about demand, supply- and demand-side management resources, as well as advances in electric vehicle and heating and cooling technologies. The final day features deeper explorations of specific systems and equipment.

Greening up networking
Much of Granlibakken’s energy savings are coming from replacing obsolete refrigerators, dishwashers and stove-hood exhaust systems with energy-efficient models. So the
Everyone who is interested can follow the solar garden’s real time production through a Web portal.

More solar to come

Customers who took the wait-and-see approach to the first project will soon have another chance to become community solar shareholders. LCPD hopes to break ground on Phase 2 in August, and again will offer half of the generation for subscription. “I think the first project met most of the pent-up demand,” said Luttrell, “but we wanted to have shares available for future interest.”

LCPD has had a customer-owned solar policy since 2007, and individuals can still install their own solar arrays if they want to. “We wanted to make it clear that we are not phasing out support for customer-owned solar,” Luttrell stated.

However, there have not been any new requests for interconnection since the community solar project energized. “Community solar just gives people one more option to decide what makes the most sense for them,” said Luttrell. “The economies of scale and not having to contend with operation and maintenance certainly make it attractive for a lot of customers who couldn’t consider solar otherwise.”

The most important thing for LCPD customers is that they have options. Whether they install their own solar, buy solar garden shares or just enjoy the stability that comes from a utility portfolio that includes renewables, they are getting big service from a small utility.
NEW RESOURCE ADDED TO ENERGY SERVICES WATER CONSERVATION PAGE

Coal, the most abundant fossil fuel, currently accounts for 52 percent of US electricity generation, and each kilowatt-hour generated from coal requires withdrawal of 25 gallons of water. That means US citizens may indirectly depend upon as much water turning on the lights and running appliances as they directly use taking showers and watering lawns.

Utilities can expect water conservation to play a growing role in their efforts to comply with the Clean Power Plan. In fact, Water/Energy Nexus: Claiming Energy Savings for Water Measures and the Associated Calculations was chosen by utilities as a topic for the pre-forum workshops at the Utility Energy Forum.

Working out these issues will take time, but you don’t have to wait to encourage your customers to save water. Summer is the season for gardening, swimming and—yes—extra showers, so take a moment now to explore Energy Services’ Water Conservation resources. This page is loaded with information about drought management, irrigation and water-saving tips for commercial and residential customers.

In that last category is a new resource from the Southwest Florida Water Management District that could help motivate your customers to get on board with a water conservation program. The Water Use Calculator is an easy-to-use tool that allows the user figure out how much water they consume at home, both individually and as a family.

Most people will be surprised—even a little alarmed—to discover how much water everyday activities use (the Energy Service staff was, and we think about these things a lot). Try placing the link on your website or running it in your online newsletter to get your customers’ attention. Then follow it up with customer communication on tips for cutting down water consumption, such as Water Use it Wisely for residential customers. You can find those resources on the Water Conservation page as well.

While you are there, check out the information on water efficiency for commercial and agricultural customers. This customer segment is already motivated to cut water use, so be ready to help them with Best Management Practices for Water Efficiency and Water Efficiency Case Studies.

For many utilities, water conservation is already an important part of their resource management activities. If you have a favorite tip sheet, calculator or strategy for determining savings, share it with Energy Services. Once an esoteric concept, the water-energy nexus is now everybody’s business.

DOE OFFERS FUNDING TO PILOT TRIBAL TECHNICAL ASSISTANCE

Deadline: April 14, 2016

Update: Slides from the March informational webinar are available online. Download to learn about eligibility requirements and essential details of the application process.

Up to $7 million in funding is available to Indian tribes and Alaska Native Villages to develop a Technical Assistance Energy Providers Network. This pilot project by the Department of Energy Office of Indian Energy is intended to train regional energy experts to provide the tribes with technical energy assistance and informational resources.

As part of these inter-tribal regional programs, the energy experts would:

1. Coordinate energy solutions among participating Indian tribes (including Alaska Native villages) within the region;
2. Deliver technical assistance to participating tribes within the region;
3. Build the human capacity of participating tribes by providing information to tribal leaders and staff through workshops or webinars;
4. Serve as an information clearinghouse for participating Indian tribes;
5. Network with regional and national energy organizations;
6. Advise DOE’s Office of Indian Energy on the energy goals and needs within their region; and
7. Enhance DOE’s technical assistance network across Indian Country.

Applications are due April 14, 2016, and must be submitted through EERE Exchange, DOE’s online application portal.
USDA RELEASES FUNDING FOR RURAL ECONOMIC DEVELOPMENT

Electric cooperatives should take advantage of $500 million the Department of Agriculture (USDA) has set aside for projects that support economic and community development plans across multi-jurisdictional areas.

The Strategic Economic and Community Development program (SECD) is the first new funding available from the USDA in a long time. The USDA put the provision into the 2014 Farm Bill with an eye on advancing projects that support long-term community and economic growth strategies and capitalize on the unique strengths of the rural area. The four Rural Development programs under the SECD program include Community Facilities, Water and Environmental Programs, Rural Business Development Grants and Business and Industry Guaranteed Loans.

Because co-op service territories often cover multiple towns, cities and counties, there’s an opportunity for power providers to work with councils of governments, regional authorities, coalitions of municipalities and similar associations. Co-ops should reach out to these entities to make sure their priorities are part of regionally adopted plans.

USDA will base consideration on:
1. How well the project supports a multijurisdictional plan
2. How well the plan addresses collaboration, regionalism and investments from other federal and philanthropic agencies

Interested participants should have their plans reviewed by their state’s staff early in the process for feedback and possible modification before submitting it with the formal application.

The National Association of Development Organizations presented an informational webinar on Jan. 12 covering an overview of the SECD program and how to apply for funding. A recording of the webinar and the full slide presentation are available to download.

Applications are due June 30, 2016. Contact your local USDA Rural Development office or contact Farah Ahmad in the national office for more information.

Electrical co-ops can be part of the planning process that secures grants and loans for rural businesses and community facilities through USDA’s Strategic Economic and Community Development program.
SUBMIT YOUR NOMINATIONS FOR GREEN POWER LEadership Awards

It is that time of year again, when the Environmental Protection Agency’s Green Power Partnership invites businesses, municipalities, schools and—yes—utilities to crow about their support for clean energy. The nomination period for the Green Power Leadership Awards opened March 1 and continues through April 18!

EPA co-sponsors the Green Power Leadership Awards with the Center for Resource Solutions (CRS) at the annual Renewable Energy Markets Conference. The awards recognize the leading actions of Green Power Partners that significantly advance the development of renewable energy sources. Consumers, businesses and organizations that choose green power instead of conventional electricity support energy technologies that will reduce the environmental impact of electricity generation and increase our energy security.

For leadership in use
The EPA Partner Awards highlight Green Power Partners and Communities for green power purchases or use of on-site renewable energy applications, overall green power strategy and impact on the green power market. The categories include:

- **Excellence in Green Power Use** (formerly Green Power Purchasing), recognizing partners who purchase green power from a utility green-pricing program, a competitive green marketer or a renewable energy certificate supplier
- **Green Power Partner of the Year**, honoring partners who distinguish themselves through their green power use, leadership, overall strategy and impact on the green power market
- **Sustained Excellence in Green Power**, recognizing continual leadership in advancing green power development
- **Direct Project Engagement** (formerly On-site Generation), honoring partners for using on-site renewable energy applications
- **Green Power Community of the Year**, recognizing EPA Green Power Communities that distinguish themselves through their green power use, leadership, citizen engagement, renewable energy strategy and impact on the green power market

For more information about the EPA awards, contact Roger Fernandez at 202-343-9386.

For leadership in market development
The CSR honors market development efforts in the following categories:

- **Green Power Market Development**, recognizing innovators and champions of renewable energy—both individuals and organizations—whose actions are building and growing the voluntary green power markets
- **International Green Power Market Development**, recognizing organizations and individuals who are building markets or demonstrating leadership in green power procurement outside North America
- **Leadership in Green Power Education**, honoring programs and organizations dedicated to spreading the word about the environmental benefits of green power and boosting public awareness and interest in renewable energy
- **Green Power Leader of the Year**, honoring individuals who leverage their influence, power, position or purchasing power to increase the prevalence of renewable energy

For more information about the CRS awards, please contact Lucy Harbor at 415-561-2103.

Nominate now
Green Power Partners, including utilities and municipalities, may nominate their own projects or programs, or another party may nominate them. The EPA honored Western customer Silicon Valley Power in 2015 for increasing locally generated renewables in its Santa Clara Green Power program. Key account representatives can check the Green Power Partner list to see if they have a customer who might be eligible for recognition. There is no limit to the number of applications a party may submit for the awards.

To apply for the EPA Awards and learn about eligibility requirements, visit the EPA’s GPLA Website. For the CRS Green Power Leadership Awards in Market Development, submit online using the 2016 GPLA Nomination Form. Nominations must be received by **11:59 PM, April 18**, to receive consideration.

Good luck, and don’t forget to let Energy Services know if you or your customer wins an award. We are always interested in sharing your success with our readers!
SeminarS cover California Building code changes

California utilities have benefitted from strong building efficiency codes that have helped keep energy use constant in the state for decades. Power providers also appreciate the challenges building owners and developers face in complying with the toughest efficiency codes in the nation. Green Technology Training is offering a seminar that can help construction and real estate professionals, as well as utility key account staff and program managers, get up to speed on the latest revisions.

2016 Building Efficiency Standards: Changes and Challenges will cover the Title 24 changes that go into effect January 2017 for both residential and commercial buildings, from high performance walls and attics to lighting and lighting controls. With each round of revisions, the state’s Energy Code moves closer to the goal of zero net energy for all new construction. Staying up to date with its evolution will help utilities as they design new efficiency programs, update preferred contractor lists and advise commercial customers on retrofits.

For convenience, Green Technology is offering the seminar on multiple dates at locations throughout the state:

- April 8, 2016 – Orange County, California
- May 12, 2016 – Concord/Martinez, California
- May 26, 2016 – Ventura, California
- June 23, 2016 – Sacramento, California

Attendees will be eligible to receive five Health, Safety and Welfare Continuing Education Units (CEUs) from the American Institute of Architects and .5 International Code Council CEUs for the course. Sessions will also offer Build it Green CEUs (one credit per hour) and Construction Management Association of America renewal points (one per hour). All registrants will receive a certificate of participation.

This training is a good opportunity to prepare your staff to support customers as they work toward creating the most efficient building stock in the country. Knowledge is power, and knowledge of the California Building Code is the power to become an indispensable resource your customers can rely on.