

WATT'S UP

AT LA PLATA ELECTRIC ASSOCIATION

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Next Board Meeting:

9 a.m. | Wednesday, September 15, 2010
LPEA headquarters, Durango

Mission Statement:

La Plata Electric Association provides its members safe, reliable electricity at the lowest reasonable cost while being environmentally responsible.

Save Your Energy

LPEA

La Plata Electric Association, Inc.

A Touchstone Energy® Cooperative 

Beauty in the beholder's eye

BY RON MEIER, MANAGER OF ENGINEERING

For the most part, electrical substations are understood by the public as a necessary part of the infrastructure that allows us all to enjoy safe, reliable electricity in our region.

The publicity, however, surrounding the reconstruction of Ponderosa Substation along Hwy 160 west of Pagosa Springs has thrust LPEA's substation development into the limelight, and with that notoriety, we've come to realize that many LPEA members may not truly understand how these special complexes keep the power flowing.

Substations are much like a major road intersection. Think of those bigger power lines (we call them "transmission lines") as a state highway, while the smaller lines (which we call "distribution lines") are the county roads and neighborhood streets. Without the highways to speed vehicles quickly and efficiently before unloading - through an intersection - onto smaller county roads, traffic would be a nightmare. The electrical substation is that all important intersection between the highway of electricity transmission (where it's running at higher voltage) and county roads of electricity distribution (where the voltage drops for delivery to your homes).

Much like a major highway intersection, substations take a great deal of time to develop, and it is best to have them upgraded and in place before they are truly pushed to capacity. Our goal is to get the existing Ponderosa upgraded before it fails and impacts our ability to provide power to parts of Archuleta County.

The biggest issue with Ponderosa appears to be the location, and some folks have said "just move" it. This is essentially akin to asking that a pre-existing highway intersection, which needs to be upgraded to meet the needs of the community, "just be moved" somewhere else because its neighbor doesn't like the traffic. Continuing with the analogy, the highway, along with all the county roads, would then need to be realigned, and people who currently don't have the intersection in their "front yard" would be asked to accept it.

LPEA might be able to relocate a substation, if a suitable site is available, but a big price tag comes along with that. Do remember that LPEA, as a cooperative, secures the funds to do such projects from its members (your billfold). Is it reasonable for LPEA to spend your money to relocate Ponderosa Substation (or any) for one neighbor and the public traveling momentarily past the substation? LPEA endeavors to do what's best for the entire membership. It's what we keep in mind with all construction.

Substations might be attractive only to those of us who are electrical engineers and operational personnel who conceive them and fully understand their magic, but they are a crucial cog in the network that enables you to power your homes and more. ☀



Substations ... are a crucial cog in the network that enables you to power your homes and more.



Pat Fahrion



Steve Lynch

LPEA'S SEPTEMBER EMPLOYEE ANNIVERSARIES

PAT FAHRION

Working Foreman
15 Years

STEVE LYNCH

Equipment Operator
15 Years

SUZY BYNUM

Energy Management Advisor
9 Years

JEREMY GURULE

Mechanic I
3 Years

DENNIS SVANES

Chief Financial Officer
2 Years

NANCY ANDREWS

Energy Management Advisor
1 Year

The 'power' of wind

For centuries, small, hand-built windmills have pumped water, ground grains, generated a modicum of natural energy that helped farmers and ranchers manage their land, livestock and crops. Today, however, windmills are among the leading suppliers of renewable energy generation in the country. LPEA's service territory is just beginning to see these larger, technologically sophisticated turbines stretching into the sky.

Currently, LPEA has four net-metered wind generators – member-customers who have installed wind turbines and who are interconnected to the grid. These members are generating a portion of the power consumed at their residential properties. The weather will dictate if, at year's end, they generate enough excess power to truly claim they've "turned the meter backwards" for the year and thus receive a check for power purchased from LPEA.

The issue locally is reliability. While wind is certainly a clean, viable option, and the majority of LPEA's Green Power supplied to member-customers is wind-generated, locally one can't always count on the wind, according to Mark Schwantes, LPEA's manager of corporate services.

"Wind power is an important component in the pursuit of 'zero cost' fuel," says Schwantes. "It seems to residents that southwest Colorado has a lot of wind, but when it comes to wind power generation, we don't. For those big, 1-plus megawatt wind farms, those need to be built on the eastern part of Colorado or New Mexico and up in the Midwest. Small wind generation is what we can realistically expect here."

While wind turbines don't require much of a ground footprint, they do need to stretch into the sky – ostensibly six stories – to achieve a level where the wind is consistently blowing.

"You can be on the ground, enjoying a picnic with no wind and look up and see the birds obviously gliding on the wind," says Schwantes. "That's where you want your blades."

Generally the wind capacity is estimated at between 20 and 40 percent generation from a small wind system. This is similar to solar photovoltaic, where average "sun generation" is 5.5 hours out of 24 most of the year.

"Wind certainly can be viable, but we encourage our members to do their research first," says Schwantes, explaining that an anemometer should be installed at the desired location and measure the existing wind for a good part of the year. "Then you can look at the economics – how much power will I generate, what is it going to cost me, and what is the payback?"

Schwantes does note that the costs for all renewable generation products continue to come down in price, so a return on investment is becoming better as time goes by. And currently, local, state and federal rebate and tax incentives help enhance the total package.

"I think we're going to continue to see interest in wind," says Schwantes. "We don't have a lot of local installer expertise here, like we have with solar, but it will come."

LPEA anticipates "Wind-Power Basics" to be a topic of an upcoming quarterly Renewable Generation Meeting. Email smaxwell@lpea.coop to receive notification of these future renewable energy events. ☀



Located in La Plata County, each of these approximately 2.5 kW wind turbines are net metered and interconnected to LPEA's grid — an important component of the cooperative's support of local, distributed generation.



Time your use

LPEA member/customers have the “power” to manage their electricity consumption and costs through what’s known as “demand side management.” LPEA’s program is called WattWatcher®.

WattWatcher® is a “Time-of-Use” (TOU) program designed to reward customers who shift their larger electric loads to low, off-peak periods – or those times of the day when the “demand” for electricity isn’t as high.

“We’ve all heard about the ‘brown-outs’ in metropolitan areas like New York and Los Angeles,” says Mark Schwantes, manager of corporate services. “Those happen when customer demand for electricity is greater than what the power company can supply. If people would shift their electrical usage to the ‘off-peak’ periods, it would even out the flow and keep everyone in power.”

Shifting demand for electricity to off-peak periods not only helps sustain the electrical grid and reduce the need for excess power generation in those heavy demand times, at LPEA, it saves customers money. LPEA’s wholesale power supplier, Tri-State Generation and Transmission, charges LPEA less for purchasing electricity in off-peak hours. LPEA then passes that savings on to WattWatcher® customers.

To take full advantage of the TOU program, customers are urged to use those appliances that draw the most power – such the dishwasher, clothes washer and dryer or irrigation pump – during the off-peak hours. Installing programmable thermostats and timers on water heaters, or changing out the

home heating source to electric thermal storage (ETS) units, maximizes the TOU benefit.

“Time of use is not for everyone,” says Schwantes, noting that not every household can structure their lifestyle to take advantage. “But with a little fore-thought and planning, it really cuts down on the monthly electricity bills. Some of our area golf courses are even taking advantage, ‘powering up’ their electric golf carts during the low-cost, off-peak periods. It’s creative planning, or what we’ve said in years past, ‘thinking outside the bulb.’”

LPEA customers already participating in the WattWatcher® TOU program are reminded that on-peak, off-peak times adjust for the season on September 15. From September 15 through midnight May 14, 2011, the “winter” off-peak (lower rate) hours are daily, 11 a.m. to 5 p.m. and 10 p.m. to 6 a.m., plus all day Thanksgiving and Christmas.

For further information or to sign up for WattWatcher®, call 970.247.5786 or visit www.lpea.coop. ☀

WATTWATCHER® RATES:

- **4.4 cents per kilowatt hour during off-peak periods**
- **15 cents per kilowatt hour during on-peak periods**
- **Base Charge: \$14.50/month**
- **Regular Residential rates: 10.4 cents per kilowatt hour**
- **Base Charge: \$13.40/month**



LPEA offices in Durango and Pagosa Springs will be closed Monday, September 6 in observance of Labor Day.

SAVE THE DATE: October 2, 2010
La Plata County Energy Tour
Hazardous Waste Disposal Day

San Juan Basin Energy Connect Route Refinement Public Workshop
Visit www.lpea.coop for event details



Golf Tournament organizers Mike Alley and Darin Rome present Kay Hoppe, Mercy Foundation event coordinator, with proceeds that will benefit Hospice of Mercy.

LPEA GOLF TOURNAMENT IN PAGOSA SPRINGS RAISES FUNDS FOR HOSPICE OF MERCY

Hospice of Mercy, the organization that, for 30 years, has provided compassionate care and comfort to patients at the end of life’s journey was the 2010 beneficiary of the annual LPEA Golf Tournament, held June 19 at Pagosa Springs Golf Course.

Organized by LPEA’s line personnel, members of the International Brotherhood of Electrical Workers (Local IBEW 111 26A) based in the Pagosa Springs office, the tournament (which once again sold out) generated a \$3200 cash donation for Hospice. The organization relies on charitable giving to cover non-reimbursable programs such as grief counseling, bereavement services and spiritual care, as well as the training and coordination of volunteers who help patients live their final days with dignity and respect.

Plans are already underway for the 2011 tourney. To participate, donate or volunteer, contact organizers Mike Alley, 970.749.0260, or Darin Rome, 970.946.2398. ☀



"Chaperone" Ray Pierotti and LPEA-sponsored students Cory Kerns (Durango) and Mele LeLievre (Pagosa Springs) took part in the Cooperative Youth Leadership Camp.

AREA STUDENTS VISIT DC, ATTEND LEADERSHIP CAMP

Area high school students, thanks to LPEA's support, will have some interesting content for the "What I Did on My Summer Vacation" essays this fall, as four juniors explored Washington DC as part of the National Rural Electric Youth Tour, and two participated in the Cooperative Youth Leadership Camp.

Mele LeLievre, Julia Nass, Ethan Pearson and Lisa Wickman set off to Washington DC in June with additional students from across the country. In July, LeLievre joined Cory Kerns for the Youth Leadership Camp at Glen Eden Resort near Steamboat Springs.

In Washington DC, the students visited the various monuments and memorials, toured the Smithsonian museums and attended a play at the Kennedy Center, as well as went to Capitol Hill and met with U.S. Representatives Salazar, Markey, Coffman and Lamborn, and Senators Udall and Bennet.

"It made every chaperone proud when we visited the Air Force Memorial," said Liz Fiddes, of the Colorado Rural Electric Association. "A group of World War II veterans was there and the students broke out in applause for these men, many who are very old and frail."

LPEA project specialist Ray Pierotti participated as a chaperone for the Youth Leadership Camp, which brought together approximately 100 high school students representing cooperatives in Colorado, Kansas, Oklahoma and Wyoming to learn about the organization and operation of a cooperative. The seminars also built leadership skills to assist students in meeting future challenges.

"We also visited the Craig Electrical Power Plant and Trapper Coal Mine, and enjoyed an amazing raptor education program," says Pierotti, adding that a rafting trip and plenty of social time were part of the week.

Students are selected through a written application process, and every effort is made to select one high school junior from each school district in LPEA's service territory. Home school students are also eligible. Applications for the 2011 programs will be posted at www.lpea.coop later in the year, or call 385.3505 for additional information. ☀

"Trimming" potential hazards

Trees and power lines don't mix, and to help ensure the on-going reliability of LPEA's electricity transmission, the cooperative has continued routine trimming and removal of "hazard" trees.

Removal of hazardous trees or branches is necessary for public safety, to decrease the potential for power outages and to avoid the possibility of fires caused by limbs or trees falling onto or through power lines. The decrease in tree-caused outages during the past several winters can be attributed, at least in part, to LPEA's comprehensive program.

"We try to keep a close eye on all the trees growing under or near our power lines," says Steve Gregg, LPEA operations manager. "Unfortunately, it's usually the trees that were either very small or planted after a power line was installed, that are now, years later, growing up and into the lines. Ideally they should be removed, but we will trim them away from the lines, and in some cases can encourage them to grow away from the lines, but not all types of trees respond well to a lop-sided trim."

According to the University of Colorado Extension Office, trees develop with an intimate connection between roots and branches. Spruce and pine grow in a corkscrew pattern, with cottonwood, willow ash and honey locust developing with roots on one side of the tree providing the water and nutrient needs for the same side. In the case of the latter, when branches are trimmed off one side to avoid a power line, it can deplete the roots on that side of its needed sugars and starches.

"We see it with the willows and cottonwoods," says Gregg. "The roots die on the side of the tree we've trimmed, and root rot sets in, destabilizing the tree. It's then unfortunately more prone to being blown over or attacked by insects. While we certainly understand the reluctance of property owners to remove these trees, in the case of a tree that needs to be side-pruned to prevent interference with power lines, the correct decision is to remove the tree."

Gregg reminds property owners to always "look up" when planting new trees. If an existing power line crosses the site, select a new one – or plant a tree that will not reach the lines in its maturity.

LPEA's tree trimming contractors — which are professional arborists — will remove any dead or damaged trees, or those infested with insects, show evidence that the root system is jeopardized or unstable, and/or one that may be leaning toward power lines and is tall enough to come into contact with LPEA electrical equipment if it were to fall.

LPEA customers with additional questions or concerns regarding tree trimming are urged to call Roland Pack, 382.7183 or Ben Cordova, 382.3534. ☀



A willow tree may suffer from a lop-sided trim needed to avoid power lines.