

Quest for improved efficiency drives system upgrades

Projects will convert security lights to LEDs, upgrading meters

In 1937, St. Croix Electric Cooperative was incorporated to deliver power to the rural areas of St. Croix County. Seventy-nine years later, the power is still on. Yet, with continuous advances in technology, HOW members receive and utilize electricity has.

In the last half of 2015, SCEC will begin two significant system upgrades: converting high pressure sodium security lights to LEDs and upgrading members' meters.

LED Security Lights

In the mid-1990s, SCEC switched out all rented mercury vapor security lights to more energy efficient HPS lights (100 watts). Twenty years later, LED security lights have hit the market.

There are 941 rented HPS security lights on SCEC's system. Effective immediately, as these lights need to be serviced, SCEC will replace the rented light with an LED security light at no charge to the member. If a member with a rented light would like to replace their HPS light with an LED security light prior to the HPS light needing to be serviced, a one-time \$50 charge will be applied.

SCEC will be installing the evluma AreaMax™ LED Security Light. The light is expected to be maintenance free and last 25 years vs. the 6.7 years (on average)

SCEC crews were called out to repair the HPS lights.

"This is a transition that makes energy sense," SCEC President/CEO Mark Pendergast said. "The evluma light will produce a better quality white light illumination using 60 percent less energy than the current HPS lights."

In order to gain maximum life out of the current HPS lights, crews will change out the rented HPS lights as they need to be serviced, with all rented lights changed out no later than Dec. 31, 2021.

Members who own their security light and do not pay a monthly rental fee can contact St. Croix Electric at 715-796-7000 for more information about converting their current security light to the new LED lights.

Project Integration

This fall, SCEC will begin changing out member meters, upgrading to an Advanced Metering Infrastructure (AMI). The current Turtle® metering system was installed in the early 2000s. A few years ago, SCEC was notified by the manufacturer they would be phasing out replacement parts for the system.

"Knowing our Turtle® system was going to become obsolete, we formed a team of staff members to begin reviewing AMI options two years ago and, with the Board of Directors' approval, we settled on the Sensus FlexNet meter," Pendergast said.

Project Integration, as the meter change-out has been dubbed, will begin this fall and is expected to commence the end of 2016. SCEC will be relying on a third-party metering company it has worked with in the past to help with all the change outs. Members will be sent a letter prior to installation and will see a door hanger on their door once the meter has been replaced.

According to the U.S. Energy Information Administration (EIA), in 2013, U.S. electric utilities

had 51,924,501 AMI installations. Of that number, 89 percent were at residential accounts. Some benefits from the transition include:

- Assisting members with any usage or high-voltage complaints in nearly real-time. The current meters are continuously transmitting data, which takes 27 hours to reach the office.
- Power outage, restoration notification. Had the meters been in place during the July 18th storm, the system could have detected meters that had power restored vs. still out. This information helps with efficient crew assignments and saving time

EQUIPMENT CHECK



High Pressure Sodium security light (lowes.com)



LED security light



Integration



Sensus FlexNet meter

Rented Security Light Pricing Breakdown

All rented security lights will be replaced as they need to be repaired or no later than Dec. 31, 2021. An early conversion can be done for \$50 upon member request.

HPS Unmetered	LED Unmetered
\$9/month rental fee	\$9/month rental fee
HPS Metered	LED Metered*
\$2/month rental fee	\$7/month rental fee
\$0.10/kWh used	\$0.10/kWh used
TOTAL: \$9/month	TOTAL*: \$9/month

*Member bills for rented, metered lights have a monthly rental fee line item and then electric use is included in the member's overall kWh charge. Due to the efficiency of the new LED lights, monthly kWh use will decrease by an estimated 50 kWh/month, thus offsetting the increase in the monthly rental fee and, overall, keeping the monthly charges for each security light relatively unchanged for a higher-quality light.

crews are out as well as “wear and tear” on vehicles, rather than spend time on physically driving to the site to recheck a service.

- Detects meter tampering, high temperature. Electricity theft is a serious offense that is dangerous and financially affects the honest members of the Cooperative. These meters will be able to alert SCEC if tampering has occurred.
- All meters will be read remotely and allow for consistent billing cycles.
- Expedited service when an account is transferred between members (home sale, new renter, etc.).
- Future options to offer pre-paid billing.

“We anticipate the future of these meters will be to allow members online access to their hourly energy use,” Pendergast said. “In many cases, if you can see it, you feel like you can really do something about it. We won’t guarantee a reduction in anyone’s electric bills, but members being proactively energy efficient can lead to that. The cheapest kilowatt-hour is the one you don’t use.”

More information on each of these programs is available online at www.scecn.net under “Electric Service.”

SCEC Rebate Forms

Available at www.scecn.net, at the Co-op office (Hammond, 715-796-7000) or:

Countryside Plumbing & Heating (New Richmond)

715-246-2660 | Form(s): HVAC

Gregerson ACE Hardware (Baldwin)

715-684-3246 | Form(s): appliances, lighting

Larson’s Appliance Center (New Richmond)

715-246-2969 | Form(s): appliances

Sears Hometown Store (River Falls)

715-425-2400 | Form(s): appliances, water heaters

Note: A separate “Appliance Recycling” form is now available and must be completed by the appliance recycler. Rebate requests for recycling a refrigerator, freezer and/or window air conditioner must include all three pieces of paperwork below:

- Rebate form
- Appliance recycling form
- Receipt for each recycled item

SCEC awaits final decision for \$8.5M RUS loan

In June, the St. Croix Electric Cooperative Board of Directors approved an \$8.5 million loan application to the Rural Utility Service. The loan funds would be used to pay for future projects and equipment over the next four years, including distribution expenses for line extensions to new services, and upgrades and replacements of existing lines.

The RUS’ Electric Program is a sub-agency within the U.S. Department of Agriculture that “provides capital and leadership to expand, upgrade and modernize America’s vast rural electric infrastructure.” In 1938, the Rural Electrification Administration (REA) provided SCEC with an initial \$186,000 loan (equivalent of \$3.1 million in 2015 USD) to start building the infrastructure (poles, lines) to bring electricity to the rural areas of St. Croix County. Over time, the REA became the RUS. The last RUS loan SCEC received was for \$10 million in 2010.

Loan application reviews take up to 120 days. Although official approval of the loan has not been granted, SCEC President/CEO Mark Pendergast is confident it is only a matter of time.

“The review is to ensure the use of the loan funds are for eligible purposes and won’t jeopardize the financial condition of the Cooperative,” he said. “RUS’ priority is ensuring the members, our utility operations and their own security interests are protected.”

The Reason Behind Capital Credits

In a cooperative, the member-owners are the customers of the business. As such, the owners are annually allocated their share of the cooperative’s financial success in proportion to the amount they pay for the cooperative’s goods or services. Every year, a few members question why they cannot have their share of the margins paid back to them right away. Needing to apply for the RUS loan is why.

Through the rates they pay, SCEC members are exercising the third Cooperative Principle of Members’ Economic Participation, which currently provides 48 percent of the cash needed to fund distribution plant investments and equipment maintenance/purchases. The other 52 percent comes from loans. If capital credits were paid out (retired) as they were accrued, the Cooperative would have no way to fully finance its operations. By retiring capital credits on a cycle of three to 20 years, it allows SCEC to maintain a strong financial standing with the necessary capital to obtain loans, while keeping costs to members at competitive levels.

“On average, the Cooperative has invested \$3,000 per member in our utility plant and equipment to provide electric service to each account,” Pendergast said. “When a new member joins the Cooperative, they access \$3,000 in electric infrastructure with only a \$5 membership fee – the same fee our first members paid in the 1930s.”

Klatt

continued from page 1



Klatt

Klatt’s roots in St. Croix County run deep. He and Susan live on the Klatt family farm, which has been recognized as a Wisconsin Century Farm. Their home sits on 240 acres and includes a shed that houses his 19 antique tractors, mostly John Deere. The Klatts enjoy time they are able to spend with their children and nine – almost 10 – grandchildren. Many of the grandkids enjoy hunting and at least one is showing an interest in working on the tractors. His

favorite is a 1949 B John Deere.

“Dad (Frank) always said he got me and the tractor that year,” Klatt reminisced. “I sold it to a neighbor 20 years ago, but told him I wanted it back when he died.”

Klatt recently re-acquired the tractor, which won the Emerald Tractor Show last year. A lifelong resident of Emerald, Klatt also serves on the Town of Emerald Board and planning commission. In small communities, Klatt said one person can make a difference.

“Being on this board (SCEC) is a great learning experience,” he said. “At a cooperative, active and informed members influence the direction of the Co-op.”