

# COOPERATIVE REVIEW

Energy for Today, Power for Tomorrow



## Right-of-Way Maintenance Improves Service Reliability

March of 2005, Union Power developed a new right-of-way maintenance program that established a plan for clearing our service area rights-of-way on a 4-5-year cycle. Teaming with Environmental Consultants, Inc., we achieved our trimming goal in 2009.



Continued maintenance of our right-of-way corridors decreases outages.

**A**t Union Power, we strive to enhance member satisfaction by providing reliable service to our members. Our goal of decreasing power outage frequencies and duration times is directly linked to maintaining proper clearances within our rights-of-way. Outage frequency numbers are lower than ever — there were 188 confirmed tree-related outages in 2009 compared to 304 such outages in 2005. Also, outage duration time was 44% less (the equivalent of 7,402 hours less) in 2009 than in 2005.

**Trees and shrubs that grow into power lines can cause power outages and delay restoration of power after an outage.** Regular inspections and maintenance of all overhead distribution and transmission lines in our five-county service area is a big job, to say the least. Union Power contracts with Environmental Consultants, Inc. (ECI), which specializes in the analysis and management of utility right-of-way clearance programs. ECI has two certified arborists on staff that help us focus on the removal of trees inside and outside our rights-of-way that pose reliability and safety concerns.

**Top or side growth, broken limbs or trunks, and uprooted trees can increase outage risks.** In residential areas, plants should not be planted directly under wires but rather at the edge of the right-of-way. These plants should be low-growing varieties (species that grow no taller than 20 feet at maturity). Through ECI's Integrated Vegetation Management approach, certain problem trees that are removed from members' properties may be replaced with appropriate-sized vegetation. ECI's current replacement ratio is the planting of two appropriate-sized trees (or tree/vegetation equivalent) for every problem tree that is removed. This provides a long-term solution, reducing outage risks and the need for future trimming.

Union Power's current right-of-way maintenance program demonstrates our commitment to our environment and helps us provide safe and reliable power to you, our members.

### Union Power Receives National Recognition!

Arbor Day Foundation has named Union Power a Tree Line USA utility for the 5th consecutive year. Recognition was based on the following criteria:

- Follows Arbor Day Foundation guidelines
- Commits to quality tree planting and care
- Participates in community Earth Day events
- Educates local school children about trees and our environment

*In a member survey regarding our right-of-way clearance, 94% of those polled expressed great contentment with the work Union Power is doing under the Tree Line USA program.*

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# OUR FAVORITE COLOR IS GREEN

As we celebrate the 40th anniversary of Earth Day in April, Union Power is mindful that each day is an opportunity for us to be good stewards of our corner of the globe, individually and corporately. As a "green" generation, together we can help conserve our precious natural resources.

## CORPORATE RESPONSIBILITY

This year, Earth Day's 40th anniversary is being observed by events held in 40 major cities around the globe. Across our nation, renewable energy continues to be an important topic. Generated from sources such as wind, solar, water, and animal waste, green energy sources are available naturally, replenish themselves, and produce little or no pollution. Union Power recognizes the need for striking a balance in the quest for renewable energy sources while being environmental stewards. As part of GreenCo Solutions, Inc., a not-for-profit organization formed by 23 of North Carolina's electric cooperatives in 2008, Union Power focuses on developing energy efficiency programs and renewable energy pilot projects (see more about GreenCo on next page).

Union Power also focuses on reducing greenhouse gas emissions by educating and encouraging our members to participate with us in energy efficiency programs. The recent complimentary mailings of compact fluorescent bulbs (CFLs) to our

members are one way we help you conserve energy and save money.

## CONSUME WISELY

We make energy choices daily — whether it's the way we commute to work, how we choose to heat and cool our homes, or how mindful we are about turning off televisions and lights when we leave a room. Using energy efficient products simply means opting for the technology that requires less energy to carry out the same task. A great example is replacing standard incandescent light bulbs with CFLs, which use 75% less energy and last 8 to 10 times longer. While these bulbs do contain a small amount of mercury (about 5 mg per bulb), it is not emitted when the bulb is intact and being used, handled, or stored properly. In addition, CFL bulbs can be taken to any local Home Depot store for recycling.

## CONSERVE WISELY

Energy conservation is simply consuming less energy. How many ways can you think of to conserve energy around your home? Energy Star appliances can make your home more energy efficient, decreasing your electric consumption, and in turn, your electric bill. Properly insulating your home, repairing leaky faucets, and even lowering or raising your thermostat by a few degrees, according to

## Union Power Proudly Participates in Earth Day & Arbor Day Celebrations

Find us at the following events:

**April 17** Union County, downtown Monroe

**April 24** Town of Indian Trail and Town of Stallings

### Visit our booth!

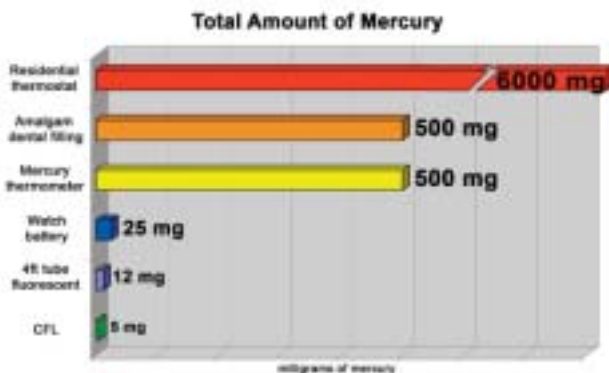
Get information about energy programs and speak with one of our certified arborists.



the season, can save you even more. Keep your energy bills out of "hot water" by lowering the temperature on your hot water heater — a setting of 120 degrees provides comfortable hot water for most uses. Insulating your hot water storage tank can be another easy way to reduce energy consumption (be careful not to cover the thermostat).

## COMMIT TODAY

What will your personal "act of green" be? Will you participate in an Earth Day event scheduled in your area? Will you plant a tree, twist in a CFL, begin a recycling program, or perhaps buy an Energy Star appliance? Adopting wise energy habits benefits everyone, especially our wonderful planet. Let's make a difference together!





# COMMITTED TO CONSERVATION

When looking for good environmental stewards, we didn't have to go far into Union Power's service territory to find a couple who have been environmentally friendly for more than three decades. Keith and

Esta O'Neal live right outside the city limits of Oakboro, in Stanly County, and are the first members to connect a Solar Photovoltaic (PV) system to Union Power.

Their fascination with the sun started years ago with an in-ground greenhouse. The O'Neals designed and built their home using fundamental principles of energy efficiency such as earth berms to moderate temperature changes, a partially underground 2nd kitchen to control the heat generated from processing and canning their garden harvests, a catalytic wood burning heater, and active solar space heating from a heat capturing solar chimney.

In January of this year, Keith and Esta took their vision a step further and installed a PV system. "There are so many positive aspects to a Solar PV System," said Keith O'Neal. "And we feel it is just a continuation of the lifestyle that we choose, to keep things simple and let form follow function."

- **Solar is clean** — It has no emissions and generates no waste.
- **Solar is unlimited** — It is not a limited resource like oil, coal, and gas.
- **Solar is safe** — There are no harmful impacts on the earth to harvest the energy.
- **Solar is easy** — It does not have to be mined or drilled.
- **Solar is simple** — There are zero moving parts in generating the electricity.
- **Solar is smart** — Solar is a good investment!

"And it's right in your own backyard," Esta added.

The O'Neals have always been extremely energy efficient, consuming an average of 372 kilowatt hours of electricity per month, compared to 1,283 kilowatt hours per month for the average Union Power member. With their new PV system, the O'Neals generate more electricity than they consume each month. "When people use solar energy, it's a way of giving back," said Esta O'Neal.

Keith and Esta O'Neal have demonstrated their commitment to conserve in their way of life and in everything they do. They did a lot of their research through the NC Solar Center in Raleigh. For more information on the NC Solar Center visit their website, [www.ncsc.ncsu.edu](http://www.ncsc.ncsu.edu).

## Co-ops Explore Renewable Energy Solutions

Cooperatives make every effort to be environmentally responsible and comply with state energy laws. The NC Renewable Energy Portfolio Standard (REPS), signed into law in 2007, requires electric co-ops in the state to ensure that a percentage of the energy we sell is generated from renewable energy sources or energy efficiency programs. An incremental schedule establishes that this percentage must be 10% by the year 2018. To meet mandated requirements, Union Power earns Renewable Energy Certificates (RECs) through our participation in renewable energy projects and energy efficiency programs.

GreenCo Solutions, Inc. is a not-for-profit organization that was formed in 2008 by 23 of North Carolina's electric cooperatives to help member co-ops meet their energy efficiency and renewable energy goals. GreenCo is providing innovative and earth-friendly solutions for our energy future. As part of this organization, Union Power focuses on developing energy efficiency programs and renewable energy pilot projects. Currently, Union Power's Executive Vice President and General Manager Tony Herrin serves as president of GreenCo Solutions' board of directors.

Union Power and the other GreenCo cooperatives are participating in joint renewable energy projects in the Story County Wind Energy Center in Story County, Iowa, and the solar energy facility at the QVC Rocky Mount, Inc.

distribution center in Rocky Mount, NC. At maximum capacity, the Wind Energy Center will generate enough electricity to power nearly 37,500 average size homes. While located in Iowa, this pilot project provides insight into how wind energy resources might best be harnessed to serve the electric needs of our North Carolina membership. The power supplied by QVC's 1-megawatt solar energy facility will be purchased by NC Electric Membership Cooperation, the wholesale power supplier for the state's electric cooperatives, and returned to the grid for use by NC consumers. Projects such as these are an important part of our portfolio of renewable resources.

In addition, North Carolina's electric suppliers recently issued a joint Request for Proposal (RFP) for electricity generated from swine waste facilities in the state. NC utilities are on the same page, seeking swine waste-to-energy projects to increase the amount of electricity they purchase from renewable energy resources. A plentiful source of carbon-enriched biomass, swine waste can be converted into renewable energy through biological and/or chemical processes. By our participation in projects such as these, we continue to care for our environment and add value to you, our members.



# CLEARING



During the next month, you may see our tree-trimming crews in your neighborhood. ABC Tree Professionals, Asplundh Tree Experts, and Carolina Tree Care will be working in the following areas of Mecklenburg and Union Counties:

**Mint Hill/Matthews** — Lawyers Rd., Old Oak Ln., Farm Oak Ln., Beaver Dam Ln., Hitchgate Dr., Pitchfork Ln., Canterway Dr., Oakwilde Court, Morris Farm Ln., Plashet Ln., Danbrooke Park Dr., Errington Ln., Camberwell Rd., Oakdale Meadows Court, Aylesbury Ln., Chislehurst Rd., Ellesmere Court, Markus Dr., Rebus Rd., Kuck Rd., Willow Bend Ln., Wyndbend Ln., Clear Crossing Ln., Ravenglass Ln., Davis Rd., Ardley Park Way, Sam Newell Rd., Northeast Court, Eastpointe Dr., Rice Rd., Tommy Ln., Hayden Way, Williams Rd., Rondeau Court, Lakeview Circle, Meadow Ln., Keziah Rd., Hargett Rd., Atrium Way, Ballards Pond Ln., Birchhill Rd., Singletree Rd., Saddlewood Ln., Rising Sun Terrace, Lebanon Rd., Foxcrest Dr., Clubhouse Court, and Pine Lake Ln.

**Monroe/Waxhaw/Matthews** — Doster Rd., Crow Rd., Timbah Ln., Western Union School Rd., Buckboard Ln., Happy Hollow Ln., Andrew Jackson Dr., Lonnie Walker Rd., Potter Rd., Billy Howey Rd., Roscoe Howey Rd., Howey Farm Dr., Potter Downs Dr., Grove Dr., Pleasant Grove Rd., Shannon Rd., Pleasant Springs Rd., Shenandoah Dr., Black Oak Ln., Waxhaw-Marvin Rd., McCall Rd., Tallondale Rd., Hamil Ridge Dr., Creekview Dr., Pine Oak Rd., Sun Bonnet Ln., Cassidy Dr., Kensington Dr., Baybrook Dr., Foxhound Ln., Ridgehaven

Rd., Berner Ct., Gray Byrum Rd., Haveron St., Arsdale Rd., Prince Valiant Dr., Providence Rd., Bonds Grove Church Road, Eucalyptus Ave, Wingard Road, Royster Run, Sandy Pond Dr., Woodmont Dr., Newtown Rd., Newtown Rd., South Potter Rd., Willoughby Rd., Potters Trace, Parkside Dr., Leeds Ct., and Trafalgar Ct.

**Indian Trail** — Ridge Rd., Lawyers Rd., Howey Bottoms Rd., Mill Grove Rd., Noah Helms Rd., Garrett Rd., Twin Oaks Rd., Duncan Rd., Bill Wiley Rd., Earl Duncan Rd., Hwy 218, Berry Mullis Rd., Clontz Rd., Cull Williams Rd., Wright Rd., Lazy B Circle, Crowell Dairy Rd., Joe Lee Helms Rd., Old Dutch Rd., Blue Rock Rd., Russell Rd., Rock Hill Church Rd., Tall Oaks Ln., Persimmon Creek Dr., Shepherds Cove, Asheley Glen Dr., Machado Dr., Lester Mullis Rd., Heritage Ln., Heritage View Rd., Duck Creek Ln., Pierce Rd., Jonah Ridge, Brief Rd. West, Mint Lake Dr., Kerr Rd., and Langtree Ln.

**Indian Trail/Lake Park/Monroe** — Willis Long Rd., Winchester Rd., Rocky River Rd. (N and S of Unionville-Indian Trail Rd), Creekside Dr., Forest Dr., Unionville-Indian Trail Rd., Kiker Brock Dr., Poplin Rd., Sanctuary Ln., Hartis Rd., Secrest Shortcut Rd., Scott Long Rd., Southwind Trail Dr., Faith Church Rd., Arthur Dr., Logan Circle, St. Joseph Dr., Esther St., Iris St., Denise Dr., and Kristofer Dr.

For more information about Union Power's vegetation management program or tree trimming practices, please call (704) 289-3145 and speak with Wil Ortiz (ext. 3323) or Carrie Lorenz (ext. 3291). For monthly right-of-way clearing updates, visit our website [www.union-power.com](http://www.union-power.com).

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A Touchstone Energy® Cooperative 

Union Power Cooperative provides safe and reliable power with exceptional value to more than 65,000 members in Union, Stanly, Cabarrus, Mecklenburg, and Rowan counties.

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**SERVICE CHARGES:**

**Security Deposit**—charges vary  
\$0, \$175, \$375

**Connection Fee**

\$25

**Late Payment Charge**

\$5 or 1.5% of past due balance, if greater

**Returned Check Fee**

\$25

**Meter Test**

\$75 (refunded if not accurate)

**Dual Meter Comparison**

\$50 (refunded if not accurate)

**Trip Charge**

\$25 (checks or money orders only, no cash)

**RECONNECT CHARGES:**

(collected in advance)

**Normal Hours**

\$50 (if called in *before* 4:00 p.m.)

**After Hours**

\$100 (if called in *after* 4:00 p.m.)

**Weekends and Holidays**

\$100