

Tideland Topics

Real People. Real Power.

Next Generation

Since the late 1950s, the Electric Cooperative Youth Tour has brought high school students to Washington, D.C., every June for a weeklong visit. We believe students should see their nation's capital up close, learn about the political process, interact with their elected officials, and hone their own leadership skills as the baton is passed to the next generation.

Read about the application process on page C.

The power of higher education

High schools seniors, now is the time to apply to the Tideland Electric Care Trust for one of eight college scholarships awarded annually.

Application deadline is March 8, 2019. For more details see your high school guidance counselor or visit tidelandemc.com.





HEIDI SMITH PHOTO

Space heater safety

Despite efficiency gains in home heating equipment, we continue to see more and more electric space heaters being used in Tideland served homes. They are also becoming a common sight in many office settings.

Aside from operating cost concerns, there are safety risks associated with the overuse of space heaters. Most household wiring is not designed to continuously operate a space heater, especially on the highest watt setting. If wiring becomes overheated, the insulation covering the wire gets soft and the weakened wire becomes a fire hazard. The photo above, taken during an energy audit, shows the telltale signs of an outlet that has overheated due to prolonged space heater use.

When buying and using electric space heaters, you should follow these general safety guidelines:

- Electric heaters should never be plugged into extension cords or power strips.

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hurricane florence woes *Salt water inundation*

Since Hurricane Florence, Tideland crews have responded almost daily to underground service problems ranging from partial power to total loss of power. The majority of service calls are in areas of Pamlico and Craven counties that were inundated with storm surge during the hurricane. The high salt content of the floodwater has been particularly damaging to Tideland's underground infrastructure.

Many padmount transformer cabinets are already showing signs of rust. Some equipment has even been removed from service and electric lines rerouted while Tideland officials explore mitigation options in areas that went underwater during Irene and again in Florence. Those options could include elevation or much more expensive stainless steel cabinets.

Underground powerlines in the area are also failing at a much higher rate. While no powerline is impervious to deterioration over time, saltwater speeds up the process in underground wires. Even when the water recedes, the salty deposits left behind can accelerate insulation damage and corrosion of the aluminum wire. Minimal damage to a wire that may have occurred years



Since Hurricane Florence, Tideland crews are more frequently encountering corroded underground powerlines like the one above.

ago when other services, like cable lines, were being installed and had been previously undetected are now a pathway for rapid corrosion. Likewise, previously repaired underground wires are more susceptible to the corrosive effects of saltwater inundation at the point of repair.

Unfortunately, the co-op will be battling these types of underground service calls for the foreseeable future.



This switching cabinet at Fairfield Harbour has been taken out of service due to storm surge damage.

Tomorrow's leaders today

Apply now for the Electric Cooperative Youth Tour to Washington, DC

Youth Tour is a once-in-a-lifetime, all-expenses-paid leadership travel opportunity. From the halls of Congress to the Tomb of the Unknown Soldier, youth tourists will explore the leadership lessons of our nation's history and be immersed in the cooperative principles that define Tideland EMC.

Application Deadline
January 21

While on Youth Tour, all transportation, meals, admissions to events and lodging will be arranged and paid for by Tideland.

What are we looking for in a Youth Tour candidate? We're looking for someone who is outgoing and has

a demonstrated ability to work well with others. With nearly 1,600 young people from across the country participating in the event, we're looking for candidates eager to form new friendships, exchange ideas and find their own voice about the things they care about.

The Youth Tour dates for 2019 are June 15 through June 21. Applications must be received by Tideland EMC no later than January 21 and a winner(s) will be selected by January 31.

To apply students must reside in a home served by Tideland EMC and must currently be a high school sophomore or junior.

Applications have been mailed to Tideland area high schools or you can download the application at tidelandemc.com.

Right-of-way maintenance schedule

Tideland has hired Lucas Tree Experts to trim trees in our rights-of-way. During January, they will be working in the Bath area along Possum Hill Road, Camp Leach Road and in Springdale Village and all other sideroads in these areas.

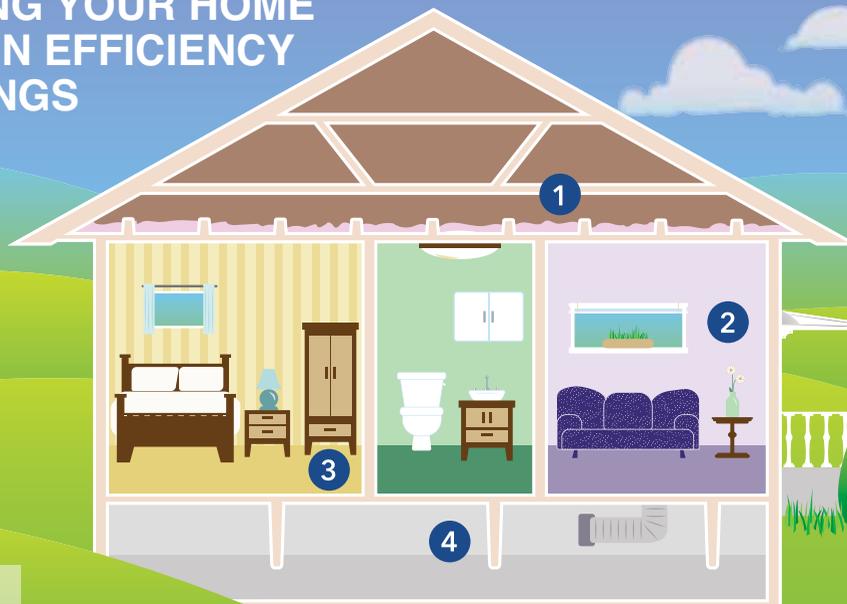
Remember to support these importance system maintenance operations. Proper tree care leads to greater system reliability.

Please observe proper distances when planting trees and erecting fences and other structures. And always call 811 before you dig to have underground utilities located before beginning an excavation or construction project.

INSULATING YOUR HOME TO LOCK IN EFFICIENCY AND SAVINGS

Adding insulation in the areas shown here may be the best way to improve your home's energy efficiency. Insulate either the attic floor or under the roof. Check with a licensed contractor about the crawl space beneath your home.

- 1 Attic
- 2 Walls
- 3 Floors
- 4 Crawl Space



Source: Dept. of Energy



Obsolete load management switches ok to remove

In 1984, Tideland EMC launched a highly successful load management program that shaved energy use during peak hours. More than half of the co-op's membership participated in the program, which managed electric water heaters and central air conditioning systems via a radio controlled switch. The program helped the co-op save \$12 million in wholesale power costs over a 20-year period.

When wholesale power contracts dramatically changed, the load management program folded and the radio-controlled switches became obsolete.

As a result, homeowners are welcome to have electricians, plumbers or HVAC technicians bypass and/or remove the load management devices as needed without risk of penalty.

Message to members

Load Management: Version 2.0

by **PAUL SPRUILL**

GENERAL MANAGER &
CHIEF EXECUTIVE OFFICER

Bellbottoms. Ninja Turtles. Mirrored sunglasses. Some trends are bound to repeat themselves.

Longtime co-op members may recall our big push in the '80s and '90s to install load management devices (see left sidebar discussion). At that time, 56¢ of every dollar Tideland paid for wholesale power purchases went towards peak demand costs incurred during a single hour in the billing month. Our "Beat the Peak" program was highly successful and resulted in significant savings for Tideland members.

Then our wholesale power contracts dramatically changed. Air-conditioning credits were eliminated in 1998 and water heater credits ended in 2006. With no financial incentive to beat the peak, Tideland's load management program officially folded.

A dozen years later what was old is new again. In the near future, Tideland will once again have an opportunity to realize power cost savings through a new focus on beating the peak. Anticipating those changes, we're rolling out load management initiatives but in a whole new way.

If you have followed our Ocracoke microgrid pilot project, you know that a key component of that program has been the use of member-owned smart thermostats to reduce peak load on the island. Our decision to utilize a smart thermostat rather than a hard wired control device like those used in the '80s and

'90s was based on a desire to make sure today's members can opt out of a load control event if the timing conflicts with your household needs.

In its previous iteration, load management devices cycled off air conditioning compressors. Using today's wifi enabled smart thermostats like the ecobee® and Nest®, the co-op can raise or lower the thermostat by three degrees during a control event. If for any reason you want to exit the control event you can simply override the thermostat setting. This version of load management also has the additional perk of advance notification before a control event occurs if you sign up for email alerts.

With nearly two years of island testing under our belt, we're bringing the smart thermostat program to the mainland. New ecobee®3lite thermostats are available at no cost to co-op members who have wifi and are installing a new heat pump. If you prefer the more advanced ecobee®4 with Alexa you pay just \$80 for the upgrade. If you already have a Nest® or ecobee® thermostat and would like to enroll in the load management program we'll issue you a \$50 electric bill credit. All program participants receive a \$2 monthly bill credit.

For more information about Tideland's smart thermostat program visit tidelandemc.com.

Bright Ideas Grant Winners



On November 19, Tideland EMC presented \$13,888 in Bright Ideas Classroom Grants to teachers from eight local schools. Over 1,600 students will benefit from the funding of these innovative and hands-on projects.

Susan Leggett Davis, Damon Walcott & Milton Dail
Washington High School
Eastern NC Storm Tales

Science, journalism, and art students will collaborate to create a written and visual documentary of folklore stories of eastern NC storms that will be shared through publication of a book that includes weather event explanations and personal narratives of storm; displaying storm artwork; and a premier of the documentary.



Elizabeth Harwick
Pamlico County Middle School
CNN: Canes Nation News

Students will be using technology to develop a news show that highlights events and activities at our school. Students will be videoing, editing, processing, writing and publishing all aspects of the news show. This news program will be especially impactful this school year since the PCMS student body is split between two facilities while their own school undergoes remediation work following flooding by Hurricane Florence.

Heather Summers
Chocowinity Middle School
Mud In Motion

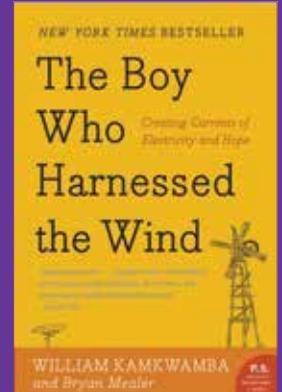
Funds will be used to purchase a pottery wheel, clay and glazes for the school's art program.

Marketing and corporate communications manager Heidi Smith (right) presents a Bright Ideas grant to Pungo Christian Academy teacher Jessica Crider (left).



Lisa Baker
Chocowinity Middle School
Harnessing the Wind

Earlier this year, all students and faculty at CMS read "The Boy Who Harnessed the Wind." The Bright Ideas funds will be used to purchase wind and solar energy kits. Students will work in teams to construct their own renewable energy projects to better understand both the scientific principles of energy and the obstacles author William Kamkwamba had to overcome to build his own windmill. (We'll have an exciting follow-up to this project in the February issue of Tideland Topics)



Ashley Etheredge
West Craven Middle School
Practice Makes Perfect: Implementing SmartMusic in Middle School Band

This project supports the implementation of SmartMusic technology as an interactive practice tool for students. The SmartMusic app transforms the way students practice by providing immediate feedback on their performance. The student's recording is also sent to the music teacher for additional comments. SmartMusic allows students to virtually take the music teacher home to make better use of individual practice time.

Melissa Boyd
Bath Elementary
Let's Go!

Student teams in seventh grade science classes will perform hands-on exercises to learn about motion and speed and change in position over time. Bright Ideas funds will be used to purchase Vernier LabQuest Mini Interface, motion detectors and other materials for the group study.



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4 reasons not to use the ON setting

Here are four reasons to avoid operating your HVAC system in the ON mode:

1. Higher energy costs: Since the fan is always running, you're using more energy than when the fan only runs when your system is heating or cooling..
2. More frequent repairs: When set to ON, the fan runs more. This can increase wear and tear on your blower and lead to costly blower repairs.
3. Increases humidity: Your AC won't dehumidify your home as well as it should, when the fan is set to ON.
4. Worsens air duct leakage: Most homes leak about 10% of the supply air and 12% of the return air through their duct system. So if the fan is blowing all the time, you're always losing your conditioned air, running up your energy bills.

Member care package

It's been a hard couple of months in Tideland territory since Hurricane Florence. We'd like to help lighten the load for so many members struggling to recover. Therefore, the co-op's board of directors has approved a member care package featuring both new and expanded programs intended to aid recovery efforts.

We're doubling all heat pump rebates

Through April 30, 2019, heat pump rebates will be doubled on any qualifying HVAC system purchased since October 15, 2018. All other program requirements apply so visit tidelandmc.com for details and to access the appropriate rebate form.



Free ecobee® smart thermostat

Members with wifi who are installing a new heat pump qualify for a free ecobee®3lite smart thermostat. If you prefer the ecobee®4 with Alexa your cost is \$80. By participating in the co-op's peak energy management program, the member will also receive a \$2 monthly bill credit. Prefer to BYOT: bring your own thermostat? We'll issue a \$50 rebate for any existing Nest® or ecobee® thermostat you enroll in the program along with the monthly \$2 credit. See our website for details.

Water heater sales and financing

Was your water heater flood damaged and do you have wifi? We now offer the most flood resistant water heater on the market: the Vaughn Featherweight. There's no required maintenance, no anode rod, and top mount element assembly and access makes this unit flood resistant to a minimum of 36 inches. By agreeing to participate in the co-op's peak energy management program we'll finance the water heater on your electric bill. Payments start at \$25 per month for up to 36 months for a 55-gallon model. Additional information about the Vaughn water heater and financing arrangements can be accessed online at tidelandmc.com.



\$1,250 Energy Star manufactured home rebate

Replacing your home? Don't forget about our Energy Star manufactured home rebate, which can be especially powerful when combined with the other offers above. The rebate form is on our website.

Resolve to save energy this year

It's easier than you think

Do a little. Save a lot. Everything you do, from flipping a switch to selecting a thermostat setting, can add up to big savings for your home or business.

Water heating

- Set water heater temperature at 120°F
- Install water heater wrap per manufacturer's instructions (Tideland sells water heater insulating kits for \$14.99)
- Limit showers to 5-7 minutes
- Install low-flow shower heads
- Fix leaks

Lighting

- Upgrade to LED bulbs
- Install motion sensing outdoor lights

Ceiling Fans

- Fans cool people, not rooms. So remember to turn them off when rooms are unoccupied.

Air Sealing

- Caulk around plumbing penetrations that come through walls beneath bathroom and kitchen sinks.
- Caulk wiring penetrations that lead from the crawlspace or into the attic.
- Remember to shut fireplace dampers when the fireplace is not in use.
- Weatherstrip and insulate your attic access door.
- Seal rim joist cavities in your crawlspace. Pay special attention to bay windows, which can be particularly leaky.
- Make sure all windows are properly shut and locked. If you don't have storm windows or air insulated windows, use plastic storm

window kits for an inexpensive remedy.

- Weatherstrip exterior doors and install door sweeps.

HVAC

- Have your unit regularly tuned up for maximum efficiency
- Change HVAC filters monthly and don't use heavily pleated filters unless your HVAC system's return was specifically sized for higher rates of filtration.



- Don't close interior doors and air registers when using your central heat and air. Doing so restricts indoor airflow back to the return and will result in increased outdoor air infiltration from cracks around windows and doors.
- Have a heat pump? Then "set it and forget it" when setting your thermostat in the winter. We recommend a 68°F setting. If you have an electric furnace or baseboard heat then practicing thermostat set back at night or when the home is unoccupied is recommended. In summer, keep the air conditioning no lower than 78°F. If that seems a bit warm, work on lowering indoor humidity levels and supplement with fans when rooms are occupied.
- Check ducts for air leakage especially where the boot joins the subfloor. If you live in a multisection manufac-

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Give it your best shot!

Tideland EMC is currently accepting applications for full scholarships to renowned basketball camps at two North Carolina universities this summer.

Young men can apply for a scholarship to attend the Roy Williams Basketball Camp at the University of North Carolina at Chapel Hill, and young women can apply for a spot at the Wolfpack Women's Basketball Camp held at North Carolina State University in Raleigh.*

To apply, students must be a rising sixth, seventh or eighth grade student residing in a Tideland EMC served home. Applicants will be judged on their academics, extracurricular activities and an essay.

Applications must be received by March 31. To learn more or to download an application, visit tidelandemc.com.

The Roy Williams camp will be held June 22-26, 2019. Dates have not yet been confirmed for the Lady Wolfpack camp.

spaceHeater

Continued from Page B

- Use the lowest wattage setting if you plan to use the space heater for an extended period of time.
- If the breaker trips when you use the space heater, don't ignore the warning. The circuit could be damaged or be undersized for space heater use.
- Position the space heater away from the electrical outlet to prevent hot air from blowing back on the outlet, which will further tax the outlet and wires.
- If you see burn marks on the outlet, discontinue use of the outlet and call an electrician.
- Never leave a space heater underattended.

energyResolutions

Continued from Page G

tured home, pay close attention to the crossover duct and make sure it is sealed with a mastic paste or tape (not traditional duct tape).

Laundry

- Opt for cold water wash. Today's laundry detergents are usually formulated for cold water wash and it is the agitating action that is most effective in cleaning clothes.
- Clean your dryer's lint filter before the start of every load and be sure to clean your dryer vent on a regular basis. A clogged vent will not only significantly increase drying time, it also creates a fire hazard.

Knowledge is power

- Make this the year you routinely log into the Tideland member portal to view both your daily and hourly kilowatt hour consumption.
- Enroll in high energy use alerts to prevent runaway energy costs.

winningEducators

Continued from Page E

Karen Glass Terra Ceia Christian School Rabbit Shelter

Funds will be used to purchase an 18' x 21' carport shelter to house two new rabbit hutches for the school's rabbit breeding program. Agriculture students will learn about rabbit care and species reproduction and hone the necessary presentation skills to show their rabbits at competition.



Jessica Crider & Amy Potter Pungo Christian Academy A Person's A Person

Learning-challenged students will use simple, basic tools to learn problem solving, improve their ability to focus, and improve engagement and communication with others in a classroom setting. As students build these skills they will in turn share and teach their peers to reinforce their own learning and improve social interactions.

Stephen Nichols Manteo High School Camera & Journalistic Career: Planning Alive

The school's journalism students will write, edit and produce career and higher education planning guides to encourage early career exploration by their peers. Topics will include student financial aid options and how to create a personal career portfolio.

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Real Power.

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tidelandemc.com

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Tideland EMC is an equal opportunity provider & employer

Holiday Closing

Our offices will be closed January 1. Our 24-hour call center will be fully staffed for outage reporting and account management.

2019

Winter Reminder

Close your crawlspace vents.

