

Tideland Topics

Real People. Real Power.

New rate schedules

This issue of Tideland Topics is largely devoted to the discussion and publication of new rate schedules that will become effective with all bills rendered beginning March 1, 2020.

This is our first base rate change since rates were lowered in July 2014 and our first increase since January 2013. The increase is primarily driven by significant and continuing capital investments to harden our utility infrastructure and ongoing expenditures associated with Duke Energy's coal ash clean-up measures.



Anniversary celebration

2019 marked the 25th anniversary of the Bright Ideas Classroom Grant program. On November 19, we celebrated with a new round of grant funding for local teachers. Read more on page K.





Youth Tour application deadline

High school students have until January 10 to apply for the Electric Co-op Youth Tour to Washington, D.C.

The all-expenses-paid tour will depart from Raleigh on June 20, returning June 26.

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.

The Youth Tour has brought high school students to Washington, D.C., for a week in June every year since the late 1950s. Since then nearly 50,000 students from rural areas and small towns across America have participated in the program.

Message to members

After a two-year reprieve, base rates will increase March 2020

by **PAUL SPRUILL**
GENERAL MANAGER &
CHIEF EXECUTIVE OFFICER

It has been seven years since Tideland implemented its last base rate increase and nearly six years ago that we decreased rates. In July 2017, we announced in Tideland Topics the start of a new rate study with an increase anticipated in 2018. That process began just three months after implementing our first wholesale power cost adjustment (WPCA) charge since December 2012.

Fortunately, we were able to stave off a 2018 rate increase and even eliminate the WPCA charge for 16 consecutive months. In July 2019, the WPCA charge returned to member bills and it became evident that a rate increase could no longer be forestalled.

Since our last rate increase in 2013 we've navigated numerous service challenges, many of which we have addressed and continue to meet head on through an aggressive capital construction work plan. Those things we have been able to plan and prepare for, all the while balancing the expectation of reliable service with the need for affordable rates.

In multiple years since our 2013 rate increase, Tideland benefited from lower than expected power costs and/or higher than budgeted revenues due to harsh winters and summers. When the co-op benefits financially, we

do our best to pass savings back to our members in the form of WPCA credits on monthly electric bills or a general retirement of capital credits. The total sum returned to members from these two sources since 2013 is \$12.5 million.

What none of us could have anticipated so many years ago was the financial contribution we are currently making to help pay for the coal ash clean-up measures underway by Duke Energy. At the conclusion of all payments over the next several years, the Tideland share of coal ash remediation will total an estimated \$6.5 million consistent with the requirements of the State's Coal Ash Management Act passed in 2016.

When we learned of our shared clean-up liability we immediately began setting aside the funds necessary to comply with the first payment date in January 2018. Getting ahead of that debt obligation while we remained in a favorable rate environment had the intended consequence of delaying the upcoming rate increase.

That being said, we must continue to pursue major construction projects to meet the challenges of our beautiful yet often unforgiving coastal environment. We've highlighted over the years many of those projects that most notably have

included the construction of three new substations (Ponzer, Engelhard and Fairfield Harbour), the addition of several submerged cables (Pantego Creek and Bay River), and the hardening of overhead lines with larger wooden poles and metal structures in specific locations.

When the WPCA charge returned to bills in July 2019 it was set at a rate of \$3.00 per 1,000 kilowatt hours (kWh). It increased the following month to \$5.00 and last month, December 2019, it increased further to \$7.00. Once the new base rates are in place the WPCA will be zeroed out. When accounting for relief from the WPCA charge, the average residential consumer using 1,000 kWh during winter 2020 will experience a net billed increase of 3.338% beginning March 1.

The new electric rate schedules can be found on Page F. Below and on the following pages you will also find several infographics that help illustrate some of the business realities which make this rate increase necessary. We've also included a comparison of residential rates and useful tips to manage home energy costs.

In the February magazine we'll do a deep dive into the restructured residential time-of-use rate. This rate could be particularly promising for members who have flexible schedules and those with an electric vehicle charging station at home.

As always, we are here to help empower you with the necessary education and tools to keep your electric bills as low as possible. Don't hesitate to reach out to us.

Right-of-way maintenance schedule

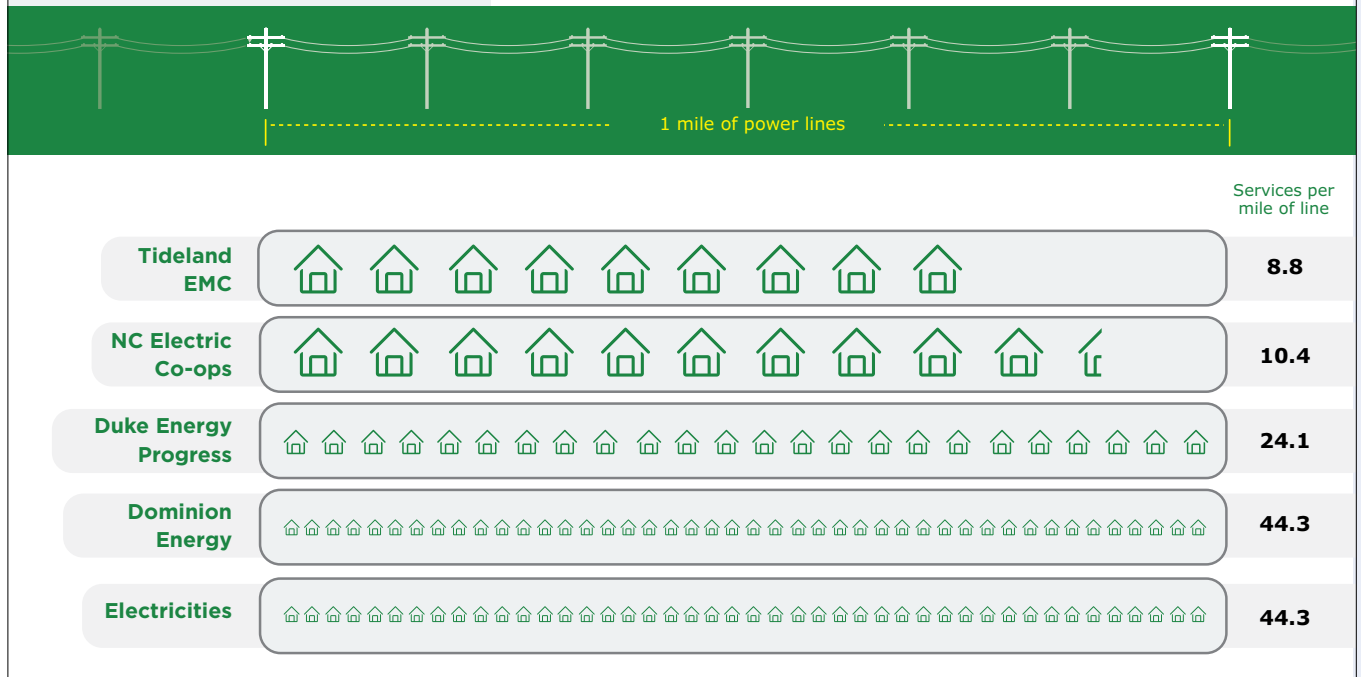
Tideland has hired Lucas Tree Experts to trim trees in our right-of-way. During January they will be working in Oriental and Merritt.

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 to have underground utilities located before beginning any excavation or construction project.

Going the Extra Mile

With low meter density comes less revenue per mile of line. That equation is further exacerbated by the large percentage of seasonal accounts that make up Tideland's membership (15%). The average NC co-op has annual revenues of \$22,915 per mile of line. Tideland averages \$17,968 per mile of line. As a result, Tideland's total utility plant investment per metered service is higher than most utilities.



\$33.4 million in elec



LEGEND



Major Weather Events / Blackouts

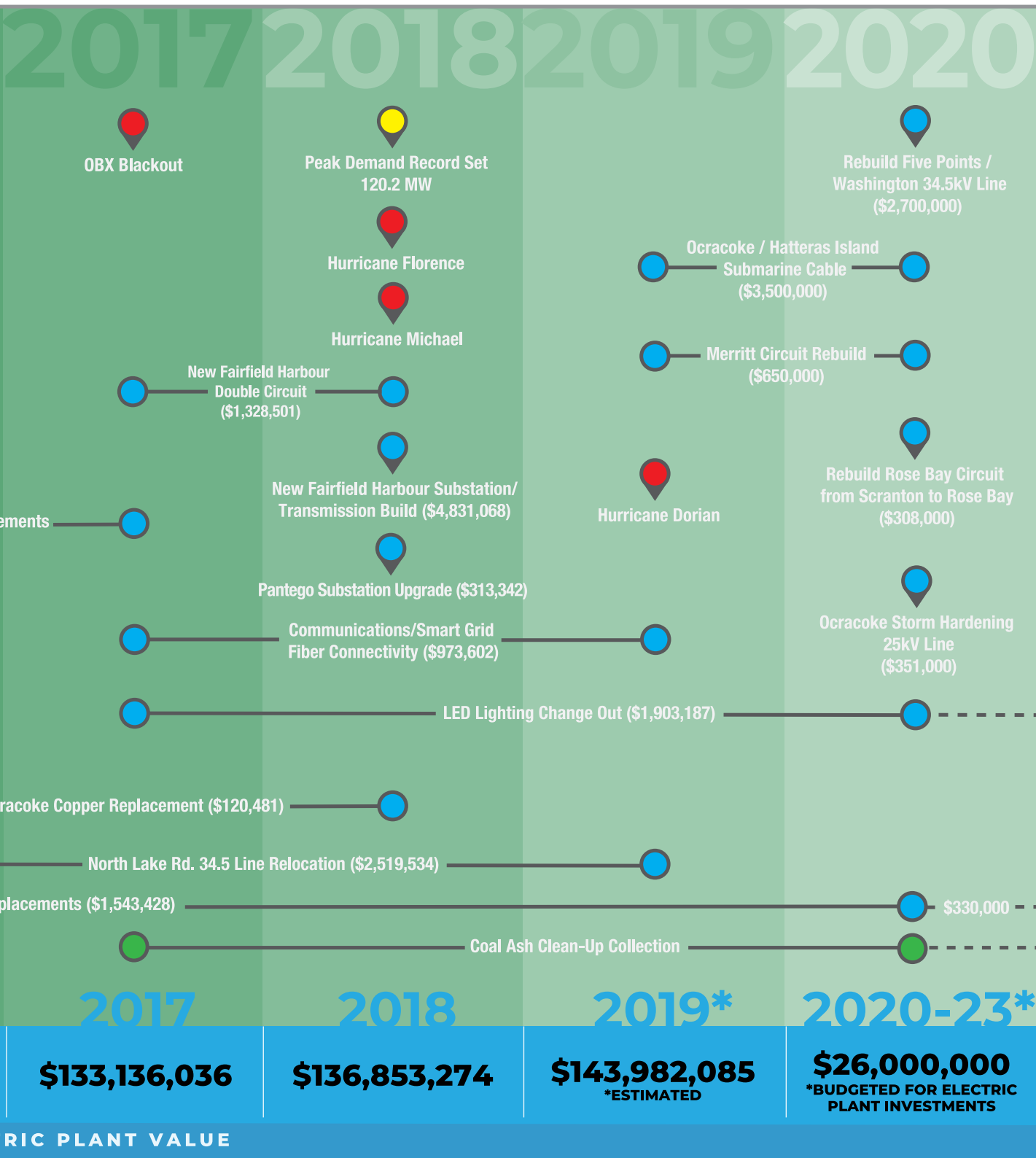


Major Work Plan Projects



Electric plant investments since 2013

** EXCLUDES MAJOR STORM REPAIRS



● Coal Ash Cleanup Liability
 ● Peak System Demand
 ■ Rate Decrease
 ■ Rate Increase

Tideland EMC Electric Service & Outdoor Lighting Rate Schedules

Effective With All Bills Rendered Beginning March 1, 2020

All rates subject to NC State Sales Tax of 7%, Wholesale Power Cost Adjustment and NC REPS

Rates 1 & 3 - Residential

Basic facilities:

Overhead	\$27.50
Underground	\$29.80

Energy:

Per kWh Summer (May-Oct)	12.48¢
Per kWh Winter (Nov-Apr)	11.49¢

Minimum bill is \$33.75 overhead, \$36.05 underground.

Rates 2 & 4 - Residential Time-of-Use

Basic facilities:

Overhead	\$27.50
Underground	\$29.80

On-Peak Demand:

Per kWd Summer (May-Oct)	\$11.01
Per kWd Winter (Nov-Apr)	\$10.06

Energy:

Per kWh On/Off Peak	8.61¢
Per kWh Super Off Peak (10 pm - 5 am)	3.631¢

Note: Beginning March 1, 2020, the on-peak period will change to the new schedule below:

Winter hours: October 16 - April 15
6 am to 8 am (no exempt days)

Summer hours: April 16 - October 15
3 pm to 6 pm (no exempt days)

Minimum bill is \$33.75 overhead; \$36.05 underground.

Rate 9 - Large Power Service

Basic facilities: \$215.00

Demand:

Per kwd \$9.17

Energy:

Per kWh 6.154¢

Reactive Demand:

Per KVAR \$1.25

Minimum bill is the basic facilities plus \$1.30 per kVA of transformer capacity in excess of 100 kVA.

Rates 5, 6, 7, & 8 - Small Commercial Service

Basic facilities:

Overhead Single Phase	\$35.00
Overhead Three Phase	\$45.00
Underground Single Phase	\$37.30
Underground Three Phase	\$47.30

Demand:

First 15 kWd	\$0.00
> 15 kWd	\$5.25

Energy:

0 - 800 kWhs	13.25¢
Next 1,200 kWhs	12.59¢
Over 2,000 kWhs	8.81¢

Minimum bill is the basic facilities plus \$1.30 per kVA of transformer capacity in excess of 15 kVA.

Outdoor Lighting

LED 48 & 54 watt	\$10.06
LED 85 & 106 watt	\$14.10
LED Carriage Light	\$16.00
175-watt mercury vapor	\$10.06
400-watt mercury vapor	\$14.10
100-watt high pressure sodium:	\$10.65
100-watt high pressure sodium*	\$14.20
150-watt high pressure sodium	\$16.00
100-watt metal halide*	\$16.00
400-watt metal halide	\$14.70
Additional pole charge:	\$2.10






*special order decorative fixture

NC REPS (renewable energy portfolio standard)

Per residential meter:	30¢/month
Per small commercial meter:	\$1.50/month
Per large commercial meter:	\$15.00/month

\$12.5 million in member credits since 2013



	WPCA Credit/Charges	Capital Credit Retirements*		Total Credit/Charges to Members
 RATE INCREASE JANUARY 1.	1,717,812	648,538	\$ 2013	2,366,350
 RATE DECREASE JULY 1.	1,406,616	676,158	\$ 2014	2,082,774
	1,318,664	2,397,405	\$ 2015	3,716,069
	2,328,956	1,112,409	\$ 2016	3,441,365
 COAL ASH CLEAN-UP COLLECTIONS BEGIN	-846,138	957,354	\$ 2017	111,216
 COAL ASH COLLECTIONS CONTINUE	-141,889	1,246,848	\$ 2018	1,104,959
 COAL ASH COLLECTIONS CONTINUE	-773,323	480,000	\$ 2019 Est.	-293,323
	\$5,010,698	\$7,518,712		\$12,529,410

*Total Capital Credit Retirements Come from Both General Retirements and Estate Retirements



Residential savings

39¢ per day can offset the March rate increase



4 reasons not to use the ON setting

- 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..
- 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.
- Increases humidity:** Your AC won't dehumidify your home as well as it should, when the fan is set to ON.
- 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 conditioned air thus running up energy bills.

Moral of the Story:
Use the AUTO setting not ON

With winter officially underway and the approaching rate increase on March 1, now is a good time to focus on strategies to keep home energy use under control.

The table below illustrates the impact the rate increase will have for an average residential member using 1,000 kilowatt hours (kWh) per month.

First it helps to understand how you arrive at 1 kWh of consumption. The wattage multiplied by the hours of operation divided by 1,000 provides you with the kilowatt hour consumption. If you run a 1,000-watt space heater for one hour you have used 1 kWh. If you have ten 100-watt light bulbs that burn for one hour you have used 1 kWh. So the first step is

Year-over-year winter rate comparison for average monthly consumption of 1,000 kWh		
March 2019 \$130.80	March 2020 \$142.40	8.870% increase
Winter 2020 billed rate comparison for average consumption of 1,000 kWh		
January 2020 \$137.80 <small>*WPCA charge of .007¢/kWh</small>	March 2020 \$142.40 <small>*WPCA charge eliminated</small>	3.338% increase

*calculations do not include NC REPS and 7% NC Sales Tax

Year-over-year, the increase equates to \$11.60 a month or just 39¢ per day. The difference between January 2020 and March 2020 is 15¢ per day.

Using those metrics, the opportunity presented to remain on par with the March 2019 billed cost is to reduce your energy consumption costs by 39¢ per day.

Under the new winter rate schedule, to save 39¢ per day you'd need to reduce daily energy use by 3.4 kWh. Where can we look to find that?

to learn the wattage of different items in your home.

The average home has 45 lightbulbs. So switching to low watt LED lighting can be advantageous over time. If you replace 45 60-watt incandescent bulbs with 9-watt LEDs you have reduced the combined lighting load from 2,700 watts to 405 watts. If you're a heavy lighting user, that gets you to 2,295 of your 3,400 watt reduction to negate the rate increase. If



Continues on Page L



HOME HEATING FIRE PREVENTION TIPS



Heating equipment caused an estimated **56,000 home fires** and caused **470 deaths** between 2009 and 2013.* Learn how to stay safe.

Keep anything that can burn at least **3 feet** from heat sources.

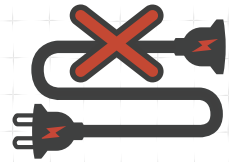
3 FEET



NEVER leave a space heater **unattended**. Turn off when leaving a room or sleeping.



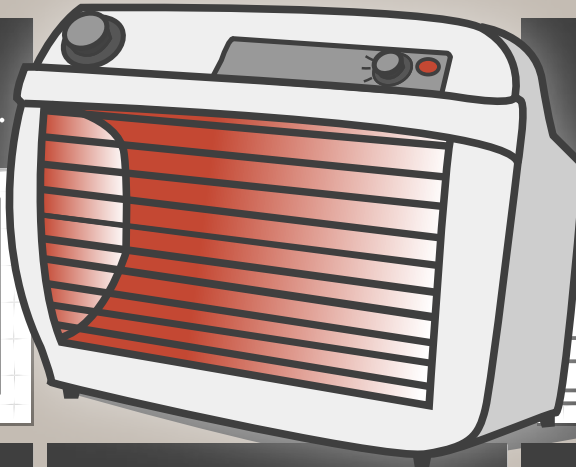
NEVER plug a space heater into an **extension cord**.



NEVER use a cooking stove to heat your home or dry clothes.



Place heaters on level, flat surfaces **ON THE GROUND**.



Have a **qualified service professional** inspect your heating system **annually**.



Install and maintain **carbon monoxide alarms**.



Never use a space heater or any appliance with a **damaged cord**.



*According to the National Fire Protection Association

ESFi.org



www.facebook.com/ESFI.org



www.twitter.com/ESFI.org



www.youtube.com/ESFI.org





Ocracoke officially reopened to visitors on December 2. Travel to the island had been restricted since Hurricane Dorian in September.

The community is at the point in their recovery where early stage donations are no longer needed and more long term relief is now sought. To obtain validation for a donation of goods, email ocracokedisasterrelief@gmail.com. If you are interested in helping a family directly email adopt@lifesaving.church.

Volunteer labor will be needed for many months to come. If you are interested in serving, call the United Methodist Church Regional Disaster Response Center at 888-440-9167.

New Year D-I-Y Projects

A New Year brings new opportunities to save energy—and money. You may think energy efficiency upgrades require a great deal of time and expense, but that's not always the case. Here are three inexpensive projects that can help save energy year-round.

Trim Dryer Vent

Level of difficulty: easy. Supplies needed: tin snips, gloves, measuring tape and masking tape.

Estimated Cost: about \$25 depending on the supplies you already have.

If your dryer vent hose is too long, your dryer is working harder than it has to, using more energy than necessary. The vent hose should be long enough for you to pull the dryer out a couple feet from the wall, but the shape of the hose should form a line—it should not have a lot of slack, with twists and curves. A shorter, unobstructed vent hose increases the efficiency of your dryer, dries clothing faster and reduces lint buildup, which can create potential fire hazards. Simply measure, mark and trim the hose to the desired length, then reattach the hose to your dryer and exterior vent. If you're unsure about the hose length, check out [YouTube.com](https://www.youtube.com/watch?v=...) for a quick video tutorial.

Seal Air Leaks

Level of difficulty: moderate. Supplies needed: caulk and caulk gun, weather stripping, gloves, putty knife, paper towels.

Estimated Cost: \$25 to \$50 depending on the materials you purchase.

Sealing air leaks in your home can help you save 10% to 20% on heating and cooling bills. Apply caulk around windows, doors, electrical wiring and plumbing

to seal in conditioned air. You should also weather strip exterior doors, which can keep out drafts and help you control energy costs. Types of caulking and weather stripping materials vary, but ask your local hardware or home store for assistance if you're unsure about the supplies you need. For more information, the Department of Energy provides step-by-step instructions for caulking and weather stripping: <https://bit.ly/2Kesu6W>

Insulate Attic Stairs Opening

Level of difficulty: moderate. Supplies needed (if you build the box yourself): rigid foam board, faced blanket insulation, tape for foam board, measuring tape, utility knife, caulk and caulk gun, plywood.

Estimated Cost: \$50 to \$100.

A properly insulated attic is one of the best ways to optimize energy savings and comfort in your home, but many homeowners don't consider insulating the attic stairs, or the opening to your attic space. Even a well-insulated attic can leak air through the stair opening, but luckily, there's an easy fix. An insulated cover box can seal and insulate the attic stairs opening. You can build your own insulated cover box or purchase a pre-built box or kit from a local home improvement store like Home Depot or Lowe's for about \$60. If you decide to build your own, check out these step-by-step instructions from the Department of Energy: <https://bit.ly/36YNCYQ>.

Saving energy doesn't have to be hard. With a little time and effort, you can maximize energy savings and increase the comfort of your home.

Bright Ideas Grant Winners



On November 19, Tideland EMC presented \$14,183.38 in Bright Ideas Classroom Grants to teachers from eight local schools. Over 1,700 students will benefit from the funding of these innovative and hands-on projects.

Dana Jordan
Terra Ceia Christian School
Sensible Science

A wide variety of materials will be purchased to help young learners conduct their own scientific investigations related to body systems, forces and electricity, heat and temperature, soil and plants, natural resources and planets.



Heather Summers
Chocowinity Middle School
All Fired Up!

Funds will replace the school's pottery kiln.

Maureen Prendergast
Pamlico County Middle School
Let's Do Science

Students will investigate and experiment with how eclipses, seasons and tides work and the effects that the sun, moon and earth have on one another. They will use slinkys to learn about waves to discover how different forces affect amplitude and wave length. Manipulating lights and prisms in different conditions and mediums, they will see how matter interacts with and changes waves and light energy.



Crystal Swindell
Washington Montessori School
The Animal Kingdom - All Systems Found

Anatomy and physiology students will learn the types of symmetry within the animal kingdom and directional terms used in anatomy. Through dissection they will study sponges, mussels, earthworms, starfish, crayfish, perch, frogs and fetal pigs. Lastly they will study the human circulatory and respiratory systems and how it relates to cardiac fitness.

Lisa Baker
Chocowinity Middle School
Take A Walk Through A Biome

Each year the school's fifth grades create science projects based on biomes (ecosystems). Funds will be used to purchase animal and plant materials for these dioramas. Students will then use green screen technology to write, edit and create their own instructional videos about their biome.

Jennifer Rice
Pamlico County Primary
Writing Among the Grade - Pen Pals Across the Way

With the goal of improving both handwriting and letter writing skills, the school's third grade students will be paired with a pen pal at Pamlico County High School.



Charles Daniels
Pungo Christian Academy
A Trade To Be Taught

Numerous electric tools will be purchased to promote wood working and carpentry skills starting with basic projects like bird houses and bookcases before advancing to more complex projects including small building construction.

Continues on Page L

winning Educators

Continued from Page K

**Brianne Black,
Chrissy French and
Stephanie Warren
Bridgeton Elementary
Moving and Shaking Our
Way to Success**

Funds will be used to purchase and install a sensory pathway in the school's hallway. While designed by therapists with autistic children in mind, the paths will be a fun learning activity for all students at the school to promote counting, reading, cognition and physical coordination.



**Danielle Banks
Creekside Elementary
Coding Crocs**

Materials, including a Dash Robot, Osmo Coding Awbie and Ozobots, will be purchased to establish a coding curriculum.

residential Savings

Continued from Page H

retrofitting all your bulbs at once seems overwhelming, target those bulbs used most often now and replace the rest over time.

For some households, laundry offers a good savings opportunity. Switching to cold water settings can save up to 2.25 kWh (25.9¢) per load if you have an electric water heater. Cleaning your dryer's lint filter between every load and using the moisture sensing setting can further reduce laundry costs. A dryer pulls between 1,800 and 5,000 watts so each load you eliminate can save between 21¢ and 57¢.

Thermostat settings offer the greatest potential for savings because heating and cooling account for 42% of the energy use in a typical home. If your thermostat is set at 70° F during winter, lowering it to 68° will reduce home heating costs 10%. The greater the reduction, the higher the savings.



Water heating is often the second largest energy user behind space conditioning. There are several ways to shave energy use in this area.



Older water heaters would benefit from the addition of insulating jackets. That do-it-yourself project will pay for itself in less than a year. Proper thermostat settings are important as well with 120° F being the recommended setting. Of course the best way to reduce water heating expense is to reduce hot water use. A 10-minute shower requires 20 gallons of water while the average bath uses 36 gallons. For every hour your water heater is reheating the typical energy use is 4.5 kWh.

There are savings to be dished out in the kitchen as well. A roast in a crock pot for 8 hours uses 0.8 kWh while a roast in the oven for 90 minutes uses 4 kWh. Instant Pots boast similar savings.



*Real People.
Real Power.*

Tideland Topics

www.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.



Winter Reminder

Close your crawlspace vents.

