

# Tideland Topics

*Real People. Real Power.*

## *\$1.078 million* refunded

In November, Tideland Electric's board of directors approved a \$600,000 general retirement of member capital. Coupled with refunds to the estates of deceased members, that brought 2020 year-end refunds to a total of \$1.078 million.

Read more on page C



## The power of *higher education*

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

The application deadline is March 5, 2021. For more details see your high school guidance counselor or visit [tidelandemc.com/my-community/college-scholarships](http://tidelandemc.com/my-community/college-scholarships)





HEIDI SMITH PHOTO

## Space heater safety

Despite efficiency gains in home heating equipment, we continue to see 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.

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

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# Minimizing duct losses

Your air ducts are one of the most important systems in your home, and if the ducts are poorly sealed or insulated they are likely contributing to higher energy bills.

Your home's duct system is a branching network of tubes in the walls, floors and ceilings; it carries the air from your home's furnace and central air conditioner to each room. Ducts are made of sheet metal, fiberglass or other materials.

Ducts that leak heated air into unheated spaces can add hundreds of dollars a year to your heating and cooling bills, but you can reduce that loss by sealing and insulating your ducts. Insulating ducts in unconditioned spaces is very cost-effective. Existing ducts may also be blocked or may require simple upgrades.

## Designing and Installing New Duct Systems

In new home construction or in retrofits, proper duct system design is critical. In recent years, energy-saving designs have sought to include ducts and heating systems in the conditioned space.

Efficient and well-designed duct systems distribute air properly throughout your home without leaking to keep all rooms at a com-

fortable temperature. The system should provide balanced supply and return flow to maintain a neutral pressure within the house.

Even well-sealed and insulated ducts can leak and lose some heat, so many new energy-efficient homes place the duct system within the conditioned space of the home. The simplest way to accomplish this is to hide the ducts in dropped ceilings and in corners of rooms. Ducts can also be located in a sealed and insulated chase extending into the attic or built into raised floors. In both of these latter cases, care must be taken during construction to prevent contractors from using the duct chases for wiring or other utilities.

In either case, actual ducts must be used — chases and floor cavities should not be used as ducts. Regardless of where they are installed, ducts should be well sealed.

Air return duct systems can be configured in two ways: each room can have a return duct that sends air back to the heating and cooling equipment, or return grills can be located in central locations on each floor. For the latter case, either grills must be installed to allow

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Placing ductwork in conditioned space can help reduce energy losses.



# Capital credit refund details

## A timely reminder to keep your mailing address updated if you leave the co-op

During fiscal year 2020, Tideland Electric Membership Corporation retired close to \$1.078 million in capital credits. Retirements to the estates of deceased members of the electric cooperative are projected to total \$478,000. Tideland's board of directors further authorized a general retirement of \$600,000 to those members and former members of the cooperative that received electric service in 1990 or 1991.

Capital credits represent member margins that are collected through electric bill revenues and reinvested in the cooperative's utility infrastructure. At the end of each year, Tideland's expenses are deducted from revenue to determine the cooperative's net operating margins for the year. Those margins are proportionally assigned to each Tideland EMC member as capital credits based on a percentage of what each member paid for electricity during the calendar year. By utilizing member capital to maintain the

electric system, Tideland is able to minimize its reliance on outside lenders thus reducing borrowing costs for the entire membership.

The general retirement was issued through a combination of checks and electric bill credits during the month of December.

Active account holders received a check if their electric account was current at the time of distribution and if their refund was \$50 or more. All other Tideland members with active accounts received an on-bill credit if they had service with the co-op in either 1990 or 1991. Checks were mailed to former members at their last known address for refunds of \$50 or more. That's in part why it is important to keep the co-op updated about future address changes in the event you leave the Tideland service area. Undelivered or unclaimed refunds are eventually escheated to the North Carolina Department of Treasury.

## Right-of-way maintenance schedule

Tideland has hired Lucas Tree Experts to trim trees in our right-of-way. During January, they will finish up in Fairfield Harbour then begin work in Manns Harbor. They will also have a crew working on vegetation service calls in Engelhard and Ocracoke. Gunnison Tree Service will be handling vegetation service calls in the Pantego and Grantsboro service districts.

River City Construction continues work on the pole conversion project along Pocosin and Braddy roads in Beaufort County.

Lee Electric continues line construction work along Shore Road at Lake Phelps and on the Merritt circuit in the Trent Road area.

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

## Lineline: It's a girl!



It takes a special person to be a lineman. It takes an equally special person to be a linewife. Fortunately, Tideland's Jacob Hardison found that special someone when he married Madison. You may recall their engagement photoshoot on a powerpole. So it wasn't surprising that they incorporated Tideland into their recent gender reveal. Their son Baynor is excited about being a big brother when his new sister arrives. Congratulations!





## 4 reasons not to use the ON setting

Here are 4 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.

## Message to members Welcome to the New Year

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

Here at the co-op we breathed a collective sigh of relief as the 2020 hurricane season came to an end with just one named storm under our belts for the year. That was especially true after a year that saw record-breaking hurricane activity that pummeled our co-op brothers and sisters along the Gulf.

While the start of the 2021 hurricane season is many months away, it's never too early to consider the installation of a whole-house generator and in 2020 we lined up a "members only" financing alternative through ElecTel Cooperative Federal Credit Union.

The first step is to apply for membership online at [electel.org](http://electel.org). An ElecTel member service representative will contact you to conduct the "onboarding" process to obtain proof that you are a Tideland member. A copy of your electric bill will suffice. Once your ElecTel account has been opened with as little as a \$1 deposit, you may begin the loan application process. Loan rates are based on your individual credit score and the financing term. Currently ElecTel offers terms up to 10 years for energy projects and rates as low as 4.9%. Energy

project loans are capped at \$40,000 and require a first or second lien on the member's home when financing over \$10,000. In the case of manufactured homes, loans can be made if the member owns the land but lending is capped at \$5,000.

### 2021 Rate Outlook

In March 2020, we implemented our first base rate increase since 2013, and at that time, our wholesale power cost adjustment (WPCA) moved from a monthly charge per kilowatt hour (kWh) to a credit. That credit remained fixed at \$-0.001790 per kWh between March and December. Through the end of November 2020, the WPCA credit had generated \$440,000 in cost savings to members. We'll have a final 2020 total to report to you next month.

At this time, all indications are that the WPCA credit will not increase during 2021, nor is it likely to revert to a charge. The most likely scenario is that the WPCA will remain near zero in the months ahead.

Wishing you and yours a healthy, happy and prosperous 2021. Our fingers are crossed.

## spaceHeater

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- 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 compromise outlet wiring.
- If you see burn marks on the outlet discontinue use of the outlet and call an electrician.
- Never leave a space heater underattended.

# Bright Ideas Grant Winners



In November, Tideland EMC presented \$13,338 in Bright Ideas Classroom Grants to teachers representing 10 local schools. Over 1,500 students will benefit from the funding of these innovative and hands-on projects.

**Rufina Rasonabe**  
Washington County Early College High School  
ACT Prep for 9th and 10th Grades  
Students will take the ACT exam to better prepare them for college entrance exams.

**Caitlynn Quarshie**  
Pamlico County Primary  
Osmo for Learning  
The Osmo Learning System for iPad uses tangible objects to complete learning exercises.

**Robin Potter**  
Chocowinity Middle School  
A Hovercam Solo 8 Will Make Learning Great  
Purchase of a document camera will allow for hands-on, life skills mathematics learning.

**Dawn Wilson**  
John C. Tayloe Elementary  
Turn the Beat Around  
Music education will be used to improve language and reading skills.

**Kimberly Lilley**  
Eastern Elementary  
Literacy Learners  
Classroom manipulatives to improve listening skills and master word recognition.

**Karen Glass**  
Terra Ceia Christian School  
Preserving the Past, Preparing for the Future  
FFA students will learn to preserve food through canning, freezing, meat grinding and dehydration.

**Charles Daniels**  
Pungo Christian Academy  
Sprinkle 'til it Grows  
Funds will be used to install a sprinkler system in the student greenhouse.

**Grace Nanney**  
Arapahoe Charter School  
Courtyard Classroom: Fresh Air, Fresh Ideas  
A courtyard classroom will be created for grades 5 through 8 to allow for outdoor, socially distanced learning.

**Louise Beirne**  
Mattamuskeet Elementary  
I See You!  
Go Pro cameras will be incorporated into social studies and language arts lesson plans.

**David Kierski**  
St. Paul Catholic School  
Enhanced STEM Program  
Eleven document cameras will be purchased to allow for both live demonstration and distance learning.



Heidi Smith (left), Tideland EMC corporate communications manager, presents a Bright Ideas grant to Rufina Rasonabe, an instructor at Washington County Early College High School.





# POWER OUTAGES

## PROTECT YOUR HOME WHEN THE POWER GOES OUT

Power outages can lead to more than just your lights going out. Forcing sensitive electronics to shutdown unexpectedly can result in data loss or damage to electrical systems. When power returns, a surge can damage TVs, appliances, and even heating and AC systems. Power outages can be impossible to predict, so be sure to prepare your home with the following devices.



## PREPARE YOUR HOME FOR POWER OUTAGES:

*BEFORE or DURING Power Outages*



Uninterruptible power supplies (UPS) can **protect against all power disturbances**. These work by providing battery backup to critical electronics to protect them from sudden shutoffs.

### Uninterruptible Power Supplies

### Energy Storage

Energy storage systems consist of batteries that **provide backup during service interruptions**. These can be used to power critical systems in your home. Energy storage systems can be paired with home solar power to become more energy independent. Utilities **may offer incentives** for energy storage systems.



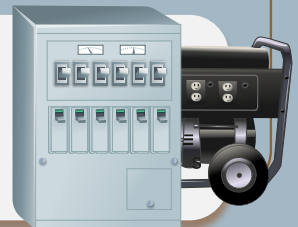
Smart meters allow for **greater communication** between your home's electrical needs and your energy provider. These can help you **reduce energy costs** and provide utilities with more information on how much electricity is being used in their service areas.

### Smart Meters

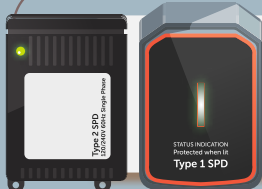
### Generators & Transfer Switches

Both portable and standby generators should be **used with a transfer switch** to prevent unintentional energization of surrounding areas which could cause harm to utility workers or neighbors. **Install CO detectors** and keep generator at least **20 feet** from homes and away from doors and windows.

Generators **provide energy during power interruptions**



## RECOVERING from Power Outages



SPDs **protect against voltage spikes** that can cause damage to your electronics when full power is restored. Whole home surge protection is **required** in the **2020 National Electrical Code**.

### Surge Protective Devices

Please **share this free** resource to save lives



[www.facebook.com/ESFi.org](https://www.facebook.com/ESFi.org)

[www.twitter.com/ESFIdotorg](https://www.twitter.com/ESFIdotorg)

[www.youtube.com/ESFIdotorg](https://www.youtube.com/ESFIdotorg)

# WHAT ARE POWER SURGES?

How a surge protective device can protect your facility.

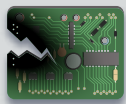
Surges, or transients, are brief **overvoltage spikes** or disturbances on a power waveform that can damage, degrade, or destroy electronic equipment within any home, commercial building, industrial, or manufacturing facility. Transients can reach amplitudes of **tens of thousands of volts**. Most equipment is designed to handle minor variations in their standard operating voltage. However, surges can be very **damaging** to nearly **all equipment**.

A typical building experiences **multiple power surges every day**.

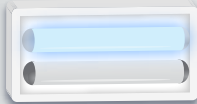
The average cost of downtime caused by power surge is **\$130,000** per event.

## Symptoms of Power Surges

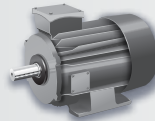
Circuit Board Failure



Lighting Failure



Motor Failure



Phantom Equipment Restart



## Causes of Power Surges

### Internal Sources

**60 – 80%** of power surges originate within facilities. These are typically caused from large loads switching off and on.

SWITCHING OF ELECTRICAL LOADS FROM:



Contactor, Relay & Breaker Operations



Switching of Capacitor Banks & Loads\*

\*e.g. power factor correction



Discharge of Inductive Devices\*

\*motors, transformers, etc.



Fault or Arc Initiation



Arcing Faults\*

\*ground



Fault Clearing or Interruption



Power System Recovery\*

\*from outage



DC Battery Storage Systems

MAGNETIC & INDUCTIVE COUPLING FROM:

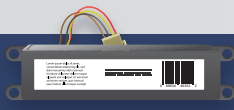


Elevators



HVAC\*

\*with variable frequency drives



Fluorescent Light Ballasts



Copy Machines



Computers

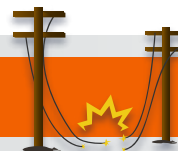
### External Sources



Lightning



Grid & Capacitor Bank Switching



Damage to Power Lines or Transformers

Please share this free resource to save lives

For more information visit [NEMASurge.org](http://NEMASurge.org)



[www.facebook.com/ESFi.org](http://www.facebook.com/ESFi.org)

[www.twitter.com/ESFIdotorg](http://www.twitter.com/ESFIdotorg)

[www.youtube.com/ESFIdotorg](http://www.youtube.com/ESFIdotorg)

air to pass out of closed rooms, or short "jumper ducts" can be installed to connect the vent in one room with the next, allowing air to flow back to the central return grilles. Door undercuts help, but they are usually not sufficient for return airflow.

You can perform a simple check for adequate return air capacity by doing the following:

- Close all exterior doors and windows
- Close all interior room doors
- Turn on the central air handler
- "Crack" interior doors one by one and observe if the door closes or further opens "on its own." (Whether it closes or opens will depend on the direction of the air handler-driven air flow.)

Rooms served by air-moved doors have restricted return air flow and need pressure relief as described above.

### Maintaining and Upgrading Existing Duct Systems

Sealing your ducts to prevent leaks is even more important if the ducts are located in an unconditioned area such as an attic or vented crawlspace. If the supply ducts are leaking, heated or cooled air can be lost. Furthermore, unconditioned air can be drawn into return ducts through unsealed joints.

Although minor duct repairs are easy to make, qualified professionals should seal and insulate ducts in unconditioned areas to ensure the use of appropriate sealing materials.

Existing duct systems often suffer from design deficiencies in the return air system, and modifications by the homeowner (or just a tendency to keep doors closed) may contribute to these problems. Any rooms with a lack of sufficient return airflow may benefit from relatively simple upgrades, such as the

installation of new return-air grilles, undercutting doors for return air, or installing a jumper duct.

Some rooms may also be hard to heat and cool because of inadequate supply ducts or grilles. If this is the case, you should first examine whether the problem is the room itself: fix any problems with insulation, air leakage, or inefficient windows. If the problem persists, you may be able to increase the size of the supply duct or add an additional duct to improve airflow.

### Minor Duct Repair Tips

Check your ducts for air leaks. First, look for sections that should be joined but have separated and then look for obvious holes.

Duct mastic is the preferred material for sealing ductwork seams and joints. It is more durable than any available tape and generally easier for a do-it-yourself installation. Its only drawback is that it will not bridge gaps over ¼-inch. Such gaps must be first bridged with web-type drywall tape or a good quality heat approved tape.

If you use tape to seal your ducts, avoid cloth-backed, rubber adhesive duct tape — it tends to fail quickly. Instead, use mastic, butyl tape, foil tape, or other heat-approved tapes. Look for tape with the Underwriters Laboratories (UL) logo.

We do not recommend utilizing duct cleaning services unless the contractor also air seals the ducts and conducts a pre- and post-sealing duct blaster test to confirm air sealing results.

If you have a fuel-burning furnace, stove, or other appliance or an attached garage, install a carbon monoxide (CO) monitor to alert you to harmful CO levels.

## Tideland Topics

[www.tidelandemc.com](http://www.tidelandemc.com)

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### 24 Hour Outage Reporting & Automated Services

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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.

# 2021

## Winter Reminder

Close your crawlspace vents.

