

Tideland Topics

Real People. Real Power.

MARK COLLIE PHOTO

There is an R in summer

Think oysters are only available during months that include an "r"? Local oyster growers are putting that myth out to sea.

Culinary elites suggest that North Carolina could become the Napa Valley of oysters, but we've got a long way to go to even scratch the surface of Virginia's oyster industry success.

Read more about Tideland area oyster growers starting on page D.

*Photo above: Tideland member Fletcher O'Neal tends his Devil Shoal oyster cages at Ocracoke
Photo right: An oyster grown in Bath*



Annual Meeting *recap*

While attendance at the co-op's annual meeting of members has dwindled over the years, the evening includes an important discussion of matters related to your electric service. See the manager's message on Page F for a recap.

Annual meeting grand prize winner Sammy Deans of Blounts Creek is pictured with Tideland EMC's chief executive officer Paul Spruill. Deans won a \$500 electric bill credit.

be a miracle



The Electric Cooperatives of Eastern NC continued their decades-long support of the Children's Miracle Network by presenting a \$10,000 donation during the charitable organization's annual telethon.

The funds will directly benefit pediatric patients at the James and Connie Maynard Children's Hospital at Vidant Medical Center in Greenville. The 197-bed children's hospital provides emergency, intensive, rehabilitative, outpatient and chronic care to the neonatal and pediatric population in 29 eastern NC counties.

To date, the participating electric cooperatives have donated \$160,000 to CMN and the Greenville facility.



annoying but necessary *Blinks mean system is working*

Tideland EMC strives to provide reliable electric service. An important part of outage prevention is an equipment operation we often call a "blink."

Blinks occur when a breaker, or switch, opens along any portion of the power system. The breaker usually opens because of a large, quick rise of electrical current. This large rise, called a fault condition, can occur when a tree branch touches a line, lightning strikes or a wire breaks. It can also happen when a bird with a large wing span comes in contact with more than one energized wire. It can also happen when farm equipments comes in contact with power lines.

When this happens, a relay senses the fault and tells the breaker to open, preventing the flow of power to the problem site. After opening, the breaker quickly closes. The brief delay, which allows the fault an opportunity to clear, usually lasts less than two seconds. If the fault clears, electric service remains on and all is well.

If, after the breaker closes, the fault condition is still detected the breaker will open again and repeat the process. If after the third time the fault condition has not cleared the breaker locks out and a co-op crew must be dispatched to resolve whatever issue caused the fault condition.

Without these breaker operations our lines and equipment would be vulnerable to major damage resulting from pole fires or high-voltage conditions. High-voltage conditions would also put member-owned equipment at risk. These operations can also prove to be potentially life saving should someone come in contact with an energized line.

Thanks to Tideland's automated metering infrastructure we now receive daily blink counts for every circuit on our system. When we see high blink counts on a circuit, tap or individual service, we can dispatch crews to investigate.

Unfortunately, summer is prime time for blinks due to increased lightning strikes and thunderstorms, rapid seasonal growth of trees and other vegetation, and increased outdoor activity related to farming, land clearing and recreational sports. Even salt accumulation on power lines at Ocracoke and our more coastal service areas can contribute to blinks.

Regardless, blinks can be rather irritating for co-op members because they often require resetting timers and clocks left flashing "12:00." It can also be worrisome to have a blink occur while HVAC systems are operating or any appliance or device equipped with a motor or compressor. The sudden interruption of operation followed by an immediate restart can leave such equipment vulnerable to failure. That's why many newer model HVAC systems now come equipped with a delay start to protect the compressor after an interruption of service. Programmable thermostats like the Ecobee also have a delay start option.

An uninterruptible power supply (UPS) on your computer can help prevent information losses of unsaved work during a blink or outage. The UPS incorporates surge suppression features with a battery backup and can provide you with enough time to save your work and shut down your computer properly if needed.

Boundary Canal Line Relocation New North Lake Road line energized May 8

On May 8, Tideland EMC energized the new North Lake Road circuit between Engelhard and Fairfield. It replaces the Boundary Canal circuit, which will now serve as a distribution tap. The old circuit traveled through challenging

terrain, delaying outage response times especially in wet conditions.

Construction of the new circuit took two years to complete at a cost of approximately \$1.5 million.



Right-of-way maintenance schedule

Tideland has hired Lucas Tree Experts to trim trees in our right-of-way. During July, they will work on the Merritt circuit and the Highway 304 corridor.

We still have major construction activities taking place on the Merritt circuit in Pamlico County. Lee Electric crews are shortening a section of the circuit while increasing capacity. They are also reconductoring large sections in the Trent Road, River Dunes, and Bay River areas.

For a list of projects included in the co-op's next five-year work plan see page H.

3-Step HVAC Test

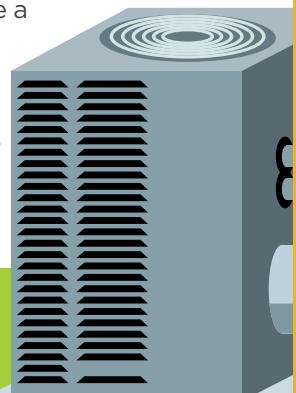
As summer temperatures rise, so do electric bills.

Follow these steps to test the performance of your HVAC unit.

The outdoor temperature should be above 80 degrees, and you should set your thermostat well below the room temperature to ensure the system runs long enough for this test. Allow the system to run at least 15 minutes before starting the test procedures. It is important that the HVAC return filters are clean and non-restrictive.*

1. Using a digital probe thermometer (about \$12), measure the temperature of the air being pulled into your HVAC return filter. Allow at least 1 minute for the thermometer temperature reading to stabilize.
2. Measure the temperature of the air blowing out of the supply register (A/C vent) that is nearest the return filter where you took your measurement in step 1. You may also take temperature readings at multiple supply registers and use the average. Again, allow 1 minute for the thermometer temperature reading to stabilize at each register.
3. Subtract the supply (A/C vent) temperature from the HVAC return filter temperature. You should see a difference of about 14 to 20 degrees. If the difference is significantly out of range (+/- 4 degrees), you may need a licensed HVAC technician to inspect the unit and/or ductwork.

*A non-restrictive HVAC return filter is the non-pleated, inexpensive filter found at most stores that sell HVAC filters.



Mariculture spawns opportunity for local watermen

PHOTOS BY MARK COLLIE

Whether you're an oyster aficionado or not, you've probably heard that oysters can only be enjoyed during months that contain the letter "r". Wild oysters are indeed pretty undesirable May through August during the spawning cycle, which makes them soft and not very tasty.

Fortunately, the bivalves can now be enjoyed year round thanks to a mariculture industry spawning in Tideland territory. But it's the industry that's spawning. Not the actual oyster.

Aquaculture refers to raising aquatic crops and animals in land-based water environments such as ponds and tanks. In Tideland territory that's most often catfish, hybrid-striped bass and tilapia. Mariculture is the cultivation of food in coastal waters and the trade is usually plied by experienced watermen hoping to supplement dwindling commercial fishing incomes. To date, the primary focus of local mariculture activities has been oysters and clams.

Traditionally, growers planted oyster shells on lease bottoms to create a place for free-swimming oyster larvae to attach and become oyster spat. Those that did attach and grow took two to three years to reach marketable size.

Today's producers grow oysters in the water column by placing oyster seed in cages that either float or are suspended off the bottom. These growers use

sterile triploid oysters. Because triploids do not spawn, all their energy is used to filter water from which the oyster gets its nourishment. Steady and continuous growth makes the oysters more meaty and harvestable year round. Of course all shellfish, regardless of growing method, can be subject to area closures by state officials based on water quality conditions.

Caged oysters are routinely sorted by size and transferred to other cages to reduce crowding. While more labor intensive than traditional oystering, this technique produces consistently sized, single oysters with deep cups that typically have more meat than wild oysters or those planted on the bottom. Restaurants find the uniformity and cleanliness of grown oysters highly desirable for half-shell menus. The oysters also sell for three times more than their wild counterparts.

Like all marine occupations, oyster growers must contend with forces beyond their control. Several growers have struggled to overcome the damaging affects of Hurricane Florence including freshwater inundation.

To date, North Carolina's oyster mariculture success has lagged far behind that of Virginia. In 2016, Virginia had oyster mariculture sales totaling \$16.5 million. For the same year, North Carolina sales were \$2.5 million.

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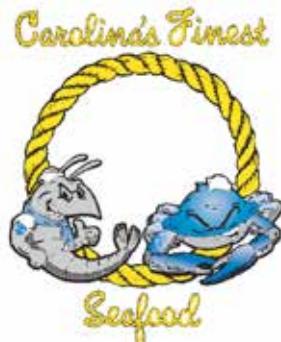




The Bay River in Pamlico County is home to three local oyster-growing operations. It's namesake, Bay River Oysters, is owned by Johnnie Mercer.



Fletcher and Heather O'Neal own Devil Shoal Oyster and Clam Company at Ocracoke. Thank you to Fletcher for letting our photographer follow him for a day.



Pirate Pearls are cultivated by brothers Doug and Don Cross of Pamlico Packing. They are also grown in the Bay River in Vandemere.



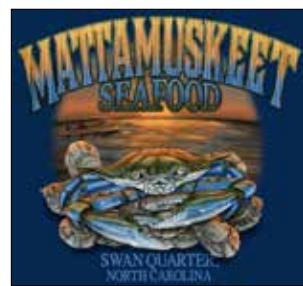
Lyle Cahoon is about 6 weeks away from having his first harvestable oysters. Grown in Swan Quarter Bay, they will be sold under the name Great Island Oysters.



Owned by Chris and Kelly Matteo with Kelly's dad Duane Creech assisting in the operation. The Matteos also operate a nursery that serves other growers. Chadwick Creek is located off the Bay River in Pamlico County.



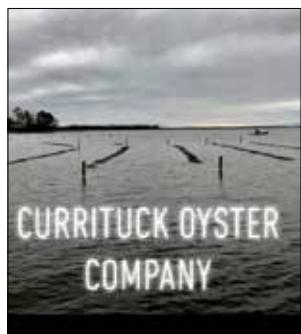
Located in Bath, First Flight Mariculture is owned and operated by Mike Hucks, Andy Hogan and Eric Poss. The operation is on the Pamlico River near Indian Island. Their oysters are available at Washington Crab and Seafood.



Striking Bay oysters are cultivated by Cory and Callie Carawan in Hyde County's Spencer Bay. The Carawan family is best known for their Mattamuskeet Seafood brand, wholesalers of fine crabmeat.



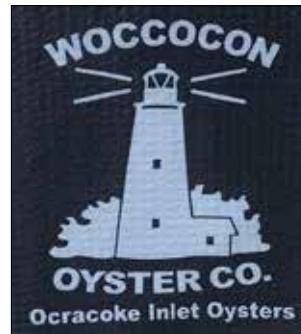
Wanchese Fish Company is cultivating oysters in both Dare and Hyde counties. They are marketed as Bodie Island Oysters.



Jeff and Gina Credle are growing oysters in Slade Creek in Scranton. They expect to have their first marketable oysters this fall. Their brand name will be Currituck Oyster Company.



Cultivated by Robbie Mercer and Ivan Ireland, Pamlico Sounds Bounty are grown in Lowland. On Facebook you'll find them under I&M Oyster Company.



Woccocon Oyster Company is owned by Dylan Bennink, Steve Wilson and Albert O'Neal. If you're visiting the island they can be found at Ocracoke Seafood.



Charlie Van Salisbury is another Hyde County grower just getting underway. His product will be branded as Wysocking Bay Oyster Company.



Message to members

Rate increase on the horizon

by PAUL SPRUILL
GENERAL MANAGER &
CHIEF EXECUTIVE OFFICER

A handbook probably says you shouldn't lead with that type of headline, but I wanted to make sure I had your attention. At May's annual meeting we had a discussion about the factors that will necessitate a base rate increase in 2020. The good news is that headline hasn't been necessary since January 2013 when we had our last rate increase. In fact, our last rate change was a decrease in July 2014.

Since the 2013 rate increase, the co-op has achieved significant yet expensive milestones aimed at meeting increasing power needs in Tideland territory, improving power quality, and reducing the frequency and duration of outages.

The largest two projects were construction of the Engelhard and Fairfield Harbour substations. The Fairfield Harbour project also included the construction of a new double circuit. In the Engelhard district, we just completed construction of a new circuit along North Lake Road that replaces the Boundary Canal circuit, which was prone to frequent and prolonged outages (see page C for more about the North Lake Road project).

Other major projects completed since 2013:

- Installed a new underground tie line at Pamlico Plantation
- Installed submerged cables beneath the Bay River and Pantego Creek
- Reconductored the Highway 264 line from Engelhard to the Hyde County airport
- Upgraded the Ponzer circuit
- Upgraded the Pamlico Village and Country Club circuits in Washington

- Fiber communications extended to 12 of our 15 substations for better operational controls
- Major construction began to improve Merritt circuit service
- Replaced 3.5 miles of aging underground lines in the Grantsboro district
- Replaced 132 poles at Ocracoke that were damaged during Hurricane Arthur and a 2018 ice storm
- Replaced 67 transformers, 57 transformer pads and 142 elbows and installed 56 additional lightning arrestors in Fairfield Harbour prior to Hurricane Florence
- Began the process of replacing all outdoor security lighting with LED fixtures

Since 2013, our net electric plant assets have increased from \$90.4 million to \$106.7 million. Not surprisingly, long-term debt has increased \$8 million.

In 2018, we also began making payments on our share of coal ash remediation costs. The expense is borne by all North Carolina power companies that purchased electricity from the facilities targeted for clean up.

Since 2013, we have been able to retire \$6.8 million in capital credits to both current and former members of the cooperative.

Obviously, we've achieved a great deal without a rate increase in the past six years. But to quote the late P.D. Midgett, Jr., founder of Pamlico Power and Light, "Utilities are never caught up." There is always work to be done.

Member Message Continues on Page H

HURRICANE ELECTRICAL SAFETY

Eyeing the Storm

The Atlantic hurricane season is **June to November**, with the **peak season** from **mid-August to late October**.

On average there are six hurricanes, three of which are categorized as "major", each year. History provides important examples of the potentially dangerous impact hurricanes can have and the need to be prepared.



PREPARE FOR THE STORM



Charge all phones and communication devices.



Unplug all electronics and move them as high as possible.



If recommended by utilities or emergency officials, turn off breakers to avoid power surges.



WEATHER THE STORM



Stay indoors during hurricanes and away from windows and glass.



Never operate a portable generator inside your home.



Never connect a generator directly into your homes wiring unless a transfer switch has been installed.



Always use GFCIs in areas where water and electricity may come in contact.



RECOVER FROM THE STORM



Do not use electrical equipment and electronics, including receptacles, that have been submerged in water.



Have a qualified electrician inspect any water damaged electrical equipment and electronics.



Stay away from downed power lines. If you encounter a downed power line, stay at least 35 feet away and do not touch the line or anything that may be in contact with the line.

HURRICANE CATEGORIES

CATEGORY 1

74-95 MPH Winds
Some Damage



Potential roof damage.



Large tree branches may snap, shallow-rooted trees may fall.



Damage to utility poles and power lines. Outages may last few to several days.

CATEGORY 2

96-110 MPH Winds
Extensive Damage



Potential major roof damage.



Shallow-rooted trees will be snapped or uprooted.



Power outages for several days to weeks.

CATEGORY 3

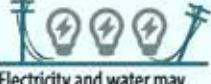
111-129 MPH Winds
Devastating Damage



Major home damage.



Many trees will be snapped or uprooted.



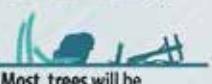
Electricity and water may be unavailable for several days to weeks.

CATEGORY 4

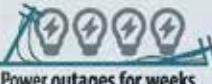
130-156 MPH Winds
Catastrophic Damage



Severe home damage.



Most trees will be snapped or uprooted and utility poles downed.



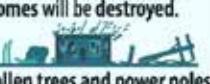
Power outages for weeks to possibly months.

CATEGORY 5

>156 MPH Winds
Catastrophic Damage



High percentage of framed homes will be destroyed.



Fallen trees and power poles will isolate residential areas.



Power outages for weeks to possibly months.

According to the **Insurance Institute for Business & Home Safety**, homes built to **modern building codes** fare much better than homes built to older codes. Make sure your home is up to code.



Additional severe weather safety information is available at www.esfi.org.



www.facebook.com/ESFI.org



www.twitter.com/ESFIdotorg



www.youtube.com/user/esfidotorg

2019 Hurricane Names
Andrea

Barry
Chantal
Dorian
Erin

Fernand
Gabrielle
Humberto
Imelda

Jerry
Karen
Lorenzo
Melissa

Nestor
Olga
Pablo
Rebekah

Sebastien
Tanya
Van
Wendy

memberMessage

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Our new five-year work plan includes:

- Completion of Merritt circuit improvements
- Storm harden our Hwy. 12 facilities by replacing 143 poles at Ocracoke
- A 9,000-foot extension of submarine cable from Hatteras Inlet to the Graveyard of the Atlantic Museum
- Replacing the sub-transmission tie line between our Five Points and Washington substations
- Build a tie line between Merritt and Dawson Creek circuits
- Rebuilding the Dowry Creek circuit from Belhaven to Lake Phelps
- A new double circuit from Grantsboro to Arapahoe may be achieved towards the end of the work plan.

We have accelerated underground service replacements at Fairfield Harbour due to salt water inundation from Hurricane Florence. We expect these replacements to continue for a number of years.

Coal ash remediation payments will continue for a number of years as clean up at the targeted sites progresses.

The rate structure for our energy purchases from Duke Energy is changing and it does present some opportunities to implement demand

reduction programs that could yield savings for the entire membership. Therefore, we encourage members south of the Pamlico River to enroll in our smart thermostat program to help us reduce the cost of our Duke Energy purchases. Not only will you receive a small monthly participation credit, you'll help keep costs low for everyone.

A cost of service study is currently underway to provide the detailed analysis required to formulate new base rates. In the meantime, we continue to experience increased cost pressures on our wholesale power supply primarily due to coal ash expenses. Therefore, a wholesale power cost adjustment (WPCA) charge will likely occur later this summer.

The target date for new base rates is early 2020. We will publish new rate schedules prior to implementation and provide efficiency and conservation tips that can help your family or business offset the affects of higher rates.

I can assure you that our rate-setting priorities are based on building a stronger and more resilient electric system while maintaining a healthy balance sheet. We are also committed to our longstanding tradition of regularly retiring capital credits to you, our member-owners.

localOysters

Continued from Page D

When applying a conservative economic multiplier of 3x, grown oysters generate approximately \$7.5 million in state economic activity. A study by the NC Policy Collaboratory believes the state can achieve \$33 million in farm-gate sales by 2030, which would have a total economic activity valuation of \$100 million. Culinary experts have in fact suggested that our state could become a "Napa Valley of Oysters" given the diversity of growing environments presented

by our coast's unique geography. There are even aspirations of creating an oyster trail to create additional revenue streams through ecotourism and guided tasting events.

And it all starts with a tiny larvae that becomes spat, then a mature oyster that becomes your meal. Be part of the oyster economic cycle. Buy local. Eat local. And promote local. And when you're done be sure to recycle the shells!

Tideland Topics

www.tidelandemc.com

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Always call for free underground locating services before you dig.

