

# Watts Working

## Randolph EMC Awards \$12,000 to Local Teachers for 'Bright Ideas'

Randolph Electric Membership Corp. recently celebrated innovation in education by awarding \$12,000 in Bright Ideas education grants to nine local educators.

"We're thrilled to award these dedicated educators with Bright Ideas grants," said Jill Vanness, director of Member and Public Relations for Randolph Electric. "Their creative projects will enhance engagement within the classroom setting, help students think 'outside the box' and teach skills that will build students into strong leaders of the future."

Bright Ideas education grants, sponsored by REMC and North Carolina's electric cooperatives, are available to Tar Heel teachers for innovative, hands-on, classroom projects that would not otherwise be funded. "Randolph EMC is committed to bettering the communities we serve, and we believe there is no better way than through the education of our youth," Vanness said.



This year marks the 25th anniversary of the Bright Ideas program, which provides funding for projects in all grade levels and subject areas. Since 1994, North Carolina's 26 electric cooperatives have collectively awarded more than \$12.2 million for nearly 11,700 projects benefiting 2.3 million students.

Bright Ideas grant applications are collected each year through mid-September, and winning proposals are selected in a competitive evaluation process by a panel of local educators. The application process will reopen for interested teachers in April 2020. More information is available about the Bright Ideas grant program on [RandolphEMC.com](http://RandolphEMC.com).

See page B for the full list of winners for the 2019-2020 school year!

**B** Bright Ideas  
Winners

**D** DIY Efficiency  
Projects

**E** Apply for a Sports  
Camp Scholarship

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Schedule



# Bright Ideas

## EDUCATION GRANTS



Amanda Blake, Westmoore Elementary

### Student Sensory Safe Haven—\$1,000

Provides a sensory room which helps to educate students on ways to build resilience for themselves by creating a safe space for students who are in sensory overload.



Kim Collazo, Robbins Elementary

### We're Outta Here! Taking the STEM Lab Outside—\$1,600

Provides motion detection camera traps and handheld GPS devices to allow students to make observations, collect, analyze and globally share data about local living species to better understand the real-world work of scientists.



David Lackey, Uwharrie Charter Academy High School

### Flight School—\$1,650

Provides students the opportunity to become certified, commercially licensed drone pilots. Students will complete a rigorous curriculum covering drone laws and regulations, safety, flight techniques, airspace information, radio frequencies, physics, and reading sectional maps to ultimately obtain a Part 107 commercial drone license.



Celia McKinney, Green Ridge Elementary

### Learning Experiences Under the Sun—\$2,000

Provides students with six science expeditions in the outdoor areas of Montgomery county. Teachers join Muddy Sneakers instructors to teach the required science standards in an outdoor setting and help students connect with the natural world.





Sarah Moore, Uwaharrie Ridge Six-Twelve

### Chicken Nuggets on Mars—\$1,300

Allows students to explore alternative ways to grow different types of crops for chickens besides soil to extend their thinking to hydroponics and micropropagation—as they might have to do if they lived on Mars.



Chrissy Neelon, Uwaharrie Charter Academy High School

### iSculpt on an iPad Like a Pro—\$1,000

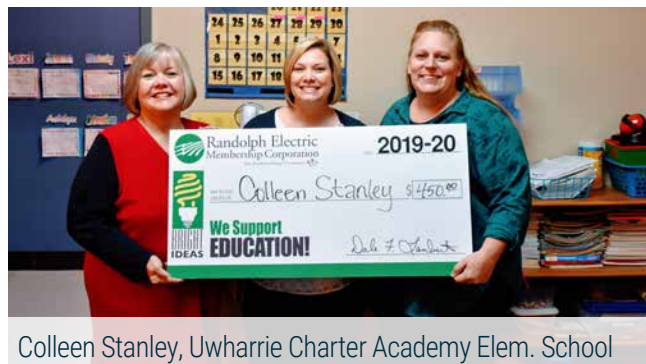
Provides pressure-sensitive drawing tablets for students to design and create three-dimensional sculptures by first sculpting an object on a computer with digitized clay that can then be 3-D printed into sculptures.



Jamie Staley, Coleridge Elementary

### Let's Get Excited About Reading!—\$1,000

Updates the school's library collection to provide new easy reader and fiction books to draw interest and create excitement for children.



Colleen Stanley, Uwaharrie Charter Academy Elem. School

### Building Our Social/Emotional Library for EC Students—\$450

Builds a library of read-aloud books that teach students empathy and how to build appropriate social skills and emotional well-being.



Steven Watson, Charles McCrary Elementary

### Mustang Lacrosse—\$2,000

Introduces lacrosse to all fourth- and fifth-grade students to help strengthen various skills that carry over into other sports as well as academics. Will additionally support an after-school lacrosse club for interested students to dive deeper into the sport.

**Congratulations  
to all the winning  
applicants!**

# 3 DIY Efficiency Projects to Tackle This Year

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.

If you're interested in making your home more efficient but don't want to break the bank, there are several DIY projects you can tackle to increase energy savings. Let's take a look at three inexpensive efficiency upgrades that can help you save energy throughout the year.

## 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 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>. It should also be noted, if your attic opening is located in a garage that you do not heat and cool, this upgrade will not be as effective.

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. To learn about additional ways to save, grab a 101 Ways to Save booklet at your local office or contact one of our Energy Use Advisors at (800) 672-8212.

# Apply for a Touchstone Energy Sports Camp Scholarship

## Attend Basketball Camp for Free this Summer!

Parents, do you have a middle schooler who loves basketball and wants to gain experience training alongside real college basketball players and coaches? We have great news for you!

Randolph EMC is now accepting applications for full scholarships to 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 at a qualifying school. Applicants will be judged on their academics, extracurricular activities and an essay. The application period begins in January and applications must be submitted by March 31. To learn more and apply, visit [RandolphEMC.com](http://RandolphEMC.com).



## Last Call for Youth Tour Applications!

Win a FREE trip to Washington, D.C.!

### Who:

Current High School Sophomores & Juniors

### What:

The highlight of your summer! On your all-expense-paid trip, you'll join more than 1,800 other students from across the U.S. in our nation's capital to visit museums & monuments, chat with legislators, enjoy a harbor cruise, & learn more about the cooperative business model.

### When:

June 20-26, 2020

Download your application at [RandolphEMC.com](http://RandolphEMC.com) and submit it to us by January 10, 2020!

## 2020 Holiday Schedule

New Year's Day  
**January 1**

Good Friday  
**April 10**

Memorial Day  
**May 25**

Independence Day  
**July 3**

New Year's Day  
**January 1, 2021**

Labor Day  
**September 7**

Veteran's Day  
**November 11**

Thanksgiving  
**November 26 & 27**

Christmas  
**December 24 & 25**



# A Word About Randolph Electric

From CEO Dale Lambert

## SURVEY SAYS... PART 5

Dear Members,

I've been writing a series of AWARE columns that focused on a survey completed by members prior to our annual meeting earlier last year. As I hinted last month, the series continues, so, welcome to the AWARE column, part 5.

Previous articles looked at the cooperative's response to major storm events, our commitment to supporting the communities we serve, electric vehicles (EVs) and REMC's Electric Vehicle Utility Program, also known as REVUP, and the programs and services we offer to serve your needs as we strive to make doing business with us convenient and easy. We also looked at the low carbon intensity of Randolph EMC's wholesale power generation portfolio, the high level of utility-scale solar generation that's connected to our distribution system and the intermittency of solar generation compared to when members use power the most during the day.

If you missed any of these articles and do not have previous issues of Carolina County handy, you can view the columns on our website, [RandolphEMC.com](http://RandolphEMC.com), under the News Center tab.

This month I want to discuss another source of renewable energy — wind generation. Other than hydro power, the two most prominent types of renewable energy in the United States are solar and wind. There is almost three times more wind generation than solar in the U.S.

Large, utility-scale wind generation projects must be installed with a basic concept in mind — the wind must blow a lot. There are minimum wind velocity thresholds, depending on the technology. Anything less will not produce enough energy to make a project economically viable.

Wind generation can be broken into two main categories — onshore and offshore. The wind blows a lot over the ocean, but offshore wind has proven to be very expensive because more resources are needed to install and maintain a wind turbine at sea. The only operating offshore wind project in the U.S. is located off the coast of Rhode Island, and it's a very small project.

In the United States, onshore wind generation is not evenly distributed across the country. To date, just over half of the wind generation in the U.S. (52%) resides in four Midwestern

states — Texas, Oklahoma, Iowa and Kansas — where the wind blows more frequently and more consistently. This type of generation is only available when the wind is blowing, and its intermittency is a concern for providing reliable electricity. There have been incidents in the U.S. where the wind stopped blowing during a peak period for the local utilities and they had to scramble to keep the lights on.

Another consideration for siting a large wind generation project is aesthetics. In short, some places do not want to see wind turbines turning on the landscape. The most prominent locations in North Carolina where there is enough wind velocity, are at the scenic mountain or coastal areas. The N.C. Legislature passed a law in 1983 known as the Mountain Ridge Protection Act, that prohibits any structures above a certain height being built on the mountain's ridges. This effectively eliminates wind turbines being installed here. Another concern is that with the strong military presence in our state, wind generation will interfere with military aircraft and communications.





North Carolina has one utility-scale wind generation project located in the northeastern part of the state near Hertford, just west of Elizabeth City. There are 104 wind turbines that produce a total of 208 megawatts of output. That's equivalent to 1.3 times the amount of power required to meet the needs of Randolph EMC members during an annual peak, but there is no guarantee the wind will be blowing enough to generate that capacity when it's needed.

At the local level, we have a Randolph EMC member who is currently in the process of installing a small wind turbine on his farm. Dr. Charlie Sydnor, who owns Braeburn Farm in Alamance County, hopes to create a small microgrid on his property made up of the wind turbine, solar panels and a battery bank.

Dr. Sydnor's turbine is a Hugh Piggot design and one of the unique attributes is, most of its parts can be obtained locally. It will produce 2.5 kilowatts in a 30 MPH sustained wind but will make some power when the wind is blowing at 7 MPH. The tower is already installed on one of the highest points in



Alamance County in order to catch as much wind as possible. It stands 84 feet above the ground and 860 feet above sea level.

A few years back, your Board of Directors and management team visited Dr. Sydnor's farm to discuss how we could work together on this project to gain knowledge of wind generation and a microgrid on our distribution system. Some of the photos from that visit are included above.

We talked about solar generation last month and wind generation this month. The two common shortfalls of these two generation types is their intermittency, but that sets us up for next month's column on the improving technology that will make these forms of generation more viable—battery storage. So stay tuned.

From your Board of Directors and employee team, we wish you a happy, safe and prosperous New Year!

Cooperatively Yours,

Dale F. Lambert  
Chief Executive Officer



Randolph Electric Membership Corporation provides safe and reliable power with exceptional value to more than 32,000 member accounts in Randolph, Moore, Montgomery, Chatham and Alamance counties.

This institution is an equal opportunity provider and employer.

## Electric Service

Asheboro ..... (336) 625-5177  
..... (800) 672-8212

Robbins: ..... (910) 948-3401  
..... (800) 868-7014

Report Outage ..... (877) REMC-OFF  
..... (877) 736-2633

Account Info  
& Bill Payments: ..... (877) 534-2319  
Business Hours: ..... 8 am – 5 pm, M-F

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Visit Randolph EMC Online

[RandolphEMC.com](http://RandolphEMC.com)



# Keep Track of the Energy You Use

Monitor your monthly usage & cost of electric service. Be sure to read your meter on the same day each month.

Month	Date Read	Reading	kWh Used	Bill Amount	Date Paid
January					
February					
March					
April					
May					
June					
July					
August					
September					
October					
November					
December					
<b>Totals</b>					

## 2020 Cycle Billing Schedule

<b>READING COMPLETE BY</b>	1	JAN 3	JAN 31	FEB 28	APR 3	MAY 1	MAY 29	JULY 2	JULY 31	AUG 28	OCT 2	OCT 30	NOV 25
	2	JAN 10	FEB 7	MAR 6	APR 9	MAY 8	JUNE 5	JULY 10	AUG 7	SEPT 4	OCT 9	NOV 6	DEC 4
	3	JAN 17	FEB 14	MAR 13	APR 17	MAY 15	JUNE 12	JULY 17	AUG 14	SEPT 11	OCT 16	NOV 13	DEC 11
	4	JAN 24	FEB 21	MAR 20	APR 24	MAY 22	JUNE 19	JULY 24	AUG 21	SEPT 18	OCT 23	NOV 20	DEC 18
<b>BILL IN MAIL BY</b>	1	JAN 10	FEB 7	MAR 6	APR 9	MAY 8	JUNE 5	JULY 10	AUG 7	SEPT 4	OCT 9	NOV 6	DEC 4
	2	JAN 17	FEB 14	MAR 13	APR 17	MAY 15	JUNE 12	JULY 17	AUG 14	SEPT 11	OCT 16	NOV 13	DEC 11
	3	JAN 24	FEB 21	MAR 20	APR 24	MAY 22	JUNE 19	JULY 24	AUG 21	SEPT 18	OCT 23	NOV 20	DEC 18
	4	JAN 31	FEB 28	MAR 27	MAY 1	MAY 29	JUNE 26	JULY 31	AUG 28	SEPT 25	OCT 30	NOV 25	DEC 23
<b>PAST DUE DATE</b>	1	JAN 28	FEB 28	MAR 28	APR 28	MAY 28	JUNE 28	JULY 28	AUG 28	SEPT 28	OCT 28	NOV 28	DEC 28
	2	FEB 5	MAR 5	APR 5	MAY 5	JUNE 5	JULY 5	AUG 5	SEPT 5	OCT 5	NOV 5	DEC 5	JAN 5
	3	FEB 12	MAR 12	APR 12	MAY 12	JUNE 12	JULY 12	AUG 12	SEPT 12	OCT 12	NOV 12	DEC 12	JAN 12
	4	FEB 19	MAR 19	APR 19	MAY 19	JUNE 19	JULY 19	AUG 19	SEPT 19	OCT 19	NOV 19	DEC 19	JAN 19
<b>SUBJECT TO DISCONNECTION</b>	1	FEB 10	MAR 9	APR 13	MAY 11	JUNE 8	JULY 13	AUG 10	SEPT 8	OCT 12	NOV 9	DEC 7	JAN 11
	2	FEB 17	MAR 16	APR 20	MAY 18	JUNE 15	JULY 20	AUG 17	SEPT 14	OCT 19	NOV 16	DEC 14	JAN 18
	3	FEB 24	MAR 23	APR 27	MAY 26	JUNE 22	JULY 27	AUG 24	SEPT 21	OCT 26	NOV 23	DEC 21	JAN 25
	4	MAR 2	MAR 30	MAY 4	JUNE 1	JUNE 29	AUG 3	AUG 31	SEPT 28	NOV 2	NOV 30	DEC 28	FEB 1

### Automatic Draft Dates

CYCLE 1  
28th of month

CYCLE 2  
5th of month

CYCLE 3  
12th of month

CYCLE 4  
19th of month