



VIGILANTE ELECTRIC COOPERATIVE

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2017 Youth Tour to Washington, D.C. Reflections for this year's participants

By *Harleigh Johnson*

If you asked me to sum up the National Rural Electric Cooperative Association Youth Tour to Washington, D.C., trip in just one word, I couldn't do it. But it would be along the lines of life-changing, enlightening and unbelievably fun.

When I made the drive to Great Falls on Friday afternoon for orientation, I found myself in a room full of 30 other Montana delegates who were all strangers. But on the last day, as we all said goodbye at the airport baggage claim, I was in a room full of 30 best friends. I'm not going to lie and say we held it together, because we all broke down in tears as we gathered in a circle, arms around each other, for one last farewell. I didn't expect to make this kind of connection between the other delegates but we had been through quite a lot together; waking up before the sun to head out



Sarah Boucher of Billings, Harleigh Johnson of Dillon and Larkin Voss of Dillon in front of the White House.

and see the attractions, to just about melting outside in the 100-degree heat, to staying up hours into the night talking and laughing. We got to see the best and worst sides of each other. And that is just scratching the surface.

After the five-hour plane ride, we were all restless to go out in D.C. and explore. The sight of the Lincoln Memorial and Washington Monument lit up at night was just what I had hoped for. As we viewed the Korean, Vietnam and World War II memorials at the National Mall, I was filled with a somber feeling as I read each of the names printed on the walls of the soldiers who had sacrificed their lives. I will also never forget when we went to Arlington National Cemetery. Seeing more than 400,000 of the grave sites where our country's bravest are laid to rest was so powerful. The burial sites were arranged by which war the person fought in, and which platoon they were a part of. Some of the oldest sites were from the Civil War. This was just an eye-opening experience about how much war plagues our world, and how lucky we

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By *Larkin Voss*

To sum up my trip to Washington, D.C., in one short story seems almost impossible. As I sit down to write this, it's hard to come up with words to explain this once-in-a-lifetime trip. This may sound cliché, but there is no better way to explain it. I met many new people, saw new things and learned more than I probably would in one school year. Thanks so much to all of the wonderful people who made this trip possible.

It is difficult to narrow down my favorite part of this trip. We visited many places most tourists see: monuments, museums and buildings. All of these attractions were a great experience, but the people I met while on this trip made it so much more enjoyable. I have made many long-time friends. After all, they did replace my family for a week. Many hours on the trip were spent talking and telling stories of our hometowns, and also meeting people from other states. I will always remember the Georgia kids trying to convince me they all lived on grit tree farms. Only later did I realize there is no such thing as a grit-tree.

Waking up early and going to bed late was not pleasurable, but worth it to see the sights we did. I'm very happy I got the chance to see Senators Steve Daines and Jon Tester. It was cool to see all the work they do for our state in our nation's capital. Along with touring the Capitol building, I also visited a few of the Smithsonian Museums and many memorials. My favorite memorial was the Franklin D. Roosevelt Memorial. I like the way it was presented, and I love learning about that time period.



I wouldn't hesitate to tell anyone who hasn't been to Washington, D.C., to apply for the trip and see all of the wonderful things our capital has to offer. I saw many cool things, and made many life-long friends. I'll never forget the way this trip has shaped me.

Larkin and Harleigh at the Old Alexandria Harbor.

VIGILANTE ELECTRIC COOPERATIVE, INC.

Cooperative 101

The Birth of Electric Cooperatives, Part 2

In the early 1920s, only 2.6 percent of American farms enjoyed central station power. In 1923, NELA; the American Farm Bureau Federation, National Grange; American Society of Agricultural Engineers; U.S. departments of Agriculture, Commerce, and Interior; and various electric equipment manufacturers — in partnership with participating state land-grant universities and county agents — formed the Committee on the Relation of Electricity to Agriculture (CREA) to conduct America's first large-scale rural electrification pilot study. IOUs underwrote CREA's activities over the next 10 years, contributing an estimated \$1.4 million, and manufacturers donated \$1 million worth of equipment.

Unfortunately, resulting CREA initiatives with farming communities in 31 states were doomed by a lack of affordable rates and a major agricultural recession. However, CREA programs did demonstrate that electricity could promote economic development and improve the rural quality of life by reducing drudgery, improving sanitation and diet, and increasing time available for recreation.

CREA's most famous initiative was the Red Wing Project. In 1923, a dozen dairy farmers in southeastern Minnesota

were hooked up to a distribution line and equipped with all of the latest home appliances and electric farm machinery. By the time the experiment concluded five years later, no one doubted that electrification improved farm productivity and reduced labor costs. But the investment in infrastructure (donated) and rates were largely overlooked. The Red Wing farmers, who were more prosperous than most, paid the same rates as consumers in Minneapolis.

Around the same time, rural electrification was making another big splash. In 1922, Gifford Pinchot, a progressive Republican who headed the National Forest Service under President Theodore Roosevelt and had served on the Country Life Commission, campaigned for governor of Pennsylvania on a pledge of bringing electric energy to unserved farms and villages. Soon after being elected, Pinchot hired Morris L. Cooke — who nine years earlier had gained fame for waging a successful rate case against giant investor-owned utility Philadelphia Electric Company (now PECO Energy) while serving as director of public works for the City of Brotherly Love — to conduct a "Giant Power Survey" of the Commonwealth. The goal: find "the

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Aquatic Invasive Species — Doing Our Part

In the June edition of this publication, General Manager Rollie Miller addressed a piece of legislation that was signed into law by Governor Steve Bullock on May 18th of this year — Senate Bill 363. This bill revised laws related to aquatic invasive species (AIS) and provides a short-term revenue source to prevent and control AIS by decontaminating watercraft, expanding inspection of boats and other watercraft, and boosting monitoring programs.

Concerns about AIS stem from last fall when Montana declared a natural resources emergency after invasive mussel larvae were detected for the first time in Montana. The larvae were detected in Tiber Reservoir and a suspect detection turned up in Canyon Ferry Reservoir. Thus, expanding the AIS program was viewed by legislative leadership as an urgent matter, but with budgetary constraints it was decided not to fund the mandates out of the state's general fund.

How big of an issue is this? In the Great Lakes, two closely related species of mussels — the zebra and quagga — are stripping the lakes of their life-supporting algae, resulting in a remarkable ecological transformation and threatening the multibillion-dollar U.S. commercial and recreational Great Lakes fisheries. Closer to home, the Pacific Northwest Economic Region estimates that if Columbia River Basin waters were to be infested, economic losses would total \$800 million.

This situation could impact all Montanans, and we fully support the need for action. This being said, we don't agree with how it is being implemented. We fought hard against

the initial versions of this bill because it would have forced cooperative ratepayers to shoulder an unfair portion of the funding.

The additional funding for the AIS programs comes from two sources. One source is an increased price for fishing licenses. The other source is a new fee to hydroelectric power producers in Montana and electric utilities that receive more than 50 percent of their electricity supply from hydroelectric generation. This includes Vigilante Electric Cooperative and all of the western Montana utilities that purchase their power from Bonneville Power Administration.

When this bill initially came out of the Senate Natural Resources Committee, it would have cost our co-op ratepayers 12 times more per kilowatt hour than ratepayers of the state's largest investor-owned utility. Our opposition was only withdrawn after the impact to a co-op customer was lowered to be comparable with the investor-owned utility customer, and the commitment was made that the fee charged was to be a temporary, two-year bridge to a permanent source of funding from another, more-equitable source.

Funding for these programs over the next two years is estimated at \$14 million. The bill sponsor and other legislative leaders affirmed on the House and Senate floors, and in committee testimony, that after the bridge funding provided by hydropower-related users expires, an alternative-funding source should be found. We will remain diligent in monitoring this situation.

Youth Tour

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are to live in the United States, and that there are so many people willing to lay down their lives for it.

My favorite museum we visited was the Newseum on Pennsylvania Avenue. It is dedicated to news stories and reporters that impacted and connected the country. From music to 9/11, it is evident the impact the news has on our nation. I felt a connection to the past when walking through this museum. It was so fun to see everything that made headlines in all the past years and decades. Even the placement of the museum symbolizes the strength of freedom of speech by presiding on “First Amendment Avenue,” which leads to the front steps of the Capitol building. The Holocaust Museum was another impactful experience. You can read about this time in millions of books and watch all the documentaries, and we will never know what it was exactly like to go through a genocide such as the one in WWII. But the museum gave us a very in-depth idea of what it may have been like. It took us through the ordinary life of a Jew or gypsy, to when Hitler came into power, to invasion and camps, and finally to liberation. It is truly something I will never forget.

Another highlight was getting to speak with Senator Daines and Senator Tester. They were both very welcoming and invited all of us into their offices. It was a very informal visit with both of them, and we talked and asked questions about certain bills and issues that we are passionate about — specifically ones related to rural life. After we met with our senators, we got to take a tour of the Capitol building. It was so much fun! After seeing the old Senate, I thought of what it must have been like to sit there in the early years of our country and what they must have talked about. We were even fortunate enough to have the opportunity to sit in today’s senate gallery! Being able to see the inner workings of our country was amazing. I really enjoyed this day because I got a taste of what it might be like to be in an elected position of that kind.

Not only did we see tons of museums and almost every memorial and monument, we did a lot of activities that allowed the Montana delegates to bond. On Thursday night we were lucky enough to go to a Nationals vs. Braves baseball game at Nationals Stadium. It was a blast! We also explored Old Alexandria and took a river cruise, shopped at Crystal City Mall and went through the National Aquarium. We even got to eat at the famous Ben’s Chili Bowl, and it was delicious! There were also opportunities to meet and mingle with the 1,800 other delegates from across the country. We got to listen to motivational speakers, NRECA International project volunteers and last year’s Youth Leadership Council spokesperson. We also had a huge party on the last night, with music, games and lots of great food.

I could go on and on about this trip and never truly express how grateful I am to have been a part of this amazing opportunity to tour our nation’s capital. It was really a once-in-a-lifetime experience. I want to extend a thank-you



Arlington Memorial Amphitheater.

to Vigilante Electric Cooperative, MECA, and NRECA for giving me the chance to take part in this program and for teaching me about our country’s history and the co-op world. Also thank you to Beckie Frediani for directing the trip and making sure everyone was well taken care of and having fun. I will never forget all that I learned and saw, and all of the wonderful people I met along the way — or how this experience has changed my life.

Youth Leadership Council

During Youth Tour, participants have the chance to be selected to represent their state on the NRECA Youth Leadership Council (YLC). One student from each state is selected to go back to Washington, D.C., in July for a leadership workshop which will focus on the electric cooperative industry.

The purpose of the YLC conference is to build leadership and public speaking skills, and to enhance the delegates’ knowledge of the energy industry and the cooperative form of business. These students will also make presentations at their statewide and local cooperative annual meetings.

Members of the YLC play an important role during NRECA’s Annual Meeting the following spring. Not only are the YLC members recognized on stage, they have a hands-on experience with virtually every facet of the meeting, including the resolutions process and helping our members communicate with their legislators.

Youth Leadership Council members leave more poised and confident, with a better developed sense of leadership and a strong determination to improve their communities and make their country a better place. Further, they leave having built life-long friendships with other student leaders from across the country.

It is with great pride to announce that Vigilante’s own Harleigh Johnson was selected to represent the state of Montana and the Youth Leadership Council participant. Congratulations, Harleigh!

Cooperative 101

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best ways to secure an abundant and cheap supply of electricity for the entire state.”

Over the next two years, Cooke and his assistants — most of whom had worked on the Philadelphia Electric Company litigation — produced a bold and innovative statewide energy development plan based on abundant supplies of electricity generated from power plants built at the mouth of coal mines. The electricity would then be “pooled” and shipped over massive state-owned transmission lines to all power companies. Rural residents without electricity could serve themselves through public ownership districts or a new type of distributing entity: electric cooperatives.

The finished report was issued in February 1925. In sending the Giant Power Survey to the state Legislature, Pinchot noted: “As Pennsylvania and the nation deal with electric power, so shall we and our descendants be masters of our destiny, or we shall be the helpless servants of the most widespread, far-reaching and penetrating monopoly ever known. Either we must control electric power, or its masters and owners will control us.”

Being Respectful of Electricity

Electricity is more than a mere commodity; it is a necessary part of our lives. Just look around your home, many of the modern conveniences in our lives are possible through the use of electricity. However, with these conveniences comes some danger. Most people understand the dangers of contacting a high-voltage power line, however, we see (and hear) too many examples of people being careless with voltage below 600 volts.

Before we even start on the dangers of electricity, even low voltage, there are a few concepts that you should understand. To keep it simple, I am referencing “A Dummies Guide: Fundamentals of Electronics”

The three key concepts you need to know before working with electric circuits are current, voltage and power. Current is the organized flow of electric charges through a conductor, and voltage is the driving force that pushes electric charges to create current.

The third piece of the puzzle is called power (abbreviated P in equations). Simply put, power is the work done by an electric circuit.

Electric current, in and of itself, isn't all that useful. It becomes useful only when the energy carried by an electric current is converted into some other form of energy, such as heat, light, sound or radio waves. For example, in an incandescent light bulb, voltage pushes current through a filament, which converts the energy carried by the current into heat and light.

Power is measured in units called watts (abbreviated W). The definition of one watt is simple: One watt is the amount of work done by a circuit in which one ampere of current is driven by one volt.

The dangers of electricity (even low voltage) are that sometimes a person's body — an efficient conductor of electricity — mistakenly becomes part of the electric circuit.

This can cause an electrical shock. Shocks occur when a person's body completes the current path. When a person receives a shock, electricity flows between parts of the body or through the body to a ground or the earth.

An electric shock can result in anything from a slight tingling sensation to immediate cardiac arrest. The severity depends on the amount of current flowing through the body, the current's path through the body, the length of time the body remains in the circuit and the current's frequency.

(See table below)

General relationship between the amount of current received and the reaction when current flows from the hand to the foot for just 1 second.	
Current	Reaction
Below 1 milliamp	Generally not perceptible
1 milliamp	Faint tingle
5 milliamps	Slight shock felt: not painful but disturbing. Strong involuntary reactions can lead to other injuries.
6 – 25 milliamps (women)	Painful shock, loss of muscular control
9 – 30 milliamps (men)	The freezing current or “let-go range”. Individual cannot let go.
50 – 150 milliamps	Extreme pain, respiratory arrest severe muscular contractions. Death is possible.
1 – 4 amps	Rhythmic pumping action of the heart ceases. Muscular contraction and nerve damage occur; death likely.
10 amps	Cardiac arrest, severe burns; death probable.

According to the U.S. Consumer Product Safety Commission, there are nearly 400 electrocutions (deaths) in the United States each year. Approximately 15 percent of electrocutions are related to consumer products. eight percent are attributed to electrical accidents with power drills, saws, sanders, hedge trimmer and other electric power tools.

Also, the latest economic downturn inspired more homeowners to tackle do-it-yourself projects than ever before. Faced with declining home values and aging properties, more homeowners chose not to pay for the services of a licensed electrician.

Most people do not have the training or experience needed to safely perform home electrical work, increasing the risk of immediate injuries and electrocutions, and potentially introducing new dangers into the home. Working with electricity requires thorough planning and extreme care, and cutting corners can be a costly mistake. At Vigilante Electric, we don't want people to fear electricity — just be respectful of it.

Vigilante Safety Roundup Making Progress

Vigilante Safety Roundup provides our members a way to donate to organizations in our communities that help keep us safe. The program is simple: to participate, members voluntarily allow Vigilante Electric to round up their monthly bill to the next whole dollar. Members can also add a few dollars a month to their bill or make a one-time donation. Regardless of how donations are made, 100 percent will be presented to worthy organizations in our service territory.

We would like to thank the 45 members currently participating in the program. Through your contributions we have the foundation to grow this into a successful program. If you are interested in learning more or signing up for this program, visit our website at www.vec.coop or call us at 683-2327 or (800) 221-8271.