Butch Cassidy and Electricity

MESSAGE FROM GENERAL MANAGER AND CEO JERRY D. WILLIAMS

Many folks think Thomas Edison is the reason we have electricity today. Yet the history of electricity includes some people who were equally important as Edison to the development of electricity in our modern homes. It is even believed that had Butch Cassidy not been such a gentleman in June 1889, we might still be using oil lanterns.

First we need to back up a few years and explain the situation: In September 1882 Thomas Edison publicly presented the Pearl Street Station, which was located on Pearl Street in lower Manhattan, New York. The Pearl Street Station featured a central power generating (dynamo) facility. Prior to this time Edison had installed a small system on a steamship and a small lighting system in his laboratory. This was the first attempt to build a "jumbo" dynamo.

The Pearl Street station was powered by burning coal to heat water, which provided steam to turn the dynamo. The dynamo—later called a generator—produced DC (direct current) electricity, like a flashlight or automobile battery, not the AC (alternating current) you now have in your home.

Edison dug up the streets of lower Manhattan to install 100,000 feet of wiring to light up one square mile of New York City. He was able to light up 1,200 lightbulbs, but had not devised a way of tracking energy consumption. At the time he did not have a meter for billing—but that changed quickly. The first electric bill was sent to the Ansonia Brass and Copper Company on January 18, 1883, for $50.44. The lightbulbs cost $1 each, which was a pretty high price for 1883.

The success of the Pearl Street facility created a demand for electric energy over greater distances. The problem was, the Edison system was using DC, which was being produced at 110 volts, and the dynamo could not transmit electricity over long distances. About one mile was as far as a power plant could transmit the DC electricity. At such low voltage, a lot of energy was lost as heat in the long wires.

Edison wanted to use electric power for lighting and for running electric motors. At the time there were no good AC electric motors available, so DC power was the only option. The only difference between a DC and AC generator is that the DC generator contained a small device called a commutator, which reroutes the flow of electrons inside the DC generator so the energy output is a pulsing, direct flow.

Either AC or DC worked for lighting. For this reason, Edison was content to work with DC power only.

Along came Nikola Tesla, who was born in what is now Croatia. His father was determined that young Nikola would become a minister. His mother was an inventor of many time-saving devices.

Nikola was interested in experimenting with mechanical devices and, after graduating from Graz Polytechnic Institute in Austria, he went to New York and took a job with Edison.

Tesla was intrigued with AC electricity, convinced that it was far more effective and far less costly than DC.

Edison did not support Tesla's work on AC electricity and eventually the two parted company. In 1886 Tesla founded the Tesla Electric Company and returned to his AC experiments. Within two years he had applied for more than 30 patents on his system. Eventually Tesla applied for more than 700 patents, including one for the AC electric motor we use today.

George Westinghouse convinced Tesla to sign a contract that turned over his AC development and patents to the Westinghouse Corporation. The result became a well-known battle between Edison and Westinghouse over which was better, AC or DC electricity.

Meanwhile, Edison invested heavily in direct current power plants. The General Electric Company, headed by Edison and J.P. Morgan, had a plan to wire the country with DC power and build power plants on every street corner.

Edison was convinced that AC power was simply too dangerous and would not work. Edison went to incredible lengths to convince the public that alternating current was dangerous and should not be allowed. He held public demonstrations where he would demonstrate how dangerous AC power was by electrocuting animals. Edison called for laws to be passed to outlaw this dangerous thing called AC electricity.

With all this electric activity taking place in New York, another exciting activity was taking place in the Rocky Mountain region. In 1889 Telluride, Colorado, located at an elevation of 8,750 feet in southwest Colorado, was a thriving community of about 5,000 people mining gold and silver. The town was thriving primarily because L.L. Nunn had rebuilt one of the local mines into a very profitable venture. He used water pressure from a dam that he constructed on the San Miguel River to hose down the gravel beds holding gold deposits. He invested much of his profit and purchased the local San Miguel Valley Bank.

On June 24, 1889, Robert Leroy Parker with the help of two friends made his first major heist by robbing the San Miguel Valley Bank. He took $24,580 and later became the famous Butch Cassidy. (The Sundance Kid was not a part of this heist.) The local sheriff was conveniently out of town, but he turned up a few days later with a lot of cash to spend.

Although L.L. Nunn was a small man, he was not about to let a bank robber escape with his money, and he quickly rounded up a posse and led them in pursuit. Nunn was an excellent

horseman and possessed the fastest horse in town. Before long Nunn was far ahead of the posse and gaining on the bank robbers. He caught up with the robbers, who unceremoniously captured him and took his pearl-handled revolver and his horse. Apparently Butch Cassidy was so impressed with the gumption of the banker and his fast horse that he gave Nunn one of their tired horses instead of just shooting him.

Two years later, Nunn would finance construction of the world's first commercial-grade alternating current power plant near Telluride because Butch Cassidy was a gentleman and did not kill the persistent banker with the fast horse.

The next year Nunn took over the Gold King Mining Company, but was having a hard time making a profit because providing coal to the mine's coal-fired boilers was costing him $2,500 a month. Nunn had heard of generating electricity with water power, and figured it would cost less. Nunn convinced Tesla and George Westinghouse to come to Colorado. The deciding battle between Edison and the Tesla/Westinghouse group was fought in Telluride.

Nunn had Tesla's laboratory students (known as "pinheads") moved next door to himself in Telluride, and proceeded to successfully build and operate the world's first alternating current power plant that transmitted power successfully for a three-mile distance.

The hydroelectric generating plant was located southwest of Telluride on the San Miguel River near Ames. The electricity was generated at 3,000 volts and a transmission line was built from Western Union cross-arms with insulators carrying two bare copper wires.

During the summer of 1891 the plant went on line and provided continuous power to the Gold King Mine. The electricity powered a large device that pulverized the rock so the gold could be extracted.

The world heard about Nunn's success in transmitting AC power and shortly afterward, Tesla and Westinghouse were asked to demonstrate AC power at the 1893 World's Fair in Chicago. Nunn and his brother later built electric power plants in Colorado, Utah, Idaho, Montana and Mexico.

The Chicago World's Fair of 1893 had exhibits of both alternating current and direct current to appeal to the 25 million people attending the fair. Following the success of the Tesla/Westinghouse exhibit, the Westinghouse Company was awarded the contract to build the AC power plant at Niagara Falls. This was to be the first major hydroelectric power plant in the world. The Niagara Falls power plant powered the industrial revolution in America at a critical time.

America emerged the powerhouse of the world within 25 years, and it was all directly related to Tesla and Nunn (and Butch Cassidy, who let him live), and Telluride.

It can be said, "If it hadn't happened in Telluride, it might not have happened at all." Thomas Edison invented the lightbulb, but Nikola Tesla was the genius who lit up the world.

Is Your Plasma TV Celebrating Its 10th Birthday?

If so, maybe you should consider throwing a retirement party for it instead of a birthday party. Early plasma TVs could cost much more than $200 a year to operate. Current models have better pictures and typically use only $70 for electricity annually. Many models use less.

LCDs are the most efficient type of TV, especially those with LED instead of fluorescent backlights.

When shopping for a new TV, just like with appliances, always look for the Energy Star label. Models with that endorsement are 40 to 60 percent more energy efficient.

Lamar Electric Cooperative

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Operating in Lamar, Red River, Delta and Fannin counties

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Member Benefits

- Level billing
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Your "Local Pages"

This section of Texas Co-op Power is produced by LEC each month to provide you with information about current events, safety, special programs and other activities of the cooperative. If you have any comments or suggestions, please contact the local office.

CONTACT US

For information during office hours and outages after hours

CALL US

(903) 784-4303 local or
1-800-782-9010 toll-free

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lamarelectric.coop

Notice of 2011 Capital Credit Allocations

Lamar Electric Cooperative recently allocated 2011 capital credits to each member's account.

After the end of each fiscal year, the cooperative must determine what, if any, margins were made during the year and then allocate these margins to the members' accounts. Your cooperative's margin is the revenue received and receivable in excess of all its operating costs. Because members are owners of the cooperative, the margin is allocated to each member's capital credit account.

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These capital credits will be returned to members in the future as approved by the board and when doing so it will not weaken the financial condition of the cooperative. At this time, all margins from 1938 through 1969 have been returned to the members. Capital credits for 1969 were the last year retired, so it may be some time before you should expect to receive a check. In the meantime, the funds are used to construct new lines or make improvements to the electrical system. Even though the amount is credited to each member's capital credit account, the capital credits cannot be used to pay your electric bill.

These capital credits remain payable to a member even if the member is no longer receiving service from Lamar Electric Cooperative. It is very important that departing members keep the cooperative informed of their current mailing addresses so they may receive capital credit refunds when they are paid.

Capital credits for each member in 2011 were calculated by multiplying each member's total annual bill by 0.0705224844. For example:

If your total billing for 2011 from the cooperative (consisting of energy billing and power cost adjustment) was $2,000, you'd simply multiply that amount by 0.0705224844. The product is $141.05.

In calculating your total bill, include any security light charge but do not include any tax, service or miscellaneous charges.

If you have any questions concerning these calculations, please contact the cooperative office.

(This article is intended to serve as an official notice of the capital credit allocation for 2011.)

Another Successful Blood Drive—Thanks to You!

Paris resident Sir Charles Irvin Rudd II participates in the July 24 summer blood drive.

Darius Samuels, a Texas Department of Transportation employee, takes time out to give blood.

Country Corner Events

October 6

Clarksville Fall Bazaar. Around the Red River County Courthouse in Clarksville. 9 a.m.-4 p.m. For more information, call Jim Clark at (903) 427-2266 or Donna Robinson at (903) 427-0689.

October 6

Golden Oldies Reunion. First Methodist Church Family Life Center in Clarksville

October 12-13

Paris, Texas, Antique Fair. Red River Valley Fairgrounds in Paris. Friday 9 a.m.-6 p.m.; Saturday 9 a.m.-5 p.m. Adults, $3; children younger than 12, free. For more information, call Janet Green at (903) 249-4211.

October 12-14

Fall Tandem Bicycling Tour. Clarksville. For more information, call the Chamber of Commerce at (903) 427-2645.

October 13

St. Joseph's Community Foundation Gala. Love Civic Center in Paris. For more information, call (903) 784-2501.

October 13

Ducks Unlimited Banquet for Red River County. Badlands Bar 3 Ranch in English. For more information, call Heath Humphrey at (903) 249-6560.

October 19-20

Texas Square Dance Convention. Lamar County Fairgrounds in Paris. For more information, call (903) 784-2501.

October 20

North Lamar Education Foundation Tailgate Party Scholarship Fundraiser. Love Civic Center in Paris. 6 p.m. For more information, call (903) 737-2003, Ext. 5014.

October 20

Faithfest 2012 Christian Music Festival & Stew Cook-Off. Love Civic Center Pavilion in Paris. 10 a.m.-8 p.m. For information call Randy at (903) 249-8963.

October 20

Mad Max Run benefiting Lamar County Coalition. Register online at madmax2012.com. For more information, call (903) 737-0484.

October 20

Chisum Education Foundation CHIPS Triple 6 Golf Tournament. Pine Ridge Golf Course in Paris. 8 a.m. For information, call Terri Hutto at (903) 905-9157 or Tommy Chalair at (903) 737-2830.

October 20

REACH Rally (previously known as the Buddy Walk) sponsored by Red River Valley Down Syndrome Society. 2-4 p.m. For more information, call (903) 783-1922 or go to redriverdss.org.

October 20

19th Annual Chiggerfest & 5K Run/Walk. Downtown Cooper.

October 20

Lanes Chapel Harvest Festival.

October 27

12th Annual Festival of Pumpkins. Historic downtown Paris. 9 a.m.-6 p.m. For information, call (903) 784-9293.

October 31

Trick or Treat on the Square in Clarksville. Starting around 3:30 p.m.

If you have any events that you would like listed for Delta, Lamar or Red River counties, please contact Marci Thompson. Information must be submitted two months in advance. Email marci@lamarelectric.coop or call (903) 783-4911.

SECOND ANNUAL

Paris, Texas Antique Fair

Fun, Food and Fabulous Antiques!

October 12-13

Red River Valley Fairgrounds Paris

Friday, October 12
9 a.m.-6 p.m.

Saturday, October 13
9 a.m.-5 p.m.

Admission for antique fair is $3. Kids younger than 12 are free.

The Paris Downtown Association and Two Rivers Antiques will be hosting "A Party on the Plaza" 7-10 p.m. October 12. There will be late-night shopping, with participating stores providing free food and drink while you browse. Come as you are, or come dressed in your best petticoat, hat and boots and enjoy the live music on the Plaza.