



A Touchstone Energy® Cooperative 

1511 14,000 Rd, P.O. Box 368, Altamont, KS 67330
866-784-5500
www.twinvalleyelectric.coop

TWIN VALLEY ELECTRIC CO-OP

NEWS

Twin Valley Electric Co-op, Inc.

Ron Holsteen CEO

Board of Directors

Daniel Peterson
President

Bryan Coover
Vice President

Dareld Nelson
Treasurer

Bryan Hucke
Secretary

Rodney Baker
Trustee

Tom Ellison
Trustee

Larry Hubbell
Trustee

Diane McCartney
Trustee

Jason Zwahlen
Trustee

Office Hours

Monday-Friday
8 a.m. to 4:30 p.m.

Contact Us

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Co-op Connections

Have you misplaced your Co-op Connections Card? If so, contact us at 866-784-5500 and we will get you a replacement!



FROM THE MANAGER

Weather Patterns Prompt Formula Rate Plan



Ron Holsteen

I am sure most of our members have enjoyed the very mild winter weather we had this year. And last summer was similar in that we didn't have a lot of really hot days. But, unfortunately, this enjoyable weather does impact your cooperative in a negative way. In 2015, Twin Valley sold 34,800,000 kWh of electricity, which was our lowest energy sales since 2006. Our energy sales decreased by almost 4 percent last year. Our revenues from those energy sales amounted to \$5,699,855, which was down over 5 percent from the previous year. As a result, we had negative margins. Even though Twin Valley is a not-for-profit organization, we are required by our lenders to maintain a certain level of margins each year.

Over the past few years we have experienced changes in our expenses where now about 75 percent of our expenses have become fixed, meaning that those expenses remain relatively constant each month and do not vary with the amount of energy we sell. On the other hand, our rate schedules that generate the

revenue to pay our expenses are almost the exact opposite. We have a fixed component in the rates called the customer charge, which accounts for about 21 percent of our revenue, and the rest of the revenue stream is based on energy charges, which are billed according to the number of kWhs sold.

The result is that in years where we experience more extreme weather (hot and cold), we sell more energy resulting in larger margins, but in years such as the past couple of years where we have had very mild weather and relatively flat growth, those same rate schedules don't generate enough revenue to give us the margins we need. As a result Twin Valley has experienced a large fluctuation in our margins the past five years.

Under the traditional method of setting rates, the Board calculates its required revenue and then, typically, design rates to provide adequate revenues for several years. As a result the new rates usually collect more revenue than is needed in the first years after a rate increase and then become short in revenues on the later years. The Board requested assistance from the rate experts from one of our lenders to develop a Formula Rate

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Weather Patterns Prompt Formula Rate Plan

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Plan to address these issues.

The Formula Rate Plan allows for increases and/or decreases in revenues based on an annual basis to reflect our actual costs. The main benefit is that the Formula Rate Plan provides just the right amount of revenue as is needed and insulates the cooperative and its members from swings associated with energy sales from weather or other trends.

The Formula Rate Plan helps the Board determine any adjustments that need to be made at the end of each year. They will adjust the rider to ensure that the cooperative receives enough revenue to meet our financial ratio requirements but also ensure that we don't have margins that are too high.

The Board did hold an open rate hearing on this plan on March 28, and the Formula Rate Rider will become effective with the billing you will receive in May. The only change that you will see on the bill will be a new line that says "Formulary Rate Rider." That rider will amount to 1.4 cents per kWh for 2016.

If the weather goes back to more normal cycles and we experience increased energy sales due to a hot summer and very cold days next winter, the Board can adjust the rider down at the end of the year and refund any excess margins.

We are committed to ensuring that Twin Valley provides you with a safe, reliable and economic source of electric power.

Twin Valley Annual Meeting Highlights

The Twin Valley Electric Cooperative's annual meeting was held on April 7 in Altamont. The meal was catered by Pichler's Chicken Annie's of Pittsburg and was served by employees to 150 guests.

BRYAN HUCKE, District 1; **DAN PETERSON** and **DIANE MCCARTNEY**, District 2; and **DAVID HUBBELL**, District 3, were elected to the Board of Directors. Reports were presented from Ron Holsteen, CEO; Dan Peterson, President; and Dareld Nelson, Treasurer.

Door prizes are always a thrilling finale to the meeting. **CARLA MAIN** won this year's early bird drawing of \$200 cash.

If you were unable to attend, we hope you can attend next year. The annual meeting is when you, our members, have a chance to learn more about your cooperative, elect directors to serve you, enjoy a good meal and, perhaps, win a door prize.

Thank you to all who attended and made this year's annual meeting a success. We hope to see you next year.



1. Members listen as reports are give by Ron Holsteen, CEO; Dan Peterson, President; and Dareld Nelson, Treasurer.
2. Abie Zwahlen helps Jennifer Winters, Administrative Assistant, draw names for door prizes.
3. Door prizes available to win at Twin Valley's annual meeting.
4. Phil Wages, Director of Member Services, Government Affairs and Business Development, and Rita Petty KEPCo Executive Assistant and Manager, talk energy efficiency with members.

NOTES FROM OPERATIONS

The Idea that Continues to Light the World



William Worthy

As I approach 30 years in the electric cooperative world, I am often asked what my favorite part of the job is. I always answer the same: “Lighting up the dark.” We could live our lives easily, and, for some, a whole lot more quietly, if we did not have some of the “conveniences” we have today. But

nothing would transform our lives or cause more hindrance if electricity were no more than the light bulb.

It only took 2,480 years after Thales of Miletus charged two pieces of amber by rubbing them together that Thomas A. Edison finally patented the modern incandescent bulb. Patent number 223,898 (U.S.) was issued to Mr. Edison on January 27, 1880, for the first practical, modern prototype for the light bulb. Regardless of this patent, and the fame and notoriety that Mr. Edison received, he was neither the first nor the only person trying to invent an incandescent bulb.

In 1850, Joseph W. Swan began working on a light bulb using carbonized paper filaments. Swan’s first demonstration of the light bulb was at a lecture in Newcastle, England, on December 18, 1878, but he did not receive a patent until November 27, 1880, (patent No. 4933 (U.K.) after improvement to the original lamp. His house in Gateshead, England was the first in the world to be lit by a light bulb, and the world’s first electric-light illumination in a public building was during a lecture by Swan in 1880.

Other men were making advancements at the same time as Edison and Swan. In fact, Heinrich (later Henry) Goebel became involved in litigation against Edison for credit in producing the first incandescent light. In 1893, the public in the U.S. and Europe took notice of Henry Goebel. Magazines and newspapers reported that Goebel had developed the

incandescent light bulb, comparable to those invented in 1880 by Edison, 25 years earlier. But Goebel had never applied for a patent. Judges of four courts threw out the claims saying there was no clear and convincing proof for Goebel. However, in some countries, the legend is still believed that Henry Goebel was the inventor of the practical incandescent bulb.

One of the most amazing things about the incandescent light bulb is that the bulb itself is not a complicated item. The modern light bulb, which hasn’t changed much since its invention, is made of only a handful of parts.

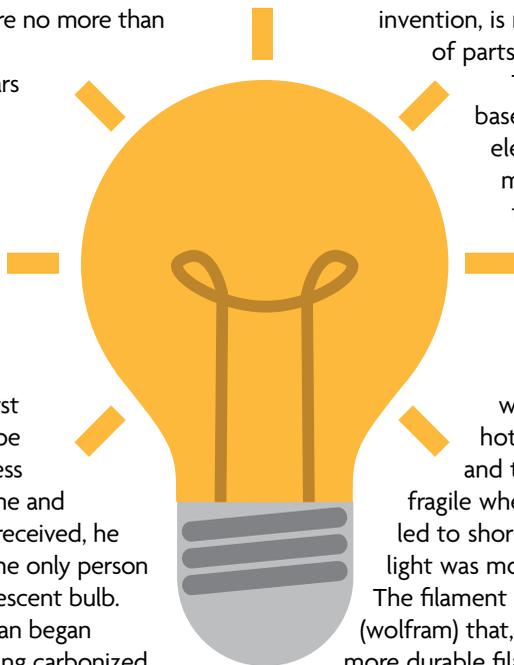
Two metal contacts at the base connect the bulb to the electrical circuit, and the metal contacts attach to two stiff wires which are attached to a filament.

The filament itself has been the only significant change. It used to be made of a highly resistive wire that would glow red hot, but the life was limited and the filament became fragile when heated. The fragility led to shorter life, especially if the light was moved around while lit.

The filament is now made of tungsten (wolfram) that, in its purest form, is a more durable filament. The filament sits in the middle of a glass bulb, which is filled with an inert gas such as argon.

As with anything, a latest, greatest and better alternative will come up and try to corner the market. There have been great advancements, especially in the areas of energy efficiency, with CFL and LED bulbs, but as of right now, nothing will make the incandescent light bulb go away. It is the cheapest to make and one of the brightest bulbs there is. It is, however, not the most efficient in the long haul, but I still don’t see it going anywhere. Plus, I can’t imagine someone having a new idea and one of those squiggly looking bulbs popping up over their head.

As always, I welcome any feedback or ideas for this or future articles. You can contact me at wworthy@twinvalleyelectric.coop.



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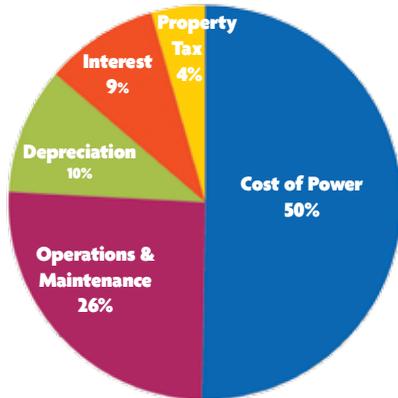
As always, I welcome any feedback or ideas for this or future articles. You can contact me at wworthy@twinvalleyelectric.coop.

2015

Twin Valley Electric Operating Statistics

The following financial information was provided to members at the cooperative's Annual Meeting. Please call the cooperative office at 620-784-5500 if you have any questions.

2015 Operating Expenses



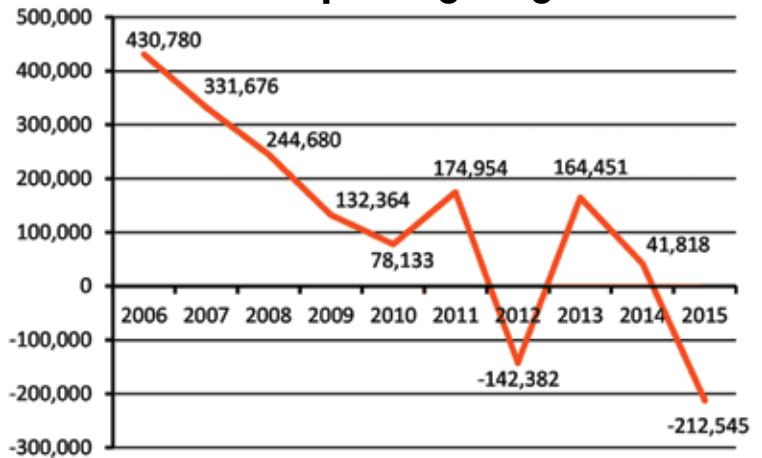
Statement of Operations For Years Ending December 31

Revenues	2013	2014	2015
Electric Revenue	\$5,692,032	\$6,014,086	\$5,699,855
Forfeited Discounts & Misc. Revenue	104,158	104,336	87,658
Total Revenue	\$5,796,190	\$6,118,422	\$5,787,513
Expenses			
Cost of Power	\$3,182,845	\$3,264,596	\$3,016,835
Operation & Maintenance Expenses	1,548,775	1,760,155	1,800,731
Depreciation	499,457	538,845	623,818
Current Interest	400,662	513,008	558,674
Total Expenses	\$5,631,739	\$6,076,604	\$6,000,058
Operating Margins	164,451	41,818	(212,545)
Non-Operating Margins	88,568	154,238	160,828
Net Margin	\$253,019	\$196,056	(\$51,717)

Yearly Property Tax Comparisons

County	2013	2014	2015
Labette	\$193,631	\$175,843	\$235,451
Montgomery	5,477	10,304	5,419
Neosho	26,670	32,321	25,188
Cherokee	932	1,028	946
Totals	\$226,710	\$219,496	\$267,004

Historical Operating Margins



Balance Sheet as of December 31, 2015

ASSETS AND OTHER DEBITS	2014	2015
Total Utility Plant in Service	\$25,960,125	\$27,641,896
Construction Work in Progress	190,928	11,381
Total Utility Plant	26,151,053	27,653,277
Accum. Provision for Depr. & Amort.	(5,625,315)	(5,840,154)
Net Utility Plant	20,525,738	21,813,123
Invest. in Assoc. Org. - Patronage Capital	1,696,176	1,784,420
Invest. in Assoc. Org. - Other - General Funds	28,131	29,210
Invest. in Assoc. Org. - Other - Non-general Funds	156,649	156,649
Investments in Economic Development Projects	699,142	769,134
Total Other Property & Investments	2,580,098	2,739,413
Cash - General Funds	266,971	299,551
Accounts Receivable - Net Electric	515,932	453,872
Accounts Receivable - Net Other	1,760,161	838,878
Materials & Supplies	3,658	7,231
Prepayments	60,929	57,748
Other Current & Accrued Assets	1,973	1,973
Total Current & Accrued Assets	2,609,624	1,659,253
Other Deferred Debits	814,915	473,683
TOTAL ASSETS & OTHER DEBITS	\$26,530,375	\$26,685,472
LIABILITIES & OTHER CREDITS	2014	2015
Memberships	\$9,560	\$9,495
Patronage Capital	6,318,788	6,437,646
Operating Margins - Current Year	41,818	(212,545)
Non-Operating Margins	154,238	160,828
Other Margins & Equities	448,245	490,150
Total Margins & Equities	6,972,649	6,885,574
Total Long-Term Debt	10,691,195	18,899,804
Notes Payable	7,938,472	0
Accounts Payable	305,275	257,092
Consumer Deposits	217,426	203,526
Other Current & Accrued Liabilities	289,756	335,805
Total Current & Accrued Liabilities	8,750,929	796,423
Other Deferred Credits	115,602	103,671
TOTAL LIABILITIES & OTHER CREDITS	\$26,530,375	\$26,685,472