



Sac Osage Electric Cooperative

News

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A Touchstone Energy® Cooperative 

August 2018

Four-Part Rate Design Discussion

Shown below is a chart of an actual members July average hourly kW demand values. The top row is the time-of-day hour and the values in the columns below each hour are the average hourly kW demands for the corresponding day of week. As described in last month's "Rural Missouri" article on "Four-Part Rate Design", this new rate is comprised of a Service Availability Charge of \$30, (\$33 for seasonal accounts), Largest On-Peak Demand value (as highlighted in gold below) between the hours of 6 AM – 9 AM and 4 PM – 7 PM at \$6.36/kW, Largest Off-Peak Demand value (as highlighted in blue below) for the remaining hours at \$1.50/kW, and total kWh's at \$0.062/kWh. The chart at the right shows his bill at the new rate and is **\$150.45**. His cost currently is **\$165.49**, or a saving of **\$15.04** with the new rate. Will all members see their bills go down? No; in fact, some members may experience an increase depending upon usage patterns. However, this new rate design gives members the opportunity to save money by simply moving electrical usage outside the peak hours.

Service Availability Charge	\$30.00
On-Peak Charge \$6.36 x 4.736	\$30.12
Off-Peak Charge \$1.50 x 6.528	\$9.79
Energy 1,299 kWh's @ \$0.062/kWh	\$80.54
Total	\$150.45

Date	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00
Sunday, 2018 July 01	1.024	1.024	0.640	0.384	0.896	1.280	2.048	2.304	2.432	1.920	0.640	0.640	1.152	1.664	2.816	2.048	2.304	2.304	1.536	3.200	3.200	1.664	1.280	0.896
Monday, 2018 July 02	0.512	0.384	0.256	0.384	0.768	0.384	0.896	1.536	2.304	2.176	2.176	2.176	1.792	2.816	3.328	2.816	2.304	2.688	3.840	2.048	1.664	1.536	0.896	0.640
Tuesday, 2018 July 03	0.768	0.384	0.768	0.512	0.768	0.256	0.384	1.920	3.200	3.712	2.816	2.560	2.688	3.200	2.432	3.712	4.224	2.304	4.096	3.968	2.432	2.176	1.408	1.408
Wednesday, 2018 July 04	0.896	0.896	0.896	0.384	0.768	0.768	1.536	1.280	2.816	2.560	2.304	3.456	2.432	2.304	2.816	3.456	2.816	3.584	3.456	1.792	1.664	1.792	1.152	2.176
Thursday, 2018 July 05	1.146	0.888	0.774	0.716	0.659	0.831	1.089	3.584	3.200	2.176	1.664	1.536	2.304	2.048	2.432	3.584	3.200	3.840	3.200	4.096	4.096	2.944	2.560	2.432
Friday, 2018 July 06	1.792	0.384	0.768	0.384	0.640	1.536	2.176	0.768	4.096	1.920	3.584	2.560	2.304	2.432	2.304	3.072	3.840	4.224	3.328	3.072	3.072	2.560	2.560	2.176
Saturday, 2018 July 07	1.920	1.024	0.768	1.408	3.584	4.608	3.584	2.944	0.896	0.768	1.024	1.408	2.816	3.328	3.072	2.176	2.816	2.560	1.792	1.152	1.408	2.048	1.536	1.664
Sunday, 2018 July 08	1.536	0.640	0.512	0.512	0.640	0.640	0.512	1.152	1.152	0.256	0.640	1.664	1.280	1.536	2.432	1.920	1.920	1.920	3.456	1.920	1.792	1.536	1.792	2.304
Monday, 2018 July 09	1.792	1.408	0.768	1.024	0.256	0.512	0.640	0.384	2.944	6.528	3.840	2.944	2.944	4.224	2.944	2.688	3.072	2.688	2.048	3.200	1.792	1.536	1.792	1.792
Tuesday, 2018 July 10	2.048	1.024	1.024	0.256	1.024	1.536	2.176	2.304	2.560	1.920	1.280	2.816	2.048	2.432	2.304	2.816	2.688	4.096	3.072	2.048	1.920	1.920	1.920	1.536
Wednesday, 2018 July 11	0.896	1.024	0.640	0.384	0.384	1.664	2.048	2.688	1.792	2.048	1.920	2.176	2.944	2.560	2.432	2.688	2.560	3.072	2.944	2.560	1.920	2.688	1.536	1.024
Thursday, 2018 July 12	1.152	0.768	1.024	0.768	1.280	1.536	3.328	3.200	2.944	1.280	2.560	4.608	3.968	4.608	3.200	3.328	3.840	3.072	3.968	2.176	2.048	1.792	1.792	1.024
Friday, 2018 July 13	1.280	0.896	0.512	0.896	0.768	1.280	1.920	2.176	1.792	1.024	2.176	2.048	2.304	2.048	2.560	2.944	2.688	3.840	4.096	2.560	1.664	1.792	2.048	1.408
Saturday, 2018 July 14	1.152	0.896	0.896	0.768	0.896	1.024	1.664	3.456	4.096	6.016	2.944	2.176	1.280	1.152	1.920	2.176	1.792	2.688	4.096	3.200	3.584	3.840	1.536	1.024
Sunday, 2018 July 15	1.152	0.768	0.768	0.512	0.384	1.152	1.152	1.920	1.664	2.688	3.840	2.432	2.816	3.456	2.944	2.944	2.944	2.944	2.816	2.048	1.920	1.792	1.280	0.896
Monday, 2018 July 16	0.896	1.152	0.768	0.256	0.768	1.152	0.768	0.384	1.024	2.688	1.536	2.304	2.048	2.176	2.560	2.432	2.944	3.712	4.224	4.864	2.048	1.792	1.536	0.768
Tuesday, 2018 July 17	0.768	0.896	0.384	0.640	1.024	1.536	3.968	3.072	2.048	1.664	1.408	1.536	1.280	1.664	1.536	2.048	2.304	2.944	2.176	1.536	1.536	1.664	1.280	1.024
Wednesday, 2018 July 18	1.024	1.024	0.768	0.512	0.768	0.640	0.768	0.640	0.640	1.408	1.664	2.176	2.816	4.736	4.608	2.304	3.072	3.200	2.048	1.792	1.152	2.048	1.408	1.152
Thursday, 2018 July 19	0.768	0.640	0.640	0.896	0.640	0.896	0.256	1.024	2.688	2.688	3.712	2.688	2.560	2.432	2.688	2.432	2.816	2.816	1.536	0.896	0.640	1.280	0.640	0.384
Friday, 2018 July 20	0.256	0.384	0.384	1.024	2.944	2.816	2.304	2.176	1.408	1.152	1.536	1.792	1.664	2.176	2.560	1.664	1.664	3.584	2.944	1.920	1.536	2.048	2.304	2.944
Saturday, 2018 July 21	1.792	1.024	0.512	0.640	0.640	1.152	0.512	0.896	1.024	0.896	1.280	0.896	1.664	1.920	1.920	1.664	3.200	3.328	2.944	2.304	1.408	0.896	1.024	0.640
Sunday, 2018 July 22	0.640	0.384	0.384	0.640	0.256	0.512	1.024	1.664	3.072	5.120	1.792	2.304	2.816	2.432	1.792	1.792	1.792	1.920	2.304	2.176	3.456	1.408	1.408	1.280
Monday, 2018 July 23	0.640	0.384	0.256	0.384	0.384	0.640	0.384	0.512	0.256	1.664	2.816	1.920	2.048	1.280	2.432	3.584	2.688	2.048	1.792	1.408	1.152	1.792	1.152	0.640
Tuesday, 2018 July 24	0.384	0.640	0.384	0.256	0.768	0.256	1.024	1.280	1.536	2.688	1.664	1.408	1.664	1.792	2.048	3.456	2.688	3.584	2.560	3.584	2.048	1.152	0.640	0.384
Wednesday, 2018 July 25	0.256	0.640	0.384	0.384	0.640	0.512	0.640	0.384	0.896	0.640	0.896	1.408	1.536	1.792	3.456	2.304	2.560	3.200	2.048	1.664	1.408	1.152	0.768	0.640
Thursday, 2018 July 26	0.640	0.384	0.384	0.768	0.384	0.640	3.072	1.664	3.072	3.328	2.560	0.768	0.768	0.768	0.768	1.664	2.304	1.024	2.560	1.280	0.256	1.536	1.792	1.536
Friday, 2018 July 27	1.024	0.384	0.384	0.384	0.256	0.768	0.768	1.152	0.640	0.256	1.408	2.432	2.432	1.920	1.408	1.792	3.456	2.304	2.176	1.280	2.304	2.432	2.176	1.408
Saturday, 2018 July 28	0.640	0.384	0.384	0.256	0.384	0.768	0.384	0.640	0.384	1.152	0.256	0.384	0.640	0.640	0.640	1.920	2.176	1.408	2.176	1.664	2.688	0.640	1.024	1.152
Sunday, 2018 July 29	0.640	0.256	0.384	0.512	0.256	0.512	0.768	0.640	2.688	3.968	4.352	4.096	1.024	1.152	1.152	2.688	2.560	1.792	1.664	1.152	0.768	1.408	0.768	0.640
Monday, 2018 July 30	0.256	0.640	0.384	0.384	0.384	0.384	1.152	0.256	0.512	0.640	1.408	1.408	0.896	1.152	1.408	1.664	2.304	2.688	2.816	2.176	1.920	1.408	0.640	0.512
Tuesday, 2018 July 31	0.512	0.256	0.384	0.512	0.256	0.384	0.768	0.512	0.256	0.640	0.384	0.768	1.024	1.024	1.280	1.664	2.176	2.304	4.736	2.816	1.792	1.280	0.384	0.384

Safety Demo

One of a parent's highest priorities is to protect their children.

One way to do this is by teaching them about safety around electricity in your own home. Start teaching kids at an early age about electrical safety.

- Teach children that water and electricity do not mix.

- Children should never play with or use electronics around water. Make sure GFCIs are installed anywhere electricity and water could meet to help prevent shocks.

- GFCIs detect and prevent dangerous situations where an electric shock could occur.

- Inform kids that the only objects that go into outlets are electric plugs. Sticking other items in an electric socket can lead to an electric shock or death. As a parent, you can help prevent this by having tamper resistant outlets (TROs) installed. A TRO has a shutter system that only accepts electric plugs.



Another option is to use simple outlet plugs, however these can be easily removed.

- Tell children that electric cords should be left alone. A curious child may put a cord into his or her mouth and could potentially suffer an electric burn.

- Additionally, kids should be taught to never pull a plug out of the socket by the cord. This could damage the cord. It is a good idea to leave cords out of sight so children are not tempted to play with them.

- Emphasize that electronics and their accessories have to be handled with care. Also advise kids to never stick fingers or objects into toasters or any other electrical appliance.

- Encourage younger children to ask for help when they want to use an electronic device.

- Include utility emergency numbers with other posted emergency phone numbers, and instruct children how to call for help in an emergency.



Youth Tour '18

Hard work and creativity has paid off for two area high school juniors. Taylor Robison, a student attending El Dorado Springs R-II High School and Angela Pitts a student attending Stockton High School, represented Sac Osage Electric Cooperative on the Rural Electric Cooperative Youth Tour in Washington, D.C. One hundred four high school juniors participated in the 55th annual Missouri Electric Youth Tour to Washington, D.C. June 8-14. The six-day tour provided an action-filled week for high school students, offering them opportunities to learn first-hand what it is like to be involved in politics, community service and today's pressing issues.

Highlights included a special session on Capitol Hill with Senator's Roy Blunt and Claire McCaskill to discuss the process of government and issues of the day, and increasing

their knowledge of electric cooperatives and American history. The young people also visited with representatives from their congressional districts, toured famous monuments, the Smithsonian Institution's museums and the Arlington National Cemetery. The group also took a sightseeing and dance cruise on the Potomac River one evening with delegates from other states. Other events of the week included participation in the Electric Youth Day, during which a special program coordinated by the National Rural Electric Cooperative Association brought together over 1,800 Youth Tour delegates from across the United States. The delegates enjoyed featured speeches by government leaders and motivational speakers, such

as Mike Schlappi, an inspiring four-time Paralympic medalist and two-time world wheelchair basketball champion. Since 1964, the nation's electric cooperatives have sponsored more than 40,000 high school juniors and seniors for visits to their U.S. congressional delegations, energy and grass roots government education sessions, and

sightseeing in Washington. For more information about the AMEC Youth Tour program, please go to www.amec.org/youth.html.



Above: THE TRIP OF A LIFETIME.....Delegates on the 2018 Rural Electric Youth Tour to Washington, D.C. stopped for a visit at the White House on their way out of town. This year's Missouri delegation was 106-strong, and nationwide was the largest Youth Tour group in history with more than 1,800 delegates representing cooperatives from across country.

Left: Taylor Robison and Angela Pitts.



The office of Sac Osage Electric Cooperative will be closed on Monday, September 3 in observance of Labor Day



Energy Efficiency

Tip of the Month

As summer draws to a close, now is the time to schedule a tune-up to get your furnace ready for the heating season. Start by changing the filter. It's likely to be dirty after working all summer. Take advantage of nice days by opening windows and giving the system a break.

Calendar Photo Contest - We Need Photos

We would like to invite our members to participate in Sac Osage Electric Cooperative's photo contest. Thirteen photos will be selected for display in our 2019 Calendar.

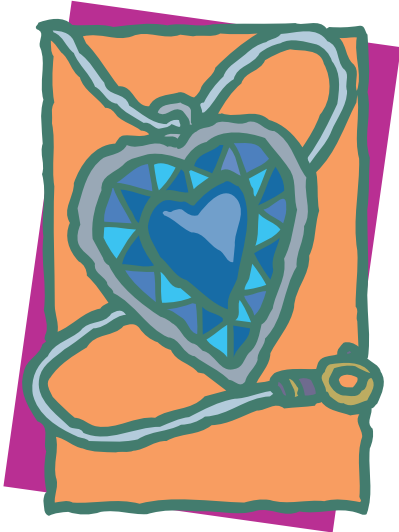
We would like photos for all seasons. Start looking through those memory cards and have your cameras ready so you can capture just the right picture for our contest. Photos can be any appropriate subject or scene, but must be taken in the general Sac Osage Electric area. Judges will select a photo for each month and one for the cover. Each winner selected will receive a \$25.00 credit on their bill. Deadline for entries is September 31, 2018.



THE OLD FARMER'S ALMANAC

FOUNDED IN 1792

Peaceful Sapphires

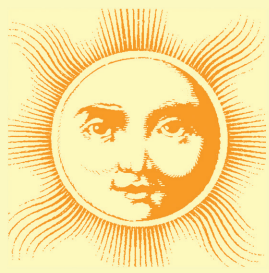


September's birthstone, the sapphire, was dedicated to the mythical god, Apollo, perhaps for its heavenly blue color or possibly for its extreme hardness. Among gems, only the diamond is harder. St. Jerome insisted that anyone wearing a sapphire would be able to make peace with his enemies so, theoretically, Apollo wouldn't have needed the gem to wear into battle. For mere mortals, the sapphire was supposed to help us gain favor with the gods. Pope Innocent III had these stones set in all his bishops' rings.

Autumnal Equinox



This year's autumnal equinox occurs at 4:51 a.m. Central Daylight Time on Sept. 22. It is said that the wind and weather at the time of the equinox foretells the wind and weather during the following three months. If the autumn is warm, it is reputed that the winter will be long. If there's much autumn fog, there will be much winter snow. If the autumn is clear, the winter will be windy. If the storms of September clear off warm, however, you can expect the winter storms to be relatively warm as well.



WEATHER PROVERBS

Fair on Sept. 1, fair for the month.

If St. Michael (Sept. 29) brings many acorns, Christmas will cover the fields with snow.

Dew is produced in serene weather and in calm places.

A rainbow in the morn, put your hook in the corn; A rainbow in the eve, put your hook in the sheave.

When a cat sneezes, it is a sign of rain.

When pigs carry straw to their sties, bad weather may come.

When the bubbles of coffee collect in the center of the cup, expect fair weather.

Recipe for



Miss Annie's Apple Pie

4 cups apples, sliced
3/4 cup sugar
2 tablespoons flour
1/2 teaspoon nutmeg
1/2 cup orange juice
1/3 cup butter, melted
1 9-inch prepared crust

In a large bowl, mix all ingredients. Place pastry crust in a pie pan, and pour apple filling inside. Top with either lattice or full crust. If full crust is used, slice holes in top crust for venting.

Bake in a 450-degree oven for 15 minutes then reduce heat to 325 degrees and continue to cook for 45 minutes. When done, take out of oven and lightly sprinkle with sugar for that down home taste.

**For recipes, gardening tips and
weather forecasts, visit:
www.almanac.com**



Bringing the Outside Indoors

Will installing skylights increase your energy bills?

Dear Pat: Our kitchen and dining rooms are in major need of some natural light. We've been thinking about installing a skylight, but we're wondering if that will increase our energy bills. Can you provide any advice? — Monica

Dear Monica: Skylights can bring a little of the outside world indoors and make your living space more livable — when they are installed correctly. But they can also impact your energy bills and comfort level, so you're taking the right steps by doing some research ahead of time. One downside of skylights is they can add heat to your home during the summer and heat loss during the winter. The amount of impact depends upon a number of elements, including the skylight's energy rating, size, placement and quality of installation.

You can check its energy efficiency by looking at the skylight's NFRC Energy Performance Label, which shows four important pieces of the energy efficiency puzzle:

- Insulation value (U-Factor)
- Ability to transmit solar heat (Solar Heat Gain Coefficient)
- Ability to allow light to transfer (Visible Transmittance)
- Air leakage

Finding a unit with the best ratings in all these categories will help maximize your skylight's energy efficiency and performance. It's probably worth spending a little more on a better product, because professional installation takes up the lion's share of the cost of installing a skylight into an existing roof. That said, even the best skylight has a much lower insulation value than a properly insulated attic.

Just as important as finding the right skylight is determining the proper size, number and placement. You want adequate light, but too much can make a room less functional on a bright day. Skylights on a steep, north-facing roof will reduce the unwanted solar heat gain in the summer, but this also reduces the desirable solar heat gain during the winter.

Ultraviolet (UV) light can cause furniture finishes to fade. This can be minimized by making sure your sky-

light has high-quality glazing or by applying a special film to the glass.

Proper installation by a knowledgeable professional is essential to avoid all-too-common problems. One serious issue is water leaks — a problem often caused by improper exterior installation on the roof. Flashing must be installed correctly to be effective for the pitch of the roof and the type of roofing materials.

Another potential problem area is the skylight shaft that transmits the light into the living space below. Inadequate or poorly installed insulation can be a source of heat loss and may cause ice dams that allow water to find its way into the home. Air leaks in the shaft can also cause these types of problems. Moisture problems can cause condensation build-up inside the home, resulting in mold, mildew and rot.

An alternative option to the regular skylight is the tubular skylight. A small skylight on the roof is connected to a flexible tube that runs through the attic to a room below. This system provides a diffused natural light. The tube is much smaller than a skylight shaft and is easier and less expensive to install. The tube has less heat loss and is less leak-prone. Tubular skylights can fit into spaces that a traditional skylight can't and can be a better choice in rooms with high moisture, such as bathrooms, saunas or indoor pools.

As you consider options, it may be worthwhile to think back to your goals. Perhaps you can gain more light in these rooms by trying these steps instead of installing a skylight:

- Paint the room a lighter color
- Hang mirrors
- Replace heavy curtains with lighter ones
- Trim any trees that shade the windows

If you've done your research and decide to move forward with new skylights, I hope you will consider buying the best product your budget will accommodate — and find a contractor with experience and solid references to provide the installation.

This column was co-written by Pat Keegan and Brad Thiessen of Collaborative Efficiency. For more information on skylights, please visit: www.collaborativeefficiency.com/energytips.



Photo courtesy Collaborative Efficiency

Tube skylights collect light through an acrylic dome and transmit it through a highly reflective pipe into the area below.