

A KILOWATT-HOUR

What Components are Included?

A kilowatt-hour (kWh) is a common term in the electric utility business. But, have you ever thought about what determinants are included in a kWh on a monthly power bill that relates to the costs included.

When receiving a monthly electric bill, some tend to think that the cost is all electricity; however, there are other components that go into the cost of a kWh of electricity for delivery to homes or businesses.

First, it is important to note the difference in fixed and variable costs, as fixed costs are expenses that are required no matter what the electric source. These fixed costs consist of three distinct components: the electricity generation itself, transmission lines, and distribution services to get it where it needs to go.

Among the components that are fixed costs, include:

- Thousands of miles of distribution lines connecting homes to a substation, which can cost on average 4.5 cents* per kWh a month.
- The substations that convert high voltage power to lower distribution voltage at a cost of about .5 cents* per kWh per month.
- Thousands of miles of high voltage transmission lines connecting the substations to generation resources may cost another .5 cents* per kWh per month.
- The power plants to generate electricity may cost, on average, about 2 cents* per kWh per month.

When added, the cost is about 7.5 cents* per kWh per month. Of that total, 5 cents* may equal the

actual fixed cost of electricity, with the remaining representing the kWh cost for distribution, transmission, metering and local transformer costs related to delivering power to a home or business.

So, the fuel and other variable costs (such as wind, water, sun, natural gas and coal) that are used to generate electricity, may cost an additional 3 cents* per kWh per month. Some may think that the wind, sun and water resources are free, but there is labor, maintenance, insurance and tax costs associated with these fuels. These costs may vary slightly from cooperative to cooperative, however, when added together it reveals how monthly electric bills can reach 9 to 14 cents* per kWh.

Also among variable costs is distributed generation (DG), which refers to the generation of electricity for use on-site, rather than energy being transmitted over the electric grid from larger facilities. Usually, a small power production facility, on a much smaller scale, such as renewable resources like wind or solar, is utilized.

While a DG system may reduce the need for utility-provided electricity, it does not reduce the need for transmission and distribution services, as well as fuel capacity costs that may or may not be involved, depending on availability of DG resources. Almost all DG system owners will still depend on their local grid and utility provider, which is often a misconception for some.

** The above costs are estimations based on averages. Actual costs may vary.*

19 Peak Days Called During 2023

With the 2023 peak day season just ending in early September, the final highest coincident peak ended up surpassing last year's total. WFEC calls peak days between June 20 & September 9, when conditions are favorable for load management, which applies to hours 3 to 7 p.m. (CT) and 2 p.m. to 6 p.m. (MT).

For the summer of 2023, 19 peak days were called by WFEC, up from last year's 15 peak days.

The three highest days for 2023 are:

- ▶ August 21 at 5 p. m. - 2,190 MW peak
- ▶ August 20 at 6 p. m. - 2,214 MW peak
- ▶ August 4 at 5 p. m. - 2,201 MW peak

The three coincident peak averages for 2023, of 2,202 MW is 60 MW higher than the 2,142 MW average for 2022. The highest generation planning peak for the 2023 summer is 2,220 MW, which is slightly higher than the 2,188 MW planning peak for the summer of 2022.

There is approximately 1,760 MW of load in Oklahoma and 460 MW of load in New Mexico. Based on peak day load curtailment analysis, approximately 60 MW of reduction occurs on weekdays, with less on weekends.

From mid-July through the end of August, more Southwest Power Pool (SPP) Resource Advisories and Conservative Operations Advisories were called, exceeding past summer alerts.

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Sykora Retires as CEO at Red River Valley REA

Brent Sykora (at right) recently retired from Red River Valley Rural Electric Association (RRVREA), after 31 years with the cooperative. He began his career as a line worker in 1992, working his way up to become the cooperative's fifth CEO/general manager in 2019. During his 31-year full-time career, Sykora served in almost every capacity offered by each department.



Sykora began his association with Red River Valley REA as an 18-year-old in 1989, working with line construction crews, metering, service work and after-hour outage calls, while attending college and beyond, until he was hired as a full-time line worker in 1992. In 2000, he joined the supervisory and management staff and was named assistant manager in 2017.



Mike Mathis, (at left) vice president of office and member services, has been named to succeed Sykora as CEO/general manager.

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Board Members, Cooperative Managers & Staff Recently Take Tour of WFEC's Hugo Plant



Some 50 to 60 WFEC Board members, distribution cooperative managers and staff took part in a tour of the Hugo Plant on Tuesday, Sept. 19.

They were divided into smaller groups for the tour, which took place prior to the monthly Board & Committee meetings that were hosted in that area. A Strategic Retreat followed the monthly meetings.



FUNDRAISER SUCCESSFUL

Over \$50,600 Raised in Shoot for the Nations



Close to 200 shooters took part in the recent 2023 Shoot for the Nations, an annual sporting clays fundraising event hosted by the Oklahoma Association of Electric Cooperatives & the Oklahoma Energy Trails Foundation. This year's event took place at Silverleaf Shotgun Sports in Guthrie, on Friday, Sept. 8.

From this event, a total of \$50,684 was raised to support international electrification projects. Several sponsors also took part in supporting this annual shooting clays event. There were also over 100 cooperative volunteers helping with various parts of this event. WFEC has donated employee time and food to this event since it's inception, with staff on hand to prepare and serve meals to the participants.

Some 192 shooters from 25 electric cooperatives from across the state competed in this event, which included 48 teams, all vying for a win in three distinct flights, a flurry shoot, and raffle ticket drawings. Individual shooters were also recognized for their scores.

Next year's Shoot for the Nations is being planned for Sept. 27, 2024.

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Photos courtesy of cooperative communicators.

COOPERATIVE WAY

Annual Meetings hosted in September

A few more member cooperatives have been added to the previous list of those who have been busy with their annual meetings during the summer months, with more to continue in the next few weeks. Thirteen of WFEC's cooperatives host their meetings between July and October, with the other eight being hosted in March, April and May.

The format for Oklahoma Electric Cooperative's annual meeting was unique this year, with a drive-thru event that proved to be record-breaking. Construction inside the University of Oklahoma's Lloyd Noble Center (LNC), where OEC typically hosts their meeting, provided OEC with an opportunity to try a different concept for their members.

The drive-thru event took place in the LNC parking lot, from 12 noon to 7 p.m. on Friday, Sept. 15. Convenience was the key, as OEC staff registered attendees from the comfort of their vehicle. Members who attended received a \$30 bill credit (a \$10 increase from 2022), as well as a bag filled with free OEC and OEC Fiber items.

A total of 3,346 members registered, which exceeded their quorum of 2,441. This record-breaking occurrence surpassed the previous record by some 500 registered members. The cooperative's business meeting was conducted via OEC's YouTube channel following the drive-thru event. The two \$1,000 grand prizes were drawn at the end of the live stream.

"Our first-ever drive-thru Annual Meeting was an overwhelming success, and we were very pleased to serve more members than we ever have in our 86-year history. The entire OEC and OEC Fiber team contributed in a huge way, ensuring all members who attended had a great experience," commented Brianna Wall, manager of Marketing & Member Relations at OEC.

Around 500 Cimarron Electric Cooperative members attended the cooperative's Annual Meeting on-site this year. A drive-thru portion was also hosted.



Cimarron Electric Cooperative held its 87th annual meeting on Thursday, Sept. 14, at the Kingfisher County Fairgrounds. Their meeting was a hybrid event, combining a drive-thru portion and an on-site event as well. Registered members numbered 644 and on-site attendance was around 500. A barbecue meal was provided by Cimarron and served by the Dover FFA chapter.

Registration gift packets, including a flashlight, gloves and cap, among other give-away items, were given to members attending. All members who registered will receive a \$20 bill credit applied to their electric account. Prize drawings followed the business meeting, with a grand prize of \$1,000.