

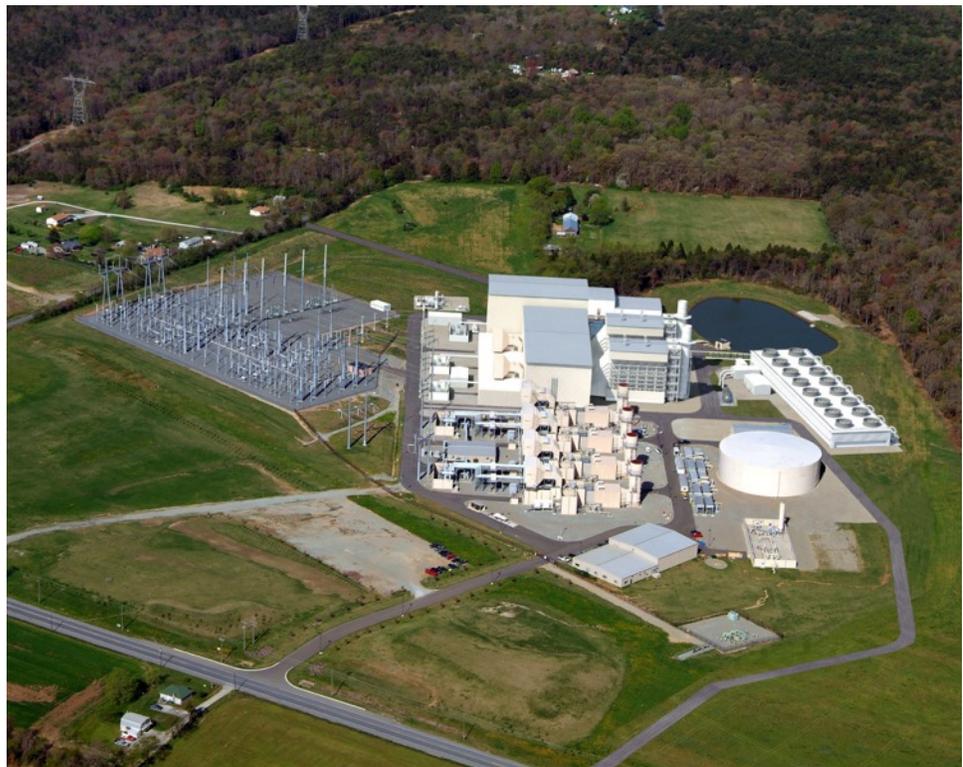


How SEC Delivers Power to Members

You flip the switch and the lamp fills the room with light. You turn the dial and the oven heats up. You rotate a knob and the air conditioner begins blowing cool air.

Electricity runs so many of the things we use each day. Ever think about where Southside Electric Cooperative (SEC) gets that electricity?

George Felts, the Cooperative's vice president of engineering & operations services, says SEC is a distribution cooperative, meaning it delivers power that is generated by other entities. Crewe-based SEC doesn't directly own or operate any power-producing facilities.

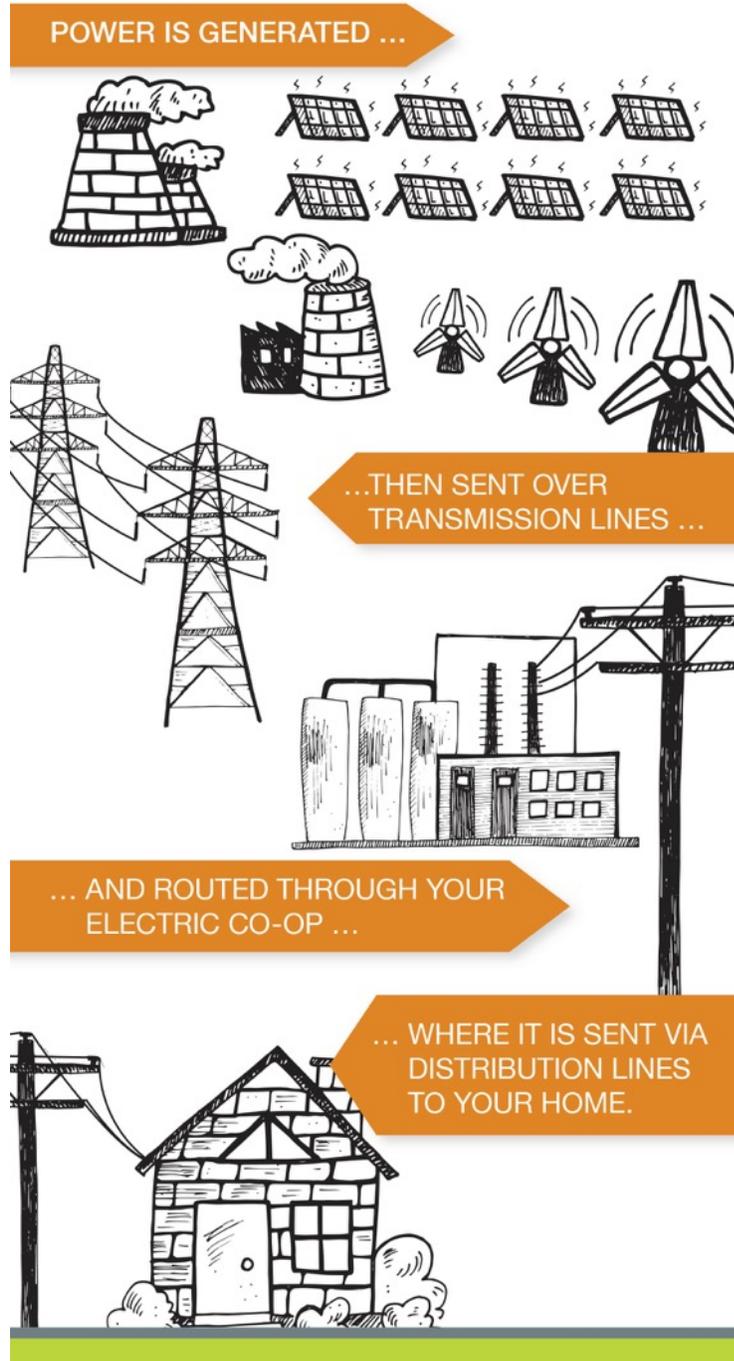


Artist's rendering of Old Dominion Electric Cooperative's Wildcat Point, a natural gas-fired power station currently under construction.

Instead, Felts notes, SEC gets almost all of its energy from Old Dominion Electric Cooperative (ODEC). Headquartered outside of Richmond, ODEC sells bulk electricity to 11 cooperatives in Virginia, Maryland and Delaware, that then transmit that power to some 560,000 homes and businesses, representing 1.4 million people.

SEC has more than 55,000 of those active services. On an annual basis, the Cooperative purchases 977 million kilowatt-hours of electricity and resells that to members. Since Old Dominion and Southside Electric are both not-for-profit cooperatives, that energy is sold to members at cost. Felts says both ODEC and SEC recover only what is necessary to cover operating expenses. That is the cooperative business model.

Where does my power come from?



ODEC, formed and owned by the distribution cooperatives it serves and incorporated in 1948, both produces and purchases the electricity it furnishes to the distribution cooperatives like SEC. That energy comes from a variety of fuels, including coal, natural gas, nuclear, wind and solar throughout Virginia, Maryland and Pennsylvania.

So, how does all of this bulk electricity get to the 11 distribution cooperatives and then to individual homes and businesses? Felts says all of the power generators are linked by large, high-voltage transmission lines, which connect to form a grid. He adds that the grid shuttles large amounts of electricity from the generating source to each cooperative's substations. SEC has 40 substations across its 18-county service territory.

Felts compares the electric grid to America's interstate road system. Substations are like the exit ramps. They feed power to primary and secondary lines, similar to primary and secondary roads, which then take the electricity to homes and businesses on the system.

Regional transmission operators ensure there is always enough generation capacity and transmission capacity to meet the needs of those using electricity, Felts says.

Interestingly, Felts adds, electricity is being generated around-the-clock to meet the nation's demands. "This generator must always be operational or we have no power. There are no batteries or storage devices that exist in large-scale form today."

Felts notes that several factors drive the cost of electricity, including demand and weather. He says extreme hot or cold weather puts demands on the generation system and on the cost of the fuels that are needed to produce power. He cites the polar vortex in 2014 as an example of a time of extremely high demand on the system that caused the generation costs to rapidly increase. Everyone who used electricity from the grid then paid those costs.

Felts adds that changes in the world's fuel markets can also bring about cost increases. If the demand for coal or natural gas goes up, so, too, does the cost to produce electricity from those fuels.

Looking to the future, Felts says America is moving away from coal, which over the years has been the leading fuel for generating electricity. Natural gas exploration and production in the United States has seen significant growth in the last few years, making it a leading generation fuel for the near future.

ODEC is now in the process of building Wildcat Point, a natural gas electricity-producing plant in Maryland. At its peak output, it would generate 1,000 megawatts of electricity, enough to power 390,000 homes, according to ODEC. The plant is expected to be in full operation in 2017.

Felts adds that interest in using wind and solar to produce electricity also continues to grow in the nation.

"In the end, these various generation sources and the cost for these sources will be driven by demand for electricity, demand for fuels throughout the world and extreme weather," Felts says.

For more information on ODEC, SEC's power supplier, visit www.odec.com.

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