

SMART LIGHTING



By Reed Karaim

Smart lighting may not get many headlines amid an explosion of new utility technologies, but it's having a major impact on electric cooperatives and their members.

Smart street and area LED fixtures use sensors, connectivity and programmable features to offer new levels of control and reduced maintenance, potentially providing co-op savings while boosting public safety.

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Jackson Energy Cooperative, based in McKee, Kentucky, is using smart lighting from Evluma, one of several vendors offering smart lighting products. Ryan Henderson, Jackson Energy vice president of engineering and operations, says there are multiple benefits, including an app that allows maintenance crews to control lights through Bluetooth.

“To be able to pull up in a member’s driveway and connect to their light is a big advantage,” Henderson says, adding that the app “allows us to connect/disconnect the light, adjust the brightness and create a dimming schedule for the light if requested by our members.”

Another advantage, he says, is smart fixtures that can be programmed for dusk-to-dawn operation based on geographic location, saving money that otherwise would go to replacing failed photosensors.

Networking is increasingly being used to monitor and control street lighting from a co-op operations center, allowing system operators to quickly see any outages or performance issues. Different networking options exist, including radio-mesh systems.

Ubicquia, another vendor, uses existing LTE cellular networks. The advantage is “a utility doesn’t have to build out its own network,” says Charlie Nobles, Ubicquia vice president of business development for grid solutions. “And it can cover both densely and sparsely populated areas.”

Henderson says smart lighting has resulted in savings in maintenance and operating costs for Jackson Energy. The lights, he adds, also have proven to be a hit with members. The challenge in moving over to smart LED lighting, he says, “is that when we install one, we typically will end up going back and installing several more in the neighborhood.” **RE**