

A Portrait of Relevance in the 21st Century

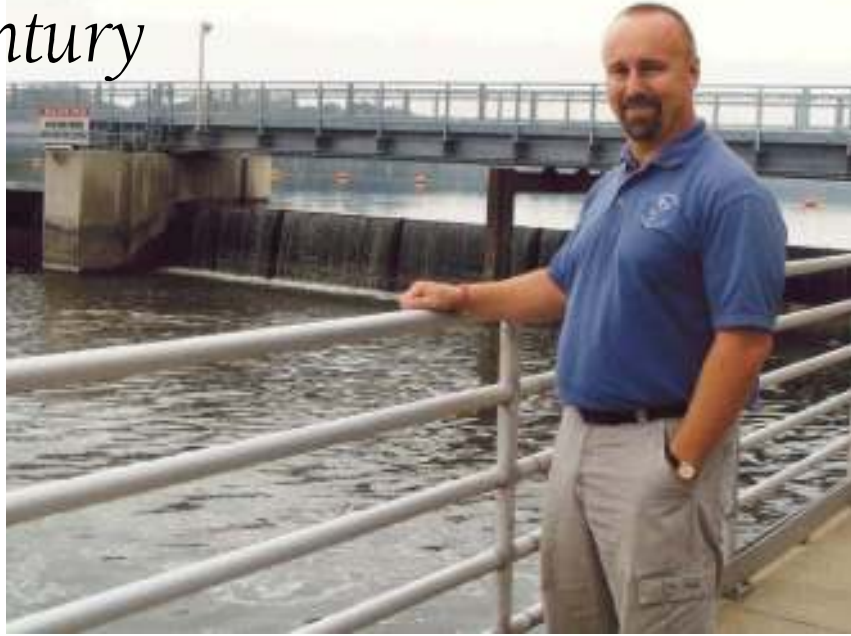
By Jeanne LaBella

In a world where electricity markets have grown massively complex and public policy is driving exotic technology upgrades to the nation's grid, a casual observer may wonder if local public ownership is relevant in the 21st century.

Rest assured, it is. And a utility established in the 19th century stands as an important piece of evidence in support of the continued value of public power. Rock Falls Electric Department in Illinois was established in 1895 to bring electricity to residences and businesses of this northern Illinois city of 9,500. The city's 5,400 electric customers pay rates that are 10 to 30 percent below those charged by neighboring investor-owned and cooperative utilities. Beyond the rate advantage, the city's very infrastructure benefits from the presence of the locally owned electric utility.

Megan Grevas is manager of geographic information systems and information technology for the city. She is a 2005 graduate of Augustana College who majored in geography and studio art. She discovered the exciting world of GIS as a college sophomore and, as a junior, interned for the cities of Rock Island and Moline on a project to map fire hydrants. Now working full-time for Rock Falls, she is maintaining the city's GIS database, beginning with the electric facilities. Using a database created for Rock Falls Electric by Sega, Inc. of Stillwell, Kan., Grevas makes sure the system's maps accurately depict primary and secondary lines throughout the 74-square-mile city, showing the location of every structure in the city as well as poles, underground vaults and switches. The maps identify where electricity lines feed into each building in the city. The system also maps the Electric Department's fiber communications network. Ultimately, the GIS database will map the city's sewer, water, streets and streetlights.

The city's \$200,000 first-year investment in the GIS system paid a nice dividend when Rock Falls had to provide its annual zoning map to the state; Grevas simply pulled up the map and clicked "print." In past years, the city would have to hire an outside contractor to construct an updated zoning map. More importantly, the city's maps are always accurate. Prior to acquiring the GIS system, Rock Falls Electric would



Paul Jakubczak, who has headed Rock Falls Electric for nearly six years, says the decision to build a hydroelectric plant on the Rock River was one of the best moves in the utility's 105-year history.

hire a contractor once every five years to update its maps.

Paul Jakubczak, electrical director for Rock Falls Electric, looks forward to the day when the utility's crews will have computers on their trucks and can consult online maps when troubleshooting or handling routine maintenance.

"This is not smart grid," Jakubczak said, "but it is infrastructure you need to have if you are going to implement smart grid."

For much larger cities, the geographic database may seem passé. But Rock Falls Electric has only 14 employees. The sophisticated mapping system would not be in place absent the Electric Department's initiative.

In a city the size of Rock Falls, the benefits of public power can be very visible. Asked to name the utility's greatest achievements over its 115-year history, Jakubczak offers his response without hesitation. The first was simply the foresight on the part of city leaders in 1895 to form the city-owned utility; second, was the decision in the early 1980s to form the Illinois Municipal Electric Agency and third was the decision in the 1980s to build the hydroelectric plant on the Rock River.

Rock Falls Electric was established on June 7, 1895 when local citizens authorized a general obligation bond issue of \$6,618 to finance installation of a 150-horsepower boiler, powered by a 125-horsepower engine to run a 75-kW genera-

tor. The plant was installed and running by September of that year and provided electricity from sunset to sunrise to light homes and businesses. It also powered streetlights every evening, unless the moonlight provided sufficient illumination. Nine years into the utility's operations, the city upgraded the electric utility by leasing a 200-kW generator for 10 years. In 1924, the city stopped operating its own generators and became a wholesale customer of Illinois Northern Utilities, part of what today is Exelon's Commonwealth Edison.

By the 1970s, energy price pressures led the city to re-think its power supply arrangements, which led to the decision to form the power agency and build the hydro plant.

When Illinois Municipal Electric Agency was formed, Rock Falls, which today serves 5,400 meters, was among the largest member cities. Today, the agency has 31 member utilities in Illinois and provides power for 29. Rock Falls Electric is among the smaller members, but the trail-blazing vision of those small founding members made it possible for 31 of the state's 42 municipal electric utilities to secure affordable, assured electricity to meet customer needs. Rock Falls Electric stopped purchasing power from Commonwealth Edison and relies now on IMEA for its power needs. The joint action agency is a partner in a coal-fired power plant in Trimble County, Ky., and is one of several partners in the

Prairie State Generating Station, under construction in southern Illinois.

Rock Falls Electric's search for lower cost electricity during the 1980s was a two-pronged effort and construction of the 2-MW hydroelectric plant pays enormous dividends to the city's electricity customers today. The plant's operation is completely automated. Computer monitors in the utility offices, three miles from the hydro plant, show how much power is produced at each of the two generators and 24-hour cameras keep an eye on the plant and its surroundings. The plant produces more than 8 million kilowatt-hours of electricity a year, enough to meet 10 percent of the city's electricity needs.

Rock Falls Electric sells renewable energy credits, based on the hydro plant's production, to a private company. The utility's initial foray into sale of renewable energy credits was disappointing. State regulators ruled that the plant, online since 1988, was too old to qualify as a green energy resource under the state's renewable energy requirements. It appeared the city would be punished for its foresight. But the partnership with a private marketing company enabled Rock Falls Electric to circumvent that unfortunate loophole. The company markets the renewable energy credits on behalf of the utility, keeping 25 percent of the proceeds and sending 75 percent to Rock Falls. The arrangement is expected to bring the city \$60,000 or more in its first year. The utility will use that pool of money to launch an energy efficiency program that will feature grants to homeowners to make efficiency improvements. The program also will focus on lighting upgrades for residential and commercial buildings and may expand to include grants or loans for heat pumps and rebates for energy-efficient refrigerators, Jakubczak said.

The city-owned electric utility plays an ongoing role in local economic development efforts too. Jakubczak works closely with the Rock Falls Community Development Corp., a private nonprofit corporation that handles lo-



Rock Falls Electric owns seven 1,825-kW diesel generators. Five of the units are standby generators for Illinois Municipal Electric Agency.

cal economic development activities under contract with the city. An abandoned industrial site adjacent to the Rock River is the primary focus of economic development activities now. Gayla Kolb, assistant director of RFCDD, said planners envision a mixed-use "village" with commercial, residential and parkland. The city has owned the property since 2006. Cleanup work is under way now and development is expected to take place over the next decade.

As in many public power communities, Rock Falls provides fiber broadband services to commercial customers. Eighteen customers, plus the city's schools and all city offices (fire, police, sewer, utility) use surplus capacity on the Electric Department's fiber communications backbone for data communications. Jakubczak says the utility may provide free wi-fi service in local parks.

Distribution Foreman Dick Simon relishes the mix of work that he and his crews get involved in from day to day. Simon joined Rock Falls Electric in 1990 as an apprentice lineman and worked his way up to lineman, crew leader and, now, foreman. He's seen a lot of changes in his 20 years at the utility. Equipment changes have made line work much easier, he says. But adding responsibility for fiber has created a challenge. "An electric wire is the size of a pencil, fiber is the size of a hair," he said. "The biggest challenge with fiber is getting it to customers. You need to find the closest splice, which might be three blocks away. It is a matter of taking some time and planning to figure out how to do it."

In a small utility, with only 14 people to juggle the myriad tasks, it might be easy to lose sight of the big picture benefits of public power. Jakubczak acknowledges the need for public power utilities to promote what he calls the "soft" benefits of a community owned utility.

"Just today, we were helping the water department with a bore under the road," he commented one day last September. "Could they do it without us? Sure, but it would cost them a lot more. Yesterday, the sewer department borrowed our standby generator because theirs was going out for service. There are so many things we do for the city, streetlighting, Christmas holiday decorations, stuff we do for the parks, stuff we do for economic development."

And then there is reliability. When power goes out, Rock Falls Electric's average response time is 20 minutes. Customer of neighboring Commonwealth Edison wait an average of an hour and a half before power is restored.

"If the benefit was not there, we would not be around," Jakubczak said. "The big companies would look here and see there's a profit to be made, swoop in, buy us out, then stick it the customers."

In the 21st century, small town, locally owned and controlled electric utility service is relevant and valuable. ■

