Greenwood County Hospital Boosts Energy Efficiency, Reliability, & Resiliency

See how Greenwood County Hospital advanced energy efficiency, protected critical systems, and used a federal investment tax credit to upgrade essential infrastructure.

Quick Facts

Location: Eureka, KS
Industry: Healthcare
Products: Boilers | Chillers | Thermal Energy Storage | Hydronic Pumps | Controls | LEDs
Topics: Sustainability | Energy Efficiency | Funding | Resilience | Reliability | Healthcare
Services: Thermal Energy Storage | Funding | HVAC | LED Lighting

Results

~$336K
In Inflation Reduction Act tax credits

$800/Month
Reduction In Utility Costs

Highlights

- Phased infrastructure upgrade established scalable foundation for long-term resilience.
- Lowered energy costs by approximately $800/month.
- Secured a county-backed sales tax revenue bond and up to $336,000 in federal investment tax credits.
- Reduced switchover time between heating and cooling from four days to less than 24 hours.
- Eliminated temperature-related complaints and improved patient and provider satisfaction.

The Challenge

Greenwood County Hospital in Eureka Kansas, serves as a lifeline for residents across multiple counties. As the region's only hospital, it provides essential care to patients who often travel more than 30 miles to see a provider. Built in 1956, the facility had been relying on a failing two-pipe HVAC system that could provide only heating or cooling, not both, without a multi-day transition from one to the other. Frequent breakdowns left the hospital unable to maintain stable temperatures, leading to frequent complaints from patients and staff. At one point, only a single chiller was working, and even that was nearing failure. With limited resources, the hospital had always prioritized clinical equipment over building systems. "For our community, this hospital is absolutely needed and necessary," said Greenwood County Hospital CEO Sandy Dickerson. She knew that to continue delivering safe, consistent care, it was time to invest in the hospital's future, and that meant updating its infrastructure.

The Solution

Building a Solid Foundation for Greenwood County

As CEO, Dickerson was clear on her priorities. She wanted to improve comfort, ensure continuity of care, and elevate the hospital's operations. The project began with a full facility evaluation. Trane experts worked closely with Dickerson and her team to understand not only the technical challenges but also the unique pressures facing rural healthcare. From staffing limitations to patient demand, all aspects of the hospital's critical systems and daily operations were carefully analyzed. Trane then collaborated with the hospital board and county commissioners to develop a strategic, multi-phase plan that would address immediate needs while also positioning the hospital for long-term resilience and subsequent facility improvements. This included navigating funding and financing opportunities, which proved to be one of the most challenging aspects of the project.

> **I absolutely would do this project a second time, and I wouldn't even hesitate.**
>
> Sandy Dickerson
> CEO of Greenwood County Hospital

Innovative Hospital Financing: Leveraging Federal Investment Tax Credits

As a rural hospital operating on tight margins, traditional financing was not feasible. Trane facilitated meetings with financial experts and bond counsel and supported Dickerson as she presented to the Greenwood County Commission, ultimately securing a sales tax revenue bond. Trane also helped the hospital register for federal Investment tax credits through the Inflation Reduction Act, which unlocked up to $336,000 in additional financial support.

Comprehensive Infrastructure Upgrade, Targeting Hospital Critical Systems

Phase One of the project targeted the hospital's most critical systems. This included high-efficiency condensing boilers to replace outdated equipment, two new air-cooled chillers paired with thermal energy storage ice tanks to support reliability, new hydronic pumps with variable frequency drives, and updated piping systems to simplify maintenance and improve control. LED lighting was installed throughout the facility to reduce energy consumption, improve visibility for care teams, and improve patient comfort. Advanced controls were integrated with the existing building automation system, allowing for better real-time monitoring and quicker identification and resolution of potential issues. The addition of glycol in the chilled water loop eliminated the need to drain chillers during winter months, significantly reducing seasonal risk and manual maintenance requirements. These upgrades not only addressed immediate risks but also prepared the hospital for a future four-pipe system that will enable simultaneous heating and cooling, offering more precise environmental control throughout the year.

The Results

The results were immediate and impactful. The time it takes for Greenwood County Hospital to switch between heating and cooling dropped from four days to less than 24 hours. Temperature and humidity levels are more stable, and patient surveys no longer show comfort-related complaints. "I absolutely would do this project a second time, and I wouldn't even hesitate," shared Dickerson. "It was a creative way to get done what we needed to get done." Energy costs have dropped by approximately $800 per month. Infrastructure improvements have helped the hospital attract and retain healthcare professionals. Enhanced reliability has also reduced emergency repairs and maintenance costs, allowing more resources to be directed toward patient care. "We were able to help a small community hospital retain their essential healthcare services," said Keven Ward, Trane, Strategic Programs Consultant. "We delivered a technical and financial solution that aligned with their ability to implement it and helped make it sustainable." Greenwood County Hospital remains a critical employer and trusted provider across the region. By strengthening infrastructure, it continues to serve as a model for rural healthcare facilities and a cornerstone of community dependability. The project's success will also hopefully spark energy-saving ideas for hospitals facing similar challenges.

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