



# Standby power

## > Case History

WellStar Kennestone Hospital, United States



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### **Where:**

Marietta, Georgia

### **What:**

Three Cummins Power Generation 2 MW standby generator sets and a paralleling system inside a new energy plant housing a high-voltage power distribution system

### **Purpose:**

To provide emergency standby power for the healthcare facility's critical load requirements in the event of a utility outage

### **Primary choice factors:**

Cummins Power Generation was selected because the power system offered the best value and its history of success and reliability

## **Georgia hospital chooses Cummins Power Generation for growing electrical needs of 'healthcare hub'**

MARIETTA, GEORGIA, USA — WellStar Kennestone Hospital is often described as the healthcare hub for east and north Cobb and south Cherokee counties of Georgia.

Located 20 miles north of Atlanta and one of the largest medical facilities in the state, the hospital's reputation and popularity are demonstrated by the sheer number of annual visits made to its emergency room, which recently ranked as one of the busiest in Georgia.

The health care facility has grown significantly in recent years to help meet the growing demand for the hospital's wide range of specialty services, including cardiac catheterization, inpatient and outpatient surgery and rehabilitation, diabetes care and oncology, among others. To meet the increasing electrical needs of the 633-bed, 1.2-million-square-foot facility, hospital officials selected a Cummins Power Generation Inc. system including new generators and a paralleling system to provide emergency/standby power from a 4,700-square-foot central energy plant. The new equipment was interfaced to existing transfer switch equipment from several different manufacturers.



The hospital uses power electronics from Cummins Power Generation for seamless integration with the generators and the ability to meet interoperability requirements.

### Seamless system integration

WellStar Kennestone Hospital (WKH) is part of the WellStar Health System — the largest not-for-profit hospital system in Georgia. The hospital began planning for the new energy facility with the addition of a 200,000-square-foot cardiac care center. Today, three 2 MW/4160 VAC diesel generator sets from Cummins Power Generation are housed in the energy plant, which is located approximately 1,000 feet from the main facility to optimize patient comfort and power distribution to the hospital. The distance between the plant and the hospital plus provisions for anticipated future system growth drove the electrical construction team, led by Inglett & Stubbs LLC, to choose 4,160-volt supply lines to the hospital.

Working with Cummins Power South LLC, and Perry, Crabb and Associates Inc., the consulting engineers on the project, the design team selected the PowerCommand® digital paralleling system from Cummins Power Generation for seamless integration with the generators and the ability to meet performance and interoperability requirements with existing equipment. The system features the rugged and field-proven generator-set-mounted PowerCommand paralleling controls, and a system master control with separate touch-screen control panels for the generators and transfer system.

### Flawless performance tests

The emergency requirements for the hospital campus total approximately 2,400 kW, with the system serving emergency loads in two massive bed towers, a center for women's health and a cancer center. With three 2 MW generator sets there is redundancy in place to provide a premium level of reliability for the healthcare facility's critical load requirements. While the system has yet to experience a utility outage, "it has performed



Three 2 MW diesel standby generator sets from Cummins Power Generation are housed in the energy plant, located approximately 1,000 feet from the main facility to minimize noise and vibration in the hospital.

flawlessly, as specified and designed" during the required acceptance tests, according to Sam Jenkins, project engineer for WellStar Health Systems. Once the generators are operating and ready for load — which takes about 10 seconds — the system transfers power smoothly to the generators. Then the system senses when the utility comes back online, and again makes a smooth, coordinated switch back to the utility power.

Jenkins said the value of the system, combined with Cummins Power Generation's history of success and reliability, provided peace of mind when the decision on the new power generation system was made.

*"To my knowledge, Cummins Power Generation is the only generator set manufacturer that also builds so much of the paralleling system, including engines, alternators, paralleling controls, network equipment and integrated paralleling switchgear themselves," Jenkins said. "The entire system is seamless, intuitive and fully integrated with our building management system. That's tough to match for peace of mind."*

Especially when the health and lives of a growing number of patients are at stake every day.

For more information on integrated standby power systems, contact your local Cummins Power Generation distributor or visit [www.cumminspower.com](http://www.cumminspower.com).

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