

REGIONAL HOSPITAL

POWER SOLUTIONS CASE STUDY of COOSA VALLEY MEDICAL CENTER



COOSA VALLEY MEDICAL CENTER KEEPS THE POWER ON WITH GENERAC

UNITS

1200 kW Modular Power System
(3 X 400 kW diesel gensets operating in parallel)

LOCATION

Sylacauga, Alabama

The hill country of central Alabama is a beautiful area and includes the scenic Coosa Valley, where the city of Sylacauga is located just 30 miles southeast of Birmingham. This town was the site of a major munitions plant during the Second World War, when the influx of residents prompted calls for the establishment of a local hospital. On April 1, 1945 Sylacauga Hospital opened its doors with the distinction of being the only non-military hospital built in the U.S. during World War II. The city continued to grow and so did Sylacauga Hospital, with three major additions being made to the original facility between 1963 and 1980. As its service area began to expand, Sylacauga Hospital changed its name to Coosa Valley Medical Center, reflecting its growing commitment to serve this vibrant region.

In 2007, Coosa Valley Medical Center completed its ambitious West Wing Project, a four story expansion that greatly increased its space and facilities. This 120,000 square foot addition includes 86 new inpatient rooms, 10 additional beds for the Intensive Care Unit, a state of the art Imaging Center and a new Women's Center. The hospital now boasts more than 150,000 square feet of space

and 148 beds, offering a full range of emergency, diagnostic, treatment and rehabilitation services.

Like every hospital, the Coosa Valley Medical Center is required to have reliable backup power to protect the life and safety of its patients in the event of a utility power outage. During construction of the West Wing addition, the hospital's planning team considered a variety of options for backup generators, starting with the traditional solution -- a large single engine unit. "We looked at one big Caterpillar genset," says Keith Knox, Coosa Valley Medical Center's director of facilities management, "but the lead time on that generator was extreme, so we decided to look at other options."

Working with an outside engineering firm, the team evaluated and ultimately chose a 1200 kilowatt Generac Modular Power System (MPS), a solution incorporating three 400 kW diesel gensets operating in parallel.

Generac's Modular Power System combines the output of multiple generators without the need for expensive

"When we looked at the Generac system," Knox says, "the things that stood out to us were the flexibility of the software, the short turnaround time on production of the units and the fact that three generators provide us with the advantages of redundancy."

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and space-consuming paralleling switchgear. Redundancy and expandability is built into the system, since each genset features onboard paralleling capabilities, making it easy to achieve $n + 1$ or greater coverage by simply adding modular generators of the appropriate size. The MPS solution is also scalable, allowing kW outputs to be tailored more precisely to current and future requirements.

Coosa Valley's Modular Power System was purchased from Energy Systems Southeast, Generac's full service industrial dealer in Alabama, and was installed in May of 2007. The hospital's total electrical load is about 450 kW, so the system's 1200 kW capacity provides nearly $n + 2$ redundancy for an even higher level of reliability, which is especially important for medical facilities. The backup system is configured and tested regularly in compliance with the requirements of the National Fire Protection Association (NFPA) Codes 70, 99 and 110. "The Generac system has worked

well for us and we're very pleased with how it's operated," says Knox. "We've established a service contract with Energy Systems Southeast and they've been very responsive to our needs."

Because of their many advantages over large single engine units, Generac's Modular Power Systems are the backup solution of choice for a growing number of commercial, industrial and institutional applications. MPS generators are available in diesel, natural gas or Bi-Fuel™ versions, with system outputs ranging from 100 to 9000 kW. In most instances, Generac MPS gensets can be delivered within much shorter lead times than large single engine solutions from other manufacturers, making them an attractive alternative for projects requiring higher power outputs.

GENERAC®

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