

POWER SOLUTIONS

CASE STUDY



DOCTORS HOSPITAL AT RENAISSANCE

Location

Edinburg, Texas

Market

Health Care

Unique Obstacle

Provide backup power for new Women's Hospital, a 200,000 square foot facility consisting of labor and delivery, surgical and post-surgical suites, postpartum suites, newborn nursery, and neo-natal ICU

Units

Medical Campus:
10 MW of Generac Standby Power

Women's Hospital and Central Cooling Plant Installation:

4 MW MPS, Two sets 3 x 750 kilowatt
Bi-Fuel™ Gemini® gensets operating
in parallel

Solution

Generac's sales team visited the hospital and introduced the MPS system. Provided growing DHR Complex with redundancy, flexibility and scalability in a modular type paralleling system

Contact

Readers who may have similar application challenges and would like to discuss this success are invited to call 1-844-ASK-GNRC (1-844-275-4672)

Hospital Weathers Hurricane & Power Outages

Since opening its doors in 1997, Doctors Hospital at Renaissance (DHR), Edinburg, Texas, has grown to be one of the premier healthcare providers in the nation. For the past two years DHR has been placed on the list of the 100 Top Hospitals in the nation by Thomson Reuters, a major source of independent health care business intelligence. The 100 Top Hospitals award is based on three measures of hospital performance: clinical excellence, operating efficiency and financial health, and responsiveness to the community.

Beginning as an outpatient surgical center, DHR today is a huge, 90-acre medical complex – an east and west campus on both sides of a major highway in downtown Edinburg. The complex includes seven different medical centers (a total of one million square feet), three central cooling plants, and a 506-bed, full-service care facility with a medical staff of over 500 physicians.

DHR today provides a broad spectrum of medical and surgical services, including intensive care, obstetrics, day surgery, skilled nursing care, outpatient diagnostic services, cardiology services, bariatric services, oncology services, behavioral and emergency services.

Backup Power Needed for New Women's Hospital in 2008, a 200,000-square-foot, 105-bed Women's Hospital at Renaissance was added to the east campus. The facility provides 24 labor and delivery suites, 24 post-surgical patient suites, 48 postpartum suites, a 36-bed newborn nursery, a 28-bed neo-natal Intensive Care Unit, five surgical suites and 14 medical beds.

Like every hospital, DHR is required to have reliable backup power to protect the life and safety of its patients in the event of severe weather or a utility power outage. For the first 10 years of operation, the hospital's planning team relied on the traditional solution for backup power generators – large single-engine units for hospitals and chiller plants. As the DHR expansion began to evolve, the DHR facility managers consulted with a team of MEP design engineers from GPM Engineering, Corpus Christi, Texas.

Introducing DHR to Modular Power Systems GPM's project manager for DHR was a third-generation master electrician named Randall Eulenfeld. In 2003, during a major growth period at the hospital, GPM



It was a revelation; the best thing since sliced bread," said Randall Eulenfeld, master electrician. "I had to have this system for the next DHR expansion project.



CASE STUDY: DOCTORS HOSPITAL AT RENAISSANCE

was visited by a sales team from Generac Power Systems, Waukesha, Wisc., and Generac's industrial dealer, WPI (Waukesha- Pearce Industries), San Antonio, Texas. The team came to introduce GPM to Generac's Modular Power System (MPS) – an integrated approach to generator paralleling that is more cost effective than traditional paralleling systems or most. The MPS advantages could provide the growing DHR complex with redundancy, flexibility and scalability in a modular type paralleling system.

Eulenfeld recalls being concerned by relying on large single-engine units due to the hospital's rapid development. In the case of single-engine failure, he knew there would be no redundancy and thus, no standby power for a hospital unit or chiller. That was unthinkable, so Eulenfeld

accepted a Generac invitation to visit the Generac factories in Wisconsin to see the MPS equipment and engineering first hand. "It was a revelation; the best thing since sliced bread," Eulenfeld said. "I had to have this system for the next DHR expansion project." Modular Power Systems vs. the Single Engine Eulenfeld and his team liked the fact that Generac's MPS combines the output of multiple generators without the need for expensive 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 kilowatt outputs to be tailored more precisely to current and future requirements.