Ecuador hospital energy storage

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Covering almost 90,000 sq./m, costing 226 Million US dollars, and fully operational since December 2017, Ecuador"s largest and most up to date hospital has been built in South Quito, the capital.

The project commissioned by the Ecuadorian national health service (IESS), is today a reality, and benefitting the residents of south Quito, in the El Recreo district. This publicly owned hospital with over 400 beds and 50 consultation areas, employs 1800 people. Each one of the 5 buildings within the complex contains a Genesal Energy emergency power genset.

Power cuts in hospitals can lead to critical situations for patients and the doctors and nurses that care for them. It is obviously vital that these types of buildings can continue to function and must not be brought to a standstill.

The high consequences of a power cut mean it is essential to install back up systems that will continue to supply electricity to all the systems, ensuring the medical teams and doctors can continue their work ensuring that patients continue to receive healthcare.

Due to the risks presented by a power cut the client required a solution that would incorporate gensets with automatic start-up (AMF). GENESAL ENERGY designed six generator sets with different voltages and power ratings, to meet the clients needs in relation to the different load requirements for each building. The objective; a guaranteed power supply in the event of a mains failure permitting the hospital to carry on as normal.

The gensets supplied can give the necessary power at an altitude of 2,800M above sea level, bearing in mind that at this altitude there is less oxygen in the air, meaning the gensets mist work harder.

Additionally the solution had to account for the need to install gensets that would not cause noise contamination, and for this reason soundproofed gensets were supplied with the exhaust system at the top of the canopy.

Los fallos de la red el?ctrica en los hospitales provocan situaciones cr?ticas, tanto para los pacientes como para los equipos m?dicos. Ante cualquier corte de suministro este tipo de edificios deben seguir manteniendo su actividad, no pueden pararse.

Por este motivo es necesario instalar sistemas de backup que contin?en suministrando energ?a el?ctrica, asegurando en todo momento que el m?dico o cualquier otro profesional sanitario siga con su trabajo con normalidad con el fin de que el paciente est? debidamente atendido.

Es por todo esto que el cliente necesitaba generadores de arranque autom?tico de emergencia y Genesal Energy dise?? cinco generadores el?ctricos de diferentes voltajes y potencias para dar respuesta a las necesidades del cliente ante las diferentes cargas de cada uno de los edificios; garantizando el suministro el?ctrico ante posibles fallos de red y, por tanto, asegurando el normal funcionamiento del hospital.

Genesal Energy suministr? grupos electr?genos sobredimensionados capaces de dar la potencia necesaria a 2.800 metros de altitud, teniendo en cuenta la p?rdida de potencia que estos equipos sufren al estar a dicha altitud debido a la p?rdida de volumen de ox?geno en el aire.

En este tipo de instalaciones, el sonido emitido por los grupos se posiciona como un factor cr?tico del proyecto. Por ello se dise?aron cinco generadores insonorizados con salida de aire superior.