Case Study | Electric Power

Generators

JE Power



Generator sets solve hospital's power needs

Across Europe, North America and many other parts of the world, we often take electrical infrastructure for granted. The grid is a public good, a national asset, from which a wide range of users – consumers, industry, civic institutions – draw power every day.

But in countries where the grid is poor or even non-existent, securing an adequate power supply often poses the biggest challenge for any form of new development. Electrifying a new development within the 'Medical City' in Iraq's capital, Baghdad, was a case in point – one that British company JE Power is only too familiar with.

Founded in 2009, JE Power specialises in generator solutions and electrical substations, bringing electrical viability to developments in countries where 'inconsistent infrastructure', as managing director Joseph Halloun describes it, means the power grid can be unreliable.

"Iraq has a heavily damaged power sector," he says. "Every compound, every commercial centre, every new development needs to provide its own power generation.

"When the Ministry of Health made plans for a new 81-bed haematology centre within the Medical City, we were approached to develop and commission a diesel power plant to power the new hospital."

The approach came through Iraq's Ministry of Health. JE Power's sister company, Erel, enjoys a strong reputation in Iraq – it's been working with the Ministry for many years, supplying not just generators but complete power plant commissions, including distribution equipment, transformers and switchgear.



Location
Baghdad, Iraq

Engine specification **Perkins** [®] **4000 Series**

Application Generators

OEM Allam Marine

OEM website **allam.com**



"In the diesel generator market, there's a lot of competition. What gives us the edge is our engineering strength and our ability to provide customers with complete turnkey power generation solutions, including installation and long-term operation and maintenance," explains Joseph. "That's exactly what the Ministry of Health was after. Although the hospital is connected to the grid via 2 x 11kV 4MVA power lines, also provided by EREL, the grid's unreliability necessitates an alternative power supply.

"The majority of generator units are supplied as back-up solutions. That's not the case here: these units could be powered up for more than 12 hours every day, so reliability and fuel efficiency are essential."

What's also vital – given Iraq's harsh climate – is the ability to keep working in tough conditions. Joseph says a failure to recognise the need for 'climate ruggedisation' is a problem encountered by many generation sets. "But our sets are designed to provide maximum performance in a tough climate and high temperatures. It's a necessity borne of our experience not only in Iraq, but Nigeria and the Caribbean."

Perkins is the favoured brand in JE Power's generator sets. Joseph's customers know the brand well and associate it with top-performance generators. "Then there's the aftersales aspects: Perkins parts are widely available wherever you are in the world, and its engine technology is well-understood so there are plenty of qualified engineers who can work confidently on a Perkins engine.

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"In the diesel generator market, there's a lot of competition. What gives us the edge is our engineering strength and our ability to provide customers with complete turnkey power generation solutions. The Perkins[®] 4000 Series enjoys a strong reputation and has proven reliability in prime installations. Its high ratings make it ideal for this application. Specifying Perkins makes a lot of sense for us."

Joseph Halloun, managing director, JE Power

"Aftersales service is a fundamental part of our offering, so specifying Perkins makes a lot of sense for us."

The main generator supplier to JE Power is British firm, Allam Marine. Through a long-term collaboration, Allam supplies JE Power with Perkins powered generator sets, parts and technical support. "We're very happy with the relationship we have with Allam and the support we get; they're a very reliable partner."

A Perkins engine was therefore an obvious contender for the Baghdad project, with the 4000 Series – in its eight-cylinder specification – the final choice. Two 4008TAG2A EPaks were specified, each providing 1MVA. "The 4000 Series enjoys a strong reputation and has proven reliability in prime installations," notes Joseph, "and its high ratings make it ideal for this application.

"What's more, it can be specified with an uprated 'tropical' cooling system to match our expectations of performance in the tough climates in which our customers operate.

"Because of the generator's likely 'often on' status, another key requirement from the hospital engineer was low NVH (noise, vibration, harshness) levels, something that we were able to address perfectly with the 4000 Series."

The two generators are due to go live when the hospital opens its doors in late 2022.

a strong reputation, proven reliability in prime installations

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Powered by a Perkins[®] 4008TAG2A engine it has

