

# Leiden University Medical Center

10 kV system successfully installed in existing space

## LUMC

Leiden University Medical Center (LUMC) is experiencing a constant increase in the number of business-critical work processes, meaning it also requires a corresponding growth in its emergency power supplies. Cor Cerdijn, Head of Building and Installation Management with responsibility for an area of 350,000 m<sup>2</sup>, commissioned Centrica Business Solutions (then ENER-G Nedalo) to deliver two 2 MVA diesel generators.

The core tasks of LUMC include patient care, scientific research and training. Cerdijn and his team provide the complete energy supply and manage the technical installations, such as lifts, escalators, air treatment and sanitation. During the construction of the new main building in the early 1980s, four diesel generators of 1 MVA each were purchased to provide emergency power. They are intended primarily as a backup for the 'preferred grid', which supplies electricity to all business critical installations and equipment, such as operating theatres, intensive care and long-term tests in the laboratory.

## Priorities changed

That capacity is now too low, says Cerdijn: "It is not so much that we as a company have started using more energy, but the priorities have changed. Processes that used to be on the main grid have shifted to the preferred grid. We are replacing the two oldest 1 MVA diesel generators from 1983 with generators that provide 2 MVA each. This will allow us to increase our emergency power capacity by 50%. Incidentally, these 'old' machines have only seen 900 hours of operation. Every month we run them synchronously over half the grid for four hours. Ten times a year, we also actually switch off the main and preferred grids. This is a test for both the emergency power systems and the medical staff."

## Creativity in implementation

After careful consideration, the contract was awarded to Centrica Business Solutions. "We first looked at which companies were a good fit. Of the original seven candidates, a number were unable to join our 10 kV medium-voltage grid. The final choice in favour of Centrica Business Solutions was due to a combination of quality, cost and creativity in the implementation concepts, such as how the new compact machines fit into the existing space. We are pleased about that, because it really makes a difference if you have to start moving walls."

## Completely relieved

The installation is due to be completed in December, which means another six months of hard work. Since the power provided by the generators is increasing, the cables need to be upgraded. The high-voltage switches are also being changed from oil to vacuum. "We have already applied this new technology in other recent buildings. Centrica Business Solutions took on this adjustment, as well as the other electrical, mechanical and structural work. As a result, this has become a turnkey project in which we are relieved of operational responsibility and act only as a supervisor," says Cerdijn.

## Why Centrica Business Solutions?

Centrica Business Solutions is the oldest supplier of emergency power units in the Netherlands. The company has a large fleet of emergency power units in Europe and is the authorised service dealer of MTU and Travis Perkins. With the emergency power units for the LUMC, Centrica Business Solutions is proving to be a true emergency power specialist. Customers that make intelligent choices in terms of energy will see their returns and savings grow.