



Planning & Design

## MV ring alterations at Dublin Airport (Republic of Ireland)

DAA (Dublin Airport Authority) / **Infrastructure Services > Other facilities: Airport electrical substations and electrical systems (2006-2008)**



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This project consisted of modifying the MV rings at Dublin Airport, both on the airside and the landside. To do so the building of a new 390m<sup>2</sup> substation was required, as well as incorporating it into the 10kV ring at the airport.

This new substation was supplied with new switchgear, transformers, distribution boards, a generator with an external fuel tank as well as LV equipment including communication racks and UPS. The main purpose of this substation was to house all the regulators required for the new AGL lights and signs installed at the airfield.

This project also included the installation of a new landside switchroom in an outdoor enclosure into the 10kV ring. Finally, it was also necessary to adapt some of the existing substations to the new MV ring and communications system.





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A smaller substation was built on the Phase 6 Apron with the same type of facilities. The MV Ring had to be modified to link with this substation. Its purpose was to feed the new high mast lighting installed at the new Apron 6 at Dublin Airport.

The key activities for this project were to:

- Carry out preliminary design and detailed design of electrical systems for the airfield and assess construction depth and cost.
- Provide construction and phasing advice on the works to ensure that solutions were cost effective and met targets.
- Carry out the design of electrical infrastructure to support a detailed planning application.
- Help the airport determine the optimum operating strategies for the main airfield components.
- Identify the nature and scale of new airport infrastructure needed.
- Develop CAD based layout plans illustrating proposed and final design solutions for the new infrastructures.
- The work included the design of the diversion of existing services.

As a second part of this project, AERTEC Solutions assigned a consultant to Dublin Airport for more than a year. There, he worked alongside DAA staff taking care of the technical assistance on-site, placing orders, attending site meetings, writing site instructions and assisting DAA Staff with any issues related to the MV installation.

