Successful automatic network reconfiguration at Split airport.
Higher safety traffic thanks to remote control supervision with ABB’s RTU540 product line.

To handle the increasing number of passengers one of the most important airports in Croatia succeeded in a reliable and efficient power supply for the complete network. For this, our external partner Koncar set up a retrofit project which took four months during winter season, a time when the airport is frequented by smaller number of passengers.

The power grid of the airport is supplied via two substations where equipment was old and not fit to balance the energy needs. Furthermore, manual onsite operation was required in case a power failure. Therefore the availability of the local operation team affected the reaction time heavily, with the most problems happening during holiday seasons.

To underline the importance of Split airport, Koncar provided a complete solution for the upgrade of the complete power grid. First, the primary switchgear consisting of two substations was retrofitted with new equipment. Furthermore, to enable remote control and supervision, ABB’s RTU540 with remote input/output (I/O) modules and PLC functions according to IEC 61131 were installed. Measuring power, energy, power factor and frequency as well as power values (W, VA, VAR) within the network are now possible with the newly installed multimeter 560CVD03. The automatic reconfiguration of the power grid was achieved with the implementation of an advanced algorithm.

The customer was very satisfied with the new system and the improved reliability of power supply. The remote and local monitoring and control of the substation manual onsite operations are not necessary anymore. Power outages can now be detected on the incoming feeders so that affected areas can be isolated quickly. In addition, fault detection, localization and isolation within the substation enable the airport to adapt quickly to changes to avoid power outages. Thus, in comparison to the old system, the average power outage time could be lowered to less than three seconds which contributes significantly to the higher safety of the air traffic.