

Be in perfect control of your substations

SUBSTATION AUTOMATION GIVES the operator perfect control over the substation. Additionally, it improves the quality of electricity transmission and distribution in normal operation but especially in disturbance situations and during substation maintenance.

ABB's MicroSCADA based Substation Automation system enables on-line monitoring and control of primary and secondary equipment in a substation based on process information from the protection and control terminals. Information, such as service values, time-tagged events and alarms together with the status and operation of the entire power system are available to the operator in real time. Upload of disturbance recordings from the protection and control terminals improves outage management analysis. Based on information from the process a new automatic power restoration system can be included to shorten outage times. Furthermore, the flexibility of the MicroSCADA based Substation Automation system can be enhanced with gateway functionality for the exchange of information between the substation and the network control center.

Real-time process control can be handled locally at the station or remotely in a central office via a public dial-up telephone network or standard TCP/IP network, including versatile user authorization. Direct access to selected information allows the data stored in the numerical devices to be utilized in a much more efficient way. The system openness allows integration of third-party software and databases, for instance a geographical information system and office applications, which in turn can be used for evaluation of the uploaded data.

The operator's workplace provides a user-friendly interface for local control and monitoring of the substation. Setting and parameterization the protection and control terminals can easily be executed via the operator's workplace, enabling the user to easily and safely access the terminals. A fiber-optic local operating network ensures fast and reliable communication between protection and control terminals and the substation HMI (Human Machine Interface). At the same time the functionality increases, since for instance peer-to-peer communication enables automatic interlocking.



Advanced IT-based (Information Technology) Substation Automation systems, such as MicroSCADA, can be easily adapted to customer-specific requirements.

The full benefits of numerical technology in protection and control terminals can be achieved through a Substation Automation system. Retrofit of substations that are remotely controlled via a conventional RTU (Remote Terminal Unit) only provides limited functionality. Over the past two decades power utilities in the Middle East have made heavy investments in their power networks. The focus of these investments has been on modern numerical protection technology and Substation Automation systems instead of electromechanical and static protection relays.

ABB's MicroSCADA Substation Automation System gives you perfect control over your substations.