



Working faster and better with an integrated grid

ABB has found a way to integrate geographical information and maintenance management systems so that operators can rapidly pinpoint any component in a grid, and quickly access maintenance information. Integration with the grid's SCADA/EMS system is in progress.

The project is being carried out in conjunction with Statnett, the state-run operator of the Norwegian grid.

Phase one, which went online in June 2004, integrates a new geographical information system from the California-based Environmental Systems Research Institute with Statnett's existing computerized maintenance management system (CMMS).

Finding the needle

The system lets operators locate any asset in the grid and access maintenance information about it from the map. Similarly, maintenance staff receiving a work order via the CMMS can view the geographical information on the map to find the exact location of the device in question.

Locating a single component within a huge grid can be like looking for a needle in a haystack, so the benefits of integration are immediately apparent. Operators are able to rapidly locate widely dispersed devices, such as transmission towers, and by accessing their maintenance data, determine if work needs to be done on them.

Energy management system

ABB is currently extending the integration to include Statnett's SCADA/EMS energy management system.

It means, for example, that users will be able to access maintenance data from a SCADA system or operational status (provided by SCADA) from

a map containing geographical information. They will also be able to create, modify or delete objects in all three systems from a single data entry point, thus ensuring data consistency.

Previously, all three systems could only be accessed independently of one another, and information had to be entered separately in each database – a time-consuming process that increased the risk of mistakes, omissions and inconsistencies.

Seamless integration of planning, operation and maintenance systems is high up on the requirements list of utilities. All three systems have much data in common, and their integration offers manifold benefits.