



Solar SCADA Solutions

Solar SCADA is an emerging field in automation and control systems. The solar energy industry brings with it quite a few hurdles in terms of efficiency, which means that solar SCADA systems must be designed with equipment, environment, and remote monitoring in mind.

Issues Presented by the Solar Energy Industry

Solar SCADA is unlike wind SCADA or gas SCADA in that there are still very few standards in terms of equipment or solar field design. Solar technology is rapidly developing, and solar power companies are rushing to keep up. In addition, solar farms require large areas of real estate in unfriendly terrain that is often located in remote or rural areas. Environments may be harsh, with physical exposure posing a continuous risk of damaging equipment.

Working Within the Parameters of Solar Energy Requirements

Solar SCADA solutions require that SCADA systems work within these restrictions. Mobile SCADA is especially important for solar energy automation. Operations and maintenance may not always be able to operate at the location of a solar farm, due to lack of resources or equipment, and remote monitoring with mobile SCADA is most efficient means of metering the energy output using remote data acquisition. This can incorporate licensed or license-free radio modems, cell phone, or even satellite connections.

In addition, solar cells often fail, and it may be necessary for the solar SCADA system to diagnose and troubleshoot solutions for failing hardware. The SCADA system may also need to control functions such as turning cells online or offline as the position of the sun changes, or controlling the angle of the plates.

Off-Grid Solar SCADA Energy

When working off-grid, remote data acquisition is key, but so is the issue of energy consumption. By installing SCADA software on a solar powered machine, it's possible to ensure accurate and stable SCADA system functions, without connecting to the grid.