Alabama Electric Cooperative Implements MOSCAD Based Data Solution for Multiple Data Applications Using Mix of Communications Media

Motorola implemented a MOSCAD™ based wireless network for Alabama Electric Cooperative (AEC), a generation and transmission electric cooperative. AEC distributes power to more than 300,000 customers across 39 Alabama counties and 10 Florida counties. The radio frequency (RF) data network enables the utility to monitor power demand and control supply in real time while automating data collection using a wide mix of communications media. In addition, meter readings from AEC's 261 substations needed to be automated instead of collected by hand to speed billing processes and improve accuracy.

Motorola's RF based MOSCAD system measures power demands from AEC's substations in real time, enabling AEC to more easily manage its electric generation. With the ability to gather information from diverse sources, the MOSCAD system also allows meter data collection in real time. Accounting personnel will be able to more quickly and accurately generate service invoices which results in fewer billing errors. The MOSCAD based network also enable communications to Intelligent Electronic Devices (IEDs), such as protective relays and voltage regulators, in the substations for monitoring and controlling operating parameters, which allows AEC to improve the service reliability.

"With the onset of deregulation and the recent FERC ruling, AEC needed to be well-positioned to anticipate power trends and needs, improve service to our members and ultimately improve service and reliability for the communities our members serve," said Larry Avery, Vice President of Engineering and Operations for AEC. "This fixed packet data network provides us with the capacity to handle multiple applications with flexibility on communication choices and a solid path to help implement more advanced technologies that our customers will demand."

Motorola's MOSCAD system utilizes 900 MHz Multiple Address Systems (MAS), UHF radio, VSAT satellite, microwave, spread spectrum radio, and dial-up systems and allows seamless connecting of these media across the geographic area. The network extends communications to substations beyond the reach of AEC's Motorola 2 GHz microwave system. Eventually the network will serve as a backbone to access information and automate their distribution networks, further improving satisfaction to the ultimate consumer.