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For Immediate Release

South African utility goes live with the world's first implementation of MMS/UCA2 block and trip control over a substation LAN

Substation demonstrates new trend in substation design using Universal Relay technology from GE

March 13, 2000 -- GE Power Management announces that the world's first fullyfunctioning, complete substation automation project using the MMS/UCA2 protocol in the city of Nelspruit, South Africa has reached another milestone by recording the first successful UCA trip over a LAN (Local Area Network). GE Power Management's authorized distributor in South Africa, DRIVECOR (Pty) Ltd, was responsible for supplying, designing, installing and commissioning the protection and control systems. This is the first phase of a long-term distribution network refurbishment initiative that is utilizing GE Power Management's highly successful Universal Relay (UR) family of products.

Norris Woodruff, president of GE Power Management says the Nelspruit project represents a significant step forward for the utility industry. "It is the first substation automation project to use the most critical feature of the MMS/UCA2 architecture. In a cable fault that developed shortly after commissioning, the UR IEDs sent both tripinitiate and trip-block signals over the station LAN - the system operated exactly as designed. Subsequent analysis of the UR event recorders and oscillography records showed the timing relationships were as intended. Progressive customers like Nelspruit are leading the future direction of substation design." The substation communications network in Nelspruit uses a fully redundant fiber optic LAN for substation control and monitoring as well as protection signals such as blocking and tripping. The substations are linked to a central SCADA system at the network control center, using MMS/UCA2 to communicate over a fiber optic based WAN (Wide Area Network). The first phase of the project integrates 24 of GE power Management's type F60 Feeder Management Relays.

About the product

The F60 Feeder Management Relay, like all other UR products, supports ModBus RTU, Open ModBus/TCP, DNP 3.0, and the open standard MMS/UCA2 protocol. All UR products combine peer-to-peer high-speed communication capabilities with modularity, flexibility and field-programmable FlexLogic[™] control for simplified substation automation.

Other UR products include the C30 Controller, the L90 Line Differential Relay, the C60 Breaker Management Relay, the T60 Transformer Management Relay, the L60 Phase Comparison Relay, and the D60 Line Distance Relay.

GE Power Management, based in Markham, Ontario, Canada, specializes in the design, manufacture, sales and support for systems and products of protection and control for Utilities and Industry around the world.