

The National Electricity Corporation of Sudan (NEC)

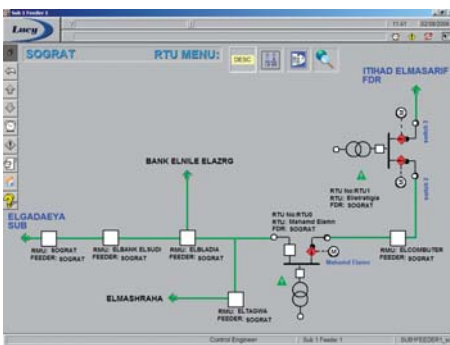


NEC embark on Secondary Automation

The National Electricity Corporation of Sudan (NEC), based in the capital city of Khartoum, is embarking on a significant investment programme in the electrical infrastructure of the country over the next few years. In addition to this programme of works, NEC is looking to improve both the availability and security of supply to existing customers already connected to their 11kV distribution networks.



Lucy Switchgear approached NEC with the intention of introducing remote control and monitoring systems for the secondary network to allow them to achieve this objective. In order to introduce this new technology in a phased manner, NEC elected to undertake a pilot project initially and identified six urban substations in Khartoum, both forming two split ring systems. A typical network configuration is illustrated.



Some of these key automated sites included parts of Khartoum International Airport and an oil research laboratory - all deemed to be very important customer loads. Lucy Switchgear supplied a range of Gemini automation products and services including the automated ring main units in the form of our latest design, SABRE VRN2a, fully equipped with motorisation of the ring switches and our Gemini-RTU acting as the telecontrol interface. The turnkey solution also included the provision of data-enabled GSM communications and a standalone Gemini-SCADA system at the NEC Control Centre. All equipment and systems completed rigorous system design, integration and testing in the UK before project implementation.

The two schemes enable NEC to both remote control and apply discrete automation sequences such as Auto-Sectionalising and Auto-Changeover at strategic mid-point and open point locations.

Since the successful implementation of the pilot project, NEC has since purchased further automated ring main units to extend the benefits to other parts of their 11kV networks.

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