Ergon Energy seeks further productivity improvements by extending its GT FMC mobility solution to the management of other electrical assets

Ergon Energy, Brisbane Australia

Business Challenge

Ergon Energy operates as an electricity generator, distributor and retailer servicing around 680,000 customers across a vast operating area of over one million square kilometres - 97% of the state of Queensland. Ergon Energy was an early adopter of Geomatic Technologies (GT) Field Mobile Computing (GT FMC) solution. By adopting GT FMC, Ergon Energy was able to reduce its reliance on manual record keeping for maintenance activities associated with its power pole assets. It was also able to improve resource allocation and better meet regulatory compliance. The positive experience Ergon Energy had with GT FMC led it to consider extending GT FMC to other maintenance activities.

Services Overview

Ergon Energy came to GT to incorporate 3 additional inspection activities into GT FMC: Air Break Switches (ABS) - regulations require that a minimum number must be inspected annually; Bulk Lamp Replacement (BLR) - replacements occur based on geographic zones; and Earth Testing (ET) - a condition monitoring activity for electrical system integrity.

Prior to implementing the ABS module, ABS assets were maintained by crews that would inspect and if necessary, rectify any defects while on-site. This process was expensive because not all inspected assets required corrective maintenance and some crew members were not fully utilised. The new ABS module allowed a single inspector to trigger a process to deploy a crew only to those assets that needed corrective maintenance. The inspector could also flag redundant ABS assets for retirement, which further reduced the need for future inspections, leading to even greater cost savings for Ergon Energy.

The new BLR module is aligned with Ergon Energy’s program for the replacement of street lamps in bulk when they reach their estimated end of life. Some street lamps remain unaccounted for in Ergon Energy’s systems, so to address this, the BLR module can operate in ‘capture’ mode acquiring unknown lamps in any replacement zone.

The new ET module captures the results of electrical earthing resistance measurements. Earthing the electrical system typically consists of a 6 metre long copper clad stake driven vertically into the ground. Using GT FMC, inspectors can access previous earthing measurements in order to monitor changes in earthing resistance over time and ensure continued satisfactory performance.

Outcomes

> GT FMC’s flexibility and scalability enabled a rapid and cost effective extension of an existing mobility solution to manage maintenance activities on other assets.

> GT FMC helped Ergon Energy to improve resource allocation through streamlined works planning, packaging and allocation.

> GT FMC allows Ergon Energy to audit inspection activities providing ‘Who did What When’ information for regulatory compliance.

> GT FMC helped Ergon Energy to eliminate manual data entry and improve data quality on assets.

> GT FMC provides streamlined data management and back-end integration between GIS or Geographic Information System, ERP systems and field crew activities providing a readily accessible, cost effective integrated view of corporate data.

Ergon Energy has since transitioned from SAP to Ventyx Ellipse ERP. GT FMC was successfully reconfigured to integrate with the new ERP.

Geomatie Technologies (GT):

is a recognised leader in advanced mobile and spatial technologies and is among Australia’s leading providers of IT integrated solutions and services. GT’s solutions portfolio includes solutions and services for mobile workforce management, asset capture and inspection, web mapping (including address validation and geocoding services) and solutions for data access, data management and data distribution.

Images above from left to right

An electrical substation. Diagram of GT FMC-AI development and testing environments. Linesmen working on a power pole.

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