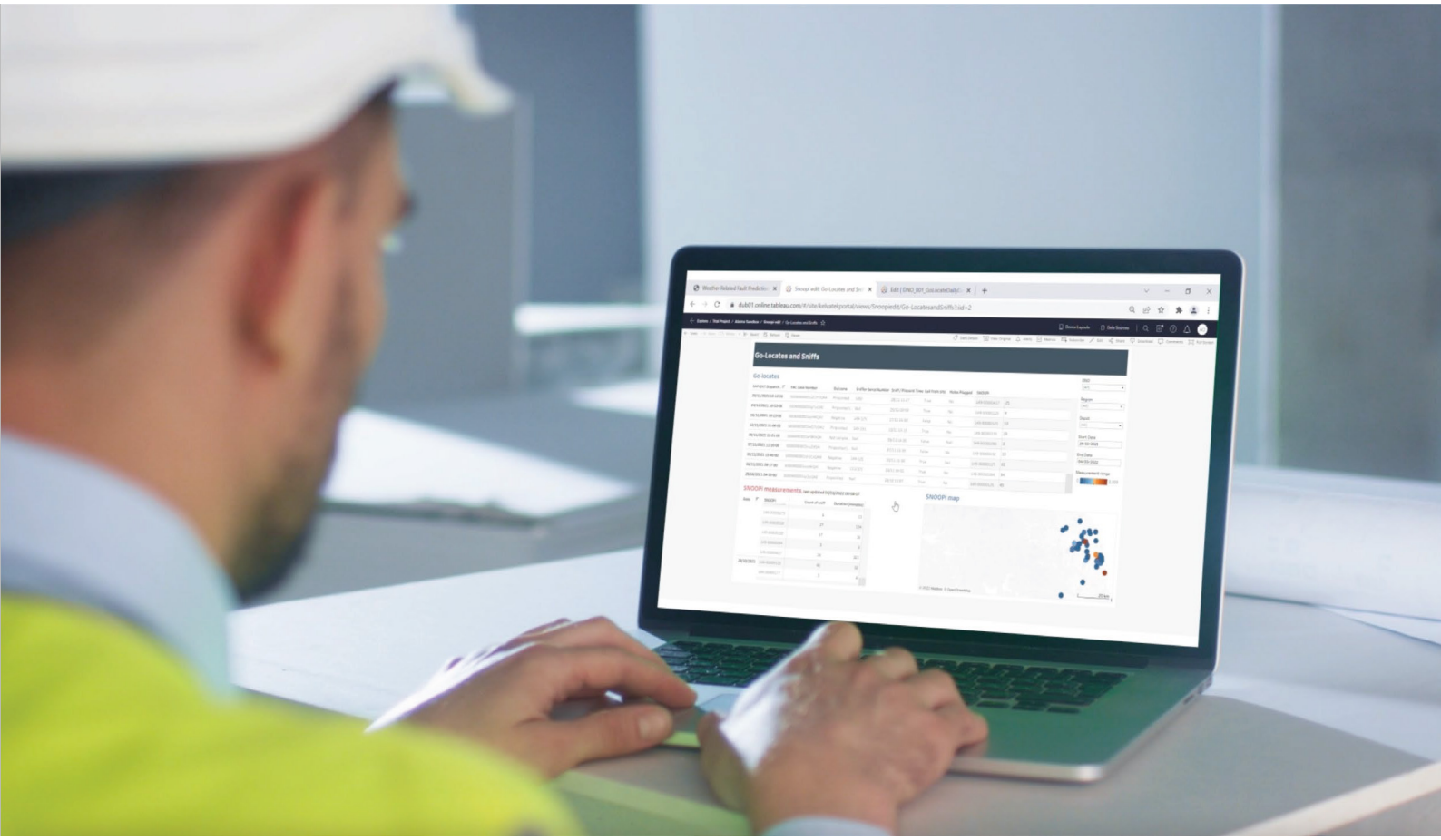
Driving valuable network insights for Scottish and Southern Electricity Networks



camlin energy

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At Camlin Energy we're committed to helping our clients unlock more value from their data, working closely with them to gain a deep understanding of their business, strategic goals, and practical barriers. We undertake an in-depth analysis of network performance for each client allowing us to develop bespoke plans which outline tangible methods to achieve efficiency savings, drive performance, maximise customer satisfaction and unlock sources of value from infrastructure.

We present this analysis in interactive dashboards, giving our clients an easy-tointerpret visual representation of their data from devices and services in real-time. Accessible via a secure browser-based interface, our dashboards provide managers with round-the-clock access to live and historic information including:

- Fault data
- Fuse activity
- Reclosure activity
- Cable deterioration and cable gas measurements
- Circuit load, feeder losses and phase imbalance
- Go-Locate notifications, fault location performance, and outcomes

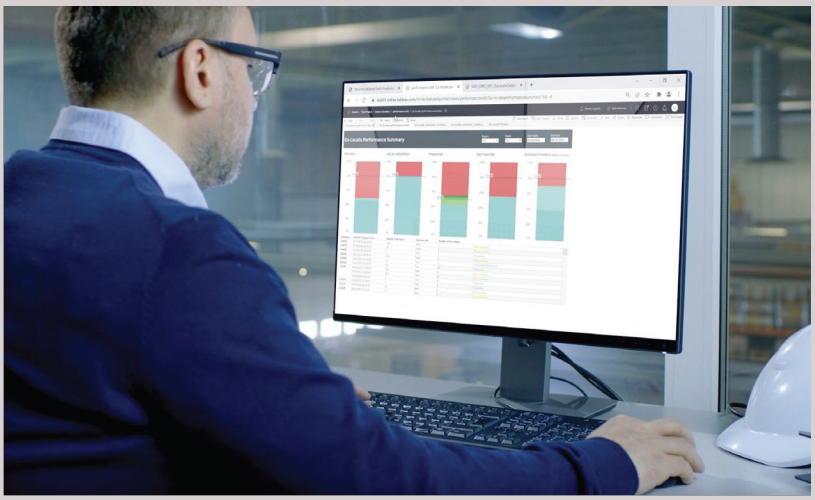
Project outline

Over recent months we have worked in collaboration with Scottish and Southern Electricity Networks (SSEN) to analyse their network data and present it in a range of dashboards to suit their resourcing structure.

Engaging weekly with each region of SSEN, we discuss how often they are installing equipment on the network after the first fuse rupture of a circuit, as is their current policy, and how well they are proactively locating faults on the network based on locations sent by our SAPIENT team in 'Go-Locates' (time-sensitive notifications of an underground cable defect which can be located with a fault gas sniffer), and any other network issues that may arise during the week. A big focus for SSEN is improving installation compliance, fault response processes and managing challenging faults that reoccur. SSEN were particularly interested in the analysis of faults that impact the most customers and faults that have the greatest number of interruptions for customers.

Over the course of the collaboration, we introduced SSEN to Camlin Energy's dashboard platform. As each region has its unique challenges, we developed different dashboards, meaning each Regional Manager can view their own data and focus on their own specific needs.

We distributed licenses to the relevant team members and walked them through the process of logging on, accessing the data, and understanding what insights are being provided.



"My experience with Camlin Energy has been excellent from the very first meeting around the first fuse replacement project. All the Camlin Energy team have been very supportive and extremely professional, they have listened to our needs and tailored the dashboards to meet our requirements."

John Fleet, Technical Coordination Manager, Scottish and Southern Electricity Networks.

Dashboard requirements

Having a clear understanding of SSEN's requirements, we set up the following dashboards:

- Active case management – This dashboard allows users to identify and prioritise interventions on the network using a variety of filters such as the number and frequency of fuse ruptures, load and fault insights and the number of customers connected.
- Fleet utilisation dashboard – This dashboard allows local Resource Managers to see exactly where equipment is installed on the network, where it can be removed and where other actions (such as updating cable records or fitting TDRs) are needed. It helps ensure DNOs are getting the most value out of their equipment with efficient use of resources.
- Go-Locate performance dashboards – This dashboard allows users to track fault finding from locations sent in our Go-Locates. Looking at the data in different ways such as the success of Go-Locates sent in standard working hours vs sent out of working hours or trending performance over months can help identify where issues may lie. These views track how they are following recommended best practices which improves the likelihood of locating the fault on the first notification. Things like attending the site within 12 hours and calling SAPIENT while attending the fault site to confirm running arrangements and properties off supply can increase the overall fault-finding rate significantly. Tracking these different key metrics can help improve the overall Go-Locate process and improve faultfinding results. Measuring fault-finding rates over time can help DNOs see at a glance whether their fault-finding is improving or declining and help them identify areas for training or improvement.
- SNOOPi fault gas dashboard – This allows Fault Leads to see where on the map all the locations the fault has been sniffed using one of our SNOOPi fault gas sniffers. It allows for root cause analysis when faults aren't found and operation insights for future activity. For example, which location had the highest reading last time, whether all routes were sniffed, whether the device was used correctly etc. Being able to see the sniffer readings broken down into individual gas types can help users gain confidence in fault locations for proactive repair.
- Wallboard view – A view to alert users to tasks related to Camlin Energy devices which need to be carried out. For example, Go-Locates that could be attended to, fault repair details that need to be updated or devices that are available for removal from the network. This dashboard was designed as a way to utilise any available resource and ensure Kelvatek equipment is being used to its full capacity.

"I needed to understand where we could improve our performance and the dashboards have helped me to identify and focus on these specific areas."

John Fleet, Technical Coordination Manager, Scottish and Southern Electricity Networks.

Benefits

Increased visibility and access to data

SSEN can now access their data in an easy-to-use way, tailored to the roles within their organisation. With the ability to view their data historically and in realtime, SSEN have an enhanced understanding of their overall performance and accountability within teams for performance

Optimal LV equipment utilisation

SSEN have experienced a noticeable improvement in how their Camlin Energy equipment is being utilised. They can see what equipment is available and where faults are escalating to ensure they are getting better value per device and better service for customers.

Improved fault management strategy

As SSEN have a historic view of faults, fault attendance and pinpoint rates, SSEN has been able to identify gaps in its fault management process and improve compliance with its 'first fuse policy'.

Resource efficiency gains

With increased visibility of network performance, SSEN can better manage resource constraints by prioritising faults and analysing challenging circuits.

As we continue to work in collaboration with SSEN and as their requirements evolve, we will adapt and create new dashboards.

"I have gained a lot of information from the dashboards to understand where we need to deploy equipment and resources."

John Fleet, Technical Coordination Manager, Scottish and Southern Electricity Networks.

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