



Real Time Fault Level Monitor

Project summary

Industry Partner(s):

SP Energy Networks

Innovator:

Outram Research

Challenge:

Managing fault levels, the highest amount of current that could flow in an electrical system under short circuit conditions, one of the major challenges faced by Distribution Network Operators (DNOs).

Approach:

The EIC supported all parties to move quickly through project scoping and contract agreement (Direct Investment Agreement), in accordance to NIA (Network Innovation Allowance) framework.

Outputs:

SP Energy Networks worked closely with Outram Research to jointly develop prototype "Real Time Fault Level Monitors (RTFLMs)" to help active management of its network. The results can be transmitted in real time, making it the first compact instrument capable of generating real time measurements for managing networks.

Looking forward:

Following the success of the initial project, a second phase of trials will be carried out to test the technology prototype in live network conditions.



Impact:

Transformational



Key benefit:

Financial

Real time readings give networks the confidence in whether there is sufficient headroom to connect more generation or battery storage without reinforcements. This means that networks can save money on repairs and closures, and new connections can be added at a lower cost.



Additional benefits:

Operational

Identification of fault level capacity in areas of the network that are currently restricted introduces Active Network Management based on fault level.