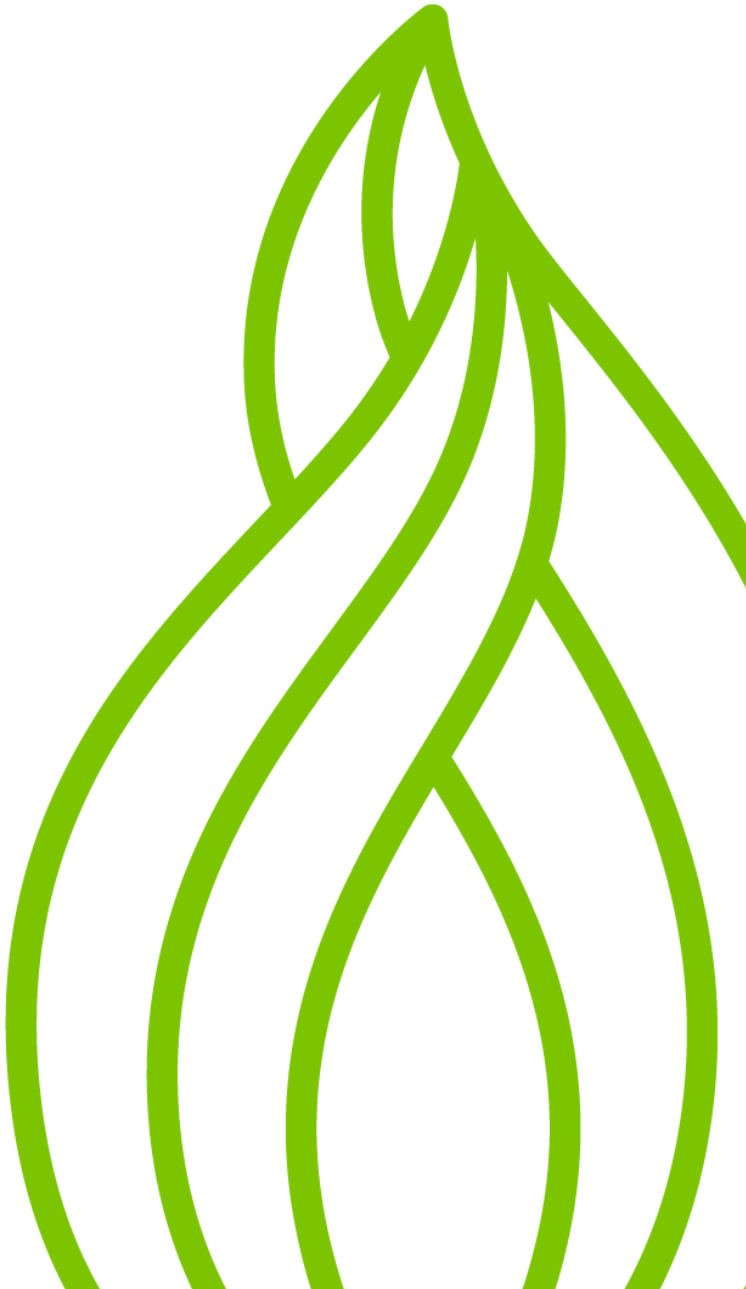
national gas transmission

Ramp Rate Study System

Value Tracking Case Study



Ramp Rate Study

Background

When a National Gas Transmission (NGT) customer requests a new connection to the network, we may need a ramp rate study to determine the consequences of bringing it online. New connections to the network can ramp up or down more quickly than the system can handle, leading to abnormal operating conditions and adverse impacts on the safety and security of the NTS. With a ramp rate study, we can model the proposed situation and determine if a particular ramp rate can be safely accommodated by the system.

The initial process relied on complicated and time-consuming interaction between Simone (the network simulation software package), Microsoft Excel spreadsheet and Access tools and sometimes third-party consultants. All ramp rate studies are funded by the customer. Those carried out internally by NGGT took three months on average to complete and cost £25k to £35k. Studies outsourced to a third-party consultant due to limited internal resources typically took longer to complete and cost £30k to £40k.

What's new?

This project set out to provide a lower cost service to the customer, improve the level of service provided and improve customer satisfaction.

The project team developed a new methodology for assessing proposed customer ramp rates, incorporating intelligent software algorithms, new methods of analysis and the development of in-house capacity and expertise.

To facilitate wider application of the tool, the developers used open source code. They developed user guides and technical documentation to increase accessibility and encourage uptake of the tool.

The benefits

Implementation of the tool has resulted in a faster turnaround of a ramp rate study for the customer, cutting the average completion time of a ramp rate study from nine weeks to just seven – 25% quicker and saving £10k per study. This has had a significant impact on the cost to customers. Greater efficiencies have been achieved by applying the methodology to nine new studies. All studies are now completed in-house, reducing reliance on third-party consultancies and avoiding the higher costs to customers associated with outsourcing

Financial savings

With 100% of Ramp Rate Studies now completed in-house, the project has saved £90k to date through process efficiencies.

Implementation

The expertise and capacity developed in house since the introduction of the tool has helped identify trends in the ramp rate studies. A checklist has been implemented to identify when connection applications require a ramp rate study and when we are confident they do not based on our growing knowledge base and experience. This will result in less studies being carried out, further reducing the cost to our customers of connecting to the network.