

Smart testing, smarter rollouts



How Resillion is helping a leading UK energy company cut smart meter testing time from weeks to days

Legacy tools and a growing backlog

The energy provider wanted to evolve its smart meter testing with a faster, better solution. The UK utility's internal team relied on a largely manual tool that was originally built as a proof of concept nearly a decade ago. That system only allowed a user to carry out manual testing against one test set at a time, and with thousands of hardware and firmware combinations in play, even a single test campaign could take over a month to complete.

Previously, system maintenance relied on a small group of experts, highlighting the opportunity to reduce dependency and build resilience.

At a time when new smart meter models and specifications were emerging quickly, this slow, resource-heavy approach had become a major bottleneck. They needed a smarter way to scale its testing and keep up with the evolving smart energy landscape.

Company overview

One of the UK's largest energy companies, responsible for delivering electricity and smart meter infrastructure to millions of homes and businesses. The smart metering business unit plays a vital role in ensuring national compliance, device compatibility, and rollout efficiency as the UK moves to a smarter, low-carbon energy system.

Location

United Kingdom

Industry

Energy and Utilities

Resillion's services

- Automated test platform development
- Integration with the Data Communications Company (DCC)
- Testing of gas/electric meters, comms hubs, and smart meter interfaces
- Lab-based interoperability and conformance testing
- Ongoing test support and advisory services

Key business outcomes

- Compliant, interoperable smart meters aligned with evolving SMETS standards
- Rapid testing cycles and continuous testing capability delivered through a scalable, futurefit automation platform
- Improved resilience by embedding legacy knowledge directly into the automation solution

Built from scratch. Designed for scale

Resillion designed and delivered an automated smart meter testing platform tailored to the organisation's environment. Built from the ground up (but with reusability in mind), the new system allows testers to create, edit and run large-scale testing projects against real smart meter devices in a controlled lab setup.

Powering the future of smart energy

As the UK energy sector advances towards dynamic pricing, half-hourly settlements, and smart grid integration, reliable smart meter infrastructure is essential. Resillion's automated testing solution is helping the energy provider move faster and with more confidence, keeping on top of compliance, reducing costs, and supporting the move to a smarter, low-carbon energy system.

Key features

The platform connects directly to the UK's DCC network, ensuring every service request and response meets national compliance requirements. Automation handles the bulk of the process, with prompts for human input only when physical interaction with the meter is needed.

Built for flexibility, it supports automated interoperability testing across a full range of device types including gas and electricity meters, comms hubs, PPMIDs and in-home displays. Multiple test cycles can now run in parallel, cutting down testing time and resource needs. Its modular, cloud-ready design replaces outdated legacy tools with a scalable, maintainable solution that's easy to update and easy to adapt for other energy providers working with SMETS2 standards.

In short, the new system is easier to maintain, easier to update and far less dependent on a handful of experts to keep it running.

Faster cycles, lower risk

With 50% of test activity already automated, cycles have accelerated. Testing can be run continuously, around the clock, without needing laborious manual intervention at every stage. And it's easier for the energy provider to ensure that devices and firmware variants work seamlessly together, removing risk and unlocking full interoperability across the smart meter estate.

Automation is boosting team productivity, adding speed and scale. At the same time, humans remain very much in the loop, reviewing automation outputs and working alongside manufacturers to address the root causes of common defects. Skilled engineers are being augmented, not replaced. By removing their risky dependence on a handful of legacy system experts, the organisation has also gained a more resilient and maintainable testing process. And as SMETS standards continue to evolve, the platform's modular, flexible architecture means that it can easily handle new specifications, devices, and firmware versions when they arise, future-proofing the smart meter testing process for years to come.



“What we’ve built isn’t just faster. It’s smarter, scalable and ready for what’s next. Testing has been streamlined and automated, and the impact for our client is a significant drop in costs while increasing capacity and throughput”

Bill Chard

Resillion



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