

How We Verify Retrofit Performance

Tricity Labs (trading name of CryptoTricity Ltd) provides independent measurement and verification (M&V) for retrofit programmes. This page sets out how that verification actually works, and why it's structured the way it is.

Why independence matters

When the organisation measuring a retrofit's performance is the same one that installed it, funds it, or is paid based on the result, there's a structural conflict of interest -- regardless of anyone's good intentions. Tricity Labs measures and reports independently of installers, contractors, and delivery partners, so a housing association or funder can rely on the finding regardless of who carried out the work.

What we measure, and how

- **Pre- and post-retrofit performance**, compared against a property's own baseline rather than a generic modelled assumption for its archetype.
- **From existing smart meter data** already present in the home, rather than requiring new sensors installed solely for the assessment.
- **Aligned with BS 40101**, the British Standard for Building Performance Evaluation, so findings are structured in a form housing bodies, funders, and contractors already recognise.

The products this methodology underpins

Verity

The central live dashboard and platform interface, providing an independent, always-on evaluation of real property performance in daily life rather than theoretical paper assumptions. It establishes Tricity Labs as an independent evaluator rather than a contractor or energy supplier, eliminating conflicts of interest, and gives boards verifiable data to satisfy the Regulator of Social Housing (RSH) Consumer Standards in the UK and the Approved Housing Bodies Regulatory Authority (AHBRA) asset standard in Ireland.

Detect

A proactive welfare and operational tool using half-hourly smart-meter data to flag consumption anomalies, system failures, and prepayment (PAYG) hardship events -- including low balances and quiet self-disconnections. In Great Britain, this feeds directly into compliance with Awaab's Law and defends against damaging RSH C3/C4 gradings by catching damp, mould, and heating failures early. In Ireland, it supports the AHBRA tenancy standard by giving tenant engagement and welfare teams a 36-to-48-hour early warning to support vulnerable residents before a crisis occurs.

Evidence

Export-ready, audit-compliant data packages built on internationally recognised engineering methods -- specifically CIBSE TM54 energy modelling and ASHRAE Guideline 14 measurement and verification. This is essential for securing and acquitting capital grants: in the UK it provides the independent proof needed to win competitive bids under the Warm Homes Fund, and in Ireland it delivers the documentation required to acquit SEAI (Sustainable Energy Authority of Ireland) funding streams, including the NHEUS and EERP frameworks.

Verify

A dedicated measurement and verification protocol that formally quantifies energy savings and environmental upgrades by comparing pre-works baselines directly against post-retrofit performance. This lets social landlords definitively prove the real-world impact of their capital spend -- for Irish AHBs, verifying the BER B2 uplift required to meet the national target of 500,000 retrofitted homes by 2030; for GB housing associations, giving the regulator concrete proof that public and tenant funds delivered warmer homes and lower bills.

Benchmark

A comprehensive, 13-month pre-retrofit energy consumption baseline generated entirely remotely from smart-meter data, with no physical surveys, home visits, or capital hardware installation required. Because pre-retrofit baselines can't be created retrospectively, establishing this benchmark is the vital first step before capital deployment, letting asset management teams benchmark large cohorts quickly and cost-effectively out of operational budgets rather than through lengthy procurement cycles.

Stock Performance Index

A property-by-property analytics metric contrasting actual, measured energy consumption against theoretical EPC (GB) or BER (Ireland) modelled expectations. This exposes the "performance gap" between paper certifications and real-world building behaviour, automatically surfacing a Ranked Priority 100 list showing landlords exactly which properties are underperforming -- so asset-management prioritisation can be defended, legally and financially, to regulators and internal stakeholders.

Who this serves

Housing associations, retrofit contractors, and funders -- including Warm Homes Social Housing Fund-related programmes -- who need defensible, independent evidence rather than a self-reported outcome. Tenant engagement is built into the process rather than added afterward.

Limitations, stated plainly

Measurement quality depends on the availability and quality of existing smart meter data for a given property -- this isn't a substitute for a full technical survey where one is required, and findings are reported as measured evidence for a specific property and period, not as a guaranteed outcome for a different property or timeframe.

See it on a real property

[Apply for a pilot](#) to see this methodology applied to your own stock.