

Measurement and Verification for Carbon Projects

Canonical: <https://northmoregordon.com/services/measurement-and-verification-for-carbon-projects/>

Details:

What M&V; establishes · Project cycle · Evidence · Outputs

Measurement and verification for a carbon project establishes what changed because of an intervention and whether the evidence supports the intended use. Northmore Gordon works with project owners and developers on eligibility reviews, method selection, registration, baseline design, monitoring, calculations, reporting and verification management.

The original service page reports experience registering technology-based projects and creating carbon credits since 2014, with accredited or certified measurement and verification professionals and registry capability. That experience does not make every reduction creditable. Eligibility, additionality, method availability and timing must be tested for the actual project.

What M&V; establishes

The core comparison is between measured post-project performance and a credible estimate of what emissions or energy use would have been without the project under comparable conditions. A baseline needs a defined period, boundary, data source and treatment of operating variables such as production, weather, occupancy or process load.

Planning should begin before the investment or installation event that matters under the selected scheme. If representative baseline data, metering points or implementation records are missing, later verification may be weaker or impossible.

A carbon project evidence cycle

Purpose and pathway: identify whether the result is for internal performance, a contract, public reporting or a particular carbon-credit method.

Eligibility and additionality: review project history, commitments, rights, consents, method rules and the event that counts as project commencement.

Boundary and baseline: define equipment, energy streams, emissions sources, meters and representative pre-project conditions.

Monitoring plan: specify instruments, intervals, quality checks, operating variables, data ownership and record retention.

Implementation record: document what was installed, commissioning, dates, faults and concurrent site changes.

Calculation and review: apply the agreed method, adjustments and uncertainty treatment so another competent reviewer can reproduce the result.

Scheme submission: prepare reports, audits and registry evidence required before credits can be issued or sold.

Northmore Gordon's published experience includes industrial and commercial emissions reduction, organic waste, alternative waste treatment, wastewater and biochar projects. The applicable method

and current scheme status must be confirmed before relying on those examples.

Evidence to collect before implementation

the project proponent, site, technology and ownership structure;
investment, purchase, lease and installation chronology;
existing equipment, operating conditions and historical data;
proposed method, boundary, baseline model and monitoring equipment;
rights, consents, prior incentives and environmental attribute ownership;
commissioning and handover requirements; and
reporting, verification, audit and record-retention responsibilities.

For energy projects, the practical principles in energy-efficiency M&V; still apply. Carbon schemes add method, additionality, project registration and issuance requirements.

Keep forecasts, verified results and credits separate

Output	Meaning	---	---	---	
Engineering estimate	A modelled expectation based on stated design and operating assumptions	Verified energy or emissions result	A result calculated from the agreed baseline and post-project evidence	Certificate result	A quantity accepted or issued under the governing scheme process
Commercial result	Credits sold, with price, fees, delivery terms and cash receipt recorded separately				

An engineering forecast is not a verified result, and a verified reduction does not automatically become an issued carbon credit. The government schemes guide and certificate guide provide context for Australian pathways.

Contact Northmore Gordon before commitment or installation with the project location, technology, current stage, expected timetable, available baseline data and intended scheme.

What is measurement and verification (M&V;) and why does it matter for carbon projects?

Measurement and verification determines the effect of an energy improvement or emissions reduction using an agreed boundary, data and analysis. For carbon projects, M&V; establishes what emissions would have occurred without the intervention (the counterfactual) and compares it to actual post-project performance. This credible evidence is essential: an emissions inventory alone does not establish carbon credit eligibility, and a lower bill or measured reduction must be separated from changes in production, weather, or operating conditions. M&V; provides the foundation for project registration, baseline modelling, and the savings calculations that support carbon offset issuance under schemes like the ACCU programme.

How does Northmore Gordon approach M&V; for carbon projects?

We provide measurement and verification services including project-boundary selection, baseline modelling, savings calculation and reporting. Our team includes Accredited and Certified Measurement and Verification Professionals (CMVP, AMVP, EEO Assessors) and holds registry accounts with the Australian Government, with a track record of successfully registering projects and creating carbon offsets since 2014. We work across multiple carbon methods including Industrial and Commercial Emissions Reduction (ICER), Source-Separated Organic Waste, Alternative Waste Treatment, Wastewater Treatment, and Biochar carbon removals, tailoring the M&V; scope to the specific project type and applicable regulatory requirements.

What is the difference between a forecast, verified result, and a certificate result in carbon projects?

A forecast is an estimated future result before implementation, dependent on stated assumptions. A verified result is an outcome supported by the specified M&V; assessment and review process—for example, energy savings confirmed through baseline comparison and adjustment for operating changes. A certificate result is a quantity that has been accepted or issued under the relevant carbon scheme's process, which may differ from the verified technical result. These three outputs must be kept distinct. A company's internal energy analysis prepared for one purpose should not be assumed to satisfy another scheme's evidence standard, timing requirement, or eligible quantity for carbon credit issuance.

What evidence and planning must occur before a carbon project is installed?

Early measurement planning is critical to preserve options and evidence. Before physical work begins, a project team should establish the applicable carbon method, project proponent, real commitment history, required rights and consents, and the monitoring plan. For timing-sensitive pathways like the ACCU Scheme, CER's newness guidance identifies certain investment and asset commitments as potentially significant before registration, with method-specific exceptions. Project timing should describe distinct dates for feasibility approval, final investment decision, purchase or lease commitment, installation, commissioning and normal operation. Early measurement planning identifies the boundary, baseline conditions, operating variables to track, data quality requirements and who is responsible for evidence collection—actions that cannot be recovered after commissioning.

What practical information should be included in a carbon project M&V; brief?

A practical M&V; brief should state the purpose (internal performance, investment contract, reporting, or certificate scheme); identify the measurement boundary including equipment, meters, energy streams and interactions; establish baseline conditions and how operating changes will be treated; specify instruments, intervals, quality checks and data-access responsibilities; record what was actually installed, when commissioned, and what else changed; and show the calculation, uncertainty, adjustments and exceptions so another competent reviewer can follow it. We recommend treating measurement and verification as a defined scope within a project engagement, not a replacement for scheme-specific method requirements. The appropriate entity, professional and activity scope should be confirmed for each carbon scheme engagement.

How do carbon credits, energy savings, and renewable electricity attributes differ in accounting and value?

Carbon credits, energy savings, and renewable electricity attributes serve different accounting purposes and should not be presented as interchangeable. An ACCU represents one tonne of CO₂-equivalent avoided or stored through an eligible ACCU Scheme project—it is not issued for every reduction shown in a company's emissions inventory. Energy savings are physical reductions in consumption verified through M&V; against a baseline. Renewable electricity attributes (such as REGOs) record generation and support specific grid or contractual claims. When building a carbon project investment case, track certificate revenue, energy cost savings, maintenance benefits, and capital requirements separately. Do not promise a certificate price or payback based on a historical project; treat forecast quantity and market price as different uncertainties.

What makes a carbon project 'additional' and why does it matter for credit eligibility?

Additionality means the project would not have occurred under business-as-usual circumstances—the emissions reduction or carbon removal must result from the deliberate project intervention, not from regulatory requirements, normal equipment replacement, or autonomous technological change. For ACCU Scheme projects, CER's newness and regulatory additionality guidance establishes that projects generally must be registered before activities start unless the method provides otherwise, and specified government-program restrictions apply. Establishing real additionality requires assembling the project's genuine commitment history, demonstrating that significant investment or asset decisions were made

only after project concept, and showing that the proposed method applies. Without credible additionality evidence, a technically sound emissions reduction cannot generate eligible carbon credits.

How does Northmore Gordon help with carbon offset project registration and compliance?

We provide project eligibility review, assist in selecting the appropriate registry, method, and certificate type, manage project registration, and defines project boundary selection with a measurement and monitoring plan. We conduct baseline modelling aligned with the applicable method, calculates annual savings, prepare reporting documentation, and manages audit and verification processes. Once a project is registered and operating, we help optimise the financial value of certificates through pre-purchase contracts, price hedging, advice on certificate markets, forward sales and trading arrangements, and spot trades. This end-to-end support ensures that technical M&V; evidence is correctly documented for scheme compliance and that the resulting credits can be strategically managed as a revenue asset.

What are the main carbon project types Northmore Gordon specialises in?

We specialise in creating carbon offsets from Industrial and Commercial Emissions Reduction (ICER), Source-Separated Organic Waste, Alternative Waste Treatment, Wastewater Treatment, and Biochar carbon removals. ICER provides a framework for evaluating and crediting abatement projects by ensuring they are additional, measurable, and verifiable. Biochar is a stable, carbon-rich form of charcoal produced by biomass pyrolysis that, when applied to soil, increases fertility, water retention, and soil carbon content while safely sequestering CO₂ for thousands of years. Each method has distinct eligibility requirements, M&V; pathways, and registry rules. The appropriate method selection depends on the technology, location, timing, and intended claim—a technically feasible upgrade does not automatically qualify under a particular carbon scheme.