

Geelong Grammar Toorak Solar VEEC Project

Canonical: <https://northmoregordon.com/case-studies/geelong-grammar-school-toorak-campus/>

Details:

[Project](#) | [Our role](#) | [Results](#) | [Lessons](#) | [Related guidance](#)

Geelong Grammar School installed a 166 kW solar photovoltaic system at its Toorak campus and used a measurement and verification pathway to create Victorian Energy Efficiency Certificates. Northmore Gordon supported eligibility, modelling, reporting and audit management.

Evidence note: The source case study was published on 12 February 2025. Its generation, savings, rebate and annual-dollar figures are project-reported results or estimates. A new solar project's VEU eligibility and value depend on the applicable activity, evidence period and current program rules.

Project context

The school wanted to lower operating costs and support its stated 2035 net-zero target. The investment case therefore needed to explain expected electricity generation, site energy savings, certificate value and the evidence required by the program.

Northmore Gordon's role

Reviewed project eligibility and selected the measurement and verification method.

Defined the project boundary and measurement plan.

Developed the baseline and post-project savings calculations.

Managed registration, reporting and audit requirements for the VEEC claim.

The M&V process gave the school an upfront view of project economics while creating an evidence trail for certificate creation. It also kept solar generation, avoided grid consumption and certificate value as related but distinct measures.

Reported project results

Solar PV capacity: 166 kW

Reported annual generation: 193 MWh

Reported energy saving: 168 MWh

Certificates created: 1,330 Solar VEECs

Reported rebate: \$74,000

Estimated annual energy-cost saving: about \$27,000

Improved the project's financial case through the reported certificate rebate.

Reduced grid electricity use and supported the school's environmental goals.

Created a documented measurement boundary, model and audit trail.

What this project shows

Solar generation does not automatically equal site energy saving. Imports, exports, operating schedules and the selected baseline all affect the measured result. Those definitions should be agreed before data collection begins.

Schools should assess tariffs, load timing, asset life and maintenance alongside incentives. Certificate value can improve the project case, but the system should remain viable under realistic energy-use and price assumptions.

Related guidance

Measurement and verification

Small-scale solar PV

Government schemes

Environmental certificates

What to do after an energy audit

More case studies

Discuss a comparable energy, carbon or certificate project with Northmore Gordon .

What size solar PV system was installed at Geelong Grammar School's Toorak campus, and what was its annual energy generation?

A 166 kW solar photovoltaic system was installed at Geelong Grammar School's Toorak campus, generating 193 MWh of energy per year. This system size and output profile informed both the energy savings calculation and the Victorian Energy Efficiency Certificate (VEEC) creation. The annual generation figure became the basis for the measurement and verification assessment that demonstrated the project's performance and justified the financial incentives available under the Victorian Energy Upgrades scheme.

How did Northmore Gordon's Measurement and Verification approach support the solar project's financial case?

We used the Measurement and Verification (M&V;) method to establish the project boundary, develop a baseline model using multi-variable regression analysis, and calculate post-project savings. This rigorous approach created transparency around the 168 MWh energy savings and the resulting ~\$27,000 annual financial benefit. The verified outcome provided certainty for the school's investment decision and formed the foundation for creating 1,330 Solar VEECs, which delivered a \$74,000 rebate that improved project economics. M&V; also enabled audit management and reporting to substantiate the claims underlying the certificate creation and financial returns.

How many Victorian Energy Efficiency Certificates were created from this solar project, and what financial benefit did they provide?

The Geelong Grammar School solar project created 1,330 Solar VEECs, resulting in a \$74,000 rebate applied directly to the solar installation costs. These certificates were created under the Victorian Energy Upgrades scheme using the Measurement and Verification method. The VEEC quantity and rebate amount represented the scheme's recognition of the verified energy savings and the project's eligibility under the prescribed activity requirements. This financial contribution materially improved the project's payback period and helped justify the capital investment within the school's sustainability strategy.

What is the relationship between the school's 2035 net-zero target and this solar project?

Geelong Grammar School's ambitious 2035 net-zero emissions target provided the strategic driver for the solar initiative. The 166 kW installation supports this long-term decarbonisation goal by reducing grid electricity consumption and associated greenhouse gas emissions. The project demonstrates a staged approach to meeting the net-zero commitment, with verified energy savings of 168 MWh annually contributing measurable progress toward the emissions reduction pathway. Our M&V; process quantified this contribution, providing the school with auditable evidence of emissions impact for reporting and strategic monitoring against the 2035 target.

What practical benefits did Geelong Grammar School realize from this solar project beyond the direct energy savings?

Beyond the ~\$27,000 annual energy cost savings and 168 MWh reduction in consumption, the school gained reduced greenhouse gas emissions supporting its sustainability commitment, a \$74,000 financial incentive from VEEC rebates improving project economics, enhanced institutional reputation as an environmentally responsible education provider, and upfront certainty about return on investment. The M&V; process delivered transparent, verified performance information that supported the board-level business case and demonstrated to stakeholders that the capital outlay would deliver predictable financial and environmental benefits aligned with the school's values and strategic direction.

How does this solar project exemplify the application of environmental certificates to school infrastructure improvements?

Geelong Grammar School's solar project demonstrates how Victorian Energy Upgrades scheme support can make renewable energy infrastructure more economically attractive for educational institutions. The combination of direct energy savings, verified through M&V;, with VEEC-based financial incentives shows how schools can access multiple benefit streams from eligible improvements. Our approach—integrating technical assessment, certificate pathway identification, project registration, and measurement planning—enabled the school to navigate scheme requirements and capture full value. This model is applicable across educational facilities seeking to balance sustainability commitments with budget constraints, illustrating how environmental certificate schemes can support broader decarbonisation goals in the education sector.

What information did Northmore Gordon's M&V; process provide for the school's decision-making around this investment?

The M&V; process established several critical decision inputs: a baseline model quantifying pre-project electricity consumption patterns, measured post-installation performance demonstrating the 168 MWh annual savings, verified energy reduction translated into ~\$27,000 annual financial savings, eligibility confirmation for 1,330 VEEC creation under the Victorian Energy Upgrades scheme, and the \$74,000 rebate amount that reduced net capital cost. This comprehensive information package allowed the school to model return on investment with confidence, understand both the energy and financial impacts, and communicate verified outcomes to governors, parents, and the broader community. The M&V; evidence also provided the audit trail necessary for scheme compliance and certificate issuance.

Why is understanding the measurement boundary and baseline critical for a solar project like Geelong Grammar School's?

The measurement boundary defines which equipment and energy streams are included in the assessment—in this case, the 166 kW solar system and its impact on the campus's grid electricity imports. The baseline establishes the pre-project consumption pattern that forms the reference for calculating savings. Solar generation data and grid import reductions must be clearly distinguished from other site changes to accurately attribute the 168 MWh savings to the installed system. Without a robust boundary definition and baseline model using multi-variable regression, changes in school operations, occupancy, or equipment elsewhere on campus could obscure the true solar contribution. Our approach ensured that the verified 193 MWh generation and associated savings stood as credible, auditable outcomes suitable for both VEEC creation and the school's sustainability reporting.

