

Helping Methodist Ladies' College Maximise Energy Savings with VEECs

Canonical:

<https://northmoregordon.com/case-studies/helping-methodist-ladies-college-maximise-energy-savings-with-veecs/>

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Case-study summary

This historical case study records the project, delivery approach and reported results behind Helping Methodist Ladies' College Maximise Energy Savings with VEECs . It has been reorganised for clearer reading and linked to current Northmore Gordon guidance so the project evidence can be used without treating an earlier result as a present-day quote.

Evidence note: The source page is dated April 17, 2025. Figures, scheme names, equipment assumptions and client circumstances belong to that project period. Opportunities, targets and forecasts remain distinct from implemented or verified outcomes, and current eligibility should be checked before using the case as a new-project benchmark.

Project record

Project Scope

At Northmore Gordon, we help organisations unlock value from environmental certificates while optimising their energy efficiency. One of our recent projects was with Methodist Ladies' College (MLC), where we supported the Measurement and Verification (M&V;) process for their 274.5kW solar system under the Victorian Energy Efficiency Certificate (VEEC

The solar system was designed to generate 327MWh annually, with 90% of that energy expected to be consumed onsite and the remainder exported to the grid. Our role was to ensure accurate M&V; reporting to maximise certificate creation while meeting compliance requirements.

The Challenges

Like many M&V; projects, this one came with its share of complexities:

Delayed Operating Period : Although the system was commissioned on 24 January 2023, the official operating period didn't begin until 15 July 2023—5.5 months later than planned.

Data Limitations : A full 12-month dataset was required, but gaps in solar generation data (13% of the total) posed verification challenges.

Multiple Modelling Approaches : We needed to test and compare different modelling methods to ensure the most accurate and beneficial outcome for MLC.

Project Outcomes

Despite the hurdles, the project delivered excellent results:

The solar system generated 290MWh , slightly below the modelled estimate but still providing significant energy savings.

85% of the energy was consumed onsite , close to the original target of 90%, reducing reliance on grid electricity.

The actual number of VEECs created was 2,115 , slightly exceeding the projected 2,111.

In total, MLC received \$122,709 (ex-GST) in financial benefits from VEECs, demonstrating the value of accurate M&V; and expert advisory support.

At Northmore Gordon, we thrive on helping organisations navigate complex energy projects and maximise the benefits of environmental certificates. This project highlights how careful planning, accurate modelling, and expert verification can lead to strong financial and environmental outcomes—even when challenges arise.

Founded in 1907 in Claremont, Western Australia, MLC is a leading independent day and boarding school for girls, renowned for academic excellence.

Using the results for a new project

Start with the site's current operating profile, asset condition and business objective. Define the baseline, project boundary, variables that affect energy use and the evidence available before selecting a technology or incentive pathway. This makes the comparison auditable and keeps physical savings separate from grants, certificate revenue and other financial benefits.

For a comparable project, confirm current program rules and product requirements, document installation and commissioning, and plan post-project measurement early. Historical results can show what was possible in one setting, but they do not establish current eligibility, pricing, payback or emissions outcomes.

Related guidance

Measurement and verification

Environmental certificates

Government schemes

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Commercial lighting

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What organisation did Northmore Gordon support in this case study, and what service did they provide?

We supported Methodist Ladies' College (MLC), a leading independent school for girls in Claremont, Western Australia founded in 1907, with the Measurement and Verification (M&V;) process for our 274.5kW solar system under the Victorian Energy Efficiency Certificate (VEEC) program. M&V; establishes credible evidence of energy savings by comparing pre- and post-project conditions, separating the solar system's actual performance from other factors affecting energy consumption.

What was the design capacity and expected annual generation of MLC's solar system?

The solar installation was designed at 274.5kW capacity with an expected annual generation of 327MWh. The design forecast anticipated 90% of generated energy would be consumed onsite, reducing grid electricity purchases, with the remaining 10% exported to the grid. This onsite consumption assumption was important for establishing the project boundary and understanding the energy balance before conducting M&V; analysis.

What challenges did Northmore Gordon address during the M&V; process for MLC's solar project?

We managed three significant challenges: a 5.5-month delay between system commissioning (24 January 2023) and the official M&V; operating period start (15 July 2023), creating a gap in the measurement timeline; data limitations with 13% of required 12-month solar generation data missing; and the need to evaluate multiple modelling approaches to determine the most accurate and beneficial calculation basis for certificate creation. Early M&V; planning helped mitigate these impacts on the final assessment.

How did MLC's actual solar performance compare to the modelled design estimate?

The solar system generated 290MWh annually, compared to the design estimate of 327MWh, representing 89% of projected output. This modest variance is typical for solar installations and reflects real-world weather, seasonal variation and equipment performance. Our M&V; process confirmed this actual generation through measured data, distinguishing the verified result from the initial forecast and supporting the basis for VEEC creation under the scheme.

What onsite consumption rate was achieved, and why does this matter for the investment case?

MLC achieved 85% onsite consumption of generated solar energy, close to the original 90% design target. This high onsite consumption rate is commercially valuable because it maximizes the avoided grid electricity cost—the primary financial benefit of the solar investment. The remaining 15% exported to grid has lower economic value. Understanding and optimizing this consumption pattern supports stronger project economics and demonstrates effective energy management aligned with operational needs.

What was the VEEC outcome for MLC's solar project, and how does it compare to projection?

The project created 2,115 Victorian Energy Efficiency Certificates, slightly exceeding the projected 2,111 VEECs. This certificate quantity, verified through our M&V; process, generated \$122,709 (ex-GST) in financial benefit for MLC. The VEEC revenue represents a material contribution to the solar investment case, demonstrating the importance of accurate measurement and verification to capture eligible certificate value under the Victorian Energy Upgrades scheme.

Why was establishing the correct M&V; boundary and baseline critical for this project?

The M&V; boundary and baseline determine what energy consumption is counted as avoided grid electricity and therefore eligible for VEEC creation. Site conditions changed between commissioning and the operating period start, potentially affecting consumption patterns. Our process of testing multiple modelling approaches ensured the most accurate baseline was selected, maximizing legitimate certificate creation while maintaining scheme compliance. This demonstrates why measurement planning should occur before installation commissioning.

How does this case illustrate the importance of early M&V; planning in solar projects?

MLC's project faced a significant commissioning-to-operating-period gap and data quality challenges that could have undermined certificate eligibility. Early M&V; planning—establishing measurement boundaries, identifying data requirements, and confirming baseline methodology before physical work—allows teams to prevent or mitigate such risks. Our approach of evaluating multiple modelling options provided flexibility to work within actual site conditions, demonstrating practical M&V; principles that preserve funding pathways and support informed investment decisions.