

Aurora Place: HVAC overhaul funded by Energy Savings Certificates

Canonical: <https://northmoregordon.com/case-studies/aurora-place-boosts-revenue-across-sydney-skyline/>

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Case-study summary

This historical case study records the project, delivery approach and reported results behind Aurora Place: HVAC overhaul funded by Energy Savings Certificates . 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 May 14, 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

“The Northmore Gordon team spent a great deal of time gathering the information, which was made all the more difficult due to COVID 19. Their diligence enabled a fantastic outcome for Aurora Place. The measurement and verification process allowed us to validate the energy savings of the project which confirmed the decision to replace our equipment. The revenue from the energy savings certificates allowed us to invest in further developments at Aurora Place”.

– Duncan Demol, National DC Facilities Manager costs reducing the payback.

The Client

Aurora Place, is a premium grade commercial building, with over 70 high profile tenants ranging from financial, law and health related industries. The commercial tower features 18 levels and is 49,400m² bounded by Phillip Street, Bent Street and Macquaries Street. It is an iconic site, featuring in the Sydney Skyline, clearly visible from the famous Sydney Harbour.

Key Facts

Equipment Upgraded: HVAC Its goal is to provide thermal comfort and acceptable indoor air quality. Chiller System, Chillers, VSDVariable Speed Drive

Annual Savings Energy: 309,000 kWh

Project Certificate Value: \$46,000

Program: NSW Energy Savings Scheme (ESS The ESS was established in 2009. Financial incentives are in the form of tradeable certificates, called energy savings certificates (ESCs). Generally, householders and businesses who fund energy savings activities transfer the right to create ESCs to Accredited Certificate Providers (ACPs) in return for a discount on the cost of the energy savings activity. The MWh savings from the project determines the number of ESCs that can be created. The

ESS works by allowing ACPs to create and register ESCs for energy savings that are supported with appropriate evidence. ESCs are then purchased each year by mainly electricity retailers operating in NSW to meet their share of a legislated annual energy savings target.)

Method: Project Based Activities (PIAM&VProject; Impact Assessment with Measurement and Verification)

The Project

Aurora Place determined an energy efficiency project was going to be a beneficial and rewarding course of action. The project involved a full overhaul of the site's HVAC chiller system which included the replacement of 5 existing chillers, base building cooling tower upgrades, variable speed drive (VSD) replacement on chilled water and condenser water pumps, upgrades to the outside air variable control and hot water coil bypass dampers. In addition to works on various air handling units. The creation of ESCs for this project provided more revenue to further improve the performance of the building. The M&V; work done during the ESC Each ESC represents one notional megawatt hour (MWh) of energy. creation process also allowed Northmore Gordon to monitor the energy savings as a result of the project.

Challenges

Aging equipment could impact reliability

M&V; process discovered fault in control system

Energy bills represent a substantial cost to data centre operators

Aging equipment could impact reliability

Additional Benefits

Reduction in energy consumption

Upgraded to a more eco friendly product

Chillers provider a greater range and configuration improving the cooling capability of the building

Our Role

Northmore Gordon created energy savings certificates (ESCs) using M&V; methodologies on the site consumption before and after the implementation of the HVAC works. Northmore Gordon completed the measurement & verification (M&V;) plan, collected site data & supporting evidence, and built the baseline and operating energy models to calculate the energy savings. Northmore Gordon also provided Aurora Place with price certainty to ensure the customer received the payment they had forecast.

A landmark mixed-use skyscraper in Sydney's CBD, designed by Renzo Piano, featuring an iconic glass façade and premium office and residential spaces.

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

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What is Aurora Place and where is it located?

Aurora Place is a premium grade commercial building in Sydney, Australia, with over 70 high profile tenants from financial, law, and health related industries. The tower features 18 levels and is 49,400m², bounded by Phillip Street, Bent Street and Macquarie Street. It is an iconic site featured in the Sydney Skyline, clearly visible from Sydney Harbour.

What equipment was upgraded in the Aurora Place project?

The project involved a full overhaul of the site's HVAC chiller system, including replacement of 5 existing chillers, base building cooling tower upgrades, variable speed drive (VSD) replacement on chilled water and condenser water pumps, upgrades to outside air variable control and hot water coil bypass dampers, plus work on various air handling units.

How much annual energy savings did the Aurora Place HVAC project achieve?

The project achieved 309,000 kWh in annual energy savings, according to the case study's reported figures. However, the measurement basis, project period, and whether these are estimated or realised outcomes should be confirmed before treating them as definitive results.

What was the certificate value generated by the Aurora Place project?

The project generated a certificate value of \$46,000 through the creation of Energy Savings Certificates (ESCs) under the NSW Energy Savings Scheme (ESS). This represents the financial value of eligible energy savings recognized under the scheme's regulatory framework, though this company-reported figure should be verified before use in investment decisions.

Why is measurement and verification important for projects like Aurora Place?

Measurement and verification establishes what energy use would have been without the intervention under comparable conditions, then calculates savings as the difference between that baseline and post-project consumption. For Aurora Place, the M&V process discovered a control system fault and validated the actual energy savings achieved. This credible evidence supports both certificate eligibility and confidence in equipment replacement decisions, enabling customers to justify investments and secure revenue from environmental certificates.

How did Northmore Gordon support the Aurora Place energy efficiency project?

We completed the M&V plan, collected site data and supporting evidence, built baseline and operating energy models to calculate energy savings, and created Energy Savings Certificates (ESCs) under the NSW Energy Savings Scheme using the Project Impact Assessment with Measurement and Verification (PIAM&V) method. They provided Aurora Place with price certainty to ensure the customer

received their forecast certificate payment, addressing a key commercial concern for building owners investing in major equipment upgrades.

What operational challenges affected the Aurora Place project, and how were they addressed?

Challenges included aging equipment reliability concerns and a control system fault discovered during the M&V; process. The diligent measurement and verification work identified and addressed these issues. Beyond resolving technical problems, the upgrades delivered chillers with greater range and configuration capability, improving the building's overall cooling flexibility. This demonstrates how systematic energy assessment can reveal and correct underlying operational weaknesses alongside efficiency improvements.

What commercial benefits did Aurora Place gain beyond the energy savings certificates?

Beyond the \$46,000 certificate revenue, Aurora Place achieved 309,000 kWh in annual energy consumption reduction, which directly lowers operating costs. The project also upgraded to more eco-friendly equipment and improved cooling capability and configuration range. Importantly, the certificate revenue enabled further investment in building developments, illustrating how environmental scheme proceeds can fund ongoing facility improvements and capital programs for commercial property owners.

How should Aurora Place's reported energy savings and certificate figures be used in investment decisions?

The reported figures of 309,000 kWh annual savings and \$46,000 certificate value are company-reported and documented as pending client technical review and publication clearance. Before treating these as definitive results for comparison or decision-making, the measurement basis, project period, and whether savings are estimated or realised outcomes should be confirmed. This caution applies to all historical case studies—they illustrate work types but do not establish performance guarantees for new projects at different sites.

What does the Aurora Place case reveal about planning measurement and verification early in energy projects?

Aurora Place demonstrates that establishing M&V; plans before equipment changes enables collection of representative baseline data and identification of proper measurement boundaries. The systematic approach allowed the team to discover a control system fault, validate actual savings against models, and provide credible evidence for certificate creation. Starting measurement and verification early—rather than after installation—preserves the ability to establish defensible baselines and supports both regulatory compliance and investment accountability.