CASE STUDY:

111 George Street, Brisbane, QLD

Total Renewable and Energy Efficiency Solutions

PROJECT SUMMARY

Project Type - Energy Performance Contract

Medical Facility - A 33 story commercial Queensland Government office building in the Brisbane CBD, with 28,632m² of Net Lettable Area (NLA) and car parking spaces for 240 vehicles.

Project Cost - $1,416,925
Project Savings - $201,335 per year

Return on Investment - 15.23%

Energy Consumption savings – 2,353,581 kWh per year (6,530 kWh per day)

Greenhouse Gas Emission Savings: 2,360 tonnes of CO2 per year (6.46 tones per day)

Site Savings – 34.6% of site total electricity consumption

Measurement & Verification - Main electricity meter analysis using METRIX software

TECHNICAL SUMMARY

Utilization of the skills and experience in sustainable design, installation and commissioning to supply a comprehensive Energy Performance Contract, applying multiple technologies for the following Energy Conservation Measures:

1. Installation of a new integrated Building Management System (BMS) and Access Control System (ACS) to optimize control of original and new building equipment, building energy performance and tenant security. As part of the project over 2,500 individual security cards have been coded and integrated into the energy saving strategies.

2. Installation of an oil free water cooled chiller, supplying 1,850kWr of refrigeration at high efficiency with extremely low maintenance.

3. Installation of a range of Variable Speed Drives (VSDs) assisting in smarter control of the HVAC system pumps & fans and thus facilitating a more energy efficient building cooling strategy.

4. A comprehensive lighting and lighting control upgrade for the whole building involving the design and installation of over 6,000 high performance light fittings including numerous energy saving lighting components and control devices.

5. Design and implementation of multiple air conditioning strategies such as enthalpy based economy cycle, primarily integrating original building equipment with the new BMS to improve temperature control and achieve energy savings.

CONTACT US

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