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Award for sustainable building retrofit

215 Adelaide Street, Brisbane was announced winner of the Thinc Award for Best Sustainable Development – Existing Buildings at the 2013 national Property Council of Australia Awards.

Located in the heart of the CBD, 215 Adelaide Street has been a prominent commercial tower in Brisbane's landscape for 30 years. In 2008, Norman Disney & Young (NDY) recommended a plan to improve tenant services and slash energy consumption.

Following a comprehensive \$5.4 million building services upgrade, this target was achieved in December 2011, and in December 2012 the building achieved a 5 Star NABERS Energy Rating and its first 4.5 Star NABERS Water Rating.

The main innovations and challenges in the delivery of the retrofit included pre-order of the chillers, fan speed modulation and chilled water thermal energy exclusion. NDY called tenders from select chiller manufacturers very detailed operational information which was entered into the energy model to calculate the relative cost/value for each chiller plant option.

An existing constant speed multizone air handling unit (AHU) was retained which presented significant controls

Key building statistics	
Energy savings kWh	~5,000,000kWh/a or 46%
Carbon emissions reductions	~4,500,000kgCO ₂ (e)/a or 46%
Operational cost saving	~\$460,000/a
Peak demand reduction	~1.223MW or 46%

challenges and it took "detailed fine tuning over the two years defects period (first season to action problems and second season to confirm results) to get the AHU controls routines operating in a optimal manner".

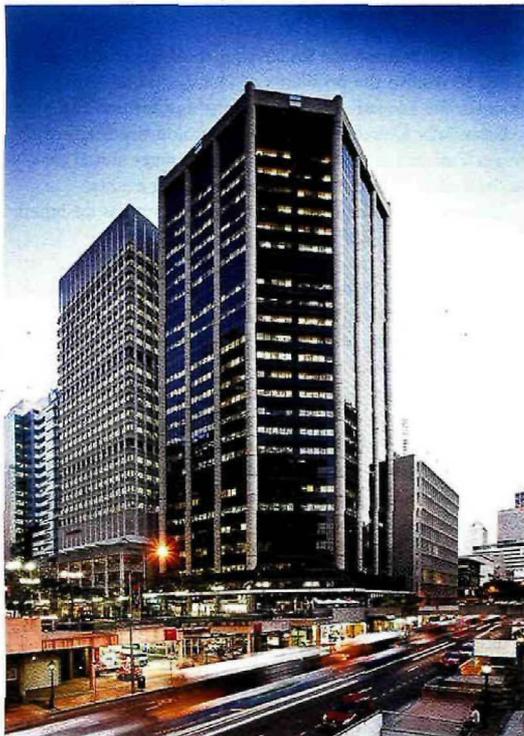
At the heart of the upgraded rating for the building, the provision of chilled water to the retail presented the most significant risk to the project with up to half a star being subject to NABERS approval of the complex NABERS thermal exclusion. NDY specified extensive chilled water energy metering within existing pipe work along with additional smart metering of power supplies to central chilled water plant, such that the thermal exclusion was delivered.

NDY director Andrew Gentner said: "NABERS Energy 4.5 Star and above ratings are routinely achieved with new high grade buildings and with the use of trigeneration or purchase of green power.

"215 Adelaide Street stands apart from these buildings as an example where attention to detail and getting the basics right in an older building can deliver excellence in energy efficiency. By maintaining full occupancy we avoid disruption to lessors cash flow but also disruption to tenant business's and their employees. By refurbishing rather than rebuilding we can deliver 5 Star operational efficiency with the smallest initial carbon footprint and avoid large quantities of waste to landfill. In 2010 the market simply didn't consider that a 5 Star or even 4.5 Star refurbishment was achievable. 215 Adelaide Street presents innovation in true eco-efficiency and could be a valuable case-in-point for Australia's existing buildings.

"NDY has been intimately involved with this project for over five years through project inception, design, construction and finally fine tuning. I'd like to acknowledge facilities managers Jones Lang Lasalle, building owners past and present, John Outhwaite & Associates, the managing contractor Built and the subcontractors for being part of the building's refurbishment journey."

The project was vying with three other finalists in the category, including Mirvac's 240 Adelaide St, Brisbane; The GPT Group Sydney nominated by GPT Group and Woods Bagot; and IAG House, Sydney owned by Investa and Brookfield. ■



215 Adelaide Street, Brisbane, won a sustainability award for its retrofit.