

# Tower wins a cool five stars

Lisa Carapiet

Existing buildings are running out of excuses not to "green up" operations after a conventionally air-conditioned Sydney office tower owned by GPT Wholesale Office Fund achieved a five-star NABERS Energy rating.

The 29,600 square metre Darling Park 3 office tower on Sussex Street in Sydney is the first CBD building larger than 20,000 sq m to achieve the top rating using a variable air volume air-conditioning system without the assistance of green energy.

VAV air-conditioning regulates the amount of cooling targeted at any room or area by distributing variable amounts of air. For example, a room with a lot of sunlight will have a higher cooling air load than a darker room with restricted sunlight.

With green power added to the equation, the Darling Park 3 generates 70 per cent less greenhouse emissions than a typical 2.5 star building, and the lowest emissions of the currently rated five-star base buildings.

The maximum carbon emissions allowance for a five-star building is 71 kilograms per sq m a year. With green power, Darling Park 3 emits 45kg per sq m a year, and 64kg without green power.

GPT head of office, Tony



The Darling Park tower gained a top energy rating with a conventional cooling system.

Photo: SAHLAN HAYES

Cope said it was "by far the highest performance achieved for a conventionally air-conditioned building in Australia".

GPT Group's original aim was for a 4.5 star rating. However, the possibility of achieving five stars without expensive alternative technologies became evident.

"The Lend Lease design team identified an opportunity to lift the rating to five stars with a small investment in higher efficiency plant and the implementation of a very robust commissioning and testing procedure."

The cost of the top-rated upgrade was shared between GPT Group, Lend Lease Devel-

opment and Bovis Lend Lease.

"This ups the ante for all those three and four-star VAV buildings out there. If these are recommissioned and controlled to achieve their maximum performance, we could have a significant amount of 4.5 and five-star VAV buildings in the market," energy expert Paul Bannister, who helped GPT Group with the upgrade, said.

GPT Group has committed to achieve 4.5 star rating average for its property portfolio by 2012 under the existing buildings project. The industry partnership program is run by the Total Environment Centre and was

launched officially at the United Nations climate change conference in Bali in December.

Program co-ordinator Cameron Eren said: "Basically, our focus was on the vast bulk of existing building stock. While all new green buildings will mitigate things, the only way to get emissions cuts is to upgrade current stock. And GPT Group's Darling Park 3 is captured in the project."

Macquarie Office Trust, Australian Prime Property Fund, the Local Government and Superannuation Scheme and Becton Property Group have also committed to the project.