

Pulling the Plug

The Future of Energy Efficient Design in Existing Commercial Buildings



Introduction

Rising energy costs, environmental pressures and unreliable power supply has seen the trend for sustainable design and energy efficiency increase substantially in new-build commercial properties. However, there are a number of ways existing building owners and facilities managers can benefit from adopting green building practices, which go far beyond the need to reduce overhead costs.

Forecast future issues around reliability, increased market value and the growing appeal to renters/tenants, particularly in a corporate setting, should over-ride concerns building owners and managers have towards the initial outlay- which can be significant enough to deter investment.



The Barriers Between Retro-fit and Business

Green retro-fitting, tipped as the next mega-trend, is the most sustainable type of real estate development. More complex than renovating, enhancing a buildings systems and infrastructure for the purpose of energy efficiency and sustainability, requires knowledge of all the available solutions and how they can work best in your particular building.

Unfortunately many projects take on an ad-hoc approach, recruiting many specialists and opinions. This can lead to a disjointed design or energy management system that does not generate maximum efficiencies or return on investment.

Many contractors specialise in particular areas, such as insulation, HVAC, energy monitoring or lighting, but few specialise in all. Pre-planning and careful selection in this area will ensure you choose a specialist or company capable of recommending and installing the right sustainable technologies for your structure.

Rising costs, coupled with environmental and community

pressures, has encouraged the property industry, at all levels, to contribute to sustainability. The key challenge for commercial property owners is the justification of economic rationale. That is, does 'going green' add value, and will I see a return on investment?

In a study of the financial performance of green office buildings in Australia, Sydney green-office buildings benchmarked against non-green office buildings showed clear green premiums evident in reduced vacancy and reduced outgoings. In Sydney CBD, a 9 percent increase in rent was evident in office buildings with a higher National Australian Built Environmental Rating Scheme (NABERS), compared to those buildings below 3 stars.

Whilst the majority of all commercial building owners/managers recognise that retrofitting for the purpose of energy efficiency has the potential to yield substantial savings on operating costs, barriers such as lack of capital, unproven results and investment returns often hinder any development.

Sustainable Building for Sustainable Income

As issues around climate change continue to escalate, governments are taking action to tackle Australian Emissions. With legislation soon to include all retail buildings, the Australian Government policy currently sees the mandatory disclosure of greenhouse performance for office buildings upon lease or sale, along with Building Energy Efficiency Certificates required for all new and existing properties. Transparency in this area has seen property developers and owners, large and small, future proof their business by integrating sustainability- a strategy that will meet the energy efficiency and environmental performance demands of the future, whilst increasing marketability as tenants opt for green-rated buildings.

As businesses become increasingly aware of the benefits of high-performing buildings, they actively seek these benefits when negotiating leases. Property agents 'Colliers', who encourage clients to ask for green clauses in their leases and to include penalties if targets are not met, estimate that around 70 percent of their clients are

renegotiating leases on the condition of building upgrades, rather than relocating. Furthermore, CitySwitch, a well-known program designed precisely to help office tenants become greener, say that as of August 2013, there were already 431 tenants committed to the program.

For corporate owned buildings in Melbourne, the trend is already in full swing, as 73 percent of corporate owned buildings surveyed, said they were intending to retrofit before 2018, with many seeing it as an opportunity to attract future tenants and extend the life of the building, whilst also minimising energy consumption.

With 2015 energy costs forecasted to double from 2008 levels, businesses and consumers alike will be looking at more ways to save energy over the next decade. Not upgrading your facilities/ building will not only lead to high energy costs, but will also decrease market value, lower your appeal to tenants and lead to high vacancies.

“Many projects take on an ad-hoc approach to sustainability, recruiting many specialists and opinions, leading to a disjointed design or energy management system that does not generate maximum efficiencies or return on investment.”

A Holistic Approach to Sustainability

Successfully retro-fitting a buildings systems and infrastructure for the purpose of sustainability and energy savings is more complex than switching light bulbs. Careful planning and professional knowledge of how and where energy is being used will ensure only the best solutions are employed.

EcoXpert, an initiative of Schneider Electric aims to improve the energy situation for medium sized commercial buildings. An EcoXpert can provide a holistic view of a buildings energy usage to identify energy waste and inefficiencies, before working with you to implement solutions that reduce consumption and provide maximum savings. An EcoXpert will do much more than facilitate an audit. Their services are long-term, providing ongoing energy efficiency services to help you analyse usage, identify trends and opportunities, and keep your energy efficiency program relevant, up to date and optimised to changing energy needs.





[1] University of Western Sydney et al, "Building Better Returns- A Study of the Financial Performance of Green Office Buildings in Australia," pg.13, 2011, http://www.api.org.au/assets/media_library/000/000/219/original.pdf?1315793106

[2] Ibid, pg.14

[3] Melbourne City Council, "1200 Buildings- Melbourne Retrofit Survey 2013," Pg.6, 2013, https://www.melbourne.vic.gov.au/1200buildings/Documents/1200_Buildings_Report_FA_LR_Dec2013.pdf

[4] Ibid,pg.39

[5] Benson, Simon, "Power prices to double from their 2008 level by 2015," The Daily Telegraph, 21st February 2011, <http://www.dailytelegraph.com.au/power-prices-to-double-from-their-2008-level-by-2015/story-e6freuy9-1226009051061>