

# TOWARDS THE GREEN WORKPLACE

## A Tenants Guide to Green

### INTRODUCTION

All that is 'green' is quickly becoming as inevitable as death and taxes. Even in the face of the global economic meltdown, climate change retreated only momentarily from the media. The carbon economy is well and truly upon us and improvement in environmental performance through green principles in our work environments is the most cost effective and accessible way of reducing carbon emissions....an objective which all of us have been committed to by the Federal Government.

The following whitepaper is the first in a series of papers written by PCG specifically designed to help the tenant community navigate the journey towards the green workplace. If you are like most people, one of the greatest obstacles to the green workplace is what we have coined "green static". Green static is simply all the green noise made by supply side profiteers specifically designed to mislead and leverage a 'spider to the fly' scenario with unsuspecting tenants. Accordingly, we recommend tenants adopt an extremely healthy degree of scepticism when entering the commercial leasing market and being wooed with overtures of all things green by owners and or their leasing agents.

By understanding the competing agendas existing within the supply and demand sides of the commercial property market, and by embracing sustainable design principles, tenants can reduce their ecological footprint, enjoy a better and more productive work environment and fulfil their ethical and social responsibilities without financial impact. Green workplaces are emerging as a key issue in hiring and retaining staff, as a 2007 newspoll discovered, 84% of all employees would prefer to work in an environmentally friendly workplace.

We hope the following paper removes some of the grey in all the green static and demonstrates how you as a tenant can develop and realise your green objectives through your corporate real estate strategy.

## WHAT MAKES A WORKPLACE GREEN?

Changing to a green workplace means more than just saving energy, and incorporating green technologies and green design principles. It also requires a change to how buildings are operated, and occupied through a commitment to cultural change by owners and tenants.

The principal aim of green buildings is to reduce the overall environmental impact, or “ecological footprint” of the building during construction and over the life of the building through “built-in” sustainability by, in broad terms:

- Reducing use of material resources and waste.
- Reducing pollution of air, earth and water in material sourcing and manufacture, during construction and over the building life cycle.
- Reducing damage to natural systems and bio-diversity.
- Providing high-quality, healthy and productive workplaces.

## PLANNING FOR A GREEN WORKPLACE

The green dividend is best realised by building sustainability into the change process as early as possible. Green thinking must inform project planning from the earliest stages – it is counter-productive to make significant change when major design decisions have already been made without reference to green principles and practices.

Green philosophy and practice can be aligned to people, processes and place by incorporating a sustainability professional in the management team to set performance standards and design principles.

The greatest opportunity for tenants seeking change lies in the selection of new office space. A green brief should be prepared to form part of the overall user brief for building performance, and prospective buildings ranked accordingly. This principal applies equally to existing premises where the tenant is considering renewing an existing lease and upgrading the work environment.

If the process of green change is part of a business strategy to demonstrate good corporate citizenship to the market, and if accreditations are sought to back this up, then supporting this expected outcome with a green brief at the outset is absolutely essential.

## WHAT SHOULD BE INCLUDED IN A GREEN BRIEF?

Every situation is different. The change process may involve identifying existing building stock for a new tenancy; a purpose-built office; or upgrading existing premises: the choice will influence the direction and emphasis of the green brief. Some items that could be included in a green brief are as follows:

- A vision: create an overall green vision for the workplace project.
- Change agents: assemble a project team, led by a sustainability professional, to foster the green aspects of the workplace and to drive cultural change processes.
- TBL: allow for Triple-Bottom Line (TBL) analysis and decision-making, linking the green brief with financial and social briefs.
- Site selection: for new construction, commence a site selection pre-requisite that ensures environmentally sensitive sites are avoided.
- Existing buildings: in selecting an existing building for a future tenancy fit-out, seek out buildings that have NABERS or Green Star base building ratings.
- Ratings: investigate green rating accreditations and set appropriate project star ratings.
- Regulations: research and understand any local environmental regulations.
- Life cycle-based decision-making: assess decisions on a life-cycle basis, initially qualitatively, and then quantitatively as design progresses.
- Flexible design: allow for flexibility to enable future tenancy changes with minimal environmental impact.
- Procurement: institute a green procurement process for purchase of materials, fittings and furnishings.
- Productivity: prioritise strategies for tenancy productivity gains through highest standards of indoor environment quality.
- Leading edge technologies: Prioritise leading edge energy and water reduction technologies for mechanical, hydraulic and electrical servicing.
- Re-use: allow for maximising use of recycled materials; re-use of demolition materials in new work; and minimising generation of construction waste and diversion of waste to landfill.

## GREEN WORKPLACES: A CAPITAL COST OR PRODUCTIVITY GAIN?

Many existing green buildings were conceived before the widespread acceptance of the reality of climate change and its attendant risks. Most green building initiatives have been typically judged in accordance with their up front capital costs.

While life-cycle costing is increasingly applied for economic justification, the productivity gains from green workplaces are beginning to tip the balance in favour of green buildings.

The financial basis of green building has gradually moved from a position of perceived “extra” cost, to cost neutrality, and to less cost in many cases, even before accounting for “whole-of-life” performance.

## THE CHANGING ETHICAL AND SOCIAL ENVIRONMENT: WHY IT MATTERS

A good workplace that is productive, a great place to be, where people can achieve and develop themselves is a key aspect of a sustainable society.

As the broader population increases its environmental awareness, there is a discernible change in peoples’ perceptions about the environment, and their role as good environmental citizens. Regular polling and social research shows high levels of agreement about the importance of the environment, particularly amongst younger people. This awareness has evolved to higher expectations for action.

There are many aspects of a workplace’s commitment to the social and ethical dimensions of sustainability:

- The nature of the work
- How the workplace conducts itself in its dealing with other businesses and civil society
- How staff are treated
- How health and safety is promoted and managed

- The extent of any environmental policies
- Commitment to buying green

Polling by social researchers has identified that a commitment to sustainability is a key ethical dimension and a key factor in being rated as “an employer of choice”.

### CASE STUDY

In a recent Australian green office refurbishment, a 1970’s era office space was upgraded to improve day lighting, thermal comfort (with a chilled beam system) and energy use (through installation of solar hot water and low energy lighting), amongst other green initiatives. The changes achieved a 5 star rating from the Green Building Council of Australia.

In a post-occupancy evaluation process,<sup>1,2</sup> Sustainability Victoria found that this “shift by two companies to sustainable office accommodation has led to improvements in a broad range of business productivity indicators.”

The reviewers also found that the refurbishment improved business performance so that financial savings from productivity gains exceeded upgrading costs.

The results include:

- Average sick days per employee per month reduced by 39%;
- Sick leave costs reduced by 44%;
- A 9% improvement in the average typing speed of secretaries and a significant improvement in overall accuracy;
- A 7% increase in billing ratios. The refurbishment saved around \$15,000 a year in energy bills and cut greenhouse gas emissions by more than 1,700 tonnes a year.

1 Employee Productivity in a Sustainable Building: Pre and Post Occupancy Studies in 500 Collins St, Sustainability Victoria and the Kador Group, Melbourne

2 Joint Submission by Lend Lease Corporation, Lincolne Scott and Advanced Environmental in response to Garnaut Climate Change Review Emissions Trading Scheme Discussion Paper, Lend Lease Corporation, Lincolne Scott and Advanced Environmental, Sydney 2008

The full palette of green design strategies work best with stand-alone purpose-designed buildings, where the base building provides green technologies for all building users and tenants; yet there are many green choices for the major space user in leased space in existing buildings as well, particularly in the choice of lighting, materials and furnishings.

## REDUCING THE ECOLOGICAL FOOTPRINT

Typical strategies for reducing the ecological footprint of buildings includes:

- Reduction of energy and water usage
- Minimising waste in construction and building operation
- Minimising embodied energy in materials and building elements
- Sourcing materials with accreditations under environmental rating systems, certifying appropriate low impact manufacturing
- Using green power
- Designing for disassembly and material re-use
- Using recycled materials, or new materials with high re-cycled content
- Using interior furnishings and fittings with minimal or no toxic off-gassing
- Maximising daylight and natural ventilation to reduce reliance on energy
- Maximising passive building techniques, such as use of mass for night cooling
- Using energy efficient and innovative plant, equipment and control systems
- Considering parking and transport issues to promote use of public transport and bicycles by occupants, and reducing car dependence
- Re-using and refurbishing existing buildings or choosing brown-field sites
- Minimally disturbing sites
- Using development as a means for re-habilitating on-site natural systems
- Generating some or all power on-site by renewable means or co-generation
- Collect rainwater; and treat wastewater on-site for re-use.

## THE COMING CARBON ECONOMY

The recent Federal Government Green Paper on the proposed Carbon Pollution Reduction Scheme<sup>3</sup> has confirmed that buildings are a major source of carbon pollution, and will set up a \$90m Green Building Fund to promote improvements in building energy performance. There are few public details as to how this scheme will work, and what the implications and opportunities are for building owners and tenants. There is a possibility that energy savings in the built environment will provide opportunities for building owners and their tenants to potentially profit from carbon trading in the coming carbon economy.

This recognises that the improvement of environmental performance by incorporation of green principles into new and existing buildings (particularly for upgrading air-conditioning and lighting systems) represents the most cost-effective way of reducing our carbon emissions under a carbon trading scenario, according to recent studies.

The Federal Government is also seriously considering the roll-out of mandatory disclosure of building energy performance in 2009, as an aid to consumers, tenants and building purchasers. While there are few details of how this will be assessed, there will be big implications for building owners, managers and tenants. With such a scheme, prospective tenants will be able to assess their future energy costs and related productivity issues when comparing different properties.

In 2010, the New South Wales Government plans to introduce its Energy Efficiency trading scheme (NEET)<sup>4</sup>, which will also be mirrored by Victoria and South Australia, with scope to expand to all states. This scheme aims to deal with the potential market failures of the national emissions trading scheme, especially in providing scope for energy savings to be tradable. This will potentially have a big impact in driving energy efficiency in the property industry. As another advantage of NEET, existing tools, such as NABERS Office Energy, will serve as benchmarking tools for emission accounting.

<sup>3</sup> Carbon Pollution Reduction Scheme Green Paper, Department of Climate Change, Commonwealth of Australia, Canberra 2008

<sup>4</sup> NSW Energy Efficiency Trading Scheme Discussion Paper, Department of Environment and Climate Change, NSW Government Sydney July 2008

Aside from Government, Industry bodies such as the Green Building Council of Australia have formed to promote the greening of the built environment and to lead change in response to growing concerns about climate change and the broader environmental impacts of buildings. Further, the Property Council of Australia now require attention to green building design in order to classify office space as “premium” and “A-grade” space<sup>5</sup>. This change is beginning to impact on the property market in Australian CBD’s.

Recent (and proposed) regulatory and other voluntary industry changes that can be applied to new projects (including refurbishments) will distinguish new and refurbished buildings from old, and may offer an edge in the property market and promote further acceptance of high performance green design.

There is now a need for all building owners and tenants large and small to embrace the need for change in such a way that the existing building stock and buildings in the future will play their part in reducing the impact of climate change and preserving, protecting and restoring the environment.

<sup>5</sup> A Guide to Office Building Quality, Property Council of Australia, Sydney 2006

## ABOUT US

PCG is a truly independent workplace solutions company specialising in strategic advisory, tenant advocacy, project management, architecture, interior design, and project delivery services.

We help our clients unlock the potential of their corporate property and work environments to contribute to business productivity, innovation and culture.

We provide expertise and resources that enable businesses to develop and implement strategies that deliver certainty of time, cost and quality.

If you would like to maximise the performance of your corporate property and develop enlightened workplace and facility solutions please contact us.

## OUR GLOBAL NETWORK

In August 2008 PCG proudly announced an affiliation with the GVA Worldwide organisation. GVA Worldwide is a team of independent corporate real estate industry leaders serving key markets in 20 countries. The organisation comprises more than 3,750 professionals in 95 markets around the globe.

The benefits to our clients of this affiliation include a global resource of like minded professionals to meet corporate real estate and project needs. With access to real time global property and project trends we are ideally placed to assist our clients adopt global best practice across both CRE and project initiatives.

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