

GREEN WORKPLACES: RULES, PLAYERS AND RATINGS

INTRODUCTION

It is critical for major space users and tenants to understand the rules, players and rating schemes in the green arena to ensure their interests are met when entering the commercial leasing market or negotiating property deals. When appropriately applied, the use of accreditation schemes can help tenants and owner occupiers procure high quality office space that costs less to run and provides higher operational productivity.

The interests of building owners invariably oppose the interests of their tenants, for instance when developers seek to reduce their upfront capital costs, the burden of the resultant high operating costs are transferred by lease conditions to the tenants. If a tenant is entering into an arrangement with a building owner or developer, the various rating schemes can be applied to ensure appropriate levels of green design are included in the project brief for either new or existing building stock.

By being informed about the relevant schemes, the tenant can be positioned to lead discussions about green change. This paper presents the relevant legislation, the players in the market, the ratings scheme and knowledge bases, and guides tenants and space users through the green ratings process.

THE REGULATORY ENVIRONMENT

Federal and State Carbon Trading Schemes

The Federal Government recently committed Australia to cutting greenhouse pollution by between 5 and 15% by 2020, depending on the outcome of global climate negotiations.

The Government also announced it will create an Australian Climate Change Regulatory Authority (ACCRA) that will absorb existing bodies, including the Greenhouse and Energy Data Officer and Renewable Energy Regulator.

While external economic, environmental and climate change factors are important for driving change towards a low carbon future, the reality is that Government regulation is driving most change.

There are already mandatory Federal Government energy efficiency regulations – the National Greenhouse and Energy Reporting System (NGERS)¹ – requiring Australia's largest carbon emitters to audit and report on their carbon emissions annually.

This process will be expanded under the proposed Carbon Pollution and Reduction Scheme² to include Australia's 1,000 largest emitters. These emitters are largely participants in the energy generation, mining and manufacturing sectors. Thus it is unlikely that building owners and tenants will be subject to such regulation (this does not prevent large institutional building owners and managers aggregating their buildings for any emission trading schemes). In the next two to five years, global carbon trading will come into force, possibly earlier.

While it is not yet clear how building energy savings will become part of a National emissions trading scheme, it is possible that State Governments will fill this gap. For example, in anticipation of building energy savings being left out of the National carbon trading scheme, the NSW Government will roll-out its own scheme for enabling the building industry to contribute to carbon reduction, by using carbon trading on energy savings to off-set investment in energy saving technology³.

¹ National Greenhouse and Energy Reporting System Policy Paper, Department of Climate Change, Commonwealth of Australia, Canberra February 2008

² Carbon Pollution Reduction Scheme Green Paper, Department of Climate Change, Commonwealth of Australia, Canberra 2008

³ NSW Energy Efficiency Trading Scheme Discussion Paper, Department of Environment and Climate Change, NSW Government Sydney July 2008

Buildings designed to high energy-efficiency standards now could be well placed to take advantage of such measures in the future. Buildings operating at current best practice of 3 stars in the NABERS Office Energy tool and below will be seen as a liability in the carbon economy: they may be difficult to lease and may experience downward cost pressure on rents.

Further, the generation of carbon credits over the life of a building will most likely tip the balance in favour of a whole-of-life perspective rather than up-front costs. This makes many green initiatives viable, as the benefits accrued through green building over the life cycle horizon can be factored into up-front decision-making.

It is likely that the Federal and State Government approach for carbon and water reduction in buildings will be managed through a combination of regulation, voluntary programs, leadership and any future emissions trading scheme. The extent of actual legislative compulsion is unclear. If voluntary energy reduction is limited, and fails to track with global carbon reduction commitments, regulation may be ratcheted up to make up the shortfall.

Building Code of Australia (BCA) Energy Efficiency Provisions

The main regulatory instrument affecting buildings are the Section J Energy Efficiency provisions of the Building Code of Australia. The Code has required buildings to improve the performance of fabric, glazing, sealing, air-conditioning and lighting systems.

Improvements have been limited to relatively simple changes of modest extra cost with short pay-back periods. The parameters of Section J have been developed to encourage buildings to make energy and greenhouse gas reductions within a two to three year payback period.

For a space to be marketed as “future-proofed”, decision-makers should anticipate increasing regulatory requirements for insulation and glazing quality, by aiming for a “better than compliance” regime, so that subsequent re-fits can focus on equipment and fittings rather than building fabric.

The code was adopted in May 2006 and applies to new buildings, refurbishments and tenancy fit-outs.

It does not include many of the energy-using internal fittings typical of office spaces: computers, printers, photocopiers and the like. These uses of energy can be picked up in existing rating schemes (MEPS, Energy Star and WELS) on a voluntary basis.

As the requirements are not currently onerous, it is likely that over the next few years, energy standards will be raised, especially in response to changing economic viability arising from carbon trading schemes. As such, BCA Section J does not deliver a high level of environmental performance – generally between 2.5 and 3.5 stars in the NABERS Office Energy rating tool (see below for an overview of the NABERS scheme).

This has implications for buildings and office fit-outs aimed at attracting government tenants: just meeting BCA Section J is inadequate for a government tenancy. This will be discussed later in this paper.

KNOW THE GREEN BUILDING PLAYERS

Federal Government

The Department of Climate Change developed and administers energy and water rating schemes: Mandatory Energy Performance Standards (MEPS); Energy Star and Water Efficiency Labelling and Standards Scheme (WELS). These schemes are discussed later in this paper.

The Federal Government is a major space user and occupies space produced by private developers or building owners. As such, the Government is in a position to demonstrate leadership in reducing the environmental impacts of their tenancies, and has thus brought in guidelines for energy performance, to reduce the amount of greenhouse emissions produced by government buildings and operations in 2004⁴.

This program has been gradually moved from policy to practice, for example with the current range of tenders for new Centrelink Offices having a very green design brief; it is likely that Centrelink Design Guides^{5,6} will lead industry change.

Federal Government tenancies are required to achieve a NABERS Office Energy rating of 4.5 stars, if over 2,000m² of Net Lettable Area (NLA) and ratings carried out each year to monitor performance.

These requirements are written into lease agreements with private developers/building owners. Owners will be required to contribute towards maintenance of NABERS Office Energy ratings, subject to specific lease conditions.

Federal Government tenancy requirements are summarised in the table below.

The Federal Government funded the original development of the Australian Building Greenhouse Rating Scheme (through the former Australian Greenhouse Office in the mid-1990s) for commercialisation at State Government level. Likewise, the Federal Government sponsored the development of the National Australian Built Environment Rating System (NABERS) through the Department of Environment and Heritage in the late 1990s; after initial development, it was passed on to State Government level for commercialisation.

Federal Government NABERS Office Energy Requirements

	100% NLA	50-99% NLA	0-49% NLA
> 200m ²	Whole Bldg ≥ 4.5 stars	Base Bldg ≥ 4.5 stars	Tenancy ≥ 4.5 stars
		Tenancy ≥ 4.5 stars	
< 200m ²	NABERS Office Energy not required	NABERS Office Energy not required	No specific requirements
	Max 10w/m ² for lighting	Max 10w/m ² for lighting	
	Separate digital revenue metering	Separate digital revenue metering	

⁴ Energy Efficiency in Government Operations (EEGO), Department of Environment and Heritage, Commonwealth of Australia, Canberra 2006

⁵ Centrelink Properties Guide to Energy Efficiency, Department of Families and Community Services, Commonwealth of Australia, Canberra 2006

⁶ Centrelink Properties Performance Specifications, Department of Families and Community Services, Commonwealth of Australia, Canberra 2006

State Governments

NSW Government

The NSW Government is the national administrator of the National Australian Built Environment Rating System (NABERS) through the Department of Environment and Climate Change.

The NSW Government is also responsible for developing the scheme and commercialising the full suite of tools.

Most Australian State and Territory Governments have energy performance requirements for Government buildings and tenancies, mirroring the Federal Government scheme. There are some minor differences; nevertheless these are likely to be ratcheted up to more stringent levels over the next decade.

In New South Wales, buildings owned or tenanted by the NSW Government are required to meet minimum NABERS (National Australian Built Environment Rating System) Energy ratings⁷.

This applies to buildings with more than 1,000m² of NLA. Buildings less than 1,000m² of NLA are encouraged to meet 3 stars or better. Preference is given to spaces with current accredited 3.5 stars (base building) with a program to improve performance over the building's life. Where a government agency is a tenant, the agency must endeavour to occupy premises where the building is rated at least 3.5 stars and require disclosure of the accredited rating for the building when seeking information about the building for leasing purposes. For tenancies in new buildings or buildings undergoing major refurbishment, a 4.5-star tenancy rating must be specified in the design brief.

Like the Federal Government's program, the NSW government is progressively rolling out their requirements. In 2007 for example, the Department of Community Services (DOCS) conducted a NABERS Office Energy assessment on all its offices over 1,000m².

The NSW government has flagged that NABERS Water ratings will be required in the future, but as yet no star ratings or a formal process have been specified. It is likely that this will come into force sooner rather than later.

Victorian Government

The Victorian Government goes further: they set their requirements in terms of meeting triple-bottom line sustainability. When selecting office space, Victorian Government departments are required to review operating cost savings on a "whole-of-life" basis; look for healthier and more productive workplace environments; and identify potential for reduction in consumption of energy, water and resources⁸. In extending the NSW requirements, Victorian Government office accommodation must meet Green Star requirements in addition to NABERS Office Energy.

Victorian Government Office Accommodation Rating Requirements

NABERS Office Energy requirements are:

- 4.5 stars for base building of new office buildings built for government accommodation;
- 4 stars for base building of existing office buildings; and
- 5 stars for tenancies of new offices.

Green Star Office Design and Office As-built requirements are:

- Green Star – Office Design 5 stars (Australian Excellence) for the base building;
- Green Star – Office As Built 5 stars (Australian Best Practice) for the base building; and
- Green Star – Office Interiors 5 stars (Australian Excellence) for the fit-out.

For spaces under 2,000m² the Victorian government may not require a formal accreditation. Instead they specify a "best endeavours" approach to maximise sustainability outcomes.

In other states, the Tasmanian Government is in the process of developing its policy regarding the rating of government buildings. They are investigating setting targets for both NABERS Office Energy and Green Star.

The ACT Government is applying ratings of a minimum of a 5 stars NABERS Office Rating and 5 Stars Green Star Office rating to new office building projects.

⁷ The Premier's Memorandum 2004-4, NSW Government, Sydney 2004

⁸ Victorian Government Office Accommodation Guidelines, 2007, State of Victoria, Melbourne 2007

The Property Council of Australia

The Property Council of Australia (PCA) is positioned as a political advocate for its members in its major areas of focus: tax, planning strategy, development and building controls, urban policy and economic growth, environment; lease legislation and trading hours.

The PCA's membership includes major development and construction companies, large space users, and property finance companies. The Property Council promotes itself as an advocate for sustainability in building, and gives prominence to sustainability issues on its website. The group has applied green benchmarks to their office space classification system⁹ as per the following table:

Federal Government NABERS Office Energy Requirements

	Metric	Premium	A Grade	B Grade
Environmental	Green Star	≥ 4 stars	≥ 4 stars	≥ 3 stars
Energy	NABERS	≥ 4.5	≥ 4.5 stars	≥ 4 stars

It should be noted that a 3 star Green Star rating is below the accreditation threshold. There is also Green Star and NABERS requirement for existing buildings but these have not been specified in the current (2006) document. The current document refers to ABGR (Australian Building Greenhouse Rating Scheme), but this has been adjusted to NABERS Energy in line with the recent name change.

Green Building Council of Australia

The Green Building Council of Australia (GBCA) was formed in 2002 with the aim of promoting sustainability in the property industry, particularly through a market-based approach.

It represents its members, which generally constitute major development and construction companies, and material suppliers.

The GBCA has developed a suite of measurement tools (see below), and provides an information clearinghouse, largely for its members. The GBCA also developed a training program for building industry professionals, the Green Star Accredited Professional Course.

⁹ A Guide to Office Building Quality, Property Council of Australia, Sydney 2006.

KNOW THE GREEN RATINGS SCHEMES AND DATABASES

A variety of voluntary ratings schemes have been introduced to facilitate change in the property industry. The schemes help building owners and major space users to practice green design and specification, to differentiate them in the market place and to promote their green performance.

National Australian Built Environment Rating System (NABERS)

The National Australian Built Environment Rating System (NABERS) Office Energy rates buildings for measured energy use, with emphasis on the amount of greenhouse gas emissions generated. NABERS is a national initiative managed by the NSW Department of Environment and Climate Change.

Emissions are based on a per square metre of Net Lettable Area (NLA) measure to enable fair comparisons across different scales of buildings in different climate zones. Buildings are star rated, with 3 stars regarded as the peak of normal practice. Buildings with star ratings of 4-5 stars and more are regarded as high performance buildings exceeding normal practice.

NABERS Office Energy can be applied at the design stage as part of a "commitment agreement" process which cannot be fully ratified until the building or space has been occupied for a continuous period of 12 months.

NABERS was conceived as a total building environmental rating system which includes NABERS Water; NABERS Waste and NABERS Indoor Environment. There are plans for further modules to be released including transport, materials and other environmental factors.

NABERS Water, Waste and Indoor Environment use similar rating protocols as developed under the ABGR, including the star rating system. They are not subject to commitment agreements, and are thus only applied on a voluntary basis after a building has been occupied for more than 12 months.

The early development stage of the National Australian Built Environment Rating System (NABERS) was through a greenhouse gas emission rating, known as the Australian Building Greenhouse Rating (ABGR), developed through the Federal Government's then Australian Green house Office, and commercialised by the then NSW Sustainable Energy Development Authority (SEDA). The NSW Department of Environment and Climate Change now has responsibility for the management of the scheme and for the development of

new tools. As of May, 2008, the ABGR rating has been incorporated into the NABERS scheme as the NABERS Office Energy rating.

Details of the NABERS system can be found at www.nabers.com.au.

Green Star

Green Star is the rating scheme developed by the Green Building Council of Australia for holistic building environmental performance. It is chiefly used as a design tool, and is not based on measured performance as in NABERS.

Green Star was modelled on similar schemes developed in the USA (LEED) and UK (BREEAM).

It is marketed to the property sector as a way for developers to differentiate their property in the market and to lead change in the industry. Green Star tools are available for base buildings, tenancies, retail buildings and educational buildings. Tools for multi-residential and other building types are being piloted and will be made available in due course.

It has a wide range of rating factors, including site management, materials and transport impacts as well as water, energy, waste and indoor environment. Green Star also gives credit for innovative solutions. It uses a 100-point scale. Forty five points are required to be eligible for 4 stars, the rating entry level.

Green Star has some precedent conditions: the site cannot be a green-field site or located close to watercourses or other sensitive environmental features; and buildings must be designed to generate less than 110kg/CO₂/m²/annum. These conditions change over time, and depending on the tool being used. Familiarisation with each tool is important before embarking on the Green Star process.

Green Star has evolved to provide rating tools for a range of building types, including shopping centres and hotels. There are tools tailored for tenancies and interiors. Green Star also has a suite of "as-built" tools for assessment of existing buildings.

There is a possibility that the Green Star program and NABERS may merge in the future, especially when the full scope of NABERS has been commercialised. Details can be found at www.gbca.org.au

Water Efficiency Labelling and Standards Scheme

The Water Efficiency Labelling and Standards Scheme (WELS) has been developed by the Federal Government in association with State and Territory Governments and the water industry to test fittings and fixtures for water flow consumption rates.

The program involves testing procedures for taps, shower heads, toilet pans and cisterns, washing machines, dishwashers, urinals and other water-using fittings. Ratings were originally expressed with a maximum rating of AAA; but this has been changed to a star rating system, in line with accepted practice of other rating schemes.

The Federal Government, through the Department of Environment, Water, Heritage and the Arts (DEWHA) maintains a WELS web site with a searchable database with all rated products identified, along with their ratings. The site allows comparison of different makes and models. Products are labelled with their star ratings at point of sale. The web site can be found at www.waterrating.gov.au

Mandatory Energy Performance Standards (MEPS)

The Mandatory Energy Performance Standards (MEPS) scheme has been developed through the Federal Government to test and rate for energy consumption.

It is structured on a similar basis to the WELS scheme with a searchable product database. It applies generally to domestic appliances such as refrigerators, dishwashers, and washing machines; packaged air-conditioning systems; and gas water heaters.

As with WELS, products are labelled at point of sale, with stickers showing the star rating and annual energy consumption. Many items normally purchased for office fit-outs are subject to MEPS standards.

MEPS was originally developed through the Australian Greenhouse Office (now the Department of Environment, Water, Heritage and the Arts).

The web site can be found at www.energyrating.gov.au

Energy Star

Energy Star is an international energy standard and associated labelling scheme, developed by the United States Environmental Protection Authority to promote innovation in energy saving for electronic equipment.

Several countries, including the Australian State and Territory Governments use Energy Star to encourage the use of energy efficient equipment at home and in business.

Typical office equipment under the Energy Star scheme include computers, printers, photocopiers, fax machines and televisions. Energy Star standards require equipment to reduce energy consumption, particularly through management of stand-by energy and automatic use of sleep modes.

Details can be found at www.energystar.gov.au

Ecospecifier

Ecospecifier is a subscription-only database of building materials and products which have been independently assessed according to environmental performance criteria.

Ecospecifier's purpose is to help create a more sustainable physical environment by increasing the use of environmentally preferable and healthy products, materials and design processes.

Ecospecifier was originally developed by the School of Design at RMIT University, Melbourne, but after the commercialisation process, was taken over by a private company, based in Brisbane. Ecospecifier also produces guides to selection of products, and other related products.

Ecospecifier can be accessed at www.ecospecifier.org

Good Environmental Choice Australia

Good Environmental Choice Australia Ltd (GECA) is a non-profit public company based in Canberra and provides a green product evaluation process and associated product database, and educational materials to aid the public, business and industry to make informed green choices when selecting materials, furnishings, fittings and equipment.

GECA works with its members, industry bodies, research agencies and community groups in determining processes, policies and educational materials. GECA has also developed green procurement guidelines under its subsidiary, Australian Green Procurement.

The GECA database can be found at www.aela.org.au

Window Energy Rating Scheme (WERS)

Window Energy Rating Scheme (WERS) is an initiative of the window and glass industry which provides a window rating scheme based on actual testing of proprietary window systems, and thus has a high degree of rigour in its ratings.

WERS ratings specify measured levels of heat transfer, and solar heat gain, and include the effects of air leakage. They also incorporate the thermal performance of the window frame as well as the glazing.

To date, WERS has focused on the rating of residential window systems; however, with the advent of BCA Section J3 External Glazing, WERS is in the process of testing proprietary commercial window systems. When the testing and rating of commercial window systems is completed, only WERS-rated windows may be allowed to be used in glazing calculations for BCA Section J3, subject to confirmation.

The WERS database can be accessed at www.wers.net

RECOMMENDATIONS

If tenants are serious about occupying green space, they should ensure that the base building has at least been assessed using NABERS Office Energy (NABERS). If it has not been assessed, consider including this requirement in the lease, as an annual review. This places the onus on the building owner to be responsible for efficient central services and the performance of the external building fabric. It is especially important if tenants are seeking a Green Star Office Interiors and a NABERS Office tenancy rating. A poorly performing base building may adversely impact on the tenancy rating.

ABOUT US

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