

**The Green Building Council of Australia (GBCA) recommends that you use this rating tool in conjunction with the Green Star - Office Interiors v1.1 Technical Manual. To obtain a copy, please see [www.gbcaus.org](http://www.gbcaus.org).**

Green Star - Office Interiors evaluates the environmental initiatives and/or the potential environmental impact of a Class 5 office tenancy fitout. It was developed primarily to assess an office tenancy fitout once construction is completed, however it should also be used during the fitout design phase to ensure green initiatives are incorporated at the earliest possible stage.

You are invited to use Green Star - Office Interiors to predict a Green Star rating. The GBCA does not endorse any self-assessed rating and you are forbidden from presenting self-assessment results in the public domain. The GBCA offers a formal certification process for ratings of Four Stars and above; this service provides for independent third party review of points claimed to ensure all points can be demonstrated to be achieved by the provision of the necessary documentary evidence. The use of Green Star - Office Interiors without formal certification by the GBCA does not entitle the user or any other party to promote a Green Star rating publicly.

**Use the tabs at the bottom of the pages to navigate.**

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# Introduction to Green Star

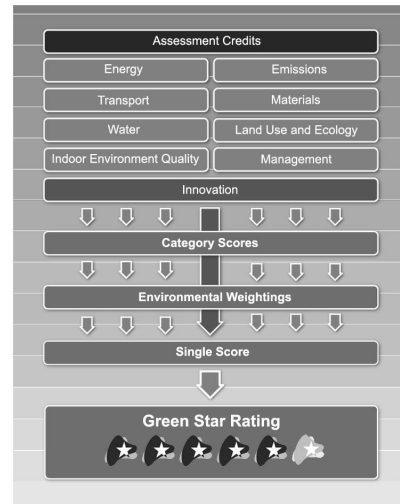
## What is Green Star?

## What does Green Star - Office Interiors do?

## Who can use Green Star - Office Interiors?

## What do Green Star ratings mean?

## Acknowledgements



## What is Green Star?

The Green Star environmental rating system for buildings was developed by the Green Building Council of Australia (GBCA). Green Star is Australia's first comprehensive rating system for evaluating the environmental design and performance of Australian buildings based on a number of criteria, including energy and water efficiency, indoor environment quality and resource conservation.

Green Star has built on existing systems and tools in overseas markets, including the British BREEAM (Building Research Establishment Environmental Assessment Method) system and the North American LEED (Leadership in Energy and Environmental Design) system, by establishing individual environmental measurement criteria relevant to the Australian marketplace and environmental context.

The Green Star rating system was created to:

- define green building by establishing a common language and standard of measurement;
- promote integrated, whole-building design;
- identify building life-cycle impacts;
- raise awareness of green building benefits;
- recognise and reward environmental leadership; and
- transform the built environment to reduce the environmental impact of development.

## What does Green Star - Office Interiors do?

Green Star - Office Interiors evaluates the environmental initiatives and/or the potential environmental impact of a Class 5 office tenancy fitout. It was developed primarily to assess an office tenancy fitout once construction is completed, however it should also be used during the fitout design phase to ensure green initiatives are incorporated at the earliest possible stage.

## Who can use Green Star - Office Interiors?

Green Star - Office Interiors should be used by Class 5 office tenancy fitout project stakeholders as a guide for green and sustainable design and resource use. The rating tool can assess a tenancy fitout post-construction, however it can also be used during the fitout design phase to ensure green initiatives are incorporated at the earliest possible stage. The use of Green Star - Office Interiors is encouraged on all such projects to assess and improve their environmental design attributes.

The GBCA recommends that you use this rating tool in conjunction with the Green Star - Office Interiors v1.1 Technical Manual. To obtain a copy, see [www.gbcaus.org](http://www.gbcaus.org).

**The use of Green Star – Office Interiors without formal certification by the GBCA does not entitle the user or any other party to promote the Green Star rating achieved. No fee is payable to the GBCA for such use, however formal recognition of the Green Star rating - and the right to promote same - requires undertaking the formal certification process offered by the GBCA.**

All Green Star rating tools are reviewed annually; please forward any feedback to [greenstar@gbcaus.org](mailto:greenstar@gbcaus.org) by 30 November each year.

### **What do Green Star ratings mean?**

Green Star rating tools use six stars to measure performance. Projects that obtain a predicted rating of one, two or three stars are not eligible for formal certification. Projects that obtain a predicted 4 Star rating (or above) or above are eligible to apply for formal certification, whereby a:

- 4 Star Green Star Certified Rating recognises and rewards "Best Practice";
- 5 Star Green Star Certified Rating recognises and rewards "Australian Excellence"; and
- 6 Star Green Star Certified Rating recognises and rewards "World Leadership".

The first step in registering a project for formal certification is to contact the GBCA's Technical Manager via e-mail at [greenstar@gbcaus.org](mailto:greenstar@gbcaus.org).

**Again, the use of Green Star - Office Interiors without formal certification by the GBCA does not entitle the user or any other party to promote a Green Star rating publicly.**

### **Acknowledgements**

The GBCA is very grateful to all parties who contributed monies, content, time and effort in the development of the Green Star rating system and its rating tools.

Green Star – Office Interiors was very generously sponsored by the following GBCA members: the Sustainable Energy Authority Victoria, the office furniture designer and manufacturer Wilkhahn Asia Pacific and the US-based philanthropic organisation the Flora Family Foundation.

Green Star – Office Interiors was based on national and international guidelines, including the US LEED Green Building Rating System for Commercial Interiors, the Queensland Government's Sustainable Development Office Fitout Design Guidelines, Melbourne Docklands ESD Guide, and the Sydney Olympic Park Authority's Environmental Guidelines 1993. The support of the UK's Building Research Establishment is also acknowledged.



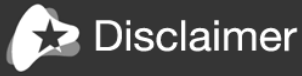
## How to use this tool

1. Complete the Building Input worksheet as the building's type and location may affect the predicted rating.
2. Complete the remaining worksheets by reviewing each credit in each category and entering the number of points you predict the building will achieve in the 'No. of Points Achieved' column. Calculators are provided for a number of the tool's credits.
3. Enter any points that may be achieved but need to be confirmed in the 'Points to be Confirmed' column.
4. Enter any comments required in the 'Comments' column.
5. The predicted rating is shown in the Summary worksheet. More detail on point scores (both achieved and those to be confirmed) are shown in the Credit Summary and Graphical Summary worksheets at the end of the tool.

### Limitations

**The GBCA does not endorse any self-assessed rating achieved by the use of Green Star - Office Interiors. The GBCA offers a formal certification process for ratings of Four Stars and above; this service provides for independent third party review of points claimed to ensure all points can be demonstrated to be achieved by the provision of the necessary documentary evidence. The use of Green Star - Office Interiors without formal certification does not entitle the user or any other party to promote the Green Star rating achieved.**

**The application of Green Star – Office Interiors to all Class 5 office tenancy fitout projects is encouraged to assess and improve their environmental design attributes. No fee is payable to the GBCA for such use, however again formal recognition of the Green Star rating - and the right to promote same - requires undertaking the formal certification process offered by the GBCA.**



#### **Authorisation, Acknowledgement and Disclaimer**

The Green Star environmental rating system for buildings ("Green Star") and the Green Star – Office Interiors rating tool ("Green Star – Office Interiors") have been developed by the Green Building Council of Australia ("GBCA"). Green Star – Office Interiors evaluates the environmental initiatives and/or the potential environmental impact of a Class 5 office tenancy fitout. It is intended for use by stakeholders including fitout project team members as a guide for green and sustainable design, procurement and construction. As with all Green Star rating tools, Green Star – Office Interiors may be subject to further development in the future.

Green Star and Green Star - Office Interiors have been developed with the assistance and participation of representatives from many organisations. The views and opinions expressed have been determined upon by the GBCA and its Committees.

Together, Green Star, Green Star - Office Interiors and all accompanying documentation represent the GBCA's approved standard to improve the environmental impact of buildings using established and/or advanced industry principles, practices, materials and standards.

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Green Star and Green Star - Office Interiors are no substitute for professional advice. You should seek your own professional and other appropriate advice on the matters addressed by them.

As a condition of use, you covenant not to sue, and agree to waive and release the GBCA, its officers, agents, employees and its members from any and all claims, demands and causes of action for any injury, loss, destruction or damage (including, without limitation, equitable relief and economic loss) that you may now or hereafter have a right to assert against such parties as a result of your use of, or reliance on, Green Star and/or Green Star – Office Interiors.

**The GBCA does not endorse any self-assessed Green Star rating achieved by the use of Green Star – Office Interiors. The GBCA offers a formal certification process for 4 Star ratings and above; this service provides for independent third party review of points claimed to ensure all points can be demonstrated to be achieved by the provision of the necessary documentary evidence. The use of Green Star - Office Interiors without formal certification by the GBCA does not entitle the user or any other party to promote the Green Star rating achieved.**

**The application of Green Star - Office Interiors to all Class 5 office tenancy fitouts projects is encouraged to assess and improve their environmental design attributes. No fee is payable to the GBCA for such use, however again formal recognition of the Green Star rating - and the right to promote same - requires undertaking the formal certification process offered by the GBCA.**

**You are only authorised to proceed to use Green Star and Green Star – Office Interiors on this basis.**

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# Green Star - Office Interiors

## Building Input WorkSheet

New or Refurbished Building:	Refurbished Building	▼
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Name of Building:	The Greenhouse	
Address of Building:	Level 15, 179 Elizabeth St Sydney	
Postcode:	2000	
State:	NSW	▼

Applicant:	Green Building Council of Australia
Contact Person:	Carol Lane

Green Star Accredited Professional:	Joe Karten
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Project Manager:	Davis Langdon
Architect:	Bligh Voller Nield
Structural/Civil Engineer:	Lincolne Scott
Building Services Engineer:	Lincolne Scott
Quantity Surveyor:	Davis Langdon
Acoustic Consultant:	
Landscaping Consultant:	
Building Surveyor:	
Main Contractor:	Schiavello Project Solutions
Local Planning Authority:	

Net Lettable Area (NLA) in m <sup>2</sup> :	804
No. of Levels:	1

**Please note, eligibility criteria apply to projects that wish to undergo certification under this rating tool. Please refer to [www.gbcaus.org](http://www.gbcaus.org) for further details.**

Building Description: (Orientation, Form, Structure, Façade, etc.)	804m2 open plan office on the 15th level of an existing building. The office takes advantage of beautiful harbour views and a central CBD location for easy transport access.
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Building Services: (Heating, Cooling, Ventilation, Lighting, Lifts, Domestic Hot Water)	An on-floor AHU serves the level. Displacement ventilation has been retrofitted into the tenancy and pumps heating and cooling through a raised floor and perimeter plenums. Grey water re-use has been retrofitted to flush toilets with tenancy grey-water. A two component task and general lighting solution has been provided allowing occupants to control task lighting from their computer workstations. Additional lighting is controlled through motion sensors and daylight sensors. No hot water is provided to the tenancy.
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Date:	13-Mar-09
Current Project Phase:	Completion

**NB Use of Green Star - Office Interiors may predict a rating that differs from that achieved via formal Green Star certification. Detailed guidance on credit compliance criteria is contained in the Green Star - Office Interiors Manual.**

# Green Star - Office Interiors

Credit Summary for: **The Greenhouse**

## Management

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
Man-1	Green Star Accredited Professional	To encourage and recognise the adoption of sustainable development principles from the earliest project stages throughout design and construction.	Two points are awarded where it is demonstrated that at least one principal participant of the tenancy fitout design team is a Green Star Accredited Professional and is engaged to provide sustainability advice throughout the design and delivery period.	2	2		Awarded.
Man-2	Tenancy Fitout Commissioning	To encourage and recognise improved building services performance and energy efficiency through adequate commissioning.	One point is awarded where it is demonstrated that comprehensive pre-commissioning, commissioning and quality monitoring were performed by the appropriate contractors and trades on-site (developed in accordance with relevant ASHRAE Guidelines and CIBSE Commissioning Codes) and were communicated to the tenant. This credit is limited to items installed as part of the tenancy fitout and does not include base building services unless altered by the tenant. If no alterations to base building services are undertaken or no supplementary systems are installed this credit is 'Not Applicable' - type "na" in the 'No. of Points Achieved' column.	1			Credit not claimed.
			An additional point is awarded where it is demonstrated that the tenancy fitout project team transferred commissioning information to the base building owner, including: • Tenancy fitout buildings services design intent; • Tenancy fitout as-installed information including commissioning data which impacts on any base building services; and • Supplementary building services details and the commissioning report.	1			Credit not claimed.
Man-3	Commissioning - Tenancy Fitout Tuning	To encourage and recognise improved energy efficiency and comfort within the tenancy in all seasons due to adequate commissioning.	One point is awarded for tenancy fitouts greater than 1000m <sup>2</sup> where it is demonstrated that a tenant is committed to 12 months' commissioning and tuning and reporting the commissioning outcomes to the building owner. Tuning is required at least quarterly and final recommissioning is required after 12 months. If the fitout is less than 1000m <sup>2</sup> or if only minor or no alterations to base building services are undertaken, or no supplementary building services are installed, then this credit is 'Not Applicable' - type "na" in the 'No. of Points Achieved' column.	0	na		'na' awarded.
Man-4	Tenant Guide	To encourage and recognise the provision of guidance to enable tenants to achieve the environmental performance envisaged by the tenancy fitout design team.	Three points are awarded where it is demonstrated that there is a Tenant Guide.	3	3		Awarded.

## Management

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
Man-5	Environmental Management	To encourage and recognise the adoption of an Environmental Management Plan in line with established government and industry guidelines during tenancy fitout works.	Up to four points are awarded as follows: <ul style="list-style-type: none"> <li>• 2 points are awarded where it is demonstrated that the contractor implemented a comprehensive Environmental Management Plan for the works in accordance with Section 4 and Appendix C of the NSW Environmental Management System Guidelines (1998);</li> <li>• 2 points are awarded where it is demonstrated that the contractor had ISO 14001:2004 Environmental Management System certification for the tenancy fitout.</li> </ul>	4	4		Awarded.
Man-6	Waste Management During Tenancy Fitout	To encourage and recognise initiatives that avoid construction and deconstruction waste going to landfill.	Up to three points are awarded where it is demonstrated that the contractor has implemented a Waste Management Plan and achieved the following targets: <ul style="list-style-type: none"> <li>• 1 point where 40% of waste by weight was re-used or recycled;</li> <li>• 2 points where 60% of waste by weight was re-used or recycled;</li> <li>• 3 points where 80% of waste by weight was re-used or recycled.</li> </ul> Records must be kept by the contractor to demonstrate all waste generated and waste re-used or recycled by weight.	3	2		Awarded.
<b>Total Points =</b>				<b>14</b>	<b>11</b>	<b>0</b>	



# Green Star - Office Interiors

Credit Summary for: The Greenhouse

## Indoor Environment Quality

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
IEQ-1	Ventilation Rates	To encourage and recognise the provision of increased outside air rates in order to promote a healthy indoor environment.	<p>Up to three points are awarded where it is demonstrated that outside air is provided at rates that exceed the requirements of AS 1668.2-1991 OR if natural ventilation is provided.</p> <p><b>Mechanically Ventilated Tenancy:</b></p> <ul style="list-style-type: none"> <li>• 1 point for a 50% increase on AS 1668.2-1991;</li> <li>• 2 points for a 100% increase on AS 1668.2-1991;</li> <li>• 3 points for a 150% increase on AS 1668.2-1991.</li> </ul> <p><b>Naturally Ventilated Tenancy:</b></p> <ul style="list-style-type: none"> <li>• 3 points where 90% of the NLA is naturally ventilated in accordance with AS 1668.2-2002.</li> </ul> <p><b>Mixed Mode Tenancy:</b></p> <p>Both modes of operation must satisfy the relevant mechanical and natural ventilation criteria. The number of points awarded is limited to the maximum number of points available under the 'Mechanically Ventilated Tenancy' criteria.</p>	3	1		Awarded.
			<p>If the ventilation points are achieved due to alterations to the base building as part of the tenancy fitout works, then an additional point is awarded. This additional point is only awarded if the base building would not have achieved the ventilation criteria above without the tenancy fitout works. If this improvement was not achieved the additional point is considered 'Not Applicable' - type "na" in the 'No. of Points Achieved' column.</p>	1			Credit not claimed.
IEQ-2	Carbon Dioxide Monitoring and Control	To encourage and recognise the provision of improved indoor air quality by ensuring that the fresh air supply can be measured against the level of pollutants in the tenancy fitout space.	<p>One point is awarded where it is demonstrated that ONE of the following conditions is met in the tenancy fitout:</p> <ul style="list-style-type: none"> <li>• A carbon dioxide (CO<sub>2</sub>) monitoring system with a minimum of one CO<sub>2</sub> sensor per return duct in the tenancy fitout that facilitates continuous monitoring and adjustment of outside air ventilation rates for all enclosed spaces less than 100m<sup>2</sup> in area;</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• The HVAC systems used by the tenancy provide 100% outside air with no re-circulated component;</li> </ul> <p>OR</p> <ul style="list-style-type: none"> <li>• The floor area occupied by the tenancy fitout is entirely naturally ventilated.</li> </ul> <p>The Credit Criteria may be satisfied through existing base building features and provisions OR through additional work undertaken as part of the tenancy fitout for the supplementary air systems being delivered to the tenancy's meeting rooms.</p>	1	1		Awarded.
IEQ-3	Daylight	To encourage and recognise tenancy fitouts that provide good levels of natural light at the work setting and are located in buildings designed to optimise the provision of natural light.	<p>Up to three points are awarded where it is demonstrated that a percentage of work settings are located on an area of the floor plate that has a Daylight Factor of &gt;2.5% as measured at the finished floor level, as follows:</p> <ul style="list-style-type: none"> <li>• 1 point = 30% of work settings;</li> <li>• 2 points = 60% of work settings;</li> <li>• 3 points = 90% of work settings.</li> </ul>	3			Credit not claimed.

## Indoor Environment Quality

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
IEQ-4	Daylight Glare Control	To encourage and recognise tenancy fitouts that are designed to reduce the discomfort of glare from natural light.	Up to two points are awarded where it is demonstrated that glare is reduced, as follows: <ul style="list-style-type: none"> <li>• 1 point is awarded where automated blinds/screens with a Visual Light Transmittance (VLT) of less than 10% and a manual override function are installed by either the tenant or the base building owner to reduce glare associated with natural lighting and eliminate all direct sun penetration;</li> <li>• 1 point is awarded where all workstation monitors provided as part of the tenancy fitout are flat-screen and are mounted on an adjustable arm that enables the monitor to be pivoted and adjusted horizontally and vertically.</li> </ul>	2	1		Awarded.
IEQ-5	High Frequency Ballasts	To encourage and recognise the increase in workplace amenity by avoiding low frequency flicker that may be associated with fluorescent lighting.	One point is awarded where it is demonstrated that high frequency ballasts are installed in fluorescent luminaries over a minimum of 95% of the tenancy fitout's NLA.	1	1		Awarded.
IEQ-6	Electric Lighting Levels	To encourage and recognise tenancy fitout office lighting that provides maximum opportunity for visual comfort.	One point is awarded where it is demonstrated that the tenancy lighting achieves a maintained illuminance level of no more than 400 Lux for 95% of the NLA as measured at the working plane. An additional point is awarded if a Two Component Lighting System (base lighting plus supplementary task lighting) is installed and the general lighting level has an average maintained illuminance of no more than 220 Lux for 80% of the NLA.	2	2		Awarded.
IEQ-7	External Views	To encourage and recognise tenancy fitouts that allow long distance views and visual connection to the outdoors.	Up to two points are awarded where it is demonstrated that a percentage of work settings have a direct line of sight through vision glazing, either externally or to an adequately sized and naturally lit internal atrium, as follows: <ul style="list-style-type: none"> <li>• 1 point = 60% of work settings;</li> <li>• 2 points = 90% of work settings.</li> </ul> The distance to the nearest vision glazing is to be no more than eight metres.	2	2		Awarded.
IEQ-8	Individual Comfort Control	To encourage and recognise the provision of individual occupant thermal comfort controls.	Up to two points are awarded where it is demonstrated that workstations enable individual control of the air supply rates, air temperature or radiant temperature to each workstation, as follows: <ul style="list-style-type: none"> <li>• 1 point where 60% of workstations enable individual control;</li> <li>• 2 points where 90% of workstations enable individual control.</li> </ul>	2	1		Awarded.
			An additional point is awarded where the tenancy fitout works alter the existing base building's HVAC system to achieve at least one point above. Where the Credit Criteria is not achieved as a result of the tenancy fitout works this credit is 'Not Applicable' - type "na" in the 'No. of Points Achieved' column.	1	1		Awarded.
IEQ-9	Asbestos	To encourage and recognise actions taken to reduce health risks to occupants from the presence of hazardous materials.	One point is awarded where it is demonstrated that an asbestos survey has been carried out on the existing tenancy and all identified asbestos has been appropriately removed and disposed of as defined by the relevant environmental and Occupational Health and Safety (OH&S) legislation. This credit is 'Not Applicable' for new tenancy fitouts - type "na" in the 'No. of Points Achieved' column.	1	1		Awarded.

## Indoor Environment Quality

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
IEQ-10	Internal Noise Levels	To encourage and recognise tenancy fitouts that control internal noise levels to ensure occupant comfort.	One point is awarded where it is demonstrated that ambient internal noise levels are 40-45 dBLAeq in general offices and 35-40 dBLAeq in private offices, with the tenancy ready for occupancy but unoccupied as per AS/NZS 2107:2000; AND Where a reverberation time (RT60) of 0.4-0.6 seconds for general offices and a RT60 of 0.6 - 0.8 seconds for private offices is achieved.	1			Credit not claimed.
IEQ-11	Volatile Organic Compounds	To encourage and recognise tenancy fitouts that reduce the detrimental impact on occupant health from products that emit pollutants.	Up to eight points are awarded where it is demonstrated that benchmarks for low Volatile Organic Compound (VOC) content are met, as follows: <ul style="list-style-type: none"> <li>• 2 points where 95% of all painted surfaces are low-VOC paints (AELA 23-2005) or no paint is used;</li> <li>• 2 points where all carpets are low-VOC (US Carpet and Rug Institute Green Label) or no carpet is installed;</li> <li>• 2 points where all adhesives and sealants are low-VOC (South Coast Air Quality Management District (California, U.S.) Rule 1168) or no adhesives/sealants are used;</li> <li>• 2 points where all tenancy fitout items (workstations, walls/partitions, chairs, tables and storage units) are low-VOC (US EPA's Environmental Technology Verification test method). Refer to the Technical Manual for emissions standards).</li> </ul>	8	6		Awarded.
IEQ-12	Formaldehyde Minimisation	To encourage and recognise tenancy fitouts that reduce the use of high formaldehyde emission composite wood products.	Up to two points are awarded where it is demonstrated that all composite wood products meet the following benchmarks: <ul style="list-style-type: none"> <li>• 1 point where low formaldehyde emission (E1 limit under EN 13986:2004 OR no greater than 0.05ppm after 28 days under EN 717-1:2004) composite wood products are used;</li> <li>• 2 points where low formaldehyde emission (F4Star under JIS A 5905:2003) OR no composite wood products are used.</li> </ul>	2	1		Awarded.
IEQ-13	Air Supply Ductwork	To encourage and recognise tenancy fitouts that reduce the detrimental impact on occupant health from residual materials within the existing air supply ductwork.	One point is awarded where it is demonstrated that all accessible supply air ductwork has been cleaned to remove dust, dirt and mould prior to occupancy. If the ductwork is new or the fitout does not include ductwork this credit is 'Not Applicable' - type "na" in the 'No. of Points Achieved' column.	1	1		Awarded.
IEQ-14	Tenant Exhaust	To encourage and recognise tenancy fitouts that reduce the detrimental impact on occupant health from equipment related sources of internal air pollutants.	One point is awarded where it is demonstrated that all print/photocopy rooms are enclosed and have a dedicated and separate exhaust facility. The exhaust from the room(s) must not be connected to the return air duct and must comply with the requirements in AS 1668.2-2002.	1	1		Awarded.

## Indoor Environment Quality

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
IEQ-15	Indoor Plants	To encourage and recognise the installation of indoor plants that improve indoor environment quality.	<p>Up to two points are awarded, as follows:</p> <p>1 point is awarded where it is demonstrated that indoor plants are incorporated in the tenancy fitout and comply with the following requirements:</p> <ul style="list-style-type: none"> <li>• The plant species are selected on the basis of their suitability to indoor environments;</li> <li>• A 'Horticultural Maintenance Plan' is in place (minimum two years) to ensure that the health of the plants is maintained; and</li> <li>• There is a minimum density of one large plant (300mm pot) or two small plants (200mm pot) per two work settings, distributed over the NLA. <p>2 points are awarded where the above is demonstrated, but the plant density is increased to a minimum of one large plant or two small plants per work setting.</p> </li></ul>	2	2		Awarded.
<b>Total Points =</b>				<b>34</b>	<b>22</b>	<b>0</b>	

# Green Star - Office Interiors

Credit Summary for: **The Greenhouse**

## Energy

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
Ene-1	Energy Efficiency	To reduce tenancy operational energy and greenhouse gas emissions.	It is a Conditional Requirement for obtaining a Green Star - Office Interiors Certified Rating that the tenancy fitout achieves a minimum predicted rating of Four Stars using the Australian Building Greenhouse Rating (ABGR) scheme's 'Validation Protocol for Tenancy Energy Estimation Version 2005-02'. This credit does not require the signing of an ABGR 'Commitment Agreement'. Any renewable energy generated by the tenant on-site can be included in the ABGR calculation.	Conditional Requirement	Yes		Conditional Requirement met.
Ene-2	Energy Improvements	To encourage and recognise tenancy fitouts that reduce operational energy consumption and greenhouse gas emissions over and above the Ene-1 Conditional Requirement.	Up to twelve points are awarded where there is an improvement in energy efficiency and greenhouse gas emissions above the conditional Four Star ABGR (refer to Ene 1). Points are awarded as follows: <ul style="list-style-type: none"> <li>• 3 points = 4.5 Star ABGR</li> <li>• 6 points = 5 Star ABGR</li> <li>• 9 points = 5 Star ABGR + 20% CO<sub>2</sub> reduction on 5 Star</li> <li>• 12 points = 5 Star ABGR + 40% CO<sub>2</sub> reduction on 5 Star</li> </ul>	12	6		Awarded.
Ene-3	Electrical Sub-metering	To encourage and recognise the provision of energy sub-metering to facilitate tenant energy monitoring.	One point is awarded where it is demonstrated that separate sub-metering is provided for tenancy lighting and small power consumption. Where the tenancy is greater than one floor this must be provided separately for each floor.	1	1		Awarded.
			An additional point is awarded where sub-metering is provided for substantive energy use greater than 25kVA within the tenancy, such as supplementary air conditioning for computer server rooms, meeting rooms or loads associated with server rooms. If there are no substantive energy uses above 25kVA then the additional point is considered to be 'Not Applicable' - type "na" in the 'No. of Points Achieved' column.	0	na		'na' awarded.
Ene-4	Office Lighting Zoning	To encourage and recognise lighting initiatives that offer greater flexibility for light switching, making it easier to light occupied areas only.	One point is awarded where it is demonstrated that: <ul style="list-style-type: none"> <li>• All individual or enclosed spaces have separate switches;</li> <li>• The size of individually switched lighting zones does not exceed 100sqm for 95% of tenancy; and</li> <li>• Switches are clearly labelled, conveniently located and easily accessed by tenants.</li> </ul>	1	1		Awarded.
			An additional point is awarded where the above is achieved and where an individually addressable lighting system is provided for 95% of the NLA.	1			Credit not claimed.
<b>Total Points =</b>				<b>15</b>	<b>8</b>	<b>0</b>	

# Green Star - Office Interiors

Credit Summary for: **The Greenhouse**

## Transport

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
Tra-1	Public Transport	To encourage and recognise tenancies with proximity and good access to public transport networks that have frequent servicing.	Up to five points are awarded based on the proximity of the tenancy to public transport, the number of routes served, and the average frequency of service during the weekday two-hour morning peak commuting period and the two-hour afternoon peak commuting period. The points are determined using the Public Transport Calculator.	5	5		Awarded.
Tra-2	Car Parking	To encourage and recognise tenancies that promote the utilisation of alternative modes of transport by limiting available parking spaces.	Two points are awarded where the parking spaces allocated to the tenant are less than the maximum current local planning allowances (as at Development Approval), as follows: • 1 point = at least 25% less than the maximum local planning allowances, or within 10% of the minimum local planning allowances if only a minimum is stipulated; • 2 points = at least 50% less than the maximum local planning allowances, or no more than the minimum local planning allowances if only a minimum is stipulated. Where car parking is not permitted in the local planning scheme this credit is 'Not Applicable' - type "na" in the 'No. of Points Achieved' column.	2	2		Awarded.
Tra-3	Cyclist Facilities	To encourage and recognise tenancies that promote the use of bicycles by occupants by ensuring adequate cyclist facilities are provided in the base building.	Up to two points are awarded where it is demonstrated that the building includes cyclist facilities, as shown below. 1 point is awarded where there is adequate provision of cyclist facilities, as follows: • secure bicycle storage for 5% of tenancy occupants (based on one person per 15m <sup>2</sup> of the NLA); PLUS • accessible showers (1 per 10 bicycle spaces provided or part thereof); PLUS • changing facilities (with secure lockers – one for each bicycle space). 2 points are awarded where there is good provision of cyclist facilities, as follows: • secure bicycle storage for 10% of all building occupants (based on one person per 15m <sup>2</sup> of the NLA); PLUS • accessible showers (1 per 10 bicycle spaces provided or part thereof); PLUS • changing facilities (with secure lockers – one for each bicycle space).	2			Credit not claimed.
			An additional point is awarded where the cyclist facilities were installed specifically for the tenancy fitout and were not pre-existing in the base building. Where the Credit Criteria are achieved due to pre-existing base building facilities this additional point is considered 'Not Applicable' - type "na" in the 'No. of Points Achieved' column.	1			Credit not claimed.
<b>Total Points =</b>				<b>10</b>	<b>7</b>	<b>0</b>	

# Green Star - Office Interiors

Credit Summary for:

The Greenhouse

## Public Transport Calculator

No. of Bus, Tram or Ferry Services		
Walking Distance from Building Entrance to Public Transport	Frequency of Service During Peak Periods	
	15 min	30 min
0-250m		
250-500m	18	
500-750m		
750m-1km		

No. of Train Services		
Walking Distance from Building Entrance to Public Transport	Frequency of Service During Peak Periods	
	15 min	30 min
0-250m		
250-500m		
500-750m		
750m-1km		

<b>Points Achieved</b>	<b>5</b>
------------------------	----------

### How to use the Calculator

1. Determine the number and type of public transport options within 1km of the building and the walking distance to each.
2. Determine the frequency of each service between 7.30am and 9.30am and between 4.30pm and 6.30pm from Monday to Friday (excluding public holidays) from current timetables.
3. Enter the number of services in each category in the tables above, based on type, distance and frequency.

### Notes

1. If the site is within 15 minutes travel time (via a public transport connecting service with a frequency of no more than 30 minutes) of a public transport interchange then the services available from the interchange can be included in the Calculator with the following modifications:
  - the number of interchange services for each type and frequency to be entered in the tables above should be halved; and
  - the distance to the interchange services is equal to the distance from the site to the connecting service plus 250m.
2. If a public transport service terminates within 1km of the site then that service only counts as half of one service (i.e. enter 0.5 instead of 1 for that service).

## Green Star - Office Interiors

Credit Summary for:       The Greenhouse

### Water

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
Wat-1	Potable Water Efficiency	To encourage and recognise the use of water efficient fittings and appliances that result in reduced potable water consumption.	Up to twelve points are awarded where it is demonstrated that the predicted potable water consumption for sanitary use by the tenant has been reduced. This is determined using the Potable Water Calculator, with points being awarded based on the type and rating of fixtures/fittings.	12	12		Awarded.
			One point is awarded where all dishwashers are 5A rated. If no dishwashers are installed as part of the tenancy fitout then this credit is 'Not Applicable' - type "na" in the 'No. of Points Achieved' column.	1			Credit not claimed.
			An additional point is awarded for fitouts where base building water fixtures associated with the tenancy required replacement to gain more than six points using the Potable Water Calculator. If six points or less were achieved using the Potable Water Calculator, or no alteration to the base building water fittings and/or fixtures were made, then this point is considered 'Not Applicable' (type "na" in the 'No. of Points Achieved' column).	1	1		Awarded.
<b>Total Points =</b>				<b>14</b>	<b>13</b>	<b>0</b>	



# Green Star - Office Interiors v1.1

Tenancy Fitout:

The Greenhouse

## Potable Water Calculator

<b>Number of Occupants</b>	<b>56</b>
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<b>Hours of Operation</b>	Standard ▼
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### WATER CONSUMPTION DUE TO FITTINGS:

	Water Efficiency	Percentage of Each Type
<b>Toilets</b>		
	<b>L/flush</b>	
Caroma Leda Invisi Suite 4.5/3	3.4	100%
<enter description here>		
<enter description here>		
<enter description here>		
<b>Urinal Flush Controls</b>		
	<b>L/flush</b>	
Caroma Cube3 0.8 Electronic Flush	0.8	100%
<enter description here>		
<enter description here>		
<enter description here>		
Urinal flush on auto timer *		
<b>Taps</b>		
	<b>L/min</b>	
Schell Petit Self-closing mixer	4.5	100%
<enter description here>		
<enter description here>		
<enter description here>		

% of occupants served

<b>Shower Demand:</b>	No showers installed ▼
-----------------------	------------------------

<b>Showerheads</b>	<b>L/min</b>	
Pre-existing	0	0%
<enter description here>		
<enter description here>		
<enter description here>		

<b>Total Water Consumption From Fittings (L/day/person)</b>	<b>6.91</b>
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<b>Points Achieved</b>	<b>12</b>
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# Green Star - Office Interiors

Credit Summary for: **The Greenhouse**

## Materials

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
Mat-1	Workstations	To encourage and recognise the selection of workstations that have a reduced environmental impact relative to available alternatives.	Up to seven points are awarded where it is demonstrated that the workstations used in the tenancy fitout have a reduced environmental impact as determined by the Mat-1 Workstations Calculator. Maximum points can only be obtained if information about <u>all</u> the workstations in the tenancy fitout is provided.	7	6		Awarded.
Mat-2	Flooring	To encourage and recognise the selection of flooring that has a reduced environmental impact relative to available alternatives.	Up to five points are awarded where it is demonstrated that the flooring used in the tenancy fitout has a reduced environmental impact as determined by the Mat-2 Flooring Calculator. Maximum points can only be obtained if information about <u>all</u> the flooring in the tenancy fitout is provided.	5	5		Awarded.
Mat-3	Walls and Partitions	To encourage and recognise the selection of walls and partitions that have a reduced environmental impact relative to available alternatives.	Up to two points are awarded where it is demonstrated that the area of built zones meets the following requirements: <ul style="list-style-type: none"> <li>• 1 point where built zones represent &lt; 15% of the NLA;</li> <li>• 2 points where built zones represent &lt; 5% of the NLA.</li> </ul>	2			Credit not claimed.
			Up to three points are awarded where it is demonstrated that the walls and partitions used in the tenancy fitout have a reduced environmental impact as determined by the Mat-3 Walls and Partitions Calculator. Maximum points can only be obtained if information about <u>all</u> the walls and partitions in the tenancy fitout is provided.	3	3		Awarded.
Mat-4	Chairs	To encourage and recognise the selection of chairs that have a reduced environmental impact relative to available alternatives.	Up to three points are awarded where it is demonstrated that the chairs used in the tenancy fitout have a reduced environmental impact as determined by the Mat-4 Chairs Calculator. Maximum points can only be obtained if information about <u>all</u> the chairs in the tenancy fitout is provided.	3	3		Awarded.

## Materials

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
Mat-5	Tables	To encourage and recognise the selection of tables table have a reduced environmental impact relative to available alternatives.	One point is awarded where it is demonstrated that the tables used in the tenancy fitout have a reduced environmental impact as determined by the Mat-5 Tables Calculator. Maximum points can only be obtained if information about <u>all</u> the tables in the tenancy fitout is provided.	1	1		Awarded.
Mat-6	Storage	To encourage and recognise the selection of storage units that have a reduced environmental impact relative to available alternatives.	One point is awarded where it is demonstrated that the storage units used in the tenancy fitout have a reduced environmental impact as determined by the Mat-6 Storage Calculator. Maximum points can only be obtained if information about <u>all</u> the storage units in the tenancy fitout is provided.	1	1		Awarded.
Mat-7	Joinery	To encourage and recognise the use of joinery that has a reduced environmental impact relative to available alternatives.	One point is awarded where it is demonstrated that the joinery used in the tenancy fitout has a reduced environmental impact as determined by the Mat-7 Joinery Calculator. Maximum points can only be obtained if information about <u>all</u> the joinery in the tenancy fitout is provided.	1	0		Credit not claimed.
Mat-8	Ceilings	To encourage and recognise the reduction of waste during tenancy fitout works.	One point is awarded where it is demonstrated that: <ul style="list-style-type: none"> <li>• The base building ceiling tiles are left intact with the exception of areas requiring removal due to the installation of tenant services; OR</li> <li>• Work undertaken to ceiling tiles does not adversely impact on the base building ceiling grid, with tiles being retained for re-installation during 'make good' at the end of the tenancy; OR</li> <li>• Where the tenancy fitout is in a building where there are no ceiling tiles.</li> </ul>	1			Credit not claimed.
Mat-9	Waste Management for Tenancy Operation	To encourage and recognise the inclusion of storage space that facilitates the recycling of resources used within the tenancy to reduce waste going to landfill.	Two points are awarded where it is demonstrated that waste management and recycling systems for typical office waste are included in the tenancy fitout, as follows: <ul style="list-style-type: none"> <li>• 1m<sup>2</sup> of designated recycling storage space per six work settings with monthly collections; or</li> <li>• 1m<sup>2</sup> of designated recycling storage space per 24 work settings with weekly collections.</li> </ul>	2	2		Awarded.
Mat-10	PVC Minimisation	To encourage and recognise the reduction of Poly Vinyl Chloride (PVC) products in Australian buildings.	Up to two points are awarded where it is demonstrated that the total PVC content cost for major services elements (conduits & cables etc) is reduced by replacement with alternative materials, as follows: <ul style="list-style-type: none"> <li>• 1 point = 30% reduction by cost;</li> <li>• 2 points = 60% reduction by cost.</li> </ul> PVC that exists in the base building that is not being replaced should be excluded from the cost calculations.	2			Credit not claimed.

## Materials

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
Mat-11	Timber	To encourage and recognise the specification of re-used timber products or timber from certified environmentally responsible forest management practices.	Two points are awarded where it is demonstrated that all timber and composite timber products used in the tenancy fitout are sourced from either or a combination of the following: <ul style="list-style-type: none"> <li>• Post-consumer re-used timber; or</li> <li>• Forest Stewardship Council (FSC) Certified Timber.</li> </ul> If the material cost of timber represents less than 0.1% of the tenancy fitout's total contract value then this credit is 'Not Applicable' (type "na" in the 'No. of Points Achieved' column).	2			Credit not claimed.
<b>Total Points =</b>				<b>30</b>	<b>21</b>	<b>0</b>	

# Green Star - Office Interiors v1.1

Tenancy Fitout:

## Materials Calculators Output Sheet

### Points Allocation Summary

	Workstations	Floor Coverings	Walls and Partitions	Chairs	Tables	Storage Units	Joinery	Total
Maximum No. Points Available	7	5	3	3	1	1	1	21
Available Points*	7	5	3	3	1	1	1	21
Points Awarded**	6	5	3	3	1	1	1	20

\*(based on fraction of items specified in the data input sheet compared to total specified within the fitout).

### Workstations

	Amount
Total within Fitout	55
Total from Data Input Sheet	55
Reused	12
Fixed	0
Loose	43
Environmentally Innovative	0

### Floor Coverings

	Amount
Total within Fitout	804 m <sup>2</sup>
Total from Data Input Sheet	804 m <sup>2</sup>
Reused	0 m <sup>2</sup>
Exposed Concrete	140 m <sup>2</sup>
Carpet	0 m <sup>2</sup>
Timber	0 m <sup>2</sup>
Resilient	0 m <sup>2</sup>
Ceramic/Stone	0 m <sup>2</sup>
Other	0 m <sup>2</sup>
Environmentally Innovative	664 m <sup>2</sup>

### Walls and Partitions

	Amount
Total within Fitout	43.6 m
Total from Data Input Sheet	44 m
Reused	0 m
New	44 m
Environmentally Innovative	0

### Chairs

	Amount
Total within Fitout	148
Total from Data Input Sheet	148
Reused	44

### Tables

	Amount
Total within Fitout	21
Total from Data Input Sheet	21
Composite Wood	18

### Storage Units

	Amount
Total within Fitout	17
Total from Data Input Sheet	17
Reused	0

## Materials Calculators Output Sheet

Task	0
Meeting Room	0
Breakout Space	0
Other	0
Environmentally Innovative	104

Environmentally Innovative	0
Glass	0
Metal	0
Plastic	0
Reused	3
Timber	0

Compactus	0
Composite Wood	0
Timber	0
Metal	0
Other	0
Environmentally Innovative	17

### Joinery

	Amount
Total within Fitout	35.4 m
Total from Data Input Sheet	35 m
New	35 m
Reused	0 m
Environmentally Innovative	0 m

### Notes:

\* Points Available = number of items specified in the data input sheet x total items specified within the fitout

\*\* Points Awarded = Sum of the Weighted Score x Points Available.

\*\* Weighted Score = product score x (no of items/total items specified in the data input sheet).

# Green Star - Office Interiors v1.1

Tenancy Fitout:

## Mat-1 Workstations Calculator

Total Number of Workstations within the Fitout:

55 units

Points Awarded for this Credit

6

	Type of Workstation	Name of Workstation Supplier	Brief Description of Workstation	Number of Workstations (Units)	Resource Utilisation		Management						Reusability		Product Score (%)	
					Eco Preferred Content	Durability	EMS?	EMS ISO 14001 Certified?	EMS Includes?				Product Stewardship	Modular		Designed for Disassembly
									Waste Minimisation	Energy	Emissions	Materials Minimisation				
1	Loose	Schiavello	Marina Workstation	43	<5%	≥10yrs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	≥90%	83
2	Reused	GBCA	Re-use of client's existing wksn	12												100
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

**Notes:**

Workstations are assessed across three environmental impact categories, as follows:

- 'Resource Utilisation' which assesses the workstation's:
  - Eco Preferred Content (EC); and
  - Durability (DU).
- 'Management' which assesses:
  - the workstation manufacturer's Environmental Management System (EMS); and
  - Product Stewardship (PS).
- 'Reusability' which assesses whether the workstation is:
  - Modular (MO); and/or
  - Designed for Disassembly (DD).

Each of the environmental impact categories are weighted equally:

Total Score = EC + DU + EMS + PS + MO + DD.

Total Score therefore = 10 + 10 + 10 + 10 + 10 + 10

The number of points determined by the Mat-1 Workstations Calculator is based on the Total Score out of 60 for each workstation which is weighted according to the number of that workstation type as a fraction of total number of workstations.

The number of points is automatically calculated and appears in the Materials Calculators Output Sheet.

# Green Star - Office Interiors v1.1

Tenancy Fitout:

## Mat-2 Flooring Calculator

Total Floor Area within the Fitout:

804 m<sup>2</sup>

Points Awarded for this Credit

5

	Type of Flooring	Name of Flooring Supplier	Brief Description of Flooring	Area of Flooring (m <sup>2</sup> )	Resource Utilisation		Management				Reusability		Product Score (%)			
					Eco Preferred Content	Durability	EMS?	EMS ISO 14001 Certified?	EMS Includes?					Product Stewardship	Modular	Designed for Disassembly
									Waste Minimisation	Energy	Emissions	Materials Minimisation				
1	Environmentally Innovative	InterfaceFL OR	Carpet Tile	664										100		
2	Exposed Concrete	Agar Cleaning	Sealed Existing Concrete Floor	140										100		
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

**Notes:**  
 Flooring is assessed across three environmental impact categories, as follows:  
 • 'Resource Utilisation' which assesses the flooring's:  
 • Eco Preferred Content (EC); and  
 • Durability (DU).  
 • 'Management' which assesses:  
 • the flooring manufacturer's Environmental Management System (EMS); and  
 • Product Stewardship (PS).  
 • 'Reusability' which assesses whether the flooring is:  
 • Modular (MO); and/or  
 • Designed for Disassembly (DD).

Each of the environmental impact categories are weighted equally:  
 Total Score = EC + DU + EMS + PS + MO + DD.  
 Maximum Score = 10 + 10 + 10 + 10 + 10 + 10

The number of points determined by the Mat-2 Flooring Calculator is based on a total score out of 60 for each flooring type and then weighted according to the area of that flooring type as a fraction of total floor space.  
 The final score is provided in the Materials Calculators Output Sheet.



# Green Star - Office Interiors v1.1

Tenancy Fitout:

## Mat-3 Walls and Partitions Calculator

Total Length of Walls and Partitions within the Fitout

43.6 m

Points Awarded for this Credit

3

Item	Type of Walls and Partitions	Name of Walls/Partitions Supplier	Brief Description of Walls and Partitions	Length of Wall or Partition (m)	Resource Utilisation		Management						Reusability		Product Score (%)	
					Eco Preferred Content	Durability	EMS?	EMS ISO 14001 Certified?	EMS Includes?				Product Stewardship	Modular		Designed for Disassembly
									Waste Minimisation	Energy	Emissions	Materials Minimisation				
1	New	Schiavello	PT1 - MK10 System	13.4	<5%	≥10yrs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	≥90%	83
2	New	Schiavello	PT2 - MK10 System	21	<5%	≥10yrs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	≥90%	83
3	New	Schiavello	PT3 - MK10 System	9.2	<5%	≥10yrs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	≥90%	83
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																

**Notes:**

Walls and partitions are assessed across three environmental impact categories, as follows:

- 'Resource Utilisation' which assesses the walls/partitions:

- Eco Preferred Content (EC); and
- Durability (DU).

- 'Management' which assesses:

- the walls/partitions manufacturer's Environmental Management System (EMS); and
- Product Stewardship (PS).

- 'Reusability' which assesses whether the walls/partitions are:

- Modular (MO); and/or
- Designed for Disassembly (DD).

Each of the environmental impact categories are weighted equally:

Total Score = EC + DU + EMS + PS + MO + DD.

Maximum Score = 10 + 10 + 10 + 10 + 10 + 10

The number of points determined by the Mat-3 Walls and Partitions Calculator is based on a total score out of 60 for each wall/partition type and then weighted according to the length of wall/partition as a fraction of total walls/partitions.

The final score is provided in the Materials Calculators Output Sheet.



**Tenancy Fitout:**

**Mat-4 Chairs Calculator**

**Total Number of Chairs within the Fitout:**

**148** units

**Points Awarded for this Credit**

**3**

	Type of Chair	Name of Chair Supplier	Brief Description of Chair	Number of Chairs	Resource Utilisation		Management						Reusability		Product Score (%)
					Eco Preferred Content	Durability	EMS?	EMS ISO 14001 Certified?	EMS Includes?				Product Stewardship	Designed for Disassembly	
									Waste Minimisation	Energy	Emissions	Materials Minimisation			
20	Reused	Vampt	R-C - 08 Cafe Chair	3											100
21	Reused	Vampt	R-C - 09 Cafe Chair	3											100
22	Reused	Mitchell Rd	R-C - 10 Cafe Chair	3											100

**Notes:**

Chairs are assessed across three environmental impact categories, as follows:

- 'Resource Utilisation' which assesses the chairs':
  - Eco Preferred Content (EC); and
  - Durability (DU).
- 'Management' which assesses:
  - the chair manufacturer's Environmental Management System (EMS); and
  - Product Stewardship (PS).
- 'Reusability' which assesses whether the chairs are:
  - Designed for Disassembly (DD).

Each of the environmental impact categories are weighted equally:

Total Score = EC + DU + EMS + PS + DD.

Maximum Score = 10 + 10 + 10 + 10 + 10

The number of points determined by the Mat-4 Chairs Calculator are based on a total score out of 50 for each chair type and then weighted according to the number of that chair type as a fraction of total chairs.

The final score is provided in the Materials Calculators Output Sheet.

# Green Star - Office Interiors v1.1

Tenancy Fitout:

## Mat-5 Tables Calculator

Total Number of Tables within the Fitout:

**21** units

Points Awarded for this Credit

**1**

	Type of Table	Name of Table Supplier	Brief Description of Table	Number of Tables	Resource Utilisation		Management						Reusability		Product Score (%)
					Eco Preferred Content	Durability	EMS	EMS ISO 14001 Certified?	EMS Includes				Product Stewardship	Designed for Disassembly	
									Waste Minimisation	Energy	Emissions	Materials Minimisation			
1	Composite Wood	Schiavello	T - 01 Marina Boardroom w/ castors 2600x1200	6	≥25%	≥7yrs and <10yrs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	≥90%	92
2	Composite Wood	Schiavello	T - 02 Marina meeting 2000x1200	2	≥25%	≥7yrs and <10yrs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	≥90%	92
3	Composite Wood	Schiavello	T - 03 Marina Computer Table 1600x600	1	≥25%	≥7yrs and <10yrs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	≥90%	92
4	Composite Wood	Schiavello	T - 04 Marina Meeting 900 dia.	2	≥25%	≥7yrs and <10yrs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	≥90%	92
5	Composite Wood	Schiavello	T - 05 Marina Meeting 1800x900	2	≥25%	≥7yrs and <10yrs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	≥90%	92
6	Composite Wood	Schiavello	T - 06 QED Cafe 900 dia.	4	≥25%	≥7yrs and <10yrs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	≥90%	92
7	Reused	GBCA	T - 07 Reused	1											100
8	Composite Wood	Schiavello	T - 08 Marina Meeting 1200 dia.	1	≥25%	≥7yrs and <10yrs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	≥90%	92
9	Reused	GBCA	R - T - 01 Reused Café	1											100
10	Reused	Vampt	R - T - 03 Reused Coffee	1											100
11															
12															
13															
14															
15															

**Notes:**

Tables are assessed across three environmental impact categories, as follows:

- 'Resource Utilisation' which assesses the tables:
  - Eco Preferred Content (EC); and
  - Durability (DU).
- 'Management' which assesses:
  - the table manufacturer's Environmental Management System (EMS); and
  - Product Stewardship (PS).
- 'Reusability' which assesses whether the tables are:
  - Designed for Disassembly (DD).

Each of the environmental impact categories are weighted equally:

Total Score = EC + DU + EMS + PS + DD.

Maximum Score = 10 + 10 + 10 + 10 + 10

The number of points determined by the Mat-5 Tables Calculator are based on a total score out of 50 for each table type and then weighted according to the number of that table type as a fraction of total tables.

The final score is provided in the Materials Calculators Output Sheet.



**Tenancy Fitout:**

**Mat-6 Storage Calculator**

**Total Number of Storage Units within the Fitout:**

17

**Points Awarded for this Credit**

1

	Type of Storage Unit	Name of Storage Unit Supplier	Brief Description of Storage Unit	Number of Storage Units	Resource Utilisation		Management						Reusability		Product Score (%)
					Eco Preferred Content	Durability	EMS?	EMS ISO 14001 Certified?	EMS Includes?				Product Stewardship	Designed for Disassembly	
									Waste Minimisation	Energy	Emissions	Materials Minimisation			
19															
20															

**Notes:**

Storage units are assessed across three environmental impact categories, as follows:

- 'Resource Utilisation' which assesses the storage unit's:
  - Eco Preferred Content (EC); and
  - Durability (DU).
- 'Management' which assesses:
  - the storage unit manufacturer's Environmental Management System (EMS); and
  - Product Stewardship (PS).
- 'Reusability' which assesses whether the storage unit is:
  - Designed for Disassembly (DD).

Each of the environmental impact categories are weighted equally:

Total Score = EC + DU + EMS + PS + DD.

Maximum Score = 10 + 10 + 10 + 10 + 10

The number of points determined by the Mat-6 Storage Calculator are based on a total score out of 50 for each storage unit type and then weighted according to the number of that storage unit type as a fraction of total tables.

The final score is provided in the Materials Calculators Output Sheet.

# Green Star - Office Interiors v1.1

Tenancy Fitout - The Greenhouse

## Mat-7 Joinery Calculator

Total Joinery within the Fitout

**35.4** m

Points Awarded

**1**

	Type of Joinery	Name of Joinery Supplier	Brief Description of Joinery Type	Amount of Joinery Type (m <sup>2</sup> )	Resource Utilisation	Reusability		Product Score (%)
					Eco Preferred Content	Modularity	Designed for Disassembly	
1	New	Easy Rest	J01 - Mobile unit	4.3	<5%	Yes	≥90%	67
2	New	Easy Rest	J02 - Mobile Unit	1.1	<5%	Yes	≥90%	67
3	New	Easy Rest	J03 - Mobile Unit	1.6	<5%	Yes	≥90%	67
4	New	Easy Rest	J04 - Mobile caterer's unit	0.8	<5%	Yes	≥90%	67
5	New	Easy Rest	J05 - Reception/ café front	6	<5%	Yes	≥90%	67
6	New	Easy Rest	J06 - Reception/ café back bench	5.4	<5%	Yes	≥90%	67
7	New	Easy Rest	J07 - Shelving unit	3.5	<5%	Yes	≥90%	67
8	New	Easy Rest	J08 - Boardroom Bench unit	6.5	<5%	Yes	≥90%	67
9	New	Easy Rest	J09 - Caterer's bench	3.9	<5%	Yes	≥90%	67
10	New	Easy Rest	J10 - Meeting Room Unit	1.6	<5%	Yes	≥90%	67
11	New	Easy Rest	J11 - Services switch panel	0.2	<5%	Yes	≥90%	67
12	New	Easy Rest	J12 - Mobile unit	0.5	<5%	Yes	≥90%	67
13								
14								
15								

### Notes:

Joinery is assessed across two environmental impact categories, as follows:

- 'Resource Utilisation' which assesses the joinery's:
  - Eco Preferred Content (EC); and
- 'Reusability' which assesses whether the joinery is:
  - Modular (MO); and/or
  - Designed for Disassembly (DD).

Each of the environmental impact categories are weighted equally:

Total Score = EC + MO + DD.

Maximum Score = 10 + 10 + 10

The number of points determined by the Mat-7 Joinery Calculator is calculated based on a total score out of 30 for joinery and then weighted according to the amount of that type as a fraction of total joinery.

# Green Star - Office Interiors

Credit Summary for: **The Greenhouse**

## Land Use & Ecology

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
Eco-1	Green Star - Office As Built Certified Building	To encourage and recognise the selection of buildings for tenancy that have a 4 Star Green Star – Office As Built Certified Rating or higher.	Up to six points are awarded where the base building has a Green Star - Office As Built Certified Rating, as follows: <ul style="list-style-type: none"> <li>• 2 points for a 4 Star Green Star Certified Rating;</li> <li>• 4 points for a 5 Star Green Star Certified Rating;</li> <li>• 6 points for a 6 Star Green Star Certified Rating.</li> </ul>	6			Credit not claimed.
Eco-2	Building Layout Efficiency	To encourage and recognise the selection of buildings for tenancy that have an efficient and flexible layout.	Two points are awarded where it is demonstrated that Building Layout Efficiency is at least 85%.	2			Credit not claimed.
Eco-3	Building Environmental Management	To encourage and recognise the selection of buildings for tenancy that incorporate environmental impact management.	Up to three points are awarded where the building manager is contractually required to implement the following: <ul style="list-style-type: none"> <li>• Energy monitoring (quarterly minimum) and consumption reduction targets;</li> <li>• Waste reduction/recycling monitoring (quarterly minimum) and landfill disposal reduction targets;</li> <li>• Water monitoring (quarterly minimum) and consumption reduction targets;</li> <li>• Regular maintenance in accordance with the AIRAH Guideline DA19 HVAC&amp;R Maintenance;</li> <li>• The use of low environmental impact cleaning products;</li> <li>• The procurement of low environmental impact consumables (paints, light fittings, ceiling tiles, flooring etc).</li> </ul> One point is awarded for each two of the above requirements that are incorporated in the building management performance contract.	3	2		Awarded.
Eco-4	Commitment to Building Performance	To encourage and recognise the inclusion of lease clauses that align the interests of the building owner/manager and tenants and improve the environmental performance of the base building and occupied space.	Up to three points are awarded where the tenancy lease agreement requires the tenant to participate in the following environmental initiatives: <ul style="list-style-type: none"> <li>• Energy monitoring (minimum quarterly) and energy consumption reduction targets;</li> <li>• Waste reduction/recycling monitoring (minimum quarterly) and landfill disposal reduction targets;</li> <li>• Water monitoring (minimum quarterly) and water consumption reduction targets;</li> <li>• The use of cleaning products that have a low environmental impact; and/or</li> <li>• The procurement of consumables (i.e. paints, light fittings, ceiling tiles, flooring etc) that have a low environmental impact.</li> </ul> One point is awarded for two, two points are awarded for four, and three points are awarded for five of the above initiatives that are incorporated in the tenancy lease agreement.	3	3		Awarded.



## Land Use & Ecology

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
Eco-5	Shell and Core or Integrated Fitout	To encourage and recognise the reduction of material waste during tenancy fitouts.	Up to three points are awarded where it is demonstrated that a percentage of the tenancy fitout's NLA was fully integrated with the base building works or the base building works were shell and core only, as follows: <ul style="list-style-type: none"> <li>• 1 point where 30% of the NLA meets the criteria;</li> <li>• 2 points where 60% of the NLA meets the criteria;</li> <li>• 3 points where 90% of the NLA meets the criteria.</li> </ul> This credit applies to tenancy fitouts that are within a new base building construction or are part of an existing building refurbishment. All other building scenarios are considered 'Not Applicable' - type "na" in the 'No. of Points Achieved' column.	0	na		"na" awarded.
Eco-6	Building Conservation	To encourage and recognise tenancy fitouts undertaken in existing buildings in preference to new buildings.	Two points are awarded where at least 75% of the tenancy fitout had previously been tenanted. If the fitout is integrated with the base building refurbishment at least 90% of the existing structure must be retained.	2	2		Awarded.
<b>Total Points =</b>				<b>16</b>	<b>7</b>	<b>0</b>	

## Green Star - Office Interiors

Credit Summary for: **The Greenhouse**

### Emissions

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
Emi-1	Refrigerant Ozone Depleting Potential	To encourage and recognise the use of refrigerants that do not contribute to ozone depletion.	Up to two points are awarded where it is demonstrated that HVAC refrigerants in use have an Ozone Depletion Potential (ODP) of zero OR where no refrigerants are used, as follows: <ul style="list-style-type: none"> <li>• 1 point = 95% of all refrigerants by volume have an ODP of zero;</li> <li>• 2 points = 100% of all refrigerants by volume have an ODP of zero OR no refrigerants used.</li> </ul> This credit only applies if refrigeration equipment has been installed by the tenant, otherwise the credit is 'Not Applicable' (type "na" in the 'No. of Points Achieved' column).	0	na		"na" awarded.
Emi-2	Insulation Ozone Depleting Potential	To encourage and recognise the use of thermal insulation that avoids the use of ozone-depleting substances.	One point is awarded where it is demonstrated that the thermal insulation avoids the use of ozone-depleting substances in both its manufacture and composition. If no insulation has been installed by the tenant this credit is 'Not Applicable' (type "na" in the 'Points Achieved' column).	1	1		Awarded.
<b>Total Points =</b>				<b>1</b>	<b>1</b>	<b>0</b>	

# Green Star - Office Interiors

Credit Summary for: **The Greenhouse**

## Innovation

Ref No.	Title	Aim of Credit	Credit Criteria Summary	No. of Points Available	No. of Points Achieved	Points to be Confirmed	Comments
Inn-1	Innovative Strategies & Technologies	To encourage and recognise the spread of innovative initiatives for building applications that improve a development's environmental impact	Up to five Innovation points are awarded at the discretion of the Green Building Council of Australia (GBCA) where it is demonstrated that an innovative strategy or technology is eligible for AusIndustry Research and Development tax concessions and has a significant environmental benefit. The application will be assessed by the GBCA against the following criteria: * Does the application comply with AusIndustry Research and Development tax concessions requirements? * What is the environmental benefit of the innovation? More than one innovation can be submitted, however, the maximum points available for any one building assessment under Inn-1, Inn-2 and Inn-3 is five (total).	5			
Inn-2	Exceeding Green Star Benchmarks	To encourage and recognise design initiatives that demonstrate additional environmental benefit by exceeding the current benchmarks in Green Star - Office Interiors.	Up to five Innovation points are awarded at the discretion of the Green Building Council of Australia (GBCA) where it is demonstrated that the building exceeds, by a measurable margin, one or more existing Green Star – Office Interiors credit category criteria. The application will be assessed by the GBCA against the following criteria: * How has the building initiative exceeded the benchmarks in the Green Star – Office Interiors rating tool? * What is the measurable environmental benefit of the innovation? More than one innovation can be submitted, however, the maximum points available for any one building assessment under Inn-1, Inn-2 and Inn-3 is five (total).		1		1 point for initiative 2.1 IEQ-15 'Indoor Plants'
Inn-3	Environmental Design Initiatives	To encourage and recognise design initiatives that have a significant measurable environmental benefit and that are not awarded points by Green Star – Office Interiors.	Up to five Innovation points are awarded at the discretion of the Green Building Council of Australia (GBCA) where it is demonstrated that a design feature provides a significant environmental benefit but is not awarded points under the Green Star – Office Interiors rating tool criteria. The application will be assessed by the GBCA against the following criteria: * What is the measurable environmental benefit of the innovation? * Which significant environmental benefits of the innovation have been addressed by Green Star – Office Interiors credits? More than one innovation can be submitted but the maximum points available for any one building assessment under Inn-1, Inn-2 and Inn-3 is five (total).		3		1 point for initiative 3.1 Retrofitting displacement ventilation 1 point for initiative 3.2 Installation of greywater collection and reuse system 1 point for initiative 3.3 Disposal and reuse of organic waste generated by the tenancy
<b>Total Points =</b>				<b>5</b>	<b>4</b>	<b>0</b>	

# Green Star - Office Interiors

Credit Summary for:

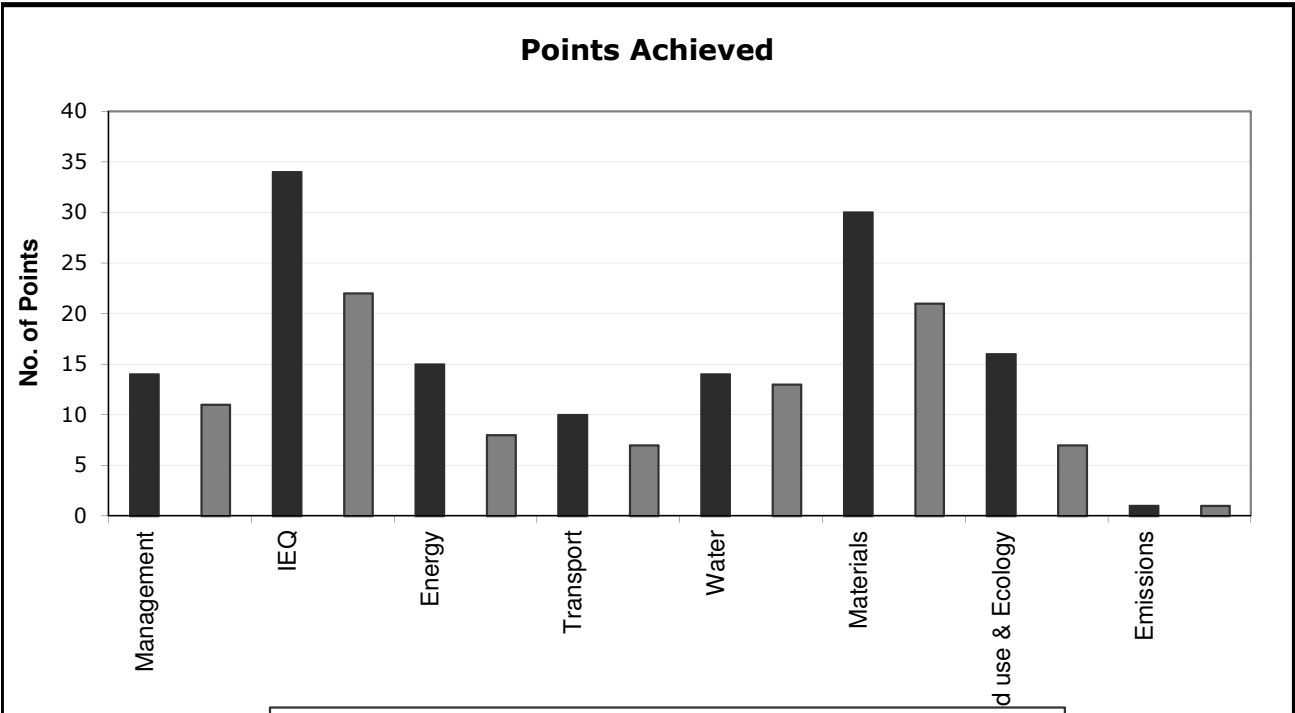
The Greenhouse

Category	Title	Credit No.	Points Available	Points Achieved		Points to be Confirmed
<b>Management</b>						
	Green Star Accredited Professional	Man-1	2	2		0
	Tenancy Fitout Commissioning	Man-2	1	0		0
	Commissioning - Tenancy Fitout Tuning	Man-3	0	na		0
	Tenant Guide	Man-4	3	3		0
	Environmental Management	Man-5	4	4		0
	Waste Management During Tenancy Fitout	Man-6	3	2		0
	<b>TOTAL</b>		<b>14</b>	<b>11</b>		<b>0</b>
<b>Indoor Environment Quality</b>						
	Ventilation Rates	IEQ-1	3	1		0
	Carbon Dioxide Monitoring and Control	IEQ-2	1	1		0
	Daylight	IEQ-3	3	0		0
	Daylight Glare Control	IEQ-4	2	1		0
	High Frequency Ballasts	IEQ-5	1	1		0
	Electric Lighting Levels	IEQ-6	2	2		0
	External Views	IEQ-7	2	2		0
	Individual Comfort Control	IEQ-8	2	1		0
	Asbestos	IEQ-9	1	1		0
	Internal Noise Levels	IEQ-10	1	0		0
	Volatile Organic Compounds	IEQ-11	8	6		0
	Formaldehyde Minimisation	IEQ-12	2	1		0
	Air Supply Ductwork	IEQ-13	1	1		0
	Tenant Exhaust	IEQ-14	1	1		0
	Indoor Plants	IEQ-15	2	2		0
	<b>TOTAL</b>		<b>34</b>	<b>22</b>		<b>0</b>
<b>Energy</b>						
	Energy Efficiency	Ene-1	Conditional Requirement	Yes	#VALUE!	0
	Energy Improvements	Ene-2	12	6		0
	Electrical Sub-metering	Ene-3	1	1		0
	Office Lighting Zoning	Ene-4	0	na		0
		Ene-4	2	1		0
	<b>TOTAL</b>		<b>15</b>	<b>8</b>		<b>0</b>
<b>Transport</b>						
	Public Transport	Tra-1	5	5		0
	Car Parking	Tra-2	2	2		0
	Cyclist Facilities	Tra-3	2	0		0
		Tra-3	1	0		0
	<b>TOTAL</b>		<b>10</b>	<b>7</b>		<b>0</b>
<b>Water</b>						
	Potable Water Efficiency	Wat-1	12	12		0
			1	0		0
			1	1		0
	<b>TOTAL</b>		<b>14</b>	<b>13</b>		<b>0</b>
<b>Materials</b>						
	Workstations	Mat-1	7	6		0
	Flooring	Mat-2	5	5		0
	Walls and Partitions	Mat-3	5	3		0
	Chairs	Mat-4	3	3		0
	Tables	Mat-5	1	1		0
	Storage	Mat-6	1	1		0
	Joinery	Mat-7	1	0		0
	Ceilings	Mat-8	1	0		0
	Waste Management for Tenancy Operation	Mat-9	2	2		0
	PVC Minimisation	Mat-10	2	0		0
	Timber	Mat-11	2	0		0
	<b>TOTAL</b>		<b>30</b>	<b>21</b>		<b>0</b>
<b>Land Use &amp; Ecology</b>						
	Green Star - Office As Built Certified Building	Eco-1	6	0		0
	Building Layout Efficiency	Eco-2	2	0		0
	Building Environmental Management	Eco-3	3	2		0
	Commitment to Building Performance	Eco-4	3	3		0
	Shell and Core or Integrated Fitout	Eco-5	0	na		0
	Building Conservation	Eco-6	2	2		0
	<b>TOTAL</b>		<b>16</b>	<b>7</b>		<b>0</b>
<b>Emissions</b>						
	Refrigerant Ozone Depleting Potential	Emi-1	0	na		0
	Insulation Ozone Depleting Potential	Emi-2	1	1		0
	<b>TOTAL</b>		<b>1</b>	<b>1</b>		<b>0</b>
<b>Sub-total weighted points:</b>			<b>64</b>			<b>0</b>
<b>Innovation</b>						
	Innovative Strategies & Technologies	Inn-1	5	0		0
	Exceeding Green Star Benchmarks	Inn-2	0	1		0
	Environmental Design Initiatives	Inn-3	0	3		0
	<b>TOTAL</b>		<b>5</b>	<b>4</b>		<b>0</b>
<b>Total weighted points:</b>			<b>68</b>			<b>0</b>

Once certified this would equate to a Five Star rating.

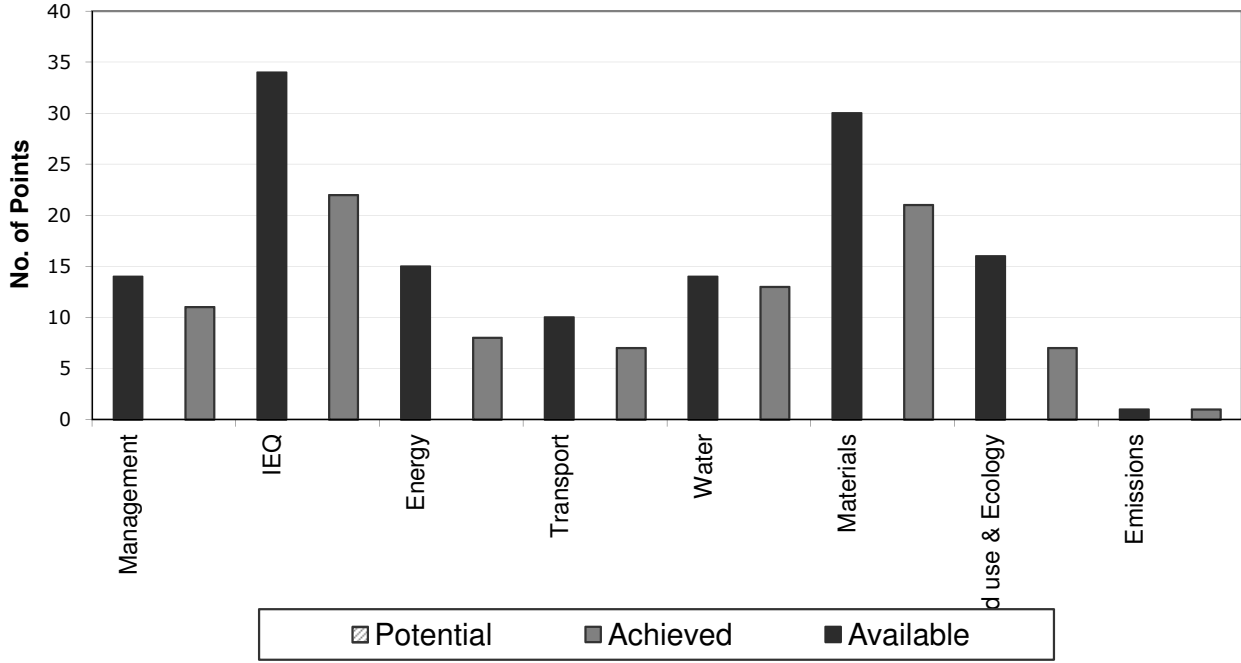
# Green Star - Office Interiors

## Summary for The Greenhouse



Potential
  Achieved
  Available

### Category Scores



### Weighted Category Scores

