

# **Green Star Interiors v1 Summary of Changes**

**Issued January 2015** 



# Introduction

The Green Building Council of Australia (GBCA) released the Green Star - Interiors PILOT rating tool in October 2012. The rating tool was developed to go beyond the office sector and rate fitouts of any type. It aimed to improve on the benchmarks introduced in Green Star - Office Interiors v1.1, and create a new definition of what a sustainable fitout is.

The GBCA released the Green Star – Interiors v1 rating tool in December 2014. This version of the rating tool incorporated feedback received as part of the Green Star - Interiors PILOT process, as well as the development of the Green Star – Design & As Built and Green Star – Performance rating tools.

This document outlines the changes that were proposed for the interim update of the rating tool, Green Star -Interiors PILOT v0.1 in May, 2013, and how these changes have been incorporated in Green Star - Interiors v1. These changes have been based on rating tool feedback, industry feedback and Technical Clarifications and Credit Interpretation Requests received throughout the PILOT process.

Green Star – Interiors PILOT v0.0	Green Star – Interiors PILOT v0.1	Green Star – Interiors v1	
October, 2012	May, 2013	December, 2014	
Developme	ent Process		

Key changes include:

- The rating tool has been aligned with Green Star Design & As Built v1. As such, a number of credits, or parts thereof, have been modified to match this new rating tool. In particular, credits within the 'Energy', 'Water', 'Indoor Environment Quality', 'Materials' and 'Transport' categories.
- The weightings system previously used in the rating tool has been replaced with a simplified system. In Green Star - Interiors v1, the state-based weighting system has been eliminated. In its place, each point within individual credits now reflects the actual contribution to the rating tool score. This means a point in one category is equivalent to a point in any other category. In addition, the ratings are now defined by a percentage of available points, rather than the achievement of weighted points (e.g. the final score is 45% out of 100 available points, rather than 45 weighted points out of 100 weighted points).
- Guidance for small projects has been expanded. A number of credits have now become 'Not Applicable', or the score is reduced based on the relevant issues for the project. Small projects have been defined as being less than 500sqm of leased or occupied space.
- Additional prescriptive criteria have been developed for a number of credits. In particular, prescriptive criteria have been developed for small fitouts for the 'Greenhouse Gas Emissions' and 'Potable Water' credits.

Project teams may choose to use any of the new approaches and changes in Green Star - Interiors v1 as part of their Green Star - Interiors PILOT v0.0 or v0.1 submission. It is the responsibility of project teams to verify if any changes apply to their project prior to submitting for assessment.

If you wish to apply any of the changes to your registered project, please contact the project's Case Manager.



# **Summary of Changes**

Credit Name		Points Available	Credit Summary	Description of the change from PILOT ra	
Management				Proposed change as described in 'Summary of Proposed Changes' released in October 2014.	Changes a Submissio
Green Star Accredited Professional	•	1	Rewards the ongoing involvement of a Green Star Accredited Professional throughout all stages of a fitout design and development.	The qualification of Green Star Accredited Professional - Design & As Built will be considered the appropriate qualification.	Changes im Credit langu <i>Design &amp; As</i>
Commissioning and Tuning	•	4	Aims to ensure that commissioning and tuning activities are undertaken to the highest possible standard, so that projects operate to their optimum operational potential throughout the fitout life cycle.	The Services and Maintainability Review may be produced by a single party but must be signed off by all parties involved in the review, as listed in the credit.	Changes im Credit langu <i>Design</i> & As
Commitment to Performance	•	3	Addresses the practices that impact the future operational performance of a project.	Minor language revisions.	Changes im Credit langu <i>Design &amp; As</i>
Metering and Monitoring		1	Encourages the provision of water and energy use information to fitout users as a meaningful deterrent to wasteful behaviour and raising awareness of the benefits of reduced water and energy consumption.	The PILOT version of this credit included a 'Monitoring Strategy' criterion, and 'Advanced Monitoring Strategy' criterion. Both criteria will be combined in one due to emerging practices in monitoring energy and water consumption on site. The number of points will be reduced to one. In addition, options for small fitouts have been expanded.	Changes im Credit langu Design & As
Construction Environmental Management	<b></b>	1	Aims to ensure oversight mechanisms and the implementation of appropriate environmental management system to assists the project manager to monitor the environmental impacts associated with construction or refurbishment activities.	Guidance regarding alternatives to ISO 14001 for small projects will be included in the credit.	Changes im Credit langu Design & As
Operational Waste	•	1	Requires project teams to institute a management plan for recycling waste such as paper, plastics and glass, as well as common fitout items such as large furniture items, electronics, etc.	Minor language revisions. In addition, it has been clarified that waste policies at the corporate level are an acceptable means of demonstrating compliance, when applied to site.	Changes im Credit langu <i>Design</i> & As
Fitout Information	•	2	Addresses the need to properly inform fitout occupants, users and owners of the best ways to use and operate their Green Star rated fitout and the positive impact that sustainable construction has on the environment.	This credit was previously called 'User and Maintenance Information'. Minor language changes are expected.	Changes im Credit langu Design & As



# ing tool

as implemented in *Green Star* – *Interiors v1* on Guidelines released on 19 December 2014.

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Credit Name		Points Available	Credit Summary	Description of the change from PII	
Indoor Environme	nt Qual	ity		Proposed change as described in 'Summary of Proposed Changes' released in October 2014.	Changes as impleme Guidelines released
Indoor Air Quality		4	Addresses four key areas of concern that influence internal air quality and emphasises good site selection and design practices.	The name of the credit has been changed from 'Quality of Internal Air' to 'Indoor Air Quality'. There are two proposed changes: The value of the criterion 'Provision of Outside Air' will be increased from one point to two. One point is awarded for a 50% increase of outside air. Another point is awarded for 100% increased of outside air.	Changes implemented as Credit language and layo <i>Built v1</i> .
				feedback from industry and as a result of the updates carried out in the Green Star – Design & As Built $v1$ rating tool.	
Acoustic Comfort	•	3	Seeks to achieve an acoustically superior environment through design that is sensitive to a fitouts intended use. The credit also seeks to minimise sound reverberation and achieve optimal privacy in rooms where it is required.	An alternative compliance path has been developed. This allows the project team to conduct an onsite measurements confirming acoustics function as intended.	Changes implemented as be demonstrated through Credit language and layo <i>Built v1</i> .
Lighting Comfort		3	Addresses the quality of lighting within a fitout space. The credit addresses five particular aspects of lighting that directly correspond to the most common complaints of building users relating to lighting: luminaire quality, general lighting levels, glare, localized control, and room lighting quality (surface illuminance).	The 'Glare' criterion will be merged with the 'General Illuminance' criterion as these issues are better addressed together. The number of points available is now three.	Changes implemented as Credit language and layo <i>Built v1.</i>
Visual Comfort		3	Addresses factors that influence user-satisfaction and well being within a fitout including glare, access to daylight, and external views.	Projects that do not have an outward facing facade automatically comply with the 'Glare' criterion. In addition, the points distribution for the 'Daylight' criterion has changed. It is now worth 2 points, with a step at 40% for one point, and a second point at 60% of all occupants having access to daylight.	Changes implemented as Credit language and layo <i>Built v1.</i>
Indoor Pollutants	•	6	Rewards projects that minimise negative impacts associated with VOCs and Formaldehyde emissions within the fitout, by selecting paints, adhesives, sealants, carpets and engineered wood products that are low VOC emitting. The credit also encourages the use of indoor plants to further reduce levels of indoor pollutants.	This credit was previously known as 'Reduced Exposure to Pollutants'. Minor language revisions.	Changes implemented as are now only 6 points ava importance of the credit w Credit language and layo <i>Built v1.</i>
Ergonomics	•	1	Requires the engagement of a qualified ergonomist to advise project teams on the best ways to ergonomically deliver fitout components in line with the tasks that fitout occupants are regularly expected to perform within the space	Minor language revisions.	Changes implemented as Credit language and layo <i>Built v1</i> .



	= Minor Changes	💄 = Some Changes 📕	= Major Changes
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## rating tool

nted in Green S	Star – Interiors v1 Submission
on 19 Decembe	r 2014.

as per 'Summary of Proposed Changes'. out updated for consistency with *Green Star – Design* & As

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but updated for consistency with Green Star – Design & As

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Credit Name	Points Available	Credit Summary	Description of th	e change from PILOT r
Indoor Environment Quality		Proposed change as described in 'Summary of Propose Changes' released in October 2014.		Changes as impleme Guidelines released
		Ensure fitout occupants are provided with a thermal	Thermal Comfort	Changes implemented a
		environment that can be maintained at a comfortable level, and that users can control thermal comfort levels within their immediate environment.	A new prescriptive compliance option has been included in this credit; projects that do not have an outward facing facade are not required to comply with the façade requirements.	Credit language and layo Built v1.
			Mechanical	
			Zoning should be appropriate given anticipated load diversity and use of spaces with thermostats located within each zone and positioned appropriately.	
		The system should be able to modulate to satisfy the range of loads expected and maintain conditions (dry bulb temp and RH) within each zon at any time given expected ambient conditions i.e. on/off operation is not acceptable. Ranges of operation could potentially include:	The system should be able to modulate to satisfy the range of loads expected and maintain conditions (dry bulb temp and RH) within each zone at any time given expected ambient conditions i.e. on/off operation is not acceptable. Ranges of operation could potentially include:	
		<ul> <li>Dry bulb temperature in the space is controlled to a minimum of 20°C and to a maximum of 24°C;</li> </ul>		
		• Relative humidity is controlled between 40% and 60%;		
Thermal Comfort	▲ 2		• The HVAC may be assumed to have separate internal and perimeter zones with independent temperature control which meet the following maximum zone size requirements (for at least 95% of NLA): 85m2 perimeter zone, 120m2 internal zone. No perimeter zone can serve more than one orientation unless the second orientation is negligible (<4m perimeter length).	
			<ul> <li>Each HVAC zone contains its own temperature sensor(s);</li> </ul>	
			<ul> <li>Air velocity is not more than 0.2 m/s with no supply directed at occupants (unless they have direct control over air flow and/or direction);</li> </ul>	
			In open plan spaces where a tenant will not significantly alter base building mechanical services, and where the 'Thermal Comfort' credit has been awarded as part of a base building rating, the fitout is deemed to comply with the credit criteria in all areas which remain as an open plan space.	
			Individual Control	
			The 'Advanced Thermal Comfort' criterion of this credit will be made 'Not Applicable' for small fitouts	
		Aims to improve health and wellbeing and to foster higher		Changes implemented a
Quality of Amenities	■ 1	levels of satisfaction of individuals with their work space by rewarding the provision of high quality amenities for fitout occupants.	Changes to the credit are expected to be focused on greater flexibility in how compliance may be achieved and documented.	Credit language and layo Built v1.



## rating tool

ented in *Green Star – Interiors v1* Submission on 19 December 2014.

as per 'Summary of Proposed Changes'. vout updated for consistency with *Green Star – Design* & As

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Credit Name	P Ava	oints ailable	Credit Summary	Description of the change from PILOT rating tool			
Energy				Proposed change as described in 'Summary of Proposed Changes' released in October 2014.	Changes as implemented in <i>Green Star – Interiors v1</i> Submiss Guidelines released on 19 December 2014.	sion	
					Changes implemented as per 'Summary of Proposed Changes'. In the PILOT version of the rating tool, there were two alternative credit pa available to projects. These were:	athways	
					Credit Pathway	Points	
					A. NABERS Energy Reference Case	20	
					B. Reference Fitout Pathway	20	
			The 'Greenhouse Gas Emissions' credit is a conditional requirement of the Green Star - Interiors rating tool.	Guidance has been developed for fitout owners who wish to enter into an agreement with an accredited 'GreenPower' retailer. The number of points available is directly proportional to the number of points achieved through energy efficiency measures either as demonstrated via modelling or through the prescriptive criteria options. In addition, prescriptive pathways will be included for this credit, worth 8 points. For details regarding these pathways, please see the next column and Submission Guidelines.	In Version 1 of the rating tool, additional credit pathways have been devel provide increased flexibility for projects to achieve points in the Greenhous Emissions credit. The PILOT version of the rating tool took a 'modelling' a whereas two additional pathways have been introduced in Version 1 which provides a 'prescriptive' approach.	oped to se Gas pproach, h	
Greenhouse Gas Emissions	•	20 Through the 'G greenhouse ga	Through the 'Greenhouse Gas Emissions' credit, predicted greenhouse gas emissions are calculated to determine improvement over that of a comparable 'benchmark fitout'.		The points available for these pathways are relative to the scope of potent influence they have over the fitout design. The available pathways are:	tial	
					Credit Pathway	Points	
					A. Prescriptive Pathway: Commercial or other Non-Residential Fitouts	8	
					B. Prescriptive Pathway: Residential Fitouts	8	
					C. NABERS Energy Commitment Agreement Pathway	20	
					D. Reference Fitout Pathway	20	

Credit language and layout updated for consistency with *Green Star – Design & As Built v1.* 

Credit Name	Points Available	Credit summary	Description of th	e change from PILOT r
Transport			Proposed change as described in 'Summary of Proposed Changes' released in October 2014.	Changes as impleme Guidelines released
Sustainable Transport	<b>•</b> 7	This credit addresses the importance of appropriate site-selection as it relates to commuter transport access, as well as sites that are located within walking distance of a variety of high quality amenities, and the provision of cyclist facilities and other means to reduce reliance on fossil fuel based transport.	This credit combines the three credits previously within the 'Transport' category: 'Commuting Mass Transport', 'Walkable Neighbourhoods', 'and 'Alternative Transport.' This change will significantly reduce the documentation in line with the 'Transport' category of the <i>Green Star – Design and As Built v1</i> rating tool. The criteria for 'Cyclist Facilities' and 'Reduced Use of Private Fossil Fuel Vehicles' will be combined into one criterion called 'Active Transport Facilities' worth 2 points. There will be a number of options to demonstrate compliance with this criterion. Guidance will be included stating that it is acceptable for the cyclist facilities to be within 400m walking distance from the fitout. The cyclist facilities can also be in a public space, or even in a neighbouring building.	Changes implemented a is only 1 point available f the relative importance of Credit language and layo <i>Built v1</i> .
Water			Proposed change as described in 'Summary of Proposed Changes' released in October 2014.	Changes as impleme Guidelines released
Potable Water	• 5	Aims to encourage water-efficient fitout projects by rewarding the implementation of water-efficient systems and fixtures.	<ul> <li>The credit has been amended to better reflect the opportunities to influence water consumption on a fitout level. The number of points in the credit will be reduced to also acknowledge this. The new credit criteria will be as follows:</li> <li><u>Sanitary Fixture Efficiency</u></li> <li>1 point is awarded where all fixtures are within one star of the best available WELS rating. Where no fixtures are installed, this criterion is 'Not Applicable'.</li> <li><u>Domestic Appliances</u></li> <li>1 point is awarded where all water-using domestic appliances installed are within one star of the highest WELS rating of the comparable equipment class. Where no appliances are installed, this criterion is 'Not Applicable'.</li> <li><u>Commercial or Industrial Appliances</u></li> <li>1 point is awarded where all water-using commercial appliances installed are either one star of the highest WELS rating of the comparable equipment class; or 20% more efficient than comparable equipment that is no more than 2 years of age. Where no appliances are installed, this criterion is 'Not Applicable'.</li> <li><u>Shared Amenities</u></li> <li>2 points are awarded where the building where the fitout is located has:</li> <li>been awarded at least 3 points in the 'Water' category as determined through an achieved Green Star – As Built rating; or</li> </ul>	Changes implemented a Credit language and layo <i>Built v1</i> .





# rating tool

ented in *Green Star – Interiors v1* Submission on 19 December 2014.

as per 'Summary of Proposed Changes'; except that there for the 'Active Transport Facilities' criterion to better reflect of the criterion within the credit

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Credit Name		Points Available	Credit summary	Description of the change	from PILOT rating too
Materials				Proposed change as described in 'Summary of Proposed Changes' released in October 2014.	Changes as impleme Guidelines released
			Assesses reductions in the amount of	An option for domonstrating compliance using a percentage of waster diversion rather	Changes implemented a number of points is availa when compared to a fixe point).
Demolition Waste		3	construction and demolition waste that is sent to landfill from Green Star projects.	than weight of landfill waste, has been included.	Total number of points re importance of the credit
					Credit language and layc Built v1.
			Aims to encourage project teams to perform cradle-to-grave life cycle assessments of their project, and to demonstrate that their project	First released as the 'Materials Life Cycle Impacts Innovation Challenge', this credit will be renamed 'Life Cycle Impacts'. The credit represents a performance path to achieving the points available in the 'Materials' category. Where this credit is used, the	Changes implemented as number of points is availating importance of the credit
Life Cycle Impacts			performs better in most impact categories without any negative trade-offs.	'Sustainable Products' credit of the category is 'Not Applicable' to the project.	Additional information ha pathways within the Mate
	•	19			Project teams that choos 'Life Cycle Impacts' cred considered the performa materials, whilst the 'Sus
					Credit language and layo <i>Built v1</i> .
				This credit combines the requirements found within the 'Electing' 'Assemblies'	Changes implemented a number of points is availa importance of the credit
			Reward use of preferable flooring, furniture, assemblies and other products.	'Furniture', 'Recovered Products and Materials' and 'Environmental Product Declarations' credits. The same requirements apply to any product brought into the fitout	Additional information ha pathways within the Mate
Products		19		as part of its design and construction. Points are awarded on a scale as a percentage of cost. The benchmark for the highest number of points will be set at 80% of the fitout contract value. Where the 'Life Cycle Impacts' credit is used, this credit is 'Not Applicable'.	Project teams that choos 'Life Cycle Impacts' cred
					materials, whilst the 'Sus
					Credit language and layo Built v1.
Responsible Building Materials	<b></b>	2	Rewards use of third party certified or reused PVC and timber.	The 'PVC' and 'Timber' credits have been combined and simplified into this new credit better reflecting the credit intent. No other changes are expected.	Changes implemented as Credit language and layor <i>Built v1</i> .



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as per 'Summary of Proposed Changes'; however a greater lable (3 points) when minimising the total amount of waste ed benchmark. Diverting waste from landfill from 90% (1

educed from 4 points to 3 points to better reflect relative within the category.

out updated for consistency with Green Star – Design & As

as per 'Summary of Proposed Changes'; however a lesser lable (19 points, from 20 points) to better reflect the relative within the category.

as been provided to clarify the two alternative selection terials category. From the Compliance Requirements section:

se to use the 'Sustainable Products' credit may not use the dit and vice-versa. The 'Life Cycle Impacts' credit is ance approach to addressing environmental impacts of stainable Products' credit takes the prescriptive approach.

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Credit Name	Poin Availa	ts Credit summary ble	Description of the change from PILOT ratin		
Land Use and Ecology			Proposed change as described in 'Summary of Proposed Changes' released in October 2014.	Changes as impleme Guidelines released	
Sustainable Sites	• 5	Recognises fitouts that have been developed within buildings where active steps have been taken to reduce negative environmental impact as far as possible.	<ul> <li>Additional options have been introduced worth partial points for this credit. In particular:</li> <li>The selection and remediation of a space within a building that contains lead, PCBs, or asbestos, is recognised with one point. This aspect was previously within the 'Hazardous Materials' credit of the 'Indoor Environment Quality' category.</li> <li>The selection of a space within a building that has a NABERS Energy rating of 5 stars or a NABERS Water rating of 4.5 stars is rewarded with one point.</li> <li>The options for 'Base Building Selection'', Base Building Cultural Heritage Significance' and 'Base Building Sustainability' remain.</li> </ul>	Changes implemented at the benchmarks relating with <i>Green Star – Perform</i> • 1 point is award 4.5 stars (instea • 1 point is award 3.5 stars (instea Number of points reduce importance of the catego Credit language and layo <i>Built v1</i> .	
Emissions			Proposed change as described in 'Summary of Proposed Changes' released in October 2014.	Changes as impleme Guidelines released	
Light Pollution	• 1	Rewards best practice lighting as it relates to a fitout. Lowering light pollution levels help reduct disruptions to the habits of animals within and around a site.	Where there are no balconies, or external (or external facing) lights, lit displays or signage, this credit is 'Not Applicable'.	Where no outdoor lightin exists, this credit is consi Credit language and layo <i>Built v1</i> .	
Microbial Control	▲ 1	Rewards best practice relating to the design of systems that minimise the impacts associated with harmful microbes in cooling systems, such as legionella.	This credit was previously part of the 'Impacts from Refrigeration' credit. Where no cooling equipment was installed as part of the fitout, this credit will be 'Not Applicable'.	Changes implemented a Credit language and layo <i>Built v1</i> .	
Refrigerants Impact	▲ 1	Addresses the significant greenhouse gas emissions that are associated with the use of refrigerants and in particular, refrigerant selection and leakage.	This credit was previously named 'Impacts from Refrigeration'. Where no cooling equipment was installed as part of the fitout, this credit will be 'Not Applicable'.	Changes implemented a Credit language and layo <i>Built v1</i> .	



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as per 'Summary of Proposed Changes'; however some of g to 'Base Building Sustainability' have been modified to align *rmance* and *Green Star – Design & As Built*. This includes:

ded where the base building has a NABERS Energy rating of ad of 5.0 stars).

ded where the base building has a NABERS Water rating of ad of 4.5 stars).

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ng, or lighting from internal sources that spills to the night sky sidered 'Not Applicable'.

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