



## GREEN STAR - OFFICE DESIGN & GREEN STAR - OFFICE AS BUILT v3: THE NEXT GENERATION

As Green Star – Office rating tools move into version 3, many questions have been asked by different sectors of the industry regarding the changes to particular credits and categories and whether they are now easier or harder to achieve.

In an attempt to make the new version of this tool as transparent and easy-to-use as possible, the following “traffic light system” is provided, setting out how each credit has changed and whether it is now easier, about the same, or harder to achieve, bearing in mind that the standards across the industry overall are improving. Wherever possible the text and format of each credit have been clarified, simplified and refined.

### KEY

	Credit benchmark raised beyond current Australian best practice.	<b>Summary:</b> <ul style="list-style-type: none"> <li>The Compliance Requirements have been streamlined and simplified to make the process more straightforward and the rating tool more robust.</li> <li>A "Deemed-to-Satisfy" approach has been introduced to automatically award points to projects which meet certain criteria (e.g. for Tra-4 'Commuting Mass Transport' points will automatically be awarded to projects within certain postal codes).</li> <li>Submission Checklists have been introduced for each credit to simplify the collection of documentation for Submission.</li> <li>Clarifications and refinements have been made throughout to remove ambiguities.</li> <li>References and Further Information sections have been updated where required.</li> <li>Introductions for each category have been introduced to provide context.</li> <li>Case Studies have been included within each category as examples of exemplary performance.</li> </ul>
	Credit benchmarks raised in line with industry change or remain the same as v2. Overall impact deemed to be neutral.	
	Credit more attainable through reduced benchmark, or the introduction of alternative methods of demonstrating compliance.	

Credit No.	Credit Name	Update Outcome	Notes on Update	Comments
<b>MANAGEMENT</b>				
Man - 1	Green Star Accredited Professional		No additional change.	<ul style="list-style-type: none"> <li>Indicated the minimum number of meetings to be attended.</li> </ul>
Man - 2	Commissioning Clauses		No additional change.	<ul style="list-style-type: none"> <li>Clarified that credit addresses all services, not just mechanical.</li> <li>Expanded the requirements for the Monitoring and Targeting section of the Design Intent report to include not only energy, but water, waste and indoor environment quality.</li> </ul>
Man - 3	Building Tuning		Scope of the credit expanded to ensure that the aims of the credit are being met.	<ul style="list-style-type: none"> <li>Changed title from 'Commissioning - Building Tuning' to 'Building Tuning'.</li> <li>Clarified the discrepancy in the required frequency of reviews (i.e. monthly monitoring and quarterly reviews are required).</li> <li>Clarified exactly what is expected of the full re-commissioning that is required 12 months after practical completion.</li> <li>Required a Building Tuning Report to be produced and made available to the design team, to facilitate understanding of the operational phase of green buildings.</li> </ul>
Man - 4	Independent Commissioning Agent		Scope of the credit expanded to ensure that the aims of the credit are being met.	<ul style="list-style-type: none"> <li>Changed title from 'Commissioning - Commissioning Agent' to 'Independent Commissioning Agent'.</li> <li>Clarified that credit addresses all services, not just mechanical services.</li> <li>Clarified that the Independent Commissioning Agent (Agent) must be involved at each major stage of the project from schematic design (through to final re-commissioning, if 'Commissioning - Building Tuning is claimed).</li> <li>Required that the Agent not be an employee of any services design, contractor or sub-contractor organisation that has been involved in the installation of the commissioned systems.</li> <li>Required that the Agent be appointed for Green Star - Office Design assessment; to make the 'Design' rating more comparable to the 'As Built' rating, a commitment to appoint no longer suffices.</li> </ul>

Man - 5	Building Users' Guide	●	Scope of the credit expanded to require monitoring and targeting for water, waste and indoor environment quality in addition to energy.	<ul style="list-style-type: none"> <li>Expanded the requirements for the Monitoring and Targeting section of the Building Users' Guide to include not only energy, but water, waste and indoor environment quality.</li> <li>Required that the Building Users' Guide be submitted for Green Star - Office Design assessment; to make the 'Design' rating more comparable to the 'As Built' rating, a commitment to develop the Guide no longer suffices.</li> </ul>
Man - 6	Environmental Management	●	<p>No additional change.</p> <p>Reduction in number of points available.</p>	<ul style="list-style-type: none"> <li>Clarified criteria for Environmental Management Plan and Environmental Management System.</li> </ul>
Man - 7	Waste Management	●	Alternate methods of demonstrating compliance provided.	<ul style="list-style-type: none"> <li>Clarified that both construction and demolition waste must be included in the calculations of the total amount of waste generated on the project, but hazardous materials and fill/land clearing waste must be excluded.</li> <li>Clarified that conversion from volume to weight is required.</li> </ul>
IEQ				
IEQ - 1	Ventilation Rates	●	Credit Criteria clarified for differently serviced buildings (i.e. naturally ventilated vs. mechanically ventilated).	<ul style="list-style-type: none"> <li>Clarified how the criteria must be met for different types of systems (i.e. naturally ventilated, mechanically air-conditioned, mechanically assisted naturally ventilated (MANV), and mixed-mode ventilated spaces), and that any combination of systems can be present in a building.</li> <li>Stipulated (as no numeric threshold existed before) that for naturally ventilated spaces, 95% of the NLA must comply with the criteria.</li> </ul>
IEQ - 2	Air Change Effectiveness	●	<p>Credit Criteria clarified for differently serviced buildings (i.e. naturally ventilated vs. mechanically ventilated).</p> <p>Slight increase in benchmark to align with other ventilation credits.</p>	<ul style="list-style-type: none"> <li>Clarified how the criteria must be met for different types of systems (i.e. naturally ventilated, mechanically air-conditioned, mechanically assisted naturally ventilated (MANV), and mixed-mode ventilated spaces), and that any combination of systems can be present in a building.</li> <li>Increased the percentage of the NLA that must comply with the criteria from 90% to 95%, in line with other ventilation credits.</li> <li>Clarified the requirements of the Deemed-to-satisfy approach.</li> </ul>
IEQ - 3	Carbon Dioxide Monitoring and Control	●	Credit Criteria clarified for differently serviced buildings (i.e. naturally ventilated vs. mechanically ventilated).	<ul style="list-style-type: none"> <li>Clarified how the criteria must be met for different types of systems (i.e. naturally ventilated, mechanically air-conditioned, mechanically assisted naturally ventilated (MANV), and mixed-mode ventilated spaces), and that any combination of systems can be present in a building.</li> </ul>
IEQ - 4	Daylight	●	Alternate methods of demonstrating compliance provided.	<ul style="list-style-type: none"> <li>Revised Credit Criteria to assess Daylight Factor (DF) at desk height, rather than at finished floor level. As a result, reduced the required DF value from 2.5% to 2.0%.</li> <li>Introduced an alternative compliance option to DF, i.e. Daylight Illuminance (DI). Points are awarded for NLA with DI of at least 250 Lux.</li> </ul>
IEQ - 5	Daylight Glare Control	●	No additional change.	<ul style="list-style-type: none"> <li>Revised Credit Criteria required compliance for skylights.</li> <li>Clarified that any combination of internal and external shading devices can contribute towards compliance.</li> <li>Defined desk height as 720mm AFFL, to align with industry standard (AS1680).</li> </ul>
IEQ - 6	High Frequency Ballasts	●	No additional change.	No change to criteria.
IEQ - 7	Electric Lighting Levels	●	No additional change.	<ul style="list-style-type: none"> <li>Defined desk height as 720mm AFFL, to align with industry standard (AS1680).</li> <li>Clarified the definitions of credit terminology, e.g. 'maintained illuminance'.</li> </ul>
IEQ - 8	External Views	●	No additional change.	<ul style="list-style-type: none"> <li>Provided diagrams to clarify how compliance would be demonstrated.</li> <li>Clarified compliance requirements for atria.</li> </ul>
IEQ - 9	Thermal Comfort	●	<p>Credit Criteria clarified for differently serviced buildings (i.e. naturally ventilated vs. mechanically ventilated).</p> <p>Alternate methods of demonstrating compliance for naturally ventilated buildings provided.</p>	<ul style="list-style-type: none"> <li>Introduced an alternative compliance option for naturally ventilated spaces, i.e. Adaptive Thermal Comfort methodology.</li> <li>Introduced Deemed-to-Satisfy criteria that does not require modelling.</li> <li>Clarified how the criteria must be met for different types of systems (i.e. naturally ventilated, mechanically air-conditioned, mechanically assisted naturally ventilated (MANV), and mixed-mode ventilated spaces), and that any combination of systems can be present in a building.</li> <li>Clarified that compliance cannot be demonstrated through measurement (i.e. modelling only).</li> </ul>

IEQ - 10	Individual Comfort Control	●	Credit Criteria clarified for differently serviced buildings (i.e. naturally ventilated vs. mechanically ventilated).	<ul style="list-style-type: none"> <li>Clarified how the criteria must be met for different types of systems (i.e. naturally ventilated, mechanically air-conditioned, mechanically assisted naturally ventilated (MANV), and mixed-mode ventilated spaces), and that any combination of systems can be present in a building.</li> </ul>
IEQ - 11	Hazardous Materials	●	Scope of the credit expanded to address other hazardous materials - lead and Polychlorinated Biphenyls (PCBs)	<ul style="list-style-type: none"> <li>Expanded the credit to address Lead and Polychlorinated Biphenyls (PCBs) in addition to Asbestos.</li> <li>Changed credit name from 'Asbestos' to 'Hazardous Materials'.</li> </ul>
IEQ - 12	Internal Noise Levels	●	Tightened criteria to ensure that the aims of the credit are being met.	<ul style="list-style-type: none"> <li>Required adherence to the 'satisfactory' (more stringent) limits of AS/NZS 2107:2000.</li> <li>Aligned Compliance Requirements with existing AS/NZ Standards.</li> <li>Clarified that all base buildings are assumed to be open-plan.</li> <li>Clarified how the criteria must be met for different types of systems (i.e. naturally ventilated, mechanically air-conditioned, mechanically assisted naturally ventilated (MANV), and mixed-mode ventilated spaces), and that any combination of systems can be present in a building.</li> </ul>
IEQ - 13	Volatile Organic Compounds	●	Scope of the credit expanded to address all flooring, not just carpet.  Reduced benchmark for paints and sealants/adhesives.	<ul style="list-style-type: none"> <li>Reduced the percentage of paint and sealants/adhesives that must comply with the criteria from 100% to 95%.</li> <li>Expanded the credit to address all flooring, not just carpet.</li> <li>Revised the compliance criteria for paint and sealants/adhesives to align with the EU 2010 directive and to address additional types of applications.</li> </ul>
IEQ - 14	Formaldehyde Minimisation	●	No additional change.	<ul style="list-style-type: none"> <li>Clarified and expanded acceptable Formaldehyde Emissions Testing Methods and Standards.</li> </ul>
IEQ - 15	Mould Prevention	●	Credit Criteria clarified for differently serviced buildings (i.e. naturally ventilated vs. mechanically ventilated).	<ul style="list-style-type: none"> <li>Clarified how the criteria must be met for different types of systems (i.e. naturally ventilated, mechanically air-conditioned, mechanically assisted naturally ventilated (MANV), and mixed-mode ventilated spaces), and that any combination of systems can be present in a building.</li> </ul>
IEQ - 16	Tenant Exhaust Riser	●	Tightened criteria to ensure that the aims of the credit are being met.	<ul style="list-style-type: none"> <li>Revised required air volumes.</li> </ul>
<b>ENERGY</b>				
Ene	Conditional Requirement	●	Benchmarks now in kgCO <sub>2</sub> /m <sup>2</sup> /annum in place of ABGR stars. Green Star Energy Calculator PILOT now available for testing as an alternative compliance method.	Benchmark changed from 4 ABGR stars to 110 kgCO <sub>2</sub> /m <sup>2</sup> /year.
Ene - 1	Greenhouse Gas Emissions	●	Benchmarks now in kgCO <sub>2</sub> /m <sup>2</sup> /annum in place of ABGR stars.  Green Star Energy Calculator PILOT now available for testing as an alternative compliance method.  Additional points available to recognise a carbon neutral building, in line with industry progress. Increased number of points available, with benchmark increments revised to reflect this.	<ul style="list-style-type: none"> <li>Changed title from 'Energy' to 'Greenhouse Gas Emissions' for consistency across Green Star tools.</li> <li>Changed the metric from ABGR Stars to kgCO<sub>2</sub>/m<sup>2</sup>/annum.</li> <li>Introduced the Green Star Energy Calculator (currently in PILOT) as an alternative compliance method (currently in PILOT).</li> <li>Increase the total number of points available from 15 to 20.</li> <li>20 points are awarded for carbon-neutral base building.</li> <li>Award points in increments of one, rather than three points.</li> <li>Thresholds revised to reflect even increments of reduction in environmental impact.</li> </ul>
Ene - 2	Energy Sub-metering	●	Ene-3 'Electrical Sub-metering' and Ene-4 'Tenancy Sub-metering' have been combined.  Same number of points available. The second point is now dependant on the first being achieved.	<ul style="list-style-type: none"> <li>Merged Ene-3 'Electrical Sub-metering' and Ene-4 'Tenancy Sub-metering'.</li> <li>Revised criteria to no longer require sub-metering for items less than 100kVa.</li> <li>Clarified that an effective mechanism for monitoring energy consumption must be present.</li> </ul>
Ene - 3	Office Lighting Power Density	●	Rise in benchmark in line with industry progress.  Reduction in number of points available.	<ul style="list-style-type: none"> <li>Reduced the total number of points available from four to three.</li> <li>Increased the threshold for achieving one point (to reflect introduction of BCA Section J).</li> <li>Defined desk height as 720mm AFFL, to align with industry standard (AS1680).</li> </ul>
Ene - 4	Office Lighting Zoning	●	Additional point available for future flexibility in switching arrangements, in line with industry progress.  Increased number of points available.	<ul style="list-style-type: none"> <li>Increased the total number of points available from one to two.</li> <li>Provided an additional point for individually addressable lighting systems.</li> </ul>
Ene - 5	Peak Energy Demand Reduction	●	Benchmark is now incremental with a lower threshold to achieve the 1st point.  Alternative compliance option provided for naturally ventilated buildings.	<ul style="list-style-type: none"> <li>Revised how the two available points are awarded, i.e. rather than awarding two points for 25% reduction, one point is awarded for 15% and two points, for 30% reduction.</li> <li>Introduced an alternative compliance option to accommodate naturally ventilated buildings, i.e. they can meet the criteria though demonstrating a flatter overall energy demand curve.</li> </ul>
<b>TRANSPORT</b>				

Tra - 1	Provision Car Parking	●	No additional change.	<ul style="list-style-type: none"> <li>Clarified how compliance can be demonstrated where no mandatory parking requirements exist.</li> </ul>
Tra - 2	Fuel-Efficient Transport	●	Rise in benchmark through expanded criteria in line with changing and improving technologies within the fuel-efficient transport sector.	<ul style="list-style-type: none"> <li>Expanded Credit Criteria to address a broader range of fuel-efficient vehicles, not just small cars/mopeds/motorbikes.</li> </ul>
Tra - 3	Cyclist Facilities	●	No additional change.	<ul style="list-style-type: none"> <li>Clarified requirements for cyclist facilities.</li> </ul>
Tra - 4	Commuting Mass Transport	●	Easier to demonstrate compliance if located adjacent to major transport hubs, benchmarks remain the same.	<ul style="list-style-type: none"> <li>Changed title from 'Commuting Public Transport' to 'Commuting Mass Transport' to acknowledge that some mass transport systems may be privately operated.</li> <li>Introduced a Deemed-to-Satisfy approach to automatically award points to projects within certain postal codes if they are within 500m (walking distance) of a bus interchange with at least 6 bays or a train station with at least four platforms.</li> </ul>
<b>WATER</b>				
Wat - 1	Occupant Amenity Water	●	<p>Rise in benchmark to ensure the aims of the credit are being met and to encourage water reuse/recycling.</p> <p>Total number of points available remain the same, however, the maximum number of points that can be achieved without water reuse/recycling has been reduced.</p>	<ul style="list-style-type: none"> <li>Changed title from 'Occupant Amenity Potable Water Efficiency' to 'Occupant Amenity Water'.</li> <li>Changed the metric from L/m<sup>2</sup>/person/day to L/m<sup>2</sup>/day.</li> <li>Reduced the maximum number of points that can be achieved without water reuse/recycling (i.e. purely through fixtures/fittings) from four to two.</li> <li>Incorporated references to the WELS scheme.</li> </ul>
Wat - 2	Water Meter	●	<p>Rise in benchmark in line with industry progress.</p> <p>Reduction in number of points available.</p>	<ul style="list-style-type: none"> <li>Reduced the total number of points available from two to one (connection to the BMS no longer receives an additional point but is assumed).</li> <li>Clarified that an effective mechanism for monitoring water consumption must be present.</li> </ul>
Wat - 3	Landscape Irrigation	●	<p>Tightened criteria to ensure that a measurable reduction in potable water consumption is achieved (benchmark unchanged).</p> <p>Expanded the scope to incorporate alternate compliance method.</p>	<ul style="list-style-type: none"> <li>Expanded the Credit Criteria to reward eligible xeriscape gardens.</li> <li>Revised the criteria to no longer automatically reward water-efficient irrigation systems; all systems must demonstrate a measurable 90% reduction in potable water consumption.</li> </ul>
Wat - 4	Heat Rejection Water	●	<p>Criteria expanded to address all water-based heat rejection systems in the building, not just cooling towers.</p> <p>Significant clarification to ensure buildings with different servicing strategies understand their options for compliance.</p>	<ul style="list-style-type: none"> <li>Credit Criteria expanded to address all water-based heat rejection systems in the building, not just cooling towers.</li> <li>Title changed from 'Cooling Towers' to 'Heat Rejection Water'.</li> <li>Aim changed to "encourage and recognise design that reduces potable water consumption from heat rejection systems".</li> <li>Revised the criteria to no longer automatically reward systems with six cycles of concentrations; all systems must demonstrate a measurable reduction (50% for two points and 90% for four points) in potable water consumption against a specified reference case.</li> <li>Clarified how the criteria must be met for different types of systems (i.e. naturally ventilated, mechanically air-conditioned, mechanically assisted naturally ventilated (MANV), and mixed-mode ventilated spaces).</li> </ul>
Wat - 5	Fire System Water	●	Tightened criteria to ensure that the aims of the credit are being met.	<ul style="list-style-type: none"> <li>Expanded the Credit Criteria to reward fire protection systems which do not expel water for testing.</li> <li>Stipulated (where no numeric threshold existed before) that a minimum of 80% of routine fire protection system water must be collected to meet the criteria.</li> <li>Revised the criteria to no longer allow collected water to be reused off site.</li> </ul>
<b>MATERIALS</b>				
Mat - 1	Recycling Waste Storage	●	Alternate methods of demonstrating compliance, benchmarks remain the same.	<ul style="list-style-type: none"> <li>Changed the metric for area requirements from Class 5 NLA to GFA.</li> <li>Clarified requirements for sizing and locating the recycling waste storage area(s).</li> <li>A letter from the waste collection company is no longer acceptable as evidence of compliance.</li> </ul>
Mat - 2	Building Reuse	●	Combined from 2 separate credits (reuse of facade and reuse of structure), points available remain the same. Criteria revised from addressing the reused proportion of the new building, to addressing the proportion of the original building that was reused.	<ul style="list-style-type: none"> <li>Merged Mat-2 'Reuse of Facade' and Mat-3 'Reuse of Structure'.</li> <li>Revised the criteria from addressing the reused proportion of the new building to addressing the proportion of the original building that was reused.</li> <li>Clarified that the 'before' condition of the building is the condition of the building at time of site purchase.</li> </ul>
Mat - 3	Reused Materials	—	<b>NEW CREDIT</b> 1 point is awarded where it is demonstrated that at least 2% of the project's total contract value is represented by reused products/materials.	
Mat - 4	Shell & Core or Integrated Fitout	●	<p>Rise in benchmark in line with industry progress.</p> <p>Reduction in number of points available.</p>	<ul style="list-style-type: none"> <li>Reduced the total number of points available from three to two.</li> <li>Increased the threshold for one point from 30% of the NLA to 60%, as 30% has become standard practice.</li> </ul>

Mat - 5	Concrete	●	Rise in benchmark in line with industry progress.	<ul style="list-style-type: none"> <li>Increased all thresholds for cement replacement to reflect best practice.</li> <li>Introduced specific thresholds for cement replacement in stressed concrete.</li> <li>Clarified that the point for recycled aggregate is only available if point(s) for cement reduction are achieved.</li> <li>Clarified that slag and oversized aggregate can also contribute to cement replacement.</li> </ul>
Mat - 6	Steel	●	No additional change.	<ul style="list-style-type: none"> <li>Clarified that compliance can be achieved with reused steel.</li> </ul>
Mat - 7	PVC Minimisation	●	No additional change.	<ul style="list-style-type: none"> <li>Clarified that the credit addresses major standard PVC uses only.</li> </ul>
Mat - 8	Sustainable Timber	●	Benchmark lowered to encourage industry uptake of the credit.	<ul style="list-style-type: none"> <li>Reduced the threshold from 100% for two points to 95% for two points.</li> <li>Clarified the definition of 'recycled' timber.</li> </ul>
Mat - 9	Design for Disassembly	■	<b>NEW CREDIT</b> 1 point is awarded where the following are designed for disassembly, to "minimise embodied energy and resource loss during demolition.": 50% of structural roofing and façade OR 95% of the total façade	
Mat - 10	Dematerialisation	■	<b>NEW CREDIT</b> 1 point is awarded where a substantial reduction in materials consumption can be demonstrated through structure, ductwork, building efficiency, finishes, cladding or piping, to "encourage and recognise designs that produce a net reduction in the total amount of material used."	
<b>LAND USE &amp; ECOLOGY</b>				
Eco	Ecological Value of Site: Conditional Requirement	●	Expanded the definition of land of high ecological value to include old growth forests.	<ul style="list-style-type: none"> <li>Distinguished the Conditional Requirement from the rest of the category.</li> <li>Expanded the definition of land of high ecological value to include old growth forests and sites containing a State or federally-listed threatened ecological community.</li> </ul>
Eco - 1	Topsoil	●	Rise in benchmark requiring protection of top soil.	<ul style="list-style-type: none"> <li>Revised the Credit Criteria to no longer address fill, as appropriate fill management is now standard practice.</li> <li>Required that 95% of all topsoil on the site retains its productivity after the construction works have been completed.</li> <li>Clarified how topsoil must be separated and protected during construction works.</li> <li>Clarified that the 'before' condition is the condition at time of site purchase.</li> </ul>
Eco - 2	Reuse of Land	●	No additional change.	<ul style="list-style-type: none"> <li>Clarified that the 'before' condition is the condition at time of site purchase.</li> <li>Clarified what constitutes 'previously developed'.</li> </ul>
Eco - 3	Reclaimed Contaminated Land	●	Alternate methods of demonstrating compliance, benchmarks remain the same.	<ul style="list-style-type: none"> <li>Expanded the 'Not Applicable' clause to also apply to building extensions.</li> <li>Clarified that the 'before' condition is the condition at time of site purchase.</li> <li>Clarified the definitions of 'contaminated', 'significantly contaminated' and 'decontaminated', and referenced the legislation applicable to this credit</li> </ul>
Eco - 4	Ecological Value of Site	●	Tightened criteria to ensure that the aims of the credit are being met.	<ul style="list-style-type: none"> <li>Revised the criteria so that no points can be achieved if there is net reduction in native vegetation onsite.</li> <li>Revised the criteria to enable refurbishments to achieve points if threatened species are present, as long as it can be demonstrated that they are duly protected.</li> <li>Clarified that the 'before' condition is the condition at time of site purchase.</li> </ul>
<b>EMISSIONS</b>				
Emi - 1	Refrigerant ODP	●	Rise in benchmark in line with industry progress.  Reduction in number of points available.	<ul style="list-style-type: none"> <li>Reduced the total number of points available from two to one.</li> <li>Increased the threshold for one point from 95% to 100%.</li> <li>Clarified how the criteria must be met for different types of systems (i.e. naturally ventilated, mechanically air-conditioned, mechanically assisted naturally ventilated (MANV), and mixed-mode ventilated spaces).</li> </ul>
Emi - 2	Refrigerant GWP	●	Benchmark is now incremental with an additional point introduced to award partial replacement of refrigerant charge.  Increased number of points available.	<ul style="list-style-type: none"> <li>Revised the Credit Criteria to reward partial replacement of refrigerant charge, i.e. rather than awarding two points for 100% of refrigerant of GWP of 10 or less, one point is awarded for 50% of the refrigerant and two points, for 100%.</li> <li>Clarified how the criteria must be met for different types of systems (i.e. naturally ventilated, mechanically air-conditioned, mechanically assisted naturally ventilated (MANV), and mixed-mode ventilated spaces).</li> </ul>

Emi - 3	Refrigerant Leaks	●	<p>Combined from 2 separate credits (refrigerant leak detection and refrigerant recovery), points available remain the same.</p> <p>The second point is now dependant on the first being achieved.</p>	<p>Merged Emi-3 'Refrigerant Leak Detection' and Emi-4 'Refrigerant Recovery'</p> <ul style="list-style-type: none"> <li>Required that refrigerant leak detection be demonstrated before the point for refrigerant recovery can be claimed.</li> <li>Reduced the percentage of the refrigerant that must be captured through refrigerant recovery from 100% to 95% (by volume).</li> </ul>
Emi-4	Insulant ODP	●	No additional change.	<ul style="list-style-type: none"> <li>Clarified that the credit address ODP substances in both the manufacture and composition of the insulants.</li> <li>Clarified that only thermal insulants are addressed.</li> </ul>
Emi - 5	Watercourse Pollution	●	<p>Where a site contains, or is immediately adjacent to, a waterway an additional point is available for creating a vegetated riparian buffer zones between the development and the watercourse.</p> <p>Increased number of points available.</p>	<ul style="list-style-type: none"> <li>Introduced an additional point for creating vegetated riparian buffer zones between the development and the watercourse.</li> </ul>
Emi - 6	Discharge to Sewer	●	<p>Where a blackwater system is being installed an additional point is available for a Blackwater Treatment Maintenance Plan.</p> <p>Increased number of points available.</p>	<ul style="list-style-type: none"> <li>Revised the threshold scale to reward improvement on a linear scale.</li> <li>Changed title from 'Reduced Flow to Sewer' to 'Discharge to Sewer'.</li> <li>Introduced an additional point for a Blackwater Treatment Maintenance Plan and a maintenance contract for a minimum of five years are present, should a blackwater treatment system be installed.</li> </ul>
Emi - 7	Light Pollution	●	Tightened criteria to ensure that the aims of the credit are being met.	<ul style="list-style-type: none"> <li>Expanded Credit Criteria to require that at least 95% of outdoor spaces do not exceed the minimum requirements for illuminance levels of AS1158.</li> <li>Clarified how light pollution will be assessed.</li> </ul>
Emi - 8	Legionella	●	Scope of the credit expanded to address all water-based cooling systems, not just cooling towers.	<ul style="list-style-type: none"> <li>Expanded the Credit Criteria to address all water-based cooling systems.</li> <li>Changed title from 'Cooling Towers' to 'Legionella', and revised the Aim of Credit: "To encourage and recognise building systems design that eliminates the risk of Legionnaires' disease."</li> </ul>
<b>INNOVATION</b>				
Inn - 1	Innovative Strategies and Technologies	●	Significant clarifications to the credit, benchmarks remain the same.	<ul style="list-style-type: none"> <li>Refined the criteria to award points if the initiative is a technology or process that is considered a 'first' in Australia or in the World; OR if the project substantially contributes to the broader market transformation towards sustainable development in Australia or in the World. One point is awarded when either of the above is true for the Australian market; and two points are awarded when either of the above is true for the Global market.</li> <li>Clarified how points are awarded to provide clarity both to projects and the GBCA.</li> <li>Clarified how to prepare a successful Innovation report.</li> </ul>
Inn - 2	Exceeding Green Star Benchmarks	●	Significant clarifications to the credit, benchmarks remain the same.	<ul style="list-style-type: none"> <li>Refined the criteria to award points for a solution that results in the elimination of the specific negative environmental impact of the project targeted by an existing credit, and two points for a solution which results in a substantial restorative environmental impact targeted by an existing credit. The first point is not available for credits with an existing benchmark of 95%.</li> <li>Clarified how points are awarded to provide clarity both to projects and the GBCA.</li> <li>Clarified how to prepare a successful Innovation report.</li> </ul>
Inn - 3	Exceeding Green Star Scope	●	Significant clarifications to the credit, benchmarks remain the same.	<ul style="list-style-type: none"> <li>Refined the criteria to award points for each initiative in the project which viably addresses a valid environmental concern outside of the current scope of this Green Star tool.</li> <li>Clarified how points are awarded to provide clarity both to projects and the GBCA.</li> <li>Clarified how to prepare a successful Innovation report.</li> </ul>