



## Green Star v3.1 - Summary of Changes from 2009 version

issued August 2015

### Key

- No change from 2009 version
- 2009 version updated with Technical Clarifications
- Minor Changes to the credit criteria, compliance requirements or additional guidance
- Major changes to the the credit criteria
- New Credit
- Deleted Credit

General Changes:	
<b>Tool Version</b>	Education v3.0 was released in 2014 New v3 Water, Materials, Innovation and ENE-6 & 7 credits were released in 2015 This combined version of the tool is released as v3.1
<b>Registration</b>	New Eligibility & Registration Form, combined with Submission Form
<b>Area Definition Form</b>	New excel tool to assist projects in determining UFA and in ensuring consistency through the submission.
<b>Timing of Registrations and Certification</b>	Design ratings will expire when either of the following occurs: - The project achieves a Built certified rating OR - The project reaches 24 months post practical completion
<b>Technical Clarifications</b>	All Technical Clarifications issued since 2009 are integrated into the Technical Manual Going forward, all TCs will be directly integrated into the Technical Manual and a new version of the tool released periodically.
<b>Technical Manual - Structure</b>	New format Technical Manual divided into 3 sections: <b>Section 1:</b> Introduction to Green Star <b>Section 2:</b> Green Star Assessment <b>Section 3:</b> Technical Manual with Change Log added
<b>Technical Manual - Section 1</b>	New blurb entitled 'Ongoing Tool Review' to explain how future revisions are to be implemented
<b>Technical Manual - Section 2</b>	Combined (Office, Industrial & Education) Credit Summary Table Includes columns for 'Built Streamlining', 'Assessable Area', and 'NA Pathway:' Additional information provided for Post Round 2 Clarifications, Charged Additional Review and Appeals processes.

<b>Technical Manual - Section 3</b>	<p>All Technical Clarifications issued since 2009 are integrated into v3 credits.</p> <p>Each credit includes header with information on points available, 'Built Streamlining', 'Assessable Area', and 'N/A, for each tool (OFF, IND, EDU)</p> <p>Not Applicable Pathways have been included and clarified in the 'Credit Criteria' section and submission checklist included for these pathways.</p> <p>Information regarding Innovation Opportunities have been included in each Credit.</p>
<b>Technical Manual - Appendices</b>	<p>Redundant appendices removed</p> <p>Previously separate guidance documents have been incorporated including: Good Submission Guidelines, Document Checklist, Credit Template User Guide,</p>
<b>Summary Credit Table</b>	<p>Summary Credit Table is now an excel document and is combined with Area Definition Form and Calculators</p> <p><i>*This document will be available shortly (August 2016)</i></p>
<b>Credit Templates</b>	<p>New Credit Templates have been developed for credits with significant changes, otherwise 2009 templates may be used.</p> <p><i>*Full set of Credit Templates in development</i></p>

Management			Applicable to	Points value	Criteria / Compliance Res.	Additional Guidance	Changes	Points v3	Points 2009
MAN-1	Green Star NZ Accredited Professional	●							
MAN-2	Commissioning Clauses	●	OFF IND EDU	x	x		Additional Point and its criteria relating to transfer of building knowledge has been moved (unchanged) to MAN-6 Building Information (as per EDUv3). Change in credit aim and relating submission documentation to this effect.	2	3
MAN-3	Building Tuning	●							
MAN-4	Independent Commissioning Agent	●							
MAN-5	Waste Management	●	OFF IND EDU		x		Benchmarks increased to 50% / 70% / 90% compliance. This is based on precedent high levels of achievement in this credit and in INN-2 Exceeding Benchmarks for 90% compliance.		
MAN-6	Building Information	●	OFF IND EDU	x	x		Credit re-named. Additional Point and its criteria relating to transfer of building knowledge has been moved (unchanged) from MAN-2 (as per EDUv3). For Office projects, first two points have been separated, allowing achievement of only one point for this credit.	OFF 3 IND 2 EDU 2	OFF 2 IND 1 EDU 1
MAN-7	Environmental Management	●	OFF		x		Credit Criteria changed to align with Education and Industrial tools. One point for EMP or Enviromark Gold, and two points for ISO14001 or enviro-mark Diamond		
MAN-A	Environmental Management Operations	●							
MAN-B	Learning Resources	●							
MAN-C	Learning Resources Incorporated into the Curriculum	●							
MAN-D	Maintainability	●							
Indoor Environment Quality			Updated tools	Points value	Criteria / Compliance	Additional Guidance	Changes	Points v3	Points 2009
IEQ-1	Base Ventilation Rates	●							
IEQ-2	Ventilation Rates	●							
<del>IEQ-3</del>	<del>Indoor Air Quality</del>	●					Credit deleted (in 2013) - criteria now located in MAT-4 Low Emitting Materials		
IEQ-4	Air Change Effectiveness	●							
IEQ-5	Exhaust Riser	●	IND EDU		x		Clarification of Not Applicable pathways. ALL TOOLS: New table to display credit criteria (though criteria itself has not changed).		
IEQ-6	Thermal Comfort	●	IND		x		New N/A pathway where the majority of Industrial space is predominantly unoccupied, or where thermal environment is dominated by a heating/ cooling process. ALL TOOLS: New table to display credit criteria (though criteria itself has not changed).		
IEQ-7	Thermal Comfort Control	●					ALL TOOLS: New table to display credit criteria (though criteria itself has not changed).		
IEQ-8	Daylight	●					ALL TOOLS: New table to display credit criteria (though criteria itself has not changed).		
IEQ-9	Daylight Glare Control	●							
IEQ-10	External Views	●							
IEQ-11	Electric Lighting Levels	●					ALL TOOLS: New table to display credit criteria (though criteria itself has not changed since revision in 2013).		
IEQ-12	Electronic Ballasts	●					Credit re-named and worded to include LEDs.		
IEQ-13	Internal Noise Levels	●							
IEQ-B	Respite Space	●							

IEQ-D	Furniture for Learning Spaces	●					NA for Tertiary (as per TC)		
<b>Energy</b>			Updated tools	Points value	Criteria / Compliance	Additional Guidance	<b>Changes</b>	<b>Points v3</b>	<b>Points 2009</b>
ENE-1	Energy	●					Modelling guidance has been moved into Appendix G for Office Projects and Appendix H for Education & Industrial Projects		
ENE-2	Greenhouse Gas Emissions	●							
ENE-3	Carbon Dioxide Monitoring and Control	●							
ENE-5	Lighting Control	●					Minor changes in criteria for Industrial projects - Industrial Area. Pre-requisite criteria identified as this was required for all tools for the award of any number of points. ALL TOOLS: New table to display credit criteria (though criteria itself has not changed)		
ENE-6	Electrical-Energy Sub-metering	●	OFF INT		X	X	With the release of NABERSNZ into the New Zealand market, this credit was revised for the office and interiors tools to cover all ty	2	2
ENE-7	Peak Energy Demand Reduction	●	ALL	X	X	X	This credit now has two alternative pathways: Reference Building Pathway and Prescriptive Pathway: onsite Energy generation. The credit has been based on the GBCA Design and As Built credit and adapted to New Zealand building code and conditions.	2	2
ENE-F	Stairs	●							
ENE-G	HVAC Zoning and Control	●							
<b>Transport</b>			Updated tools	Points value	Criteria / Compliance	Additional Guidance	<b>Changes</b>	<b>Points v3</b>	<b>Points 2009</b>
TRA-1	Car Park Minimisation	●							
TRA-2	Fuel Efficient Transport	●					Example calculation provided where total parking spaces <10		
TRA-3	Cyclist Facilities	●					Tertiary projects second additional point deleted.		
TRA-4	Mass Commuting Transport	●							
TRA-A	Travel Plan	●							
<b>TOTAL</b>								<b>0</b>	<b>0</b>
<b>Water</b>			Updated tools	Points value	Criteria / Compliance	Additional Guidance	<b>Changes</b>	<b>Points v3</b>	<b>Points 2009</b>
WAT-1	Potable Water	●	OFF IND EDU	X	X	X	The creation of a single credit that covers WAT-1, WAT-3 and WAT-4. There are two sections to this credit: (1) Deemed-to-Satisfy points which covers: fixture and fittings, irrigation, water controls, water based heat rejection systems and fire system test water. (2) Recycle water performance points: Points are awarded based on the predicted reduction in potable water due to rainwater/ greywater recycling	10	7
WAT-2	Water Meters	●	OFF IND EDU			X	Clearly defined where water meters should be installed rather than the term "major water use".	2	2
WAT-3	Landscape Irrigation Water Efficiency	●	ALL				Deleted Credit - Incorporated into new Potable Water WAT-1 credit	0	2

WAT-4	Heat Rejection Water	●	ALL				Deleted Credit - Incorporated into new Potable Water WAT-1 credit	0	2	
								<b>TOTAL</b>	<b>12</b>	<b>13</b>
Materials			Updated tools	Points value	Criteria / Compliance	Additional Guidance	Changes	Points v3	Points 2009	
MAT-1	Shell & Core or Integrated Fitout	●	INT	x			Benchmarks increased, 30% compliance no longer recognised. Weighted value remains the same for 60% and 90% compliance compared to 2009.	2	3	
MAT-2	Building Reuse	●	OFF IND	x			Points available reduced from 6 to 4 points 30% and 60% benchmarks retained. 90% benchmark now achievable through Exceeding Benchmarks in the Innovation category. Expanded NA criteria developed for EDUv3 incorporated for all tools.	4	6	
MAT-3	Applied Coatings	●	ALL				Deleted Credit - Incorporated into new Sustainable Materials (MAT-3) and Low Emitting Materials (MAT-4) credits	--	2	
MAT-3	Sustainable Materials	●	ALL	x	x	x	Merges Applied coatings, Flooring, Insulation, and Walls credits into Criteria A. Their individual credits are now deleted. A max of 3 points are available in Criteria A. Criteria A - recognises products that hold one of a spectrum of sustainability initiatives which are weighted according to their sustainability and transparency requirements. The sustainable compliance pathways list includes: Dematerialisation, reuse, environmental management systems, carbon reduction certifications, product stewardship, Declare and recognised eco-labels (ECNZ, GreenTag, GECA etc). Points for 50% and 90% compliance are available. PVC minimisation and use of best practice PVC is now recognised within this credit (2 points). The 30% compliance benchmark for PVC has been deleted. 60% and 90% compliance now achieve 1 and 2 points respectively New Exceeding Benchmarks criteria has been written to achieve points in the Innovation category for this credit.	5	8	
MAT-4	PVC	●					Deleted Credit - Incorporated into new Sustainable Materials (MAT-3) credit	--	3	
MAT-4	Low Emitting Materials	●	ALL	x	x	x	Low VOC and Formaldehyde products are recognised here. New compliance options include: Dematerialisation and Reuse, as well as previously recognised Eco-labels, IAQ schemes & test results. Projects may demonstrate compliance via meeting emissions limits or content limits. Points for 50% and 90% compliance are available. If MAT-3 is targeted the new Materials Calculator will automatically pick up which products comply so documentation doesn't need to be submitted twice.	5 or INT: 6	5 or INT: 6	
MAT-5	Insulation	●					Deleted Credit - Incorporated into new Sustainable Materials (MAT-3) credit	--	1	
MAT-5	Transparency	●	ALL	x	x	x	This credit recognises products that hold a compliant EPD. EPDs provide transparent and verified data across multiple environmental parameters of the product's manufacturing and highlight which areas have the highest environmental impact. This credit acknowledges the importance of developing in depth information on materials both for manufacturers to gain an insight into their impacts and so that in future robust building level life-cycle assessments can be undertaken.	2	--	

MAT-6	Timber	●	ALL		x	x	Pre-requisite to demonstrate that 60% / 90% of timber used is FSC / PEFC certified or reused. 0.5 points for 60%, 1 point for 90% compliance. Joinery has been excluded from pre-requisite criteria. Criteria A - enables timber products that hold one of a spectrum of sustainability initiative to be recognised. Criteria B - recognises lower toxicity and chemical free treatment at a higher value. Greater recognition is now given to non chemical and less toxic timber treatments. Minimum treatment recognition is reduced to a half point.	3	3
MAT-7	Concrete and Aggregate	●	ALL		x	x	Pre-requisite requires water recycling at concrete plant. Criteria A - enables concrete that holds one of a spectrum of sustainability initiative to be recognised. Criteria B - recognises reduction in cement - 2 points are available, the benchmarks for this have changed from 2009. It also introduces 1 point to recognise cement that is sourced from manufacturers using 10% alternative fuels. Criteria C - the benchmark has increased for recycled aggregate in the concrete mix. Criteria D - introduces recognition for use of recycled aggregate in hardfill and backfill applications.	3	3
MAT-8	Steel	●	ALL		x	x	Pre-requisite requires steel maker to meet responsible sourcing criteria. Criteria A - enables steel that holds one of a spectrum of sustainability initiative to be recognised. Criteria B - introduces recognition of steel fabricators and processors that have environmental management plans. Recycled content in steel is no longer recognised.	3	3
MAT-9	Floor Coverings	●					Deleted Credit - Incorporated into new Sustainable Materials (MAT-3) and Low Emitting Materials (MAT-4) credits	--	3
MAT-10	Recycling Waste Storage	●	OFF IND EDU		x		Change to storage criteria: reduction from 2 points to 1 point. Lower benchmark deleted. 1 point available for the upper benchmark.	OFF/IND: 1 EDU: 2	OFF/IND: 2 EDU: 3
MAT-A	Furniture	●	EDU INT		x		VOCs moved to be addressed in MAT-4 in Interiors tool. Points reduced due to overall points in category being reduced. Weighted furniture points retain approximately the same percentage proportion of this category.	EDU:5 INT:13	EDU:4 INT:8
MAT-B	Walls, Partitions and Joinery	●					Deleted Credit - Incorporated into new Sustainable Materials (MAT-3) and Low Emitting Materials (MAT-4) credits	--	3
MAT-H	Landscaping Materials	●					No change	1	1
MAT-I	Reused Products & Materials	●					Credit deleted in 2014 Education v3 review. Recycled content now recognised in new broader sustainability pathways	--	1
MAT-J	Adhesives & Sealants	●					Deleted Credit - Incorporated into new Low Emitting Materials (MAT-4) credit	--	1
MAT-K	Ceiling Tiles, Engineered Wood Products & Gypsum Plasterboard	●					Deleted Credit - Incorporated into new Sustainable Materials (MAT-3), Low Emitting Materials (MAT-4) and Timber (MAT-6) credits	--	1
								OFF: 29 IND: 29 EDU: 32 INT: 30	OFF: 32 IND: 32 EDU: 35 INT: 42
<b>Land Use &amp; Ecology</b>				Updated tools	Points value	Criteria / Compliance Additional Guidance	<b>Changes</b>	<b>Points v3</b>	<b>Points 2009</b>
ECO-1	Ecological Value of the Site	●							
ECO-2	Reuse of Land	●							
ECO-3	Reclaimed Contaminated Land	●							
ECO-4	Change of Ecological Value	●					Detailed guidance on using the ECO-4 Calculator and land typology definitions has been moved to Appendix L.		
ECO-5	Topsoil and Fill Removal from Site	●							

