



Circular Letter No.: 2019.163

Issue Date: 6 November 2019

Application: BEAM Plus Existing Buildings Version 2.0 Selective Scheme

Effective Date: 6 November 2019

**Major Amendments and Submission Template to  
MAN 1 to MAN 16 under BEAM Plus EB Version 2.0 Selective Scheme**

1. This Technical Circular announces a major amendment to the existing standards and the roll out of the updated submission template for credits MAN 1 to MAN 16 under BEAM Plus Existing Buildings Version 2.0 Selective Scheme.

**Amendments to Standards**

2. The amended standards can be found in Appendix A of this Technical Circular.
3. Pages A-1 to A-15 provides a summary of amendments made to the existing standards for credits MAN 1 to MAN 16.
4. Pages A-16 to A-19 shall replace the sub-section on MAN Aspect in Section 1.7 Summary of Credits (i.e. Pages 19-21) of the Manual.
5. Pages A-20 to A-61 shall replace Section 2 on Management Aspect (i.e. Pages 36-67) of the Manual.
6. Pages A-62 to A-65 shall replace Appendix 8.1 (i.e. Pages 197-200) of the Manual.
7. Please be aware that the corresponding updates on the credit requirement, assessment criteria and required documentations for credits MAN 1 to MAN 16 under BEAM Plus EB v.2.0 Selective Scheme shall take effect immediately.
8. Attention should be paid to credits MAN 4 and 5. For these credits, it has been decided by the Technical Review Committee that the standards would require further enhancements. As a result, a 6 months grace period will be given before the updated standards under credit MAN 4 and MAN 5 takes into effect. For details, please refer to the amended standards in Appendix A.

**Submission Template**

9. The updated submission template (in Excel format) can be downloaded from the BEAM Society's website.
10. Effective immediately, the Applicant may choose to use the updated version of submission template (in Excel format) to prepare for the assessment submission.
11. A one-month grace period (i.e. from 6 November 2019 to 5 December 2019) will be given for the Applicant to transition into using the updated version of submission template (in Excel format) to make the assessment submission. In other words, the Applicant may opt to use

EITHER the previous version of submission template (in Word format) or the updated version of submission template (in Excel format) during the grace period to make the assessment submission. After the grace period (i.e. first assessment submission made on or after 6 December 2019), the Applicant MUST use the updated submission template (in Excel format) to make assessment submission.

12. Although the Applicant may continue to make the assessment submission using the previous version of submission template (in Word format) during the one-month grace period, the Applicant should be aware that the previous version of submission template (in Word format) has not been updated to reflect on the latest changes in this Technical Circular. Should the Applicant decide to use the previous version of submission template (in Word format) to make the assessment submission during the grace period, the Applicant shall be obliged to prepare the assessment submission in accordance with the updated standards outlined in this Technical Circular.



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Mr KM So  
Chairperson of Standards Sub-committee

# Summary of Major Amendment

Below is the list of amendments made to the manual:

Major Amendment Number	Date of Issue	Credit / Appendix	Amendments
1	06.11.2019	MAN 1	<ol style="list-style-type: none"> <li>1. <b>Credit head</b> has been added.</li> <li>2. The <b>credit requirement</b> for part (b) of the credit has been revised to “2 credits for providing a green purchasing plan with (i) objective, target and reporting on progress and (ii) endorsed by Building Manager”.</li> <li>3. For the <b>criteria</b> section: <ol style="list-style-type: none"> <li>a. Part (a) of the credit – “The Applicant shall provide a green purchasing policy endorsed by top management of Building Owner/ Building Management Company to demonstrate the commitment” has been revised to “The Applicant shall provide a green purchasing policy endorsed by Building Manager to demonstrate the commitment”.</li> <li>b. Part (b) of the credit – “The Applicant shall provide documentary evidence that purchasing plans and procedures endorsed by top management are in place for governing the procurement of materials, products and equipment, which shall have no significant negative impacts on the environment and the safety and health of employees and building users” has been revised to “The Applicant shall provide documentary evidence that purchasing plans and procedures are in place for governing the procurement of materials, products and equipment. The plans and procedures should demonstrate that the procured materials, products and equipment have no significant negative impacts on the environment and the safety and health of employees and building users. The green purchasing plan shall also include objective, target, reporting progress and be endorsed by Building Manager”.</li> <li>c. Part (b) of the credit – “The green purchasing plan may include the procurement of” has been revised to “Below are the list of procured materials, products and equipment that may be</li> </ol> </li> </ol>

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			<p>covered under the scope of the green purchasing plan”.</p> <p>d. Part (b) of the credit – item (xiv) on “other products used in O&amp;M buildings which are not listed above” is added to the list of procured materials, products and equipment.</p> <p>e. Part (b) of the credit – “The above list is not exhaustive and it is not necessary to include all abovementioned items in their own green purchasing plan. The Applicant shall compose their green purchasing plan which suits their own operational needs.” has been revised to “*Note: It is not necessary to include all of the abovementioned procurement items into the green purchasing plan. The Applicant shall compose their green purchasing plan that suits their own operational needs.”</p> <p>4. For the <b>documentation</b> section:</p> <p>a. Part (a) of the credit – “A green purchasing policy endorsed by top management of Building Owner/ Building Management Company” has been revised to “Green purchasing policy endorsed by Building Manager.”</p> <p>b. Part (a) of the credit – item (ii) has been added.</p> <p>c. Part (b) of the credit – the required documentation for this part of the credit has been outlined.</p> <p>5. For the <b>background</b> section, the first sentence on third paragraph has been revised from “As early as year 2000...” to “As early as the year 2000...”</p>
		MAN 2	<p>1. <b>Credit head</b> has been added.</p> <p>2. The <b>credit attainable</b> has been revised to 5 + 2 BONUS</p> <p>3. For the <b>credit requirement</b> section:</p> <p>a. Part (a) of the credit – the requirement has been revised from “1 credit where the building management operates a Quality Management System (QMS) certified to ISO 9001” to “1 credit where the building management operates a Quality Management System (QMS) certified to ISO 9001 Standards for individual building project/each building project in the building portfolio”.</p> <p>b. Part (b) of the credit – the requirement has been revised from “1 credit where the building management operates an Environmental</p>

			<p>Management System (EMS) certified to ISO 14001.” to “1 credit where the building management operates an Environmental Management System (EMS) certified to ISO 14001 Standards for individual building project/each building project in the building portfolio.”</p> <p>c. Part (c) of the credit – the requirement has been revised from “1 credit where the building management operates an Occupational Health and Safety System (OHSAS).” to “1 credit where the building management operates an Occupational Health and Safety System (OHSAS) for individual building project/each building project in the building portfolio.”</p> <p>d. Part (d) of the credit – the requirement has been revised from “1 Bonus credit where building management operates an OHSAS certified to BS OHSAS 18001.” to “1 BONUS credit where building management operates an OHSAS certified to BS OHSAS 18001 / ISO 45001 Standards for individual building project/each building project in the building portfolio.”</p> <p>e. Part (e) of the credit – the requirement has been revised from “1 credit where the building management operates all of the above management systems for 1 year or more.” to “1 credit where the building management operates an integrative management system consist of QMS, EMS and OHSAS for the recent 12 months of the first assessment submission for individual building project/each building project in the building portfolio.”</p> <p>f. Part (f) of the credit – the requirement has been revised from “1 credit where the building management operates an Energy Management System (EnMS).” to “1 credit where the building management operates an Energy Management System (EnMS) for individual building project/each building project in the building portfolio.”</p> <p>g. Part (g) of the credit has been added.</p> <p>4. The <b>criteria</b> and <b>documentation</b> have been enhanced based on the updated credit requirement.</p> <p>5. For the <b>background</b> section:</p> <p>a. The first sentence on the third paragraph has been revised from “BS OHSAS 18001...” to “BS OSHAS 18001 / ISO 45001...”</p>
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			b. A fourth paragraph on ISO 50001 has been added.
		MAN 3	<ol style="list-style-type: none"> <li>1. The <b>objective</b> section has been revised from “To encourage Building Owner/ Building Management Company to have ESG reporting and to disclose its operational performance to the public.” to “To encourage the management company or her related companies to have ESG reporting and to disclose its operational performance to the public.”</li> <li>2. For the <b>credit requirement</b> section: <ol style="list-style-type: none"> <li>a. Part (a) of the credit – “1 credit where the Building Owner/ Building Management Company discloses sustainability policy and targets to the public.” has been revised to “1 credit where the management company or her related companies discloses sustainability policy and targets to the public.”</li> <li>b. Part (b) of the credit – The description has been revised to “1 BONUS credit where the sustainability report is prepared in accordance to a credible sustainability reporting guideline and have such sustainability report be disclosed to the public.” to cater for the updates announced in Technical Circular No. 2019.156.</li> </ol> </li> <li>3. For the <b>criteria</b> section: <ol style="list-style-type: none"> <li>a. Part (a) of the credit – the first sentence on “The Applicant shall provide the sustainability policy and targets of the Building Owner/ Building Management Company.” has been to “The Applicant shall provide the sustainability policy and targets of the management company or her related companies.”</li> <li>b. Part (b) of the credit – “The ESG report shall be composed under the Reporting Principles and either “Core” or “Comprehensive” in accordance options of the GRI G4 guidelines.” has been revised to “The Applicant shall provide ESG report, with such report composed under credible sustainability reporting guideline and be published to the public within the past 12 months.”</li> </ol> </li> <li>4. For the <b>documentation</b> section: <ol style="list-style-type: none"> <li>a. Part (a) of the credit – item (i) in the original content is replaced with a new item (i) and (ii).</li> <li>b. Part (b) of the credit – item (i) and (ii) in the original content is replaced with a new item (i) to (iii).</li> </ol> </li> <li>5. For the <b>background</b> section:</li> </ol>

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			<ul style="list-style-type: none"> <li>a. The content has been enhanced.</li> <li>b. Footnote 5 has been omitted.</li> </ul>
		MAN 4	<ul style="list-style-type: none"> <li>1. <b>Credit head</b> has been added.</li> <li>2. The <b>objective</b> section has been revised from “To facilitate the application for the BEAM Plus certification process and ensure the operation of the building complies with the BEAM Plus requirements.” to “To facilitate the application for the BEAM Plus certification process and ensure the operation of the individual building project/each building project in the building portfolio complies with the BEAM Plus requirements.”</li> <li>3. For the <b>credit requirement</b> section: <ul style="list-style-type: none"> <li>a. The requirement has been revamped (*Note: Please be aware of the different effective date that are being applied to part (a) of the credit).</li> <li>b. Part (b) of the credit has been revamped to cater for MAN FAQ Q2.</li> </ul> </li> <li>4. The <b>criteria</b> and <b>documentation</b> section has been enhanced based on the revamped credit requirement.</li> <li>5. For the <b>background</b> section: <ul style="list-style-type: none"> <li>a. The last sentence to the 1st paragraph has been amended from “A key role of BEAM Professional is to integrate...” to “The key role of BEAM Professional is to integrate...”</li> <li>b. The 1st sentence to the 2<sup>nd</sup> paragraph has been amended from “A BEAM Affiliate [2] is a person accredited by HKGBC...” to “BEAM Affiliate [2] is a person accredited by HKGBC...”</li> </ul> </li> </ul>
		MAN 5	<ul style="list-style-type: none"> <li>1. The <b>objective</b> section has been revised from “To ensure the staff training and technical resources are adequate for the Operation and Maintenance (O&amp;M) of the building” to “To ensure the staff training and technical resources are adequate for the Management, Operation and Maintenance (MO&amp;M) of the individual building project/each building project in the building portfolio.”</li> <li>2. For the <b>credit requirement</b> section: <ul style="list-style-type: none"> <li>a. Part (a) of the credit has been revised from “1 credit for having adequate staff and technical resources to meet the O&amp;M requirements of the building.” to “1 credit for having adequate staff and technical resources to meet the M&amp;OM requirements of the individual building</li> </ul> </li> </ul>

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			<p>project/each building project in the building portfolio.”</p> <p>b. Part (b) of the credit has been revised from “1 credit for providing adequate and periodic training for the staff responsible for the O&amp;M of the building” to “1 credit for providing adequate and periodic training for the staff responsible for the M&amp;OM of the individual building project/each building project in the building portfolio.”</p> <p>3. The <b>criteria</b> and <b>documentation</b> section has been enhanced based on the revamped credit requirement. (*Note: Please be aware of the different effective date that are being applied to part (a) of the credit)</p> <p>4. The content of the <b>background</b> section has been enhanced.</p>
		MAN 6	<p>1. The <b>objective</b> section has been revised from “To encourage comprehensive and well building records...” to “To encourage effective documentation of essential building records...”</p> <p>2. The <b>credit attainable</b> has been revised to 7 + 2 BONUS</p> <p>3. The <b>credit requirement</b> has been revamped.</p> <p>4. <b>Criteria, documentation</b> and <b>background</b> sections have been enhanced based on the revamped credit requirement.</p>
		MAN 7	<p>1. The <b>exclusion</b> section has been revised from “For part b only, Building footprint exceeds 80% of the site area” to “For part b of the credit, building footprint exceeds 80% of the site area <u>and</u> undergoing <i>individual building assessment</i>.”</p> <p>2. For the <b>credit requirement</b> section, part (a) of the credit has been revised from “1 credit for demonstrating the operation of a planned programme of regular inspection, cleaning and maintenance of the building’s fabric and structure under the control of the Applicant.” to “1 credit for demonstrating the operation of a planned programme of regular inspection, cleaning and maintenance of the building’s fabric and structural elements under the control of the Applicant.”</p> <p>3. For the <b>criteria</b> section:</p> <p>a. Part (a) of the credit – “The Applicant shall provide documentation to demonstrate that the system of inspection, cleaning, maintenance</p>



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			<p>and general repairs to the building fabric and structural elements are effective in maintaining reliability and prolonging service life of the building. Building fabric and structure shall include..." has been revised to "The Applicant shall provide documentation to demonstrate that the system of inspection, cleaning, maintenance and general repairs to the building fabric and structural elements are effective in maintaining reliability and prolonging service life of the individual building project/each building project in the building portfolio. Building fabric and structural elements shall include..."</p> <p>b. Part (b) of the credit – "...The frequency of these activities is not regulated and it is subject to the Applicant's operation requirement. The Applicant shall provide the undertaking letter stating that the frequency for inspection, cleaning and maintenance is sufficient." has been revised to "The frequency of these activities is not regulated and it is subject to the Applicant's operational requirement. The Applicant shall also provide an undertaking letter stating that the frequency for inspection, cleaning and maintenance is sufficient."</p> <p>c. Part (b) of the credit – The third paragraph on the assessment criteria for individual building assessment and portfolio assessment have been added.</p> <p>4. For the <b>documentation</b> section:</p> <p>a. Item (i) to (vi) in the original content has been omitted.</p> <p>b. The documentation required for part (a) and (b) of the credit has been added.</p> <p>5. The content of the <b>background</b> section has been enhanced.</p>
		MAN 8	<p>1. For the <b>credit requirement</b> section:</p> <p>a. The first paragraph on "Maximum 5 credits for operating a planned programme of regular inspection, cleaning and maintenance of the following listed systems." has been revised from "1 credit can be achieved for operating a planned programme of regular inspection, cleaning and maintenance of the following listed systems, for a maximum of 5 credits."</p>

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			<p>b. Item (ii) on Lift and Escalator system has been revised to Lift and/or Escalator system</p> <p>2. For the <b>criteria</b> section:</p> <p>a. The first paragraph on “1 credit can be achieved for the provision of a planned programme for each of the listed items.” Has been omitted.</p> <p>b. In the second paragraph, “The number of credit(s) to be achieved shall be determined by the actual number of systems operating a planned programme of regular inspection, cleaning and maintenance.” has been added as the first sentence for that paragraph.</p> <p>c. In the second paragraph, the sentence on “The Applicant shall provide the planned programme of regular inspection and maintenance of the Air-conditioning system, Lift and Escalator system...” has been revised to “The Applicant shall provide the planned programme of regular inspection and maintenance of the Air-conditioning system, Lift and/or Escalator system...”</p> <p>d. In the second paragraph, the sentences on “The frequency of these activities is not regulated and it is subject to the Applicant’s operation requirement. However, the works of the planned programme shall not be less than the statutory required works. The Applicant shall provide the undertaking letter stating that the frequency for inspection and maintenance is sufficient.” has been revised to “The frequency of cleaning and inspection are not regulated and they are subject to the Applicant’s operational requirement. However, the works of the planned programme shall not be less than the statutory requirement. The Applicant shall provide an undertaking letter stating the frequency for inspection and maintenance is sufficient.”</p> <p>3. The required <b>documentation</b> have been enhanced.</p> <p>4. The content of the <b>background</b> section has been enhanced.</p>
		MAN 9	<p>1. The <b>credit</b> requirement has been revised from “1 Bonus credit for operating an electronic O&amp;M platform by the Building Owner/ Building Management Company.” to “1 BONUS credit for</p>

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			<p>demonstrating that an electronic O&amp;M platform has been operated in individual building project/each building project in the building portfolio by the Building Owner/ Building Management Company.”</p> <p>2. The <b>criteria</b> section has been enhanced.</p> <p>3. For the <b>documentation</b> section:</p> <p>a. Item (i) on “Description of the electronic O&amp;M platform” has been revised to “Description describing the functioning of the electronic O&amp;M platform”</p> <p>b. Item (ii) on “Screenshots showing the required documentations are uploaded to the O&amp;M platform.” has been revised to: “Screenshots or video capture showing the preview of the following documents for the individual building project/each building project in the building portfolio:</p> <ul style="list-style-type: none"> <li>- Building layout drawing [1];</li> <li>- Air side and water side schematic diagrams [1];</li> <li>- Equipment schedule of the MVAC, plumbing &amp; drainage, electrical and lift &amp; escalator systems; and</li> <li>- O&amp;M manuals of the aforesaid systems”</li> </ul> <p>c. Footnote 1 has been added.</p> <p>4. The content of the <b>background</b> section has been enhanced.</p>
		MAN 10	<p>1. For the <b>credit requirement</b> section:</p> <p>a. Part (a) of the credit – “Maximum 4 credits for providing the renovation management plan and complying with the recommendation practices given by the Environmental Protection Department (EPD) for the listed aspects during renovation” has been revised to “1 credit can be achieved for providing the renovation management plan and complying with the recommendation practices given by the Environmental Protection Department (EPD) for the each of the listed aspects during renovation, for a maximum of 4 credits.”</p> <p>b. Part (b) of the credit – “Maximum 4 credits for providing records for the past 2 years that the renovation management plan of the listed aspects have been implemented by the contractors during renovation” has been revised to “1 credit can be achieved for providing records for the past 24 months that</p>

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			<p>the renovation management plan of each listed aspects has been implemented by the contractors during renovation, for a maximum of 4 credits”.</p> <p>2. For the <b>criteria</b> section:</p> <p>a. Part (a) of the credit – the first paragraph on “1 credit can be achieved for providing the renovation management plan for each of the above listed aspects with the compliance of EPD recommendation practices.” has been revised to “The number of credit(s) to be achieved shall be determined by the actual number of listed aspects specified in the renovation management plan and in compliance with the EPD recommendation practices.”</p> <p>b. Part (a) of the credit – the second paragraph on “The Applicant shall provide a renovation management plan including but not limited to the following items” has been revised to “The Applicant shall provide a renovation management plan including the following measures, at the minimum”</p> <p>c. Part (b) of the credit – “The Applicant shall also provide site records for the past 2 years to demonstrate the actions form the Renovation Management Plan is properly implemented. 1 credit can be achieved for the provision of site record of each of the above listed aspects.” Has been revised to “The Applicant shall also provide implementation records covering the 24 months prior to the time of first assessment submission to demonstrate that the actions form the Renovation Management Plan have been properly implemented. The number of credit(s) to be achieved shall be determined by the actual number of listed aspects in the implementation records.”</p> <p>3. For the <b>documentation</b> section:</p> <p>a. Part (a) of the credit – item (i) on “Renovation management plan indicating those listed requirement” has been revised to “Renovation Management Plan”</p> <p>b. Part (a) of the credit – item (ii) on cross-referencing table has been added.</p> <p>c. Part (b) of the credit – item (i) on “Records showing the renovation management plan is properly implemented during renovation, fit-out</p>

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			<p>and decoration works” has been revised to “24 months implementation records, such as monthly reports or photo records to show that the renovation management plan was properly implemented during renovation, fit-out and decoration works, with the records covering the time period of 24 months prior to the time of first assessment submission.”</p> <p>4. For the <b>background</b> section, the second paragraph on “Practical guidance for the control of air pollution, noise, wastewater and waste disposal during renovation is available from EPD [1]. Though the guidance focuses...” has been revised to “Practical guidance for the control of air pollution, noise, wastewater and waste disposal during renovation are available from EPD [1]. Even though the guidance focuses...”</p>
		MAN 11	<p>1. The <b>credit requirement</b> for part (b) of the credit has been revised from “1 credit for demonstrating the use of at least 5% of green cleaning detergents” to “1 credit for demonstrating the use of at least 5% of green cleaning detergents within 12 months prior to the time of first assessment submission”.</p> <p>2. For the <b>criteria</b> section:</p> <p>a. Part (a) of the credit – “The Applicant shall provide the green cleaning procedures/practices including but not limited to the following...” has been revised to “The Applicant shall provide the green cleaning procedures/practices address the following...”</p> <p>b. Part (b) of the credit – “The Applicant shall also demonstrate at least 5% (in terms of volume) of the cleaning detergents purchased in the 12 months are certified green products.” has been revised to “The Applicant shall demonstrate at least 5% (in terms of volume) of the cleaning detergents purchased within the 12 months prior to the first assessment submission are certified green products”.</p> <p>3. For the <b>documentation</b> section:</p> <p>a. Item (i) for part (a) of the credit has been revised from “The green cleaning procedures/practices” to “The green cleaning procedures/practices, with section addressing the method statements for the routine cleaning procedures”.</p>

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			<ul style="list-style-type: none"> <li>b. Item (ii) for part (a) of the credit has been revised from “Catalogues and certificates of the green cleaning detergents” to “Catalogues and/or certificates of the green cleaning detergents specifying information such as the chemical content and how the chemical content makes it best efforts in fulfilling the desirable requirement under the Government Circular on Green Procurement in the Government”.</li> <li>c. Item (iii) for part (a) of the credit has been revised from “Purchase order or delivery notes of the green cleaning detergents” to “Purchase order, delivery notes and/or transfer notes demonstrating that the claimed green cleaning products delivered to the project”.</li> <li>d. Part (b) of the credit – item (ii) has been added.</li> </ul>
		MAN 12	<ul style="list-style-type: none"> <li>1. For the <b>criteria</b> section: <ul style="list-style-type: none"> <li>a. The sentence on “The Applicant shall provide an integrated pest management plan which details the following” has been revised to “The Applicant shall provide an integrated pest management plan, with the plan addressing the following issues”</li> <li>b. The last paragraph on “Records shall also be submitted to demonstrate that the pest control measures have been in placed within the 12 months prior to the time of first assessment submission” is added.</li> </ul> </li> <li>2. For the <b>documentation</b> section: <ul style="list-style-type: none"> <li>a. Item (ii) has been added.</li> <li>b. Item (ii) in the original content has been moved to item (iii) with the wording revised from “Frequency of the pest control” to “Pest control schedule showing frequency of the pest control”.</li> <li>c. Item (iii) in the original content has been moved to item (iv) with the wording revised from “Pest control records for the past 12 months” to “Pest control records within the 12 months prior to the time of first assessment submission”.</li> </ul> </li> <li>3. The content of the <b>background</b> section has been enhanced.</li> </ul>
		MAN 13	<ul style="list-style-type: none"> <li>1. For the <b>criteria</b> section: <ul style="list-style-type: none"> <li>a. The sentence on “The guide shall include, but not limited to, the following sections” has been</li> </ul> </li> </ul>

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			<p>revised to “The user guide shall the following environmental issues”</p> <p>b. The sentence on “Evidence shall also be submitted to demonstrate the user guide has been distributed to...” has been revised to “Evidence shall also be submitted to demonstrate that the user guide has been distributed to...”</p> <p>2. For the <b>documentation</b> section:</p> <p>a. Item (i) – Omit the word “building”</p> <p>b. Item (ii) has been added.</p> <p>c. Item (ii) in the original content has been moved to item (iii) with the wording revised from “Records showing the building user guide is distributed to the building users” to “Distribution records showing the user guide has been distributed to the building users”.</p> <p>d. Item (iii) in the original content has been moved to item (iv) with the wording revised from “Evidence showing that the feedback channel(s) from the building users to the Building Owner/ Building Management Company is established” to “Evidence showing that the feedback channel(s) between the building users to the Building Manager has been established”.</p> <p>3. The content of the <b>background</b> section has been enhanced.</p>
		MAN 14	<p>1. The <b>exclusion</b> section has been revised from “Buildings without any tenants” to “Individual Building without any tenants”.</p> <p>2. The <b>objective</b> section has been revised from “To ensure the Building Owner / Building Management Company and building users can work together to achieve sustainable operation of the building.” To “To ensure the Building Manager and building users can work together to achieve sustainable operation of the building”.</p> <p>3. The <b>criteria</b> section has been enhanced.</p> <p>4. For the <b>documentation</b> section:</p> <p>a. Part (a) of the credit – “Building Owner/ Building Management Company” has been revised to “Building Manager”.</p> <p>b. Part (b) of the credit – “Records showing that the green lease is being implemented to the tenants” has ben revised to “Records, such as confirmation letter or photo records to show</p>

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			that the green lease is being implemented with the tenants".
		MAN 15	<ol style="list-style-type: none"> <li>1. <b>Credit requirement</b> has been revised from "2 credits for Building Owner/ Building Management Company to advocate behavioural change of building user in respect of Management..." to "Maximum 2 credits for Building Manager to advocate behavioural change of building user in respect of Management..."</li> <li>2. For the <b>criteria</b> section, to align with the wording of the manual, sentence on "... at least one of the activities within the 1 year period at the time of submission" has been amended to "... at least one of the activities within the past 12 months prior to the time of first assessment submission".</li> <li>3. For the <b>documentation</b> section, it is clarified that item (i) on promotional material should have indication describing the name and date of the event.</li> <li>4. The content of the <b>background</b> section has been enhanced.</li> </ol>
		MAN 16	<ol style="list-style-type: none"> <li>1. <b>Credit head</b> has been added.</li> <li>2. For the <b>criteria</b> section, to align with the wording of the Manual: <ol style="list-style-type: none"> <li>a. sentences on "... valid when it was awarded less than 5 years at the time of first submission" has been amended to "... valid when it was awarded less than 60 months prior to the time of first assessment submission".</li> <li>b. "first submission" has been revised as "first assessment submission".</li> </ol> </li> <li>3. For the <b>documentation</b> section: <ol style="list-style-type: none"> <li>a. Documentations required for each credit head has been outlined.</li> <li>b. The validity of the certificates has been clarified as "valid at the time of first assessment submission" for both part (a) and (b) of the credit.</li> </ol> </li> <li>4. The content of the <b>background</b> section has been enhanced.</li> </ol>



Major Amendment Number	Date of Issue	Credit / Appendix	Amendments
		Appendix 8.1	<ol style="list-style-type: none"> <li>1. Definition of building manager has been added.</li> <li>2. Definition of building portfolio has been added.</li> <li>3. Definition of building project has been added.</li> <li>4. Definition of first assessment submission has been added.</li> <li>5. Definition of individual building assessment has been added.</li> <li>6. Definition of Management, Operation &amp; Maintenance (MO&amp;M) has been added.</li> </ol>

## 1.7 Summary of Credits

	Section	Credit Requirement	Credit
<b>2</b>	<b>Management (MAN)</b>		<b>44 + 8B</b>
<b>MAN 1</b>	Green Purchasing Plan	<p>a) Green Purchasing Policy 1 credit for providing an endorsed green purchasing policy.</p> <p>b) Green Purchasing Plan 2 credits for providing a green purchasing plan with (i) objective, target and reporting on progress and (ii) endorsed by Building Manager.</p>	<p>1</p> <p>2</p>
<b>MAN 2</b>	Quality, EHS and Energy Management System	<p>a) Quality Management System Certification 1 credit where the building management operates a Quality Management System (QMS) certified to ISO 9001 Standards for individual building project/each building project in the building portfolio.</p> <p>b) Environmental Management System Certification 1 credit where the building management operates an Environmental Management System (EMS) certified to ISO 14001 Standards for individual building project/each building project in the building portfolio.</p> <p>c) Occupational Health and Safety System in Operation 1 credit where the building management operates an Occupational Health and Safety System (OHSAS) for individual building project/each building project in the building portfolio.</p> <p>d) Occupational Health and Safety System Certification 1 BONUS credit where the building management operates an OHSAS certified to BS OHSAS 18001 / ISO 45001 Standards for individual building project/each building project in the building portfolio.</p> <p>e) Integrative Management System 1 credit where the building management operates an integrative management system consist of QMS, EMS and OHSAS for the recent 12 months of the first assessment submission for individual building project/each building project in the building portfolio.</p> <p>f) Energy Management System in Operation 1 credit where the building management operates an Energy Management System (EnMS) for individual building project/each building project in the building portfolio.</p> <p>g) Energy Management System Certification 1 BONUS credit where the building management operates an EnMS certified to ISO 50001 Standards for individual building project/each building project in the building portfolio.</p>	<p>1</p> <p>1</p> <p>1</p> <p>1B</p> <p>1</p> <p>1</p> <p>1B</p>
<b>MAN 3</b>	Environmental, Social and Governance (ESG) Disclosure	<p>a) Disclosure of Sustainability Policy and Targets 1 credit where the Building Manager or her related companies discloses sustainability policy and targets to the public.</p> <p>b) ESG Reporting 1 BONUS credit where the sustainability report is prepared in accordance to a credible sustainability reporting guideline and have such sustainability report be disclosed to the public.</p>	<p>1</p> <p>1B</p>
<b>MAN 4</b>	BEAM Professional	<p>a) BEAM Accredited Personnel for Each Individual Building 1 credit for having any person from the building management team to facilitate for the application of BEAM Plus certification, with such personnel accredited as BEAM Professional with EB v.2.0 or BEAM Affiliate credential. <b>(Effective for building project(s) registered BEFORE 6 May 2020)</b></p> <p>1 credit for having any person from the on-site team of an individual building project/each building project in the building portfolio to facilitate</p>	<p>1</p>

	Section	Credit Requirement	Credit
<b>2</b>	<b>Management (MAN)</b>		<b>44 + 8B</b>
		for the application of BEAM Plus certification, with such personnel accredited as BEAM Professional with EB v.2.0 or BEAM Affiliate credential. <b>(Effective for building project(s) registered on or AFTER 6 May 2020)</b>	
		b) Professionally Qualified Building Manager 1 credit for having a Building Manager of individual building/building portfolio accredited as BEAM Professional with EB v.2.0 credential and certified with at least one professional corporate membership qualification (e.g. HKIH, HKIA, HKIE, HKIS (BS/PFM), RICS (BS/FM), IFMA, HKIFM, BSOMES, or equivalent).	1
<a href="#"><b>MAN 5</b></a>	Staff Training and Resources	a) Staff and Technical Resources 1 credit for having adequate staff and technical resources to meet the M&OM requirements of the individual building project/each building project in the building portfolio.	1
		b) Staff Training 1 credit for providing adequate and periodic training for the staff responsible for the M&OM of the individual building project/each building project in the building portfolio.	1
<a href="#"><b>MAN 6</b></a>	Building Records	a) Essential Records 1 credit per each type of building records listed below, for a maximum of 7 credits. i. Building and if any, alterations and additions plans approved by Building Authority. ii. Structural and site formation plans approved by Building Authority. iii. Drainage schematic drawings approved by the Building Authority. iv. Plumbing schematic drawings approved by the Water Supplies Department or endorsement by a licensed plumber licensed under Waterworks Ordinance (Cap. 102). v. Fire Services Installation (FSI) schematic drawings approved by the Fire Services Department or endorsed by a registered contractor registered under Fire Service (Installation Contractors) Regulations (Cap. 95A). vi. History of maintenance works including records of inspection and replacements, certifications and statutory forms. vii. T&C records and operation manuals for building services, mechanical components and installations. viii. Certification for the performance of specific building materials and components as well as warranties from specialist contractors or suppliers, including but not limited to water proofing materials, durable goods, finishes, etc. ix. Deed of Mutual Covenant, or <i>in the case where the development is fully owned by the project proponent</i> , management agreement together with a statement by the project proponent declaring that the development is fully owned by the Applicant.	7
		b) Enhanced Records 1 BONUS credit per each type of the building records listed below, for a maximum of 2 BONUS credits. i. Drainage layout plan approved by Building Authority. ii. Plumbing layout plans approved by Water Supplies Department or endorsed by a licensed plumber licensed under Waterworks Ordinance (Cap 102). iii. FSI layout plans approved by the Fire Services Department or endorsed by a registered contractor registered under Fire Service (Installation Contractors) Regulations (Cap. 95A). iv. As-fitted ELV schematic drawings and layout plans.  v. As-fitted electrical schematic drawings and layout plans.	2B

	Section	Credit Requirement	Credit
<b>2</b>	<b>Management (MAN)</b>		<b>44 + 8B</b>
		vi. As-fitted gas schematic drawings and layout plans.	
<a href="#"><u>MAN 7</u></a>	Building and Site Operation and Maintenance	a) Building Maintenance 1 credit for demonstrating the operation of a planned programme of regular inspection, cleaning and maintenance of the building's fabric and structural elements under the control of the Applicant.	1
		b) External Areas and Facilities 1 credit for demonstrating the operation of a planned programme of regular inspection, cleaning and maintenance of external areas and facilities.	1
<a href="#"><u>MAN 8</u></a>	Building Services Operation and Maintenance	1 credit can be achieved for operating a planned programme of regular inspection, cleaning and maintenance of the following listed systems, for a maximum of 5 credits. i. Air-conditioning system; ii. Lift and/or Escalator system; iii. Electrical system; iv. Lighting system; v. Plumbing and Drainage system; and vi. Fire Services system.	5
<a href="#"><u>MAN 9</u></a>	Electronic Operation and Maintenance Platform	1 BONUS credit for demonstrating that an electronic O&M platform has been operated in individual building project/each building project in the building portfolio by the Building Owner/ Building Management Company.	1B
<a href="#"><u>MAN 10</u></a>	Renovation Management Plan	a) Renovation Management Plan 1 credit can be achieved for providing the renovation management plan and complying with the recommendation practices given by the Environmental Protection Department (EPD) for the each of the listed aspects during renovation, for a maximum of 4 credits: i. Indoor air quality; ii. Noise; iii. Wastewater; and iv. Waste.	4
		b) Implementation of Renovation Management Plan 1 credit can be achieved for providing records for the past 24 months that the renovation management plan of each listed aspects has been implemented by the contractors during renovation, for a maximum of 4 credits: i. Indoor air quality; ii. Noise; iii. Wastewater; and iv. Waste.	4
<a href="#"><u>MAN 11</u></a>	Green Cleaning	a) Implementation of Green Cleaning 1 credit for implementing the green cleaning procedures/ practices.	1
		b) Use of Green Cleaning Detergent 1 credit for demonstrating the use of at least 5% of green cleaning detergents within the 12 months prior to the time of first assessment submission.	1
<a href="#"><u>MAN 12</u></a>	Integrated Pest Management	1 credit for implementing an integrated programme for pest management.	1
<a href="#"><u>MAN 13</u></a>	User Guidance	1 credit for providing user guide to encourage and promote environmentally friendly activities.	1
<a href="#"><u>MAN 14</u></a>	Green Lease	a) Green Lease Guideline	1

	Section	Credit Requirement	Credit
<b>2</b>	<b>Management (MAN)</b>		<b>44 + 8B</b>
		1 credit for providing green lease guideline to the tenants of the building.	
		b) Implementation of Green Lease 1 credit for implementing green lease to the tenants of the building.	1
<b>MAN 15</b>	Educational and Promotional Programme	Maximum 2 credits for Building Manager to advocate the behavioural change of building users in respect of Management by: i. Organising educational seminar/ promotion campaign; or ii. Arranging workshop for building users to read through and review the building user guide; or iii. Promoting or participating in Hong Kong Green Building Week organised by Construction Industry Council (CIC) and the Hong Kong Green Building Council Limited (HKGBC).	2
<b>MAN 16</b>	Recognition and Appreciation Awarded from Other Organisations	a) BEAM / BEAM Plus Certified Building 1 credit for the building has been certified under BEAM Plus Version 1.1 or 1.2/ BEAM 4/04 or 5/04.  b) Environmental Award / Certification Scheme / Campaign Issued by a Recognizable Association Maximum 2 BONUS credits for obtaining the following listed environmental award/ certification scheme/ campaign: i. EarthCheck Certification; ii. Green Building Award; iii. Green Globe Certification; iv. CLP Green <sup>PLUS</sup> Award; v. Hong Kong Awards for Environmental Excellence (HKAEE) – Property Management Sector Award; vi. Hong Kong Green Mark Certification Scheme; vii. Sustainable Building Index; viii. Voluntary Building Assessment Scheme (VBAS) – Environmental Awareness Quality Label; and ix. Other green building related awards/ certification schemes/ campaigns which are not listed above.	1  2B

## 2 Management

- 2.1 Green procurement
- 2.2 Environmental, Health and Safety (EHS), and energy management
- 2.3 Environmental, Social and Governance (ESG) disclosure
- 2.4 Staff training
- 2.5 Operation and maintenance
- 2.6 IAQ management for renovation
- 2.7 Cleaning and pest control
- 2.8 Building users involvement
- 2.9 Innovations and additions

### Background

An effective management of building operations and maintenance is the key factor for better environmental performance of the building, especially for existing buildings. The 'Management' category assesses the overarching management system, policies and procedures put in place, staffing and resources, and the involvement of building users to ensure buildings are operating in their maximum sustainable potential.

### 2.1 Green procurement Background

#### MAN 1 Green Purchasing Plan

It is encouraged to investigate the products that are purchased for the building and to replace them with environmentally friendly alternatives. A purchasing plan or practice shall be formulated to use green products whenever possible.

### 2.2 EHS and Energy Management Background

#### MAN 2 Quality, EHS and Energy Management System

Regardless the age and condition of a building, there are initiatives that the management can undertake to improve the quality and performance of a building. The Applicant is expected to carry out programmes to enhance health and safety, and reduce environmental impacts in the building operation.

### 2.3 ESG disclosure Background

#### MAN 3 Environmental, Social and Governance (ESG) Disclosure

ESG reporting helps a company to better understand the impacts of their activities, set goals, measure performance and mitigate risks and identify opportunities of certain environmental and social issues.

### 2.4 Staff training Background

#### MAN 4 BEAM Professional

#### MAN 5 Staff Training and Resources

Staff skills and experience are important factors in improving building performance. The qualifications and experience of the management, operation and maintenance staff should be commensurate with the engineering systems, size and complexity of the buildings.

<b>2.5</b>	<b>Operation and maintenance</b>	<b>MAN 6 Building Records</b> <b>MAN 7 Building and Site Operation and Maintenance</b> <b>MAN 8 Building Services Operation and Maintenance</b> <b>MAN 9 Electronic Operation and Maintenance Platform</b>
	<b>Background</b>	<p>Effective operation and maintenance of the building, systems and equipment significantly impact on the building performance. Proper O&amp;M can also extend the life of building structure and equipment, avoid wastage of resources for premature refurbishment or replacements.</p>
<b>2.6</b>	<b>IAQ management for renovation</b>	<b>MAN 10 Renovation Management Plan</b>
	<b>Background</b>	<p>Dust and odours generated by various renovation, fit-out and decoration activities can cause air pollution. Good management practices reduce the impacts of air pollution on the workers and adjacent neighbours, and protect the HVAC&amp;R systems in the building.</p>
<b>2.7</b>	<b>Cleaning and pest control</b>	<b>MAN 11 Green Cleaning</b> <b>MAN 12 Integrated Pest Management</b>
	<b>Background</b>	<p>Green housekeeping ensures the products and procedures for cleaning and pest control are safe, hygienic and with limited environmental impacts.</p>
<b>2.8</b>	<b>Building users involvement</b>	<b>MAN 13 User Guidance</b> <b>MAN 14 Green Lease</b>
	<b>Background</b>	<p>Sustainable operation of a building can be achieved if the tenants or building users are willing to work with the Building Owner/ Building Management Company. Building environmental performance can then be improved with such collaborative efforts.</p>
<b>2.9</b>	<b>Innovations and additions</b>	<b>MAN 15 Educational and Promotional Programme</b> <b>MAN 16 Recognition and Appreciation Awarded from Other Organisations</b>
	<b>Background</b>	<p>It is encouraged to drive behavioural change through educational and promotional programme. Companies are also encouraged to apply for recognition on their efforts and commitments in green building management and operations.</p>

	<b>MAN 1</b>	<b>Green Purchasing Plan</b>
<b>Exclusion</b>	None.	
<b>Objective</b>	To encourage the purchase of products used in the Operation and Maintenance (O&M) of buildings with reducing environmental impacts through the formulation of procedures or plans.	
<b>Credit Attainable</b>	3	
<b>Credit Requirement</b>	<p>a) Green Purchasing Policy</p> <p>1 credit for providing an endorsed green purchasing policy.</p> <p>b) Green Purchasing Plan</p> <p>2 credits for providing a green purchasing plan with (i) objective, target and reporting on progress and (ii) endorsed by Building Manager.</p>	
<b>Assessment</b>	<p><u>Criteria</u></p> <p>a) Green Purchasing Policy</p> <p>The Applicant shall provide a green purchasing policy endorsed by Building Manager to demonstrate the commitment.</p> <p>b) Green Purchasing Plan</p> <p>The Applicant shall provide documentary evidence that purchasing plans and procedures are in place for governing the procurement of materials, products and equipment. The plans and procedures should demonstrate that the procured materials, products and equipment have no significant negative impacts on the environment and the safety and health of employees and building users. The green purchasing plan shall also include objective, target, reporting progress and be endorsed by Building Manager.</p> <p>Below are the list of procured materials, products and equipment that may be covered under the scope of the green purchasing plan:</p> <ol style="list-style-type: none"> <li>Durable goods, products and equipment;</li> <li>Materials with low embodied energy;</li> <li>Locally produced materials where available;</li> <li>Wood products from well-managed sources;</li> <li>Products which do not use CFCs, HCFCs, halons;</li> <li>Salvaged materials and components;</li> <li>Rapidly renewable materials;</li> <li>Finishes, paints, adhesives, etc. with low levels of emissions;</li> <li>Minimal packaging and/or recyclable packaging;</li> <li>Products having high recyclable content;</li> <li>Products that are recyclable;</li> <li>Energy efficient appliances and equipment;</li> </ol>	



- xiii. Water efficient appliances; and
- xiv. Other products used in the O&M of buildings which are not listed above.

*\*Note: It is not necessary to include all of the abovementioned procurement items into the green purchasing plan. The Applicant shall compose their green purchasing plan that suits their own operational needs.*

#### Documentation

The Applicant shall provide the following document:

- a) Green Purchasing Policy
  - i. Green purchasing policy endorsed by Building Manager; and
  - ii. Organization chart demonstrating the line of authority of the Building Manager.
- b) Green Purchasing Plan
  - i. Green purchasing plan endorsed by Building Manager;
  - ii. Cross referencing table demonstrating that the procured materials, products and equipment listed in the criteria section above have been specified in the green purchasing plan;
  - iii. Indication of objective, target and reporting progress in the green purchasing plan; and
  - iv. Organization chart demonstrating the line of authority of the Building Manager.

#### **Background**

Purchasing practices should form part of environmental management system of an organisation. Where major consumers include safety, health and environmental considerations in purchasing decisions, the market place does respond. BEAM Plus encourages purchasing practices that promote the supply and use of environmentally friendly products, materials and equipment in building operations and maintenance, redecoration, fit-out, etc.

Although life-cycle analysis can be used to assess materials and products, there are no well-defined criteria for categorizing materials as green or environmentally friendly. This involves the identification and quantification of all of the raw materials and energy consumed in the production, use, and disposal of the product, as well as the pollutants and by-products generated. Two of the most significant environmental impact caused by materials used in buildings are effects generated from waste streams and the possible impacts on the health and comfort of occupants. There are many environmentally friendly alternatives that are available in market to substitute the products currently used in buildings.

As early as the year 2000, the Government amended its procurement regulations to require bureaux and departments to take environmental

considerations into account when procuring goods and services [1]. Specifically, bureaux and departments are encouraged to avoid using single-use disposable items and purchase products with the following features:

- i. Improved recyclability, high recycled content, reduced packing and greater durability;
- ii. Higher energy efficiency;
- iii. Utilising clean technology and/or clean fuels;
- iv. Resulting in reduced water consumption;
- v. Emitting fewer irritating or toxic substances during installation or use; and/or
- vi. Resulting in decrease in production of toxic substances, or of substance with lower toxicity, upon disposal.

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1 Environmental Protection Department. Green Procurement. Retrieved 1 March 2016, from [http://www.epd.gov.hk/epd/english/how\\_help/green\\_procure/green\\_procure.html](http://www.epd.gov.hk/epd/english/how_help/green_procure/green_procure.html)

	<b>MAN 2      Quality, EHS and Energy Management System</b>
<b>Exclusion</b>	None.
<b>Objective</b>	To encourage the building management to implement systematic management systems that embrace quality, environmental, health and safety (EHS), and energy.
<b>Credit Attainable</b>	5 + 2 BONUS
<b>Credit Requirement</b>	<p>a) Quality Management System Certification</p> <p>1 credit where the building management operates a Quality Management System (QMS) certified to ISO 9001 Standards for individual building project/each building project in the building portfolio.</p> <p>b) Environmental Management System Certification</p> <p>1 credit where the building management operates an Environmental Management System (EMS) certified to ISO 14001 Standards for individual building project/each building project in the building portfolio.</p> <p>c) Occupational Health and Safety System in Operation</p> <p>1 credit where the building management operates an Occupational Health and Safety System (OHSAS) for individual building project/each building project in the building portfolio.</p> <p>d) Occupational Health and Safety System Certification</p> <p>1 BONUS credit where building management operates an OHSAS certified to BS OHSAS 18001 / ISO 45001 Standards for individual building project/each building project in the building portfolio.</p> <p>e) Integrative Management System</p> <p>1 credit where the building management operates an integrative management system consist of QMS, EMS and OHSAS for the recent 12 months of the first assessment submission for individual building project/each building project in the building portfolio.</p> <p>f) Energy Management System in Operation</p> <p>1 credit where the building management operates an Energy Management System (EnMS) for individual building project/each building project in the building portfolio.</p>

g) Energy Management System Certification

1 BONUS credit where the building management operates an EnMS certified to ISO 50001 Standards for individual building project/each building project in the building portfolio.

**Assessment**

Criteria

To demonstrate the compliance on the QMS and/or EMS, the Applicant shall provide a valid ISO 9001 certificate and/or ISO 14001 certificate to demonstrate that the building management company is operating the QMS and EMS in individual building project/each building project in the portfolio.

For the OHSAS and the EnMS, the Applicant may obtain the normal credit(s) by submitting the internal audit records of OHSAS and/or EnMS for the individual building project/each building project in the portfolio. To obtain both the normal credit(s) and BONUS credit(s), the Applicant shall submit a valid BS OHSAS 18001/ISO 45001 certificate and/or ISO 50001 certificate to demonstrate that the building management company is operating the OHSAS and EnMS in individual building project/each building project in the portfolio.

The Applicant may also obtain a credit for the implementation of integrative management system consist of QMS, EMS and OHSAS in the past 12 months of the first assessment submission. To demonstrate the compliance of this credit, the Applicant shall provide EITHER (i) the internal audit records of the integrative management system within the past 12 months of the first assessment submission or (ii) valid ISO 9001 certificate, ISO 14001 certificate and BS OHSAS 18001/ISO45001 certificate.

*\*Note: If the Applicant intends to provide certificate to demonstrate the compliance this credit, the Applicant is reminded that the certificate should be awarded to each of the building rather than just the head office.*

Documentation

The Applicant shall provide the following documents:

a) Quality Management System Certification

- i. A valid ISO 9001 certificate covering the individual building project/each building project in the building portfolio.

b) Environmental Management System Certification

- i. A valid ISO 14001 certificate covering the individual building project/each building project in the building portfolio.

c) Occupational Health and Safety System in Operation

*Approach 1*

- i. An internal checklist of the OHSAS system of the individual building project/each building project in the building portfolio addressing the following elements:
  - Auditing criteria to the internal audit;
  - Auditing criteria's compliance with the relevant management standard;
  - Whether the management practices are adhering to the auditing criteria; and
  - Implementation timeline for the non-compliance criteria.
- ii. A cover page of the internal audit checklist with a timestamp to demonstrate that the internal audit has been conducted within the recent 12 months of the first assessment submission; and
- iii. Endorsement on the internal audit checklist by the:
  - Representative employee [1] of the Building Management Company, whom has been appointed by the company's director or the management committee to oversee the internal auditing process and to ensure the objectivity and impartiality of the auditing process; and
  - Director/ Chairperson of the management committee showing that he/she confirm on the findings of the internal audit checklist.

*Approach 2*

- i. A valid BS OHSAS 18001/ISO 45001 certificate covering the individual building project/each building project in the building portfolio.

d) Occupational Health and Safety System Certification

- ii. A valid BS OHSAS 18001/ISO 45001 certificate covering the individual building project/each building project in the building portfolio.

e) Integrative Management System

*Approach 1*

- i. A valid set of ISO 9001 certificate, 14001 certificate and BS OHSAS 18001/ISO 45001 certificate.

*Approach 2*

- i. An internal checklist of the integrative management system covering QMS, EMS and OHSAS of the individual building

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1 Representative employee are those employees who have completed the relevant internal audit training through a professional training body. Certificate of completion shall be provided to demonstrate that the representative employee has completed the relevant internal audit training.

project/each building project in the building portfolio addressing the following elements:

- Auditing criteria to the internal audit;
  - Auditing criteria's compliance with the relevant management standard;
  - Whether the management practices are adhering to the auditing criteria; and
  - Implementation timeline for the non-compliance criteria.
- ii. A cover page of the internal audit checklist with a timestamp to demonstrate that the internal audit has been conducted within the recent 12 months of the first assessment submission; and
- iii. Endorsement on the internal audit checklist by the:
- Representative employee [1] of the Building Management Company, whom has been appointed by the company's director or the management committee to oversee the internal auditing process and to ensure the objectivity and impartiality of the auditing process; and
  - Director/ Chairperson of the management committee showing that he/she confirm on the findings of the internal audit checklist.

#### f) Energy Management System in Operation

##### *Approach 1*

- i. Manuals of the energy management system of the individual building project/each building project in the building portfolio;
- ii. Operation procedures of the energy management system of the individual building project/each building project in the building portfolio;
- iii. Policy of the energy management system of the individual building project/each building project in the building portfolio; and
- iv. Audit records of the Energy Management system of the individual building project/each building project in the building portfolio.

##### *Approach 2*

- i. A valid ISO 50001 certificate covering the individual building project/each building project in the building portfolio.

#### g) Energy Management System Certification

- i. A valid ISO 50001 certificate covering the individual building project/each building project in the building portfolio.

## **Background**

ISO 9001 [2] is an internationally recognised standard that specifies the requirements for a quality management system. It provides guidance and tools for organisations who want to ensure that their products and services meet the requirements of the customer and to improve the overall quality. This standard is based on a number of

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2 International Organization for Standardization. ISO 9001 Quality Management. Retrieved 1 March 2016, from [http://www.iso.org/iso/home/standards/management-standards/iso\\_9000.htm](http://www.iso.org/iso/home/standards/management-standards/iso_9000.htm)

quality management principles, including a strong customer focus, motivation and implication of top management, process approach and continual improvement.

ISO 14001 [3] is an internationally recognised standard that specifies requirements for an environmental management system. The system enables organisations to develop and implement policies and objectives which take into account the legal and other requirements, including the subscription of organisation and information on significant environmental aspects. It applies to those environmental aspects that the organisation identifies, controls and influences. However, it does not state the specific environmental performance criteria.

BS OHSAS 18001 / ISO 45001 [4] is an international standard which sets out the requirements for occupational health and safety management good practice for organisation with any scale. It provides guidance to help organisation design its own health and safety framework. BS OHSAS 18001 / ISO 45001 can also be applied to all types of organisations to help eliminate or minimise operational risks and hazards. The standard is designed to help organisation create the best possible working conditions and meet legal, industry and customer requirements.

ISO 50001 [5] is an international standard that supports organizations in all sectors to use energy more efficiently. The standard provides a framework for organizations to develop a policy for more efficient use of energy, fix targets and objectives, use data to better understand and make decisions, measure results, review how well the policy works and continually improve energy management.

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- 3 International Organization for Standardization. ISO 14000 Environmental Management. Retrieved 1 March 2016, from <http://www.iso.org/iso/home/standards/management-standards/iso14000.htm>
  - 4 BSI Group. Getting Started with BS OHSAS 18001 Occupational Health and Safety Management. Retrieved 1 March 2016, from <http://www.bsigroup.com/en-GB/ohsas-18001-occupational-health-and-safety/Introduction-to-BS-OHSAS-18001>
  - 5 International Organization for Standardization. ISO 50001 Energy Management. Retrieved 19 June 2019, from <https://www.iso.org/iso-50001-energy-management.html>

	<b>MAN 3 Environmental, Social and Governance (ESG) Disclosure</b>
<b>Exclusion</b>	None.
<b>Objective</b>	To encourage the management company or her related companies to have ESG reporting and to disclose its operational performance to the public.
<b>Credit Attainable</b>	1 + 1 Bonus
<b>Credit Requirement</b>	<p>a) Disclosure of Sustainability Policy and Targets</p> <p>1 credit where the management company or her related companies discloses sustainability policy and targets to the public.</p> <p>b) ESG Reporting</p> <p>1 BONUS credit where the sustainability report is prepared in accordance to a credible sustainability reporting guideline and have such sustainability report be disclosed to the public.</p>
<b>Assessment</b>	<p><u>Criteria</u></p> <p>a) Disclosure of Sustainability Policy and Targets</p> <p>The Applicant shall provide the sustainability policy and targets of the management company or her related companies. The scope of the sustainability policy is not regulated but it shall cover at least the environmental issues.</p> <p>b) ESG Reporting</p> <p>The Applicant shall provide ESG report, with such report composed under credible sustainability reporting guideline and be published to the public within the past 12 months.</p> <p><u>Documentation</u></p> <p>The Applicant shall provide the following documents:</p> <p>a) Disclosure of Sustainability Policy and Targets</p> <ol style="list-style-type: none"> <li>Sustainability policy and targets; and</li> <li>Evidence showing the sustainability policy and targets have been disclosed to public.</li> </ol> <p>b) ESG Reporting</p> <ol style="list-style-type: none"> <li>ESG report by the management company or her related companies published in the past 12 months of the first assessment submission and in accordance with one of the</li> </ol>



following credible sustainability reporting guidelines:

- GRI G4 Guideline in accordance to either “Core” or “Comprehensive” option; or
  - GRI Sustainability Reporting Standards in accordance to either “Core” or “Comprehensive” option; or
  - International Integrated Reporting Framework; or
  - Appendix 27 Environmental, Social and Governance Reporting Guide of the HKEX Main Board Listing Rules
- ii. O-chart showing the relationship between the reporting organization and the management company operating the individual building project/each building project in the building portfolio.
- iii. Independent verification statement to demonstrate that the ESG report fulfils to the corresponding standards.

## Background

Corporate sustainability reporting, also known as ESG Reporting, plays an important role in business sustainability and is rapidly becoming an essential business management tool. Its importance is recognised by companies, investors and regulators alike. ESG reporting provides a mean for businesses to better understand the impacts of their activities, set goals, measure performance and mitigate risks and identify opportunities [1].

Appendix 27 Environmental, Social and Governance Reporting Guide of the HKEX Main Board Listing Rules and GRI Sustainability Reporting Guidelines are some of the most widely used sustainability reporting framework in Hong Kong. They offer Reporting Principles, Standard Disclosures and an Implementation Manual for the preparation of sustainability reports by organisations, regardless of their size, sector or location.

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1 Business Environment Council Handbook: Understanding Materiality for Environmental, Social and Governance Reporting. Retrieved 1 March 2016, from [http://bec.org.hk/files/images/BEC\\_advisorygroups/BEC\\_ESG\\_Handbook\\_web.pdf](http://bec.org.hk/files/images/BEC_advisorygroups/BEC_ESG_Handbook_web.pdf)

	<b>MAN 4</b>	<b>BEAM Professional</b>
<b>Exclusion</b>	None.	
<b>Objective</b>	To facilitate the application for the BEAM Plus certification process and ensure the operation of the individual building project/each building project in the building portfolio complies with the BEAM Plus requirements.	
<b>Credit Attainable</b>	2	
<b>Credit Requirement</b>	<p>a) BEAM Accredited Personnel</p> <p>1 credit for having any person from the building management team to facilitate for the application of BEAM Plus certification, with such personnel accredited as BEAM Professional with EB v.2.0 or BEAM Affiliate credential <b>(Effective for building project(s) registered <u>BEFORE</u> 6 May 2020).</b></p> <p>1 credit for having any person from the on-site team of an individual building project/each building project in the building portfolio to facilitate for the application of BEAM Plus certification, with such personnel accredited as BEAM Professional with EB v.2.0 or BEAM Affiliate credential <b>(Effective for building project(s) registered on or <u>AFTER</u> 6 May 2020).</b></p> <p>b) Professionally Qualified Building Manager</p> <p>1 credit for having a Building Manager of individual building/building portfolio accredited as BEAM Professional with EB v.2.0 credential and certified with at least one professional corporate membership qualification (e.g. HKIH, HKIA, HKIE, HKIS (BS/PFM), RICS (BS/FM), IFMA, HKIFM, BSOMES, or equivalent).</p>	
<b>Assessment</b>	<p><u>Criteria</u></p> <p>a) BEAM Accredited Personnel</p> <p>The Applicant shall provide evidence to demonstrate that one person from the building management team is either an accredited BEAM Professional with EB v.2.0 credential or BEAM Affiliate, with such personnel employed with the building management team for at least 6 months prior to the time of first assessment submission <b>(Effective for building project(s) registered <u>BEFORE</u> 6 May 2020).</b></p> <p>The Applicant shall provide evidence to demonstrate that one person from the on-site team of an individual building project/each building project in the building portfolio is either an accredited BEAM Professional with EB v.2.0 credential or BEAM Affiliate, with such personnel employed with the building management team for at least 6 months prior to the time of first assessment submission <b>(Effective for building project(s) registered on or <u>AFTER</u> 6 May 2020).</b></p>	

b) Professionally Qualified Building Manager

The Applicant shall provide evidence that Building Manager is a BEAM Professional with EB v.2.0 credential and with at least 1 professional corporate membership qualification, with such person having to be employed as the Building Manager for at least 6 months prior to the time of first assessment submission.

Documentation

a) BEAM Accredited Personnel

- i. Name of the personnel from the building management team **(Effective for building project(s) submitting for first assessment submission BEFORE 6 May 2020)** / Name of the on-site personnel stationed at the particular building/building in the building portfolio **(Effective for building project(s) submitting for first assessment submission on or AFTER 6 May 2020)**;
- ii. Screen capture from HKGBC practitioner directory to show that the personnel stationed at the particular building/building in the building portfolio is either a BEAM Professional with EB v.2.0 credential or BEAM Affiliate on active qualification status; and
- iii. Documents such as meeting minutes, memo, internal emails, internal contact list, etc. showing the personnel has been stationed at the particular building/building in the building portfolio for at least 6 months.

b) Professionally Qualified Building Manager

- i. Name of the Building Manager;
- ii. CV of the Building Manager;
- iii. Screen capture from HKGBC practitioner directory to show that the Building Manager is either a BEAM Professional with EB v.2.0 credential on active qualification status;
- iv. Professional certificate of the Building Manager valid at the time of the first assessment submission;
- v. Documents such as meeting minutes, memo, internal emails etc. showing the involved personal has been working in the Building Management Company for at least 6 months; and
- vi. Organization chart to demonstrate the line of authority of the Building Manager.

**Background**

BEAM Professionals [1] are green building professionals accredited by the Hong Kong Green Building Council Limited (HKGBC) in various aspects of the entire green building life cycle. The key role of BEAM Professional is to integrate the latest green building standards and practices into building planning, design, construction and operation.

BEAM Affiliate [2] is a person accredited by HKGBC as being

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1 Hong Kong Green Building Council Limited. BEAM Professional. Retrieved 1 March 2016, from <https://www.hkgbc.org.hk/eng/beam-Professional.aspx>

2 Hong Kong Green Building Council Limited. BEAM Affiliate. Retrieved 1 March 2016, from  
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competent to support green building design, construction and operation. This qualification welcomes members of sub-professional or technical staff working in the construction/ real estate industry, interior design practitioners and recent degree graduates who are in the process of working towards a professional qualification. The credential also serves as an alternative route to become a BEAM Professional if one has not yet meet with the BEAM Professional requirement.

	<b>MAN 5      Staff Training and Resources</b>
<b>Exclusion</b>	None.
<b>Objective</b>	To ensure the staff training and technical resources are adequate for the Management, Operation and Maintenance (MO&M) of the individual building project/each building project in the building portfolio.
<b>Credit Attainable</b>	2
<b>Credit Requirement</b>	<p>a) Staff and Technical Resources</p> <p>1 credit for having adequate staff and technical resources to meet the M&amp;OM requirements of the individual building project/each building project in the building portfolio.</p> <p>b) Staff Training</p> <p>1 credit for providing adequate and periodic training for the staff responsible for the M&amp;OM of the individual building project/each building project in the building portfolio.</p>
<b>Assessment</b>	<p><u>Criteria</u></p> <p>a) Staff and Technical Resources</p> <p>The credit assesses whether there are adequate resources to cover for the management, operation and maintenance (MO&amp;M) of engineering system for the individual building project/each building project in the building portfolio <b>(Effective for building project(s) registered <u>BEFORE</u> 6 May 2020).</b></p> <p>The credit assesses whether there are adequate resources to cover for the different aspects of management, operation and maintenance (MO&amp;M) (e.g. engineering, customer services, property management, etc.) of the individual building project/each building project in the building portfolio. The scope of the MO&amp;M may be defined by the Applicant, but it must be reasonable and meets the operation of individual building project/each building project in the building portfolio <b>(Effective for building project(s) registered on or <u>AFTER</u> 6 May 2020).</b></p> <p>To demonstrate the compliance of the credit, the Applicant shall provide the organisation chart (O-chart) indicating the responsibility and job duties for the different personnel responsible for the MO&amp;M of the individual building project/each building project in the building portfolio. If the MO&amp;M of a certain system is outsourced, the Applicant shall provide the tender/ contract documents to substantiate that the sub-contractor to have sufficient resources for the MO&amp;M works. The Building Manager shall also submit a statement stating the staffing and resources are adequate for the O&amp;M of the building.</p>

b) Staff Training

The Applicant shall provide training records for the different personnel responsible for MO&M for the 12 months prior to the time of first assessment submission. The topics of the training are not regulated but the training shall be related to the operation of the building. The minimum training requirements are 15 hours per year for Building Manager and 3 hours per year for other staff members responsible for MO&M works.

Only staff members of the Building Management Company are included in the assessment. Staff members of sub-contractors are excluded from the assessment.

Documentation

The Applicant shall provide the following documents:

a) Staff and Technical Resources

- i. The O-chart of the individual building project/each building project in the building portfolio;
- ii. Summary table describing the engineering MO&M works applicable to the individual building project/each building project in the building portfolio (**Effective for building project(s) registered BEFORE 6 May 2020**) / Summary table describing the different aspects of MO&M works (e.g. engineering, customer services, property management, etc.) applicable to the individual building project/each building project in the building portfolio (**Effective for building project(s) registered on or AFTER 6 May 2020**);
- iii. *If MO&M works for certain system is outsourced*, tender/ contract documents requiring the sub-contractor to have sufficient resources for the MO&M works;
- iv. Statement stating the staffing and resources are adequate for the individual building project/each building project in the building portfolio; and
- v. Job duties and responsibilities of the staff responsible for the list of MO&M works stated in the summary table under item (ii).

b) Staff Training

- i. The O-chart of the individual building project/each building project in the building portfolio with building manager clearly indicated;
- ii. Staff training records for the 12 months prior to the time of first assessment submission; and
- iii. Table indicating the training hours for Building Manager and other staff members.

**Background**

Operation & maintenance skills, experience in handling customer services and adequate knowledge in servicing the operation of the buildings are some of the important factors in improving the overall building performance. The qualifications and experience of the

management, MO&M staff should be commensurate with the engineering systems, size and complexity of the buildings.

With different initiatives and requirements, such as the implementation of Buildings Energy Efficiency Ordinance (Cap 610) and Lifts and Escalators Ordinance (Cap 618), the MO&M staffs need to maintain their knowledge and skills to satisfy new demands from a building and its users. Therefore, the MO&M staffs are encouraged to have sufficient training sessions to acquire updated knowledge and uphold the latest requirements.

## MAN 6 Building Records

<b>Exclusion</b>	None.
<b>Objective</b>	To encourage effective documentation of essential building records for effective and organised practices of building management, operations and maintenance of communal area.
<b>Credit Attainable</b>	7 + 2 Bonus
<b>Credit Requirement</b>	<p>a) Essential Records</p> <p>1 credit per each type of building records listed below, for a maximum of 7 credits.</p> <ul style="list-style-type: none"> <li>i. Building and if any, alterations and additions plans [1] approved by Building Authority.</li> <li>ii. Structural and site formation plans [1] approved by Building Authority.</li> <li>iii. Drainage schematic drawings [1] approved by the Building Authority.</li> <li>iv. Plumbing schematic drawings [1] approved by the Water Supplies Department or endorsement by a licensed plumber licensed under Waterworks Ordinance (Cap. 102).</li> <li>v. Fire Services Installation (FSI) schematic drawings [1] approved by the Fire Services Department or endorsed by a registered contractor registered under Fire Service (Installation Contractors) Regulations (Cap. 95A).</li> <li>vi. History of maintenance works including records of inspection and replacements, certifications and statutory forms.</li> <li>vii. T&amp;C records and operation manuals for building services, mechanical components and installations.</li> <li>viii. Certification for the performance of specific building materials and components as well as warranties from specialist contractors or suppliers, including but not limited to water proofing materials, durable goods, finishes, etc.</li> <li>ix. Deed of Mutual Covenant, or <i>in the case where the development is fully owned by the project proponent</i>, management agreement together with a statement by the project proponent declaring that the development is fully owned by the Applicant.</li> </ul> <p>b) Enhanced Records</p> <p>1 BONUS credit per each type of the building records listed below, for a maximum of 2 BONUS credits.</p> <ul style="list-style-type: none"> <li>i. Drainage layout plans [1] approved by Building Authority.</li> </ul>

<sup>1</sup> Under normal circumstance, the project proponent shall provide EITHER the latest record plans and/or drawings that have been being submitted to relevant Government Departments or latest version of plans and/or drawings that have been endorsed by a qualified person.



- ii. Plumbing layout plans [1] approved by Water Supplies Department or endorsed by a licensed plumber licensed under Waterworks Ordinance (Cap 102).
- iii. FSI layout plans [1] approved by the Fire Services Department or endorsed by a registered contractor registered under Fire Service (Installation Contractors) Regulations (Cap. 95A).
- iv. As-fitted ELV schematic drawings and layout plans [2].
- v. As-fitted electrical schematic drawings and layout plans.
- vi. As-fitted gas schematic drawings and layout plans [2].

## Assessment

### Criteria

#### a) Essential Records

The number of credit(s) to be achieved shall be determined by the actual type of building records provided. The Applicant shall provide the complete, clear and formal building records that are outlined under the credit requirement.

#### b) Enhanced Records

The number of BONUS credit(s) to be achieved shall be determined by the actual type of building records provided. The Applicant shall provide the complete, clear and formal building records that are outlined under the credit requirement.

### Documentation

#### a) Essential Records

The Applicant shall provide the following document:

- i. Copy of the required building records specified in the credit requirement.

#### b) Enhanced Records

- i. Copy of the required building records specified in the credit requirement.

## Background

Building Owners and their Building Management Companies shall be obliged to keep the updated building records, whatever the age of their buildings. For effective maintenance and management of the buildings, a complete set of building records is essential and should therefore be kept by the Building Owners/ Building Management Companies.

For buildings that have been completed over a considerable period of time, some of the building records may not be kept in the possession

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2 For the portfolio assessment scheme, the project proponent must ensure that the records for this item is retained for all building projects within the portfolio.

by the project proponent. In this case, the project proponent may opt to approach relevant Government Departments to retrieve the buildings records or have a suitably qualified person to conduct an on-site survey and produce survey records.

<b>MAN 7 Building and Site Operation and Maintenance</b>	
<b>Exclusion</b>	For part b of the credit, building footprint exceeds 80% of the site area <u>and</u> undergoing <i>individual building assessment</i> .
<b>Objective</b>	To encourage planned inspection, maintenance and repairing of the building fabric, structure, and external areas in order to enhance safety and reduce environmental impacts.
<b>Credit Attainable</b>	2
<b>Credit Requirement</b>	<p>a) Building Maintenance</p> <p>1 credit for demonstrating the operation of a planned programme of regular inspection, cleaning and maintenance of the building's fabric and structural elements under the control of the Applicant.</p> <p>b) External Areas and Facilities</p> <p>1 credit for demonstrating the operation of a planned programme of regular inspection, cleaning and maintenance of external areas and facilities.</p>
<b>Assessment</b>	<p><u>Criteria</u></p> <p>a) Building Maintenance</p> <p>The Applicant shall provide documentation to demonstrate that the system of inspection, cleaning, maintenance and general repairs to the building fabric and structural elements are effective in maintaining reliability and prolonging service life of the individual building project/each building project in the building portfolio. Building fabric and structural elements shall include:</p> <ul style="list-style-type: none"><li>i. Building façade;</li><li>ii. Curtain wall; and</li><li>iii. External cladding.</li></ul> <p>b) External Areas and Facilities</p> <p>The following external areas and facilities which are under the control of the Applicant shall be assessed:</p> <ul style="list-style-type: none"><li>i. Roads and pavements;</li><li>ii. Hard and soft landscape areas;</li><li>iii. Stairs and ramps; and</li><li>iv. Recreational facilities.</li></ul> <p>The Applicant shall provide the planned programme of regular inspection, cleaning and maintenance of the external areas and facilities. The frequency of these activities is not regulated and it is subject to the Applicant's operational requirement. The Applicant shall</p>

also provide an undertaking letter stating that the frequency for inspection, cleaning and maintenance is sufficient.

*For individual building assessment*, the credit can be excluded if the building footprint exceeds 80% of the site area. *For individual building within a portfolio assessment*, the assessment for a particular building can be excluded if the particular building has a building footprint that exceeds 80% of the site area.

### Documentation

The Applicant shall provide the following documents:

#### a) Building Maintenance

- i. Maintenance procedures of the building fabric and structural elements;
- ii. Person responsible for the inspection, cleaning and maintenance of building fabric and structural elements;
- iii. Undertaking letter indicating the allocation of sufficient resources on the inspection and maintenance of building fabric and structural elements;
- iv. Records of inspection, maintenance and repairs for the 12 months prior to the time of first assessment submission; and
- v. Planned inspection, maintenance and repairs programme for the next 12 months.

#### b) External Areas and Facilities

- i. Person responsible for the inspection, cleaning and maintenance of external area and facilities;
- ii. Maintenance procedures of the external area and facilities, with clear indication of frequency of inspection, cleaning and maintenance;
- iii. Undertaking letter indicating the allocation of sufficient resources on the inspection and maintenance of external area and facilities;
- iv. Records of inspection, maintenance and repairs for the 12 months prior to the time of first assessment submission, with clear indication of frequency of inspection, cleaning and maintenance;
- v. Planned inspection, maintenance and repairs programme for the next 12 months, with clear indication of frequency of inspection, cleaning and maintenance; and
- vi. *For individual building within a portfolio and has a building footprint that exceeds 80% of site area*, document, such as drawings or plans to demonstrate that building exceeds 80% of site area.

### **Background**

Buildings tend to deteriorate more quickly when they are not properly maintained. In some extreme case, the improper maintenance of the buildings lead to major refurbishment or demolition. When buildings undergo refurbishment or reconstruction, they consume a significant amount of both energy and materials. This leads to the increase in unnecessary consumption of natural resources.

Appropriate planned inspection, cleaning and maintenance can bring multiple benefits to the buildings. First, it helps to retain the value of a building as an asset and as sustainable utility. Second it ensures the compliance with legal requirements, such as health and safety regulations. Third, it assists the Building Manager and building users in managing the building in a more efficient and an environmentally friendly way.

Regular inspections of building fabric, structural elements, external areas and facilities should be carried out. Long-term maintenance planning programme should be in place to ensure that all maintenance will be conducted in a continual manner. With proper maintenance, it is expected that the building could retain its asset and maintain its performance requirements.

**MAN 8 Building Services Operation and Maintenance**

<b>Exclusion</b>	None.
<b>Objective</b>	To encourage proper and efficient operation of the engineering systems by operation and maintenance programme.
<b>Credit Attainable</b>	5
<b>Credit Requirement</b>	<p>1 credit can be achieved for operating a planned programme of regular inspection, cleaning and maintenance of the following listed systems, for a maximum of 5 credits.</p> <ul style="list-style-type: none"> <li>i. Air-conditioning system;</li> <li>ii. Lift and Escalator system;</li> <li>iii. Electrical system;</li> <li>iv. Lighting system;</li> <li>v. Plumbing and Drainage system; and</li> <li>vi. Fire Services system.</li> </ul>

**Assessment**

Criteria

The number of credit(s) to be achieved shall be determined by the actual number of systems operating a planned programme of regular inspection, cleaning and maintenance. The Applicant shall provide the planned programme of regular inspection and maintenance of the Air-conditioning system, Lift and Escalator system, Electrical system, Lighting system, Plumbing & Drainage system and Fire Services system. The frequency of cleaning and inspection are not regulated and they are subject to the Applicant's operational requirement. However, the works of the planned programme shall not be less than the statutory requirement. The Applicant shall provide an undertaking letter stating that the frequency for inspection and maintenance is sufficient.

Documentation

The Applicant shall provide the following documents:

- i. Person responsible for the inspection, cleaning and maintenance of the building services system(s);
- ii. Maintenance procedures of the building services system(s), with clear indication of frequency of inspection, cleaning and maintenance;
- iii. Undertaking letter indicating the allocation of sufficient resources on the inspection and maintenance of the building services system(s);
- iv. Records of inspection, maintenance and repairs for the 12 months prior to the time of first assessment submission, with clear indication of frequency of inspection, cleaning and maintenance; and

- v. Planned inspection, maintenance and repairs programme for the next 12 months, with clear indication of frequency of inspection, maintenance and repairs.

### **Background**

Building Manager should ensure that the operation and maintenance programme is scalable to the operation of the individual building project/each building project in the building portfolio. A feasible operation and maintenance programme require management and technical staff to be knowledgeable, skilled, and well trained. It should also consist of a well-planned maintenance program.

Although it is a general practice for Building Manager to conduct routine inspections and maintenance works of building services systems to fulfil statutory requirements, a well-planned operation and sufficient maintenance works would maintain higher operation efficiencies, reduce breakdown rate, prolong the operation life of the systems. Moreover, the system would be able meet with the comfort, health, and safety requirements of the building users.

**MAN 9      Electronic Operation and Maintenance Platform**

<b>Exclusion</b>	None.
<b>Objective</b>	To improve the O&M efficiency of the building.
<b>Credit Attainable</b>	1 BONUS
<b>Credit Requirement</b>	1 BONUS credit for demonstrating that an electronic O&M platform has been operated in individual building project/each building project in the building portfolio by the Building Owner/ Building Management Company.
<b>Assessment</b>	<u>Criteria</u>

The Applicant shall demonstrate the Building Management Company has adopted an electronic O&M platform to manage the operational documentations in individual building project/each building project in the building portfolio. Description and screenshots or video capture of the electronic O&M platform shall be provided to justify the function of the electronic O&M platform.

*\*Note: The Applicant is free to propose any electronic O&M platform, so long as the electronic O&M platform provides the function of storing the documentation as required in the documentation section below.*

Documentation

The Applicant shall provide the following documents:

- i. Description describing the functioning of the electronic O&M platform; and
- ii. Screenshots or video capture showing the preview of the following documents for the individual building project/each building project in the building portfolio:
  - Building layout drawing [1];
  - Air side and water side schematic diagrams [1];
  - Equipment schedule of the MVAC, plumbing & drainage, electrical and lift & escalator systems; and
  - O&M manuals of the aforesaid systems.

**Background**

Conventionally, the O&M manuals are large volumes of information covering installation, operation and maintenance details for the packaged equipment, systems and plant facilities. Various feedbacks from the industry show that using the hard copy manuals in operations have caused problems for detailed component information from manufacturers. Significant time and effort have to be invested to clarify particular equipment details during maintenance, repair or even reordering. The hard copy formats of these manuals are also

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1      The name of the building should be clearly shown in these drawings.



inconvenient for storage and maintenance. They often become outdated when new equipment is installed.

The electronic O&M platform is a system that can store all the necessary contract documents, as-built drawings, equipment O&M manuals, etc into a digital storage. It ensures the building operators can retrieve the documents easily and allows effective communication among the management staff and the working team.

	<b>MAN 10 Renovation Management Plan</b>
<b>Exclusion</b>	None.
<b>Objective</b>	To reduce the potential for having indoor air quality, noise, waste and wastewater problems caused by renovation, fit-out and decoration works and where applicable demolition, with the consideration of the benefit of workers, and adjacent neighbours.
<b>Credit Attainable</b>	8
<b>Credit Requirement</b>	<p>a) Renovation Management Plan</p> <p>1 credit can be achieved for providing the renovation management plan and complying with the recommendation practices given by the Environmental Protection Department (EPD) for the each of the listed aspects during renovation, for a maximum of 4 credits:</p> <ul style="list-style-type: none"> <li>i. Indoor air quality;</li> <li>ii. Noise;</li> <li>iii. Wastewater; and</li> <li>iv. Waste.</li> </ul> <p>b) Implementation of Renovation Management Plan</p> <p>1 credit can be achieved for providing records for the past 24 months that the renovation management plan of each listed aspects has been implemented by the contractors during renovation, for a maximum of 4 credits:</p> <ul style="list-style-type: none"> <li>i. Indoor air quality;</li> <li>ii. Noise;</li> <li>iii. Wastewater; and</li> <li>iv. Waste.</li> </ul>
<b>Assessment</b>	<p><u>Criteria</u></p> <p>a) Renovation Management Plan</p> <p>The number of credit(s) to be achieved shall be determined by the actual number of listed aspects specified in the renovation management plan and in compliance with the EPD recommendation practices.</p> <p>The Applicant shall provide a renovation management plan including the following measures, at the minimum:</p> <ul style="list-style-type: none"> <li>i. Indoor air quality <ul style="list-style-type: none"> <li>• Measures to avoid indoor air contamination of adjacent normally occupied areas and common areas;</li> <li>• Measures to protect the air ducts, on-site storage or protection of installed absorptive materials; and</li> </ul> </li> </ul>

- Cleaning procedures to be employed.
- ii. Noise
  - Measures to restrict noisy works and use of noisy equipment during renovation, fit-out and decoration works.
- iii. Wastewater
  - Measures to restrict the discharge of the chemical wastes such as residual paint and solvent, into storm or foul drain.
- iv. Waste
  - Measures to dispose properly the waste generated from the renovation works; and
  - Measures to arrange with recyclers for regular collection schedule of the recyclable materials.

b) Implementation of Renovation Management Plan

The Applicant shall also provide implementation records covering the 24 months prior to the time of first assessment submission to demonstrate that the actions from the Renovation Management Plan have been properly implemented.

The number of credit(s) to be achieved shall be determined by the actual number of listed aspects in the implementation records.

Documentation

The Applicant shall provide the following documents:

a) Renovation Management Plan

- i. Renovation management plan;
- ii. Cross referencing table demonstrating that the procurement items listed in the criteria section above have been specified in the green purchasing plan;

b) Implementation of Renovation Management Plan

- i. 24 months implementation records, such as monthly reports or photo records to show that the renovation management plan was properly implemented during renovation, fit-out and decoration works, with the records covering the time period of 24 months prior to the time of first assessment submission.

**Background**

Noise, waste, dust and odours generated from various renovation activities result in various pollutions and nuisance. Implementation of the Renovation Management Plan would help to minimise the generation of nuisance and to reduce pollution at sources. Building Management Companies are advised to make reference to these guidelines in formulating house-rules to suit their specific buildings.

Practical guidance for the control of air pollution, noise, wastewater and waste disposal during renovation are available from EPD [1]. Even though the guidance focuses on managing the activities in occupied buildings, measures are also applicable in managing construction activities in new buildings. The guide provides recommendation in scheduling activities, source control, pathway interruption, protecting installed HVAC&R systems and equipment, and good housekeeping.

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1 Environmental Protection Department. Green Property Management. Pollution Problems & Practical Solutions. Retrieved 1 March 2016, from [http://www.epd.gov.hk/epd/english/greenproperty/poll\\_pro/poll\\_pro\\_ren.html](http://www.epd.gov.hk/epd/english/greenproperty/poll_pro/poll_pro_ren.html)

	<b>MAN 11      Green Cleaning</b>
<b>Exclusion</b>	None.
<b>Objective</b>	To encourage environmentally friendly cleaning products and procedures to protect human health and environmental quality.
<b>Credit Attainable</b>	2
<b>Credit Requirement</b>	<p>a) Implementation of Green Cleaning</p> <p>1 credit for implementing the green cleaning procedures/ practices.</p> <p>b) Use of Green Cleaning Detergent</p> <p>1 credit for demonstrating the use of at least 5% [1] of green cleaning detergents within the 12 months prior to the time of first assessment submission.</p>
<b>Assessment</b>	<p><u>Criteria</u></p> <p>a) Implementation of Green Cleaning</p> <p>The Applicant shall provide the green cleaning procedures/ practices addressing the following:</p> <ul style="list-style-type: none"> <li>i. Method statements for the routine cleaning procedures;</li> <li>ii. Purchase of green cleaning products whenever possible; and</li> <li>iii. Staff and training requirements.</li> </ul> <p>b) Use of Green Cleaning Detergent</p> <p>The Applicant shall demonstrate at least 5% (in terms of volume) of the cleaning detergents purchased within the 12 months prior to first assessment submission are certified green products.</p> <p><u>Documentation</u></p> <p>The Applicant shall provide the following documents:</p> <p>a) Implementation of Green Cleaning</p> <ul style="list-style-type: none"> <li>i. Green cleaning procedures/ practices, with section addressing the method statements for the routine cleaning procedures;</li> <li>ii. Catalogues and/or certificates of the green cleaning detergents specifying information such as the chemical content and how the chemical content makes it best efforts in fulfilling the desirable requirement under the Government Circular on Green Procurement in the Government;</li> </ul>

1 In the case of the portfolio assessment, the threshold shall apply to each individual building.

- iii. Purchase order, delivery notes and/or transfer notes demonstrating that the claimed green cleaning products delivered to the project; and
- iv. Staff and training requirements.

b) Use of Green Cleaning Detergent

- i. Summary table showing at least 5% of the total volume of cleaning detergents purchased in the past 12 months are green cleaning detergents; and
- ii. Purchase order, delivery notes and/or transfer notes of the green cleaning detergents to support the claimed percentage of green cleaning detergents.

**Background**

Using less hazardous cleaning products (e.g. biodegradable, low toxicity, lower VOC emission, reduced packaging, etc.) can minimise harmful effect on cleaning staff and occupants and help maintaining a good indoor air quality.

Furthermore, putting environmental consideration in the first priority when making choice in purchasing cleaning materials and products can reduce related water, waste, and ambient air pollution.

Green Seal [ 2 ] establishes requirements for cleaning service providers, including in-house and external cleaning services, to create a green cleaning system that protects human health and the environment.

Information on environmentally friendly cleaning products can be found in many organisations including: Green Seal, EPD [3] (publishes green specifications of cleansing products requirements and USEPA [4], etc.

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2 Green Seal. Retrieved 1 Mach 2016, from

<http://www.greenseal.org/>

3 Environmental Protection Department. List of Products with Recommended Green Specifications. Retrieved 1 Mach 2016, from

[http://www.epd.gov.hk/epd/english/how\\_help/green\\_procure/files/Green\\_Specifications.pdf](http://www.epd.gov.hk/epd/english/how_help/green_procure/files/Green_Specifications.pdf)

4 United States Government Environmental Protection Agency. Environmentally Preferable Purchasing (EPP). Cleaning. Retrieved 1 Mach 2016, from

<http://www.epa.gov/epp/pubs/products/cleaning.htm>

	<b>MAN 12 Integrated Pest Management</b>
<b>Exclusion</b>	None.
<b>Objective</b>	To ensure the management of pest is safe, hygienic and with limited environmental impacts.
<b>Credit Attainable</b>	1
<b>Credit Requirement</b>	1 credit for implementing an integrated programme for pest management.
<b>Assessment</b>	<p><u>Criteria</u></p> <p>The Applicant shall provide an integrated pest management plan, with the plan addressing the following issues:</p> <ul style="list-style-type: none"> <li>i. Roles and responsibilities of the pest control service provider;</li> <li>ii. Methods for pest control;</li> <li>iii. Identification of root causes of pest problems;</li> <li>iv. Pest-specific strategies;</li> <li>v. Use of pesticides;</li> <li>vi. Record keeping; and</li> <li>vii. Training requirements.</li> </ul> <p>Records shall also be submitted to demonstrate that the pest control measures have been in place within the 12 months prior to the time of first assessment submission.</p> <p><u>Documentation</u></p> <p>The Applicant shall provide the following documents:</p> <ul style="list-style-type: none"> <li>i. The integrated pest management plan adopted by the service provider;</li> <li>ii. Cross referencing table demonstrating that the pest management issues listed in the criteria section above have been specified in the pest management plan;</li> <li>iii. Pest control schedule showing frequency of the pest control; and</li> <li>iv. Pest control records within the 12 months prior to the time of first assessment submission.</li> </ul>
<b>Background</b>	<p>Pesticides pose risks to human health and the environment when users' directions of the products are not followed. Irresponsible use of pesticides, such as the excessive usage of pesticides, improper disposal of pesticides could contaminate the environment. Alternative or organic pesticides, despite that naturalness, can still result in the abovementioned environmental issues if they are not used properly. Building management should adopt pest control in ways that offer a means to reduce the risk.</p>

Integrated pest management (IPM) is an approach to pest control by utilising regular monitoring and record keeping to determine if and when treatments are needed. It employs a combination of strategies and tactics to keep pest numbers low enough to prevent unacceptable damage or annoyance. Biological, cultural, physical, mechanical, educational, and chemical methods are used in site-specific combinations to solve the pest problems. Chemical controls shall be used only if necessary. Even chemical controls have to be used, it shall be used in a form of least-toxic formulation. Educational strategies are used to enhance pest prevention and to build up support for the IPM program.

The USEPA promotes integrated pest management and provided guidelines on this matter to buildings, such as schools [1]. IPM represents a prudent approach to understanding and dealing with environmental concerns. Since IPM programme is a decision-making process instead of a rote method, it will always be able to take into account different kind of pest problems.

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1 United States Environmental Protection Agency. Managing Pests in Schools. Retrieved 1 March 2016, from <http://www2.epa.gov/managing-pests-schools>



	<b>MAN 13      User Guidance</b>
<b>Exclusion</b>	None.
<b>Objective</b>	To inform and educate the building users the environmental, comfort and health impacts of their activities and encourage them to change their behaviour in order to reduce the environmental impacts.
<b>Credit Attainable</b>	1
<b>Credit Requirement</b>	1 credit for providing user guide to encourage and promote environmentally friendly activities.
<b>Assessment</b>	<p data-bbox="572 712 660 736"><u>Criteria</u></p> <p data-bbox="572 781 1398 880">The Applicant shall provide a user guide which encourages and promotes environmentally friendly building use and activities. The user guide shall address the following environmental issues:</p> <ul data-bbox="572 925 1214 1126" style="list-style-type: none"> <li>i. Health and hygiene;</li> <li>ii. Energy efficient use;</li> <li>iii. Water Conservation;</li> <li>iv. Sustainable materials for fit-out and redecoration;</li> <li>v. Waste management; and</li> <li>vi. Indoor environmental quality.</li> </ul> <p data-bbox="572 1171 1398 1270">Evidence shall also be submitted to demonstrate that the user guide has been distributed to the building users. Feedback channel shall also be established for continual improvement.</p> <p data-bbox="572 1314 756 1339"><u>Documentation</u></p> <p data-bbox="572 1384 1198 1408">The Applicant shall provide the following documents:</p> <ul data-bbox="572 1453 1398 1722" style="list-style-type: none"> <li>i. User guide;</li> <li>ii. Cross referencing table demonstrating that the environmental issues listed in the criteria section above have been indicated in the user guide;</li> <li>iii. Distribution records showing the user guide has been distributed to the building users; and</li> <li>iv. Evidence showing that the feedback channel(s) between the building users to the Building Manager has been established.</li> </ul>
<b>Background</b>	<p data-bbox="572 1767 1398 2072">The improvement of building performances and the mitigations of environmental impacts during building operation lies with the co-operation of the tenants or sub-owners of premises. Normally, users are not aware of hygiene, comfort and environmental issues and their impact to the overall operation of the building. It is a good practice to provide proper guidance on the design and the use of premises to enable user to understand the importance of the overall building performance. The user guide should contain guidance and information of applicable regulations, recommendations and/or requirements</p>

regarding the internal decorations and fit-out works in occupied areas.

## **MAN 14      Green Lease**

<b>Exclusion</b>	Individual building project without any tenants.
<b>Objective</b>	To ensure the Building Manager and building users can work together to achieve sustainable operation of the building.
<b>Credit Attainable</b>	2
<b>Credit Requirement</b>	<p>a) Green Lease Guideline</p> <p>1 credit for providing green lease guideline to the tenants of the building.</p> <p>b) Implementation of Green Lease</p> <p>1 credit for implementing green lease to the tenants of the building.</p>
<b>Assessment</b>	<p><u>Criteria</u></p> <p>The Applicant shall demonstrate the provisions of the green lease between the Building Manager and the tenants. Either a 'Soft' or 'Hard' implementation approach is acceptable for the assessment. The contents of the green lease are not regulated and shall be subject to the actual needs and operation of the Applicant.</p> <p><u>Documentation</u></p> <p>The Applicant shall provide the following document:</p> <p>a) Green Lease Guideline</p> <p>i. Green lease between Building Manager and the tenants.</p> <p>b) Implementation of Green Lease</p> <p>i. Records, such as confirmation letter or photo records to show that the green lease is being implemented with the tenants.</p>
<b>Background</b>	<p>Green lease is an arrangement that offers substantial benefits, in both quantitatively and qualitatively, to both Building Owner/ Building Management Company and the tenants by [1]:</p> <p>i. Improving environmental performance of the leased space by securing a few critical commitments from both landlord and tenants;</p> <p>ii. Aligning financial incentives so that both parties benefit from adopting green measures; and</p>

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1 Jones Lang LaSalle. Perspectives on Sustainable Tenant Strategies. Retrieved 1 March 2016, from <http://www.joneslanglasalle.com/SiteCollectionDocuments/United%20States/JLL-Perspectives-on-sustainable-tenant-strategies.pdf>

- iii. Improving environmental data reporting transparency to enable landlord and tenants to measure success against agreed-upon goals.

HKGBC has issued the “Green Tenancy Driver for Office Buildings” [2] in 2014. The Guide introduces a 5-stage roadmap, including Green Awareness, Voluntary Pilot Run, Graduated Collaborative Approach, Split Incentive Consent and Green Lease. It aims at encouraging landlord-tenant collaboration to create a sustainable working environment.

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2 Hong Kong Green Building Council Limited. Green Tenancy Driver for Office Buildings. Retrieved 1 March 2016, from <https://www.hkgbc.org.hk/eng/got.aspx>

<b>MAN 15 Educational and Promotional Programme</b>	
<b>Exclusion</b>	None.
<b>Objective</b>	To encourage behavioural change through educational and promotional programme.
<b>Credit Attainable</b>	2
<b>Credit Requirement</b>	<p>Maximum 2 credits for Building Manager to advocate the behavioural change of building users in respect of Management by:</p> <ul style="list-style-type: none"><li>i. Organising educational seminar/ promotion campaign; or</li><li>ii. Arranging workshop for building users to read through and review the building user guide; or</li><li>iii. Promoting or participating in Hong Kong Green Building Week organised by Construction Industry Council (CIC) and the Hong Kong Green Building Council Limited (HKGBC).</li></ul>
<b>Assessment</b>	<p><u>Criteria</u></p> <p>Credits can be achieved when the Applicant organises at least one of the activities within the past 12 months prior to the time of first assessment submission.</p> <p><u>Documentation</u></p> <p>The Applicant shall provide the following documents:</p> <ul style="list-style-type: none"><li>i. Promotional materials such as posters, notice of the programme together with indication describing the name and date of the event; and</li><li>ii. Record photographs;</li></ul>
<b>Background</b>	BEAM Plus encourages the Applicant to transfer knowledge through seminar or exhibition for building users, so that the building users can acquire the necessary knowledge on green building and be able to appreciate the merits and importance of green building.

	<b>MAN 16 Recognition and Appreciation Awarded from Other Organisations</b>
<b>Exclusion</b>	None.
<b>Objective</b>	To recognise the effort of achieving previous BEAM/ BEAM Plus certifications and/or similar awards organised by other organisations.
<b>Credit Attainable</b>	1 + 2 Bonus
<b>Credit Requirement</b>	<p>a) BEAM / BEAM Plus Certified Building 1 credit for the individual building project/each building project in the building portfolio certified under BEAM Plus Version 1.1 or 1.2/ BEAM 4/04 or 5/04.</p> <p>b) Environmental Award / Certification Scheme / Campaign Issued by a Recognizable Association Maximum 2 BONUS credits for obtaining the following listed environmental award/ certification scheme/ campaign:</p> <ul style="list-style-type: none"> <li>i. EarthCheck Certification;</li> <li>ii. Green Building Award;</li> <li>iii. Green Globe Certification;</li> <li>iv. CLP Green<sup>PLUS</sup> Award;</li> <li>v. Hong Kong Awards for Environmental Excellence (HKAEE) – Property Management Sector Award;</li> <li>vi. Hong Kong Green Mark Certification Scheme;</li> <li>vii. Sustainable Building Index;</li> <li>viii. Voluntary Building Assessment Scheme (VBAS) – Environmental Awareness Quality Label; and</li> <li>ix. Other green building related awards/ certification schemes/ campaigns which are not listed above.</li> </ul>
<b>Assessment</b>	<p><u>Criteria</u></p> <p>Only a valid BEAM/ BEAM Plus certificate shall be eligible to achieve the credit via this path. For BEAM 4/04 and 5/04 certified building, it shall be only considered as valid when the project was awarded less than 60 months prior to the time of first assessment submission.</p> <p>The Applicant shall provide valid certificate(s) at the time of first assessment submission in order to achieve the BONUS credit(s). 1 BONUS credit can be achieved for obtaining each of the listed environmental award/ certification scheme/ campaign. For the certificate(s) without expiry date, it shall be only considered as valid when it was awarded less than 60 months prior to the time of first assessment submission.</p>

### Documentation

The Applicant shall provide the following document:

- a) BEAM / BEAM Plus Certified Building
  - i. A copy of the BEAM / BEAM Plus certificate(s) valid at the time of first assessment submission.
- b) Environmental Award / Certification Scheme / Campaign Issued by a Recognizable Association
  - i. A copy of the certificate(s) issued by a recognizable association and valid at the time of first assessment submission.

### **Background**

In Hong Kong, there are numerous environmental related awards/ certification schemes/ campaigns which are organised for the Building Manager. These awards/ certification schemes/ campaigns provide an opportunity for Building Manager to showcase their efforts and commitments in managing and operating their building in a green and sustainable way and be recognized for their efforts.

In order for the certificate to be granted to the Building Manager, the Building Manager shall be required to demonstrate their commitments in environmental protection and green management.

## 8 Appendix

### 8.1 Glossary

<b>Alternative Assessment Method</b>	Proposed criteria and assessment method submitted by Applicants when seeking alternative means of compliance with a particular credit.
<b>Appeals</b>	The process whereby Applicant's may appeal, a separate published charge, the allocation of individual credits, with First Appeal submissions reviewed by the BSL TRC and Final Appeals handled by HKGBC.
<b>Applicant</b>	The party authorised to seek BEAM Plus certification of the project (typically the client, occupier, tenant or representative therefore) whose will form a contractual relationship with HKGBC and BSL in the certification process.
<b>Baseline</b>	A line serving as the basis for comparison in Performance-based approach.
<b>BEAM Assessors</b>	A person engaged to conduct an independent assessment of the Project submissions on behalf of BSL and validated by BSL TRC.
<b>BEAM Plus Category</b>	In BEAM Plus for Existing Buildings, BEAM Plus Section refers to assessment sections such as MAN P1 - Green Purchasing Plan, MWA P1 - Waste Recycling Facilities, etc.
<b>BEAM Plus Framework</b>	The rating systems, assessment standards, credit criteria, training and examination processes applied to certification and accreditation under BEAM Plus for New Buildings, Existing Buildings and Interiors.
<b>BEAM Plus Grading</b>	The outcome of a certification assessment of a building project expressed as a performance level of Bronze (above average), Silver (good), Gold (very good) or Platinum (excellent).
<b>BEAM Pro</b>	A trained professional engaged by the Applicant to help integrate sustainability measures into the project and facilitate information submissions for assessment.
<b>BEAM Affiliate</b>	A BEAM Affiliate is a person accredited by the HKGBC as being competent to support green building design, construction and operations. The credential provides an individual who cannot yet meet the BEAM Pro requirement with an alternative route to become a BEAM Pro.
<b>BEAM Society Limited</b>	The independent, not-for-profit, member-based organisation that owns and operates BEAM Plus and undertakes assessments, training and examinations as a basis for certification and accreditation by HKGBC.
<b>BSL Coordinator</b>	An officer of the BSL that maintains day-to-day liaisons between the Applicant, the BSL, and the assigned BAS for the project.
<b>Building Management System</b>	BMS uses computer-based monitoring to coordinate, organise, and optimise building control subsystems, including HVAC, lighting, equipment scheduling, and alarm reporting. Sometimes known as Building Automation System.



<b>Building Manager</b>	A person that has the function of controlling or directing the management, operation and maintenance of individual building project/each building project in the building portfolio.
<b>Building Portfolio</b>	A group of permanent or semi-permanent building projects.
<b>Building Project</b>	Tower, complex, arcade, structure, etc., that is either permanent or semi-permanent on which the BEAM Plus Existing Buildings Assessment is carried out.
<b>Central Building Services</b>	Independent central plant equipment (i.e. air-conditioning, lighting, electrical installations and lifts and escalators) in the building project that are controlled by the landlord and not by the Applicant.
<b>Certificate Validity</b>	The duration for which a BEAM Plus certificate and grading remain effective and officially recognised by the BSL.
<b>Certification Scope</b>	The construction floor area of the project, defined by the footprint or boundary of the space being leased or occupied, and its associated interfaces with its surroundings.
<b>Chloro-fluorocarbons</b>	CFCs cause ozone depletion when released into the atmosphere.
<b>Commissioning</b>	The process of putting Building Services systems into active service. This includes testing and adjusting HVAC, electrical, plumbing and other systems to assure proper balancing and adherence to design criteria, and instructing building representatives in their use.
<b>Compliance</b>	Demonstration of fulfilment of a particular credit requirement under BEAM Plus, furnished through the provision of information as specified in the relevant grading system and submission template.
<b>Credit</b>	In BEAM Plus Existing Buildings, Credit refers to credit(s) allocated for each BEAM Plus Section and credits are used to determine the category grade and overall grade according to the number of credits achieved.
<b>Credit Interpretation Request</b>	The process whereby Applicants can seek technical and administrative guidance from BSL TRC on the application of BEAM Plus credits to their projects.
<b>Embodied energy</b>	Embodied energy is the energy used during the entire life cycle of a product, including its manufacture, transportation, and disposal, as well as the inherent energy captured within the product itself.
<b>Environmentally Manufactured Materials</b>	Materials that are produced by manufacturer with a recognised environmental management system, EMS in place (such as ISO 14001:2004). The EMS shall help the manufacturer minimise how their operations (processes etc.) negatively affect the environment (i.e. cause adverse changes to air, water, or land), comply with applicable laws, regulations, and other environmentally oriented requirements, and continually improve in the above.
<b>Exfiltration</b>	Air leakage through cracks and interstices and through the ceilings, floors, walls and the envelope.
<b>Exhaust air</b>	Air is removed from a space and discharged outside the building project by mechanical or natural ventilation systems.

<b>First Assessment Submission</b>	<p>First assessment submission refers to the date when the initial assessment is formally accepted by BSL.</p> <p>For example, if the project has both PA and FA, then it would be the date when BSL formally accepts the project for PA submission. If the project has only FA, then it will be the date when BSL formally accepts the project for FA submission.</p>
<b>FSC Certification</b>	A certification system for timber products which confirms that timber has been harvested in a sustainable manner.
<b>Global Warming Potential</b>	GWP provides a measure of the potential for damage that a chemical has relative to one unit of carbon dioxide, the primary greenhouse gas.
<b>Green cleaning</b>	Green cleaning is the use of cleaning products and practices that have lower environmental impacts than conventional products and practices.
<b>Hong Kong Green Building Council Limited</b>	The industry body established in 2009 to coordinate efforts towards green building in Hong Kong. HKGBC certifies BEAM Plus projects and accredits BEAM Pro and BAS.
<b>Hydro-chlorofluorocarbons</b>	HCFCs cause ozone depletion when released into the atmosphere.
<b>Hydro-fluorocarbons</b>	HFCs are commonly used to replace HCFC refrigerants to reduce the OPD, however HFCs refrigerants have a high GWP.
<b>Individual building assessment</b>	A single building project attempting a single BEAM Plus Existing Buildings Assessment.
<b>Infiltration</b>	Infiltration is uncontrolled air leakage into conditioned spaces through unintentional openings in ceilings, floors, and walls from unconditioned spaces or the outdoors.
<b>Management, Operation &amp; Maintenance (MO&amp;M)</b>	Series of programme(s) formulated by the management company with the purpose of cleaning, maintaining, operating, managing, servicing, etc. the building project in good condition.
<b>MVAC</b>	Mechanical ventilation and air-conditioning installations.
<b>Normally Occupied Areas</b>	Normally occupied areas are enclosed areas where people normally spend more than 1 hour there. Examples include activity room, auditorium, conference room, classroom, exhibition hall, hotel guest room, hotel lobby, indoor swimming pool and sport hall, library, lecture theatre, office, restaurant, retail shop, etc.
<b>Not Normally Occupied Areas</b>	Not normally occupied areas are enclosed areas where people normally stay less than 1 hour there. Examples includes corridors, entrance and lift lobby (except hotel lobby), locker room, plantroom, stairway etc.
<b>Ozone Depleting Potential</b>	ODP of a chemical compound is the relative amount of degradation to the ozone layer it can cause.
<b>Performance Categories</b>	The areas into which BEAM Plus criteria are divided based on their influence on the sustainability performance of a project (site, design and construction management, materials, energy use, water use, indoor environmental quality, innovations and performance enhancements).

<b>Potable Water</b>	Water that is safe enough to be consumed by humans, or used with low risk of immediate or long-term harm. Although the quality of water supplied to buildings in Hong Kong is strictly controlled, the quality of water drawn from consumers' taps may sometimes be affected by the condition of the inside plumbing such as discolouration from rusty pipes. Consumers are responsible for proper maintenance of internal plumbing and are required to engage a licensed plumber if the water quality is found to be affected due to defects in the inside plumbing.
<b>Pre-requisite</b>	Assigned credits, either legal requirements or key performance aspects (relating to management, materials aspects and water use), that must be satisfied to start the BEAM Plus assessment and obtain the certification.
<b>Project space</b>	The assessment area of the BEAM Plus for Existing Buildings certified area.
<b>Registration/ Registered Projects</b>	The first step in seeking formal certification under BEAM Plus. Registered projects, subject to payment of a specified fee, are listed within the BSL projects database for public information.
<b>Submissions Documents</b>	Documentation (including drawings, specifications, photographs, reports, signed confirmations, etc., as specified under each BEAM Plus credit) required by the BSL to conduct the certification assessment of a project.
<b>Technical Review Committee</b>	The committee within the BSL that oversees the implementation and progress monitoring of BEAM Plus certification assessments, and resolves technical issues and Credit Interpretation Request.
<b>Unitary air- conditioning unit</b>	As defined in decentralised air-conditioning system.
<b>Variable refrigerant flow</b>	Variable refrigerant volume flow in a unitary air-conditioner where the cooling supply to the conditioned space is adjusted by modulating the flow of refrigerant.
<b>Variable speed drive</b>	A motor drive that controls the motor speed over a continuous range. This usually refers to the motor drive for HVAC's fans or pumps.