

FREQUENTLY ASKED QUESTIONS ON GREEN MARK CERTIFICATION



For more info/clarification, please email to bca_greenmark@bca.gov.sg.

FAQ

Non Residential Buildings NRB: 2015

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Residential Buildings RB: 2016

| General Questions On Green Mark Certification | |
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| Q1 | Can a project score for Certified Rating under GM NRB: 2015 or GM RB: 2016? |
| | Gold rating is the minimum rating under the voluntary certification of NRB: 2015 or RB: 2016. |
| Q2 | Do I need to comply with GM NRB: 2015 - Non-residential buildings and GM RB: 2016 for residential buildings for Building regulatory submission and compliance ? |
| | No. For regulatory submission and compliance for building plan approval refer to the Code and regulations spelled out in the following link : https://www.bca.gov.sg/EnvSusLegislation/Environmental_Sustainability_Legislation.html |
| Q3 | What is the validity period of Green Mark certification, in general? |
| | Green Mark certification is valid for 3 years from date of Temporary Occupation Permit or date of Letter of Green Mark Award issued by BCA, whichever is later. |
| Q4 | What are the stages of Green Mark certification? |
| | There are 3 main stages in Green Mark certification. Stage 1- Pre-assessment - This stage is optional, used mainly where Project team members are unfamiliar with the criteria and require clarifications. Stage 2- Actual assessment (Detailed checks on calculations and document supporting the proposed sustainable targets) Stage 3- Site verification conducted after project has attained Temporary Occupation Permit (to verify that the project has incorporated the committed design features and system performance). |
| Q5 | When will the letter of award and certificate be given out? |
| | BCA will issue the letter of award(LOA) on completion of the Green Mark assessment. The LOA will be issued approximately 3 weeks after the clearance of all Green mark document submission. The LOA can be awarded at any time of the year but the certificate for the Award will be issued in May/ June during the BCA awards ceremony. The certificate for the Award can also be collected at BCA office after the BCA awards ceremony for non-attendees of the awards ceremony. |
| Q6 | For mixed development projects; which criteria requirement does the project need to meet? |
| | For mixed use development, such as Residential and Commercial mixed use development, the development will be assessed using both GM NRB: 2015 for the non-residential component and GM RB: 2016 for the residential component. |

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| Q7 | <p>How to score points for the following in a mixed use development?</p> <ul style="list-style-type: none"> — Car Park Lighting & Ventilation Energy — Concrete Usage Index (CUI) Calculation — Green Individuals — Green Plot Ratio |
| | <p>Car Park Energy : For mixed used development sharing the same carpark, the energy consumption for carpark’s lighting is prorated based on the GFA for residential and non-residential portion.</p> <p>Concrete Usage Index (CUI) Calculation: For stacked development or projects that cannot be physically divided, same value is adopted for residential and non-residential portion.</p> <p>Green Individuals: For mixed used development; if the GMM/ GMP is a team member designing the whole development, the same GMP qualifies for points for both sets of the criteria.</p> <p>Green Plot Ratio: For stacked development or projects that cannot be physically divided, same value is adopted for residential and non-residential portion.</p> |
| Questions On Green Mark Application | |
| Q8 | <p>Is there a need to apply for Green Mark certification and assessment if the project is interested only in meeting the minimum Environmental Sustainability requirement for building plan approval?</p> |
| | <p>If the project is interested only to meet the minimum Environmental Sustainability requirement for building plan approval; then there is no need to apply for Green Mark certification and assessment. The minimum Environmental Sustainability requirement for BP approval can be found in this link: https://www.bca.gov.sg/EnvSusLegislation/Environmental_Sustainability_Legislation.html</p> <p>Green Mark certification is a voluntary certification. Developer or Building Owner who are keen to pursue voluntary Green Mark certification may apply for the assessment of their development/ building to ascertain the Green Mark rating (https://www.bca.gov.sg/GreenMarkOnline/). Assessment fees is payable for Green Mark certification.</p> |
| Q9 | <p>If the development has more than 2 buildings and each building was submitted under different BP submissions, does the Building Owner need to apply separate Green Mark certification?</p> |
| | <p>Green Mark certification is not bound by the construction phases or how BP submission was made. Generally, buildings within the same development would be assessed under one assessment and certification. However, as Green Mark certification is a voluntary scheme, the detailed certification scope can be discussed and determined on a case to case basis and it can be different from that of the building plan submission.</p> |

| Questions On Green Mark Pre Assessment | |
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| Q10 | Why is pre-assessment stage optional? |
| | <p>The pre-assessment meeting involves meeting project team who are unfamiliar with Green Mark criteria. As the members of the industry are now well-informed of the Green Mark criteria and that tools and comprehensive detailed technical manuals are available in BCA website. Project team can choose to proceed straight into the actual assessment to speed up the certification process. Green Mark Criteria and Technical manuals can be found at https://www.bca.gov.sg/GreenMark/green_mark_criteria.html.</p> |
| Questions On Green Mark Pre Requisites | |
| Q11 | What are the pre-requisite requirements? |
| | <p>Green Mark rating are awarded based on 2 main parts:</p> <p>1) Meeting the GREEN MARK points specific to the rating; i.e. Green Mark Platinum ≥ 70 and above Green Mark Gold^{PLUS} ≥ 60 to < 70 Green Mark Gold > 50 to < 60</p> <p>2) Meeting all the applicable pre-requisite requirement. Pre-requisite requirements are mandatory, e.g. maximum allowable RETV or ETTV, minimum points score for use of certified sustainable products etc.</p> <p>Project team should refer to the respective GM criteria for the complete list of pre-requisite criteria.</p> |

| Questions On Green Mark - Climatic Response Design | |
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| Q12 | <p>Integrated Landscape and Waterscape: Adoption of >50% native species:</p> <p>1) How should the percentage of native plants be computed? By leaf area, ground area, or by quantity of species?</p> <p>2) Must the plants be strictly native to Singapore? What if the description says it is native to the 'Malaysian Peninsula' but not specifically 'Singapore'?</p> |
| | <p>1) The percentage of native plants shall be computed by quantity of species.</p> <p>2) Please refer to the "Native to Singapore" species list which can be found in the NParks Flora & Fauna Website – https://florafaunaweb.nparks.gov.sg.</p> |
| Q13 | <p>If the project team uses the simulation method to show compliance to Tropical Façade Performance requirement -</p> <p>1) Will Green Mark points be awarded for heat load reduction even though not all parameters listed in the notional baseline are met?</p> <p>2) Can heat load reduction score be prorated? If project achieved 8% heat load reduction, is it possible to prorate the score? E.g. (1/5) x8= 1.6 point</p> |
| | <p>1) The notional baseline requirement allow design to show compliance without carrying out the more intensive simulation method. However, if the project design could not meet the listed notional baseline, then simulation method can be adopted to show compliance and establish the heat load reduction.</p> <p>2) Yes, the Green Mark points can be prorated.</p> |
| Q14 | <p>Integrative Design Process-What are the supporting document/ evidence acceptable to show that design charrettes took place?</p> |
| | <p>The acceptable documents include: notes of meeting recorded for design charrettes, reports, photographs etc.</p> |
| Q15 | <p>Integrated Landscape and Waterscape - (iv) Sustainable Storm water Management : What kind of treatment standards does the project need to adhere to?</p> |
| | <p>The project must meet the water treatment requirements of PUB's standard on ABC waters certification.</p> |

| Questions On Green Mark - Building Energy Performance | |
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| Q16 | If a project is designed with more than 1 type of air-conditioning system, how shall the air-conditioning systems be accounted? |
| | If the air-conditioning system accounts for more than 10% of the building cooling load, it must be computed and pro-rated according to the cooling load of each system. |
| Q17 | What is the Nominal Receptacle load for retail developments for energy savings calculation? |
| | There is no baseline reference value for receptacle load in retail space. The reference load and proposed load in energy modelling will be kept as same for receptacle. Hence there is no savings claimed. |
| Q18 | How are the interpretation of GM NRB: 2015 criteria P5 and 2.1b for Lighting efficiency? |
| | For Pre requisite P.5 Lighting Efficiency and Controls- All lighting efficiency needs to comply with SS530 while lighting lux level needs to comply with SS531 this includes external lighting. For 2.1b Lighting System Efficiency-Energy saving is not allowed for external and façade lighting. |
| Q19 | Renewable Energy Do projects need to do a Feasibility Study to qualify for Solar ready roof criteria? E.g. a project aims to score 0.5 points for 2.3b spatial readiness but no feasibility study has been conducted. Can spatial readiness qualify 0.5 points ? |
| | A Solar Feasibility Study should be done first to check if the project is ready for solar energy generation and at what capacity. |

| Questions On Green Mark - Resource Stewardship | |
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| Q20 | Are products or equipment which are certified by overseas certification bodies eligible for Green Mark points? |
| | Green Mark points can be accorded to products and / or equipment certified by recognised local certification bodies. |
| Q21 | Sustainable Products : Can the use of a single certified product, i.e. waterproofing qualify for Green Mark points under both Functional System and Singular Sustainable Product Outside of Functional System? |
| | Products reported to score under functional system shall not be scored again under the singular system. |
| Q22 | Can Sustainable products used to fulfil a pre-requisite requirement, i.e. a certified chiller is used to meet P.4 Air Conditioning Total System and Component Efficiency score Green Mark point in 3.2c sustainable products? |
| | Yes. |
| Q23 | Embodied Carbon : Please advise if products such as M&E equipment e.g. pumps, switchboard and chiller could be included carbon footprint report ? |
| | Yes, these building products can be included in embodied carbon calculation under Advanced Green Efforts section. Ensure that the embodied carbon calculation include details on the: List of materials used within the product, Source of emission data and details of the standard adopted for the embodied carbon calculation. |
| Q24 | Criteria 3.1c for Alternative Water Sources, Can project qualify for Green Mark points where NEWater will be provided at a later stage? |
| | Green Mark points can be awarded for projects where NEWater network is ready and NEWater will be supplied within validity of the Green Mark certificate. |

| Questions On Green Mark - Smart and Healthy | |
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| Q25 | Criteria 4.1a for Occupant Comfort, how many responses are required for: Post Occupancy Evaluation? |
| | The Post Occupancy Evaluation sample size should be at least 10% of the occupant population or minimum 10 if there is less than 100 occupants. The submission should also include corrective actions taken to address the issues raised by the respondents. |
| Questions On Green Mark - Advance Green Feature | |
| Q26 | Criteria 5.2: Complementary Certifications is PUB's Water Efficient Building (WEB) Certification considered as a complementary certification? |
| | PUB's Water Efficient Building (WEB) certification has been incorporated in the Green Mark criteria as such there will not be additional Green Mark points accorded as a complementary certification. For examples of Complementary Certifications, please refer the GM NRB:2015 Technical guide and requirements. |