FAQs for of Green Mark Incentive Scheme

Q1: Who is eligible for the Green Mark Incentive Scheme (GMIS)?

A1: All private developers, building owners, project architect and M&E engineers will be eligible for the enhanced incentives if the project development meets the following criteria:

a. The development is a new private development or major retrofitted building with a Gross Floor Area of at least 2,000 square metres.

b. The incentives also apply to architect and M&E engineers who are involved in public developments with GFA of at least 2,000 square metres;

The amount of incentive is highlighted in Table 1 of the website: http://www.bca.gov.sg/GreenMark/GMIS.html

The scheme will not be applicable to the follows:

a. Private developments, including additions and alterations to an existing building where the temporary occupation permit (TOP) have been granted before 15 Dec 2006 by the Commissioner of Building Control;

b. Retrofitted buildings in which retrofitted works is completed before 15 Dec 2006; and

c. Developments or buildings for which a cash incentive under this scheme has been granted.

Q2: Are overseas projects developed by local firms eligible for the Green Mark Incentive Scheme (GMIS)?

A2: No. As a key initiative under BCA’s Green Building masterplan to promote sustainability of Singapore’s built environment, the GMIS is targeted at private sector projects located in Singapore.

Q3: Are projects undertaken by government’s corporatised entities such as restructured hospitals, NUS, NTU, etc. eligible for the Green Mark Incentive Scheme?

A3: No. Such projects being substantially funded by the government are considered as public sector projects that will be required to follow the Government’s policy on environmental sustainability.
Q4: Are Public Private Partnership (PPP) projects eligible for the Green Mark Incentive Scheme?

A4: Yes. Construction of PPP projects is funded by the private sector. It is therefore considered as private sector construction although the facility will be eventually handed over to the government.

Q5: When will the cash incentive be disbursed?

A5: The cash incentive for approved projects would be disbursed in two stages:

a. 50% upon certification to the Green Mark rating achieved,

b. the remaining 50% after validation, to be undertaken one year after TOP. subject to the guidelines stated in http://www.bca.gov.sg/GreenMark/GMIS.html

Q6: What is the tax liability of the recipients for the Green Mark Incentive Scheme?

A6: The cash incentives to be given to the developers and building owners are meant to cover their capital expenditures in the design/construction/retrofitting of buildings. If that is the case, the cash incentives would not be taxable in the hands of the recipients and the recipients cannot claim those expenditures as a revenue deduction against their income.

However, in the case of developers who are developing the building for sale, as they would be claiming their development costs as a deductible expense against their income from the sale of buildings, the cash incentives given to such developers would be taxable in their hands as the cash incentives are meant to defray their development costs which are deductible for tax purposes.

Q7: After obtaining the GMIS incentive, there is a change in usage say from office to mixed use development before the validation could be carried out. Is the project still eligible for GMIS?

A7: Yes, a fresh application for BCA Green Mark certification and GMIS will be required for reassessment. The incentive granted earlier shall be forfeited and recovered by the government if there is a change in usage. The developer/owner must inform BCA of any change in use and the re-application for GMIS must be submitted to BCA for reassessment when the change in use is approved by the relevant authority. This will be spelt out in the letter of offer. This must be acknowledged and signed off by the applicants before the incentive can be released to them.
Q8: In the case of a mixed use development consisting of distinct office and hotel premises served by a common "chiller plant", can the GMIS be sought based on either of the two premises or does it have to be based on both the premises?

A8: As GMIS is based on Green Mark certification, both cases are possible depending on the approach adopted by the developer in applying for the Green Mark certification. If the application for Green Mark certification is submitted as one project development, the certification and GMIS will be based on the combined weighted score for various types of development. Similarly, if the application is submitted for each development type separately, the GMIS will be granted separately for each development type based on the certification of Green Mark certification and its eligibility for GMIS.

The energy consumption of the common chiller plant or other common facilities (eg MV fans for the carpark) will be pro-rated according to the GFA of the development served.

Q9: Will the incentive granted at the design stage be forfeited or recovered by the government if the change in usage results in a new development that is unable to meet the requirements under the GMIS?

A9: Yes, this condition is spelt out in the letter of offer which applicants must sign before they can receive the incentive.

FAQ on Energy Modeling Framework – Technical requirements

Q10: What is the definition of ‘air-conditioned buildings’ under GMIS?

A10: Under the framework for energy modeling for GMIS, air-conditioned buildings are defined as those equipped with centralized chilled water systems. Under GMIS, if a development is equipped with other types of air-conditioning systems such as VRV when the more energy-efficient centralized chilled water system is feasible, energy modeling will be required with the centralized chilled water system as part of the reference model.

Q11: Are there alternatives for calculation methods where energy modeling through software application is not applicable?

A11: Yes, for special situations such as natural daylighting where the modeling software is unable to compute the energy harnessed or consumed, sufficient information and documentation for verification of the accuracy of the exceptional calculation method must be submitted.
Q12: Under GMIS, are renewable sources of energy harnessed by buildings taken into account in the computation of energy savings?

A12: Yes, since these renewable sources of energy will go toward reducing the overall energy consumption by the development.

Q13: Under the framework for energy modeling for GMIS, do we have to include the operation of data centres in the energy modeling analysis?

A13: Yes, this is needed for the computation of the overall annual energy consumption. It should be noted that this is excluded in the computation of the Energy Efficiency Index (EEI).

Q14: What is the energy modeling methodology for buildings serviced by district cooling plants?

A14: In such developments, the bulk of energy consumed by the building will be the consumption of chilled water from by district cooling plants. To compute the energy consumption, it is therefore necessary to know the actual efficiency of the district cooling plants. If not available, the developer and their consultants shall propose with justifications a reasonable value to adopt.

Q15: What is the responsibility of the Qualified Persons endorsing the submissions for energy modeling?

A15: The Qualified Persons’ main responsibility is to certify that the energy modeling for the development has been carried out in accordance with the requirements under the Framework for Energy Modeling under GMIS. Being also the QPs responsible for the design of M&E systems, they are the best party to ensure that the assumptions and inputs used for energy modeling are bona fide. The energy modeling specialist shall be responsible for the correctness of the modeling including the proper usage of the relevant software.

For the site validation submission, the QPs’ main responsibility is to certify that the validation has been carried out in accordance with the requirements under the Framework for Energy Modeling under GMIS.

The Facilities Manager of the building who is responsible for the proper running of the facility to achieve the projected energy savings shall be responsible for the accuracy of the data gathered and that it is a correct representation of the performance of the building. If necessary he should get the developer to engage a competent firm (eg. BMS vendor, ESCOs) to calibrate all sensors and meters to ensure that all readings taken are accurate and that they are a correct representation of the performance of the building.
Software for energy modeling

Q16: Which software has been tested to ASHRAE Standard 140?

A16: This should be checked with the software vendor. An example is DOE-2 which is developed by Lawrence Berkeley National Laboratory and supported by U.S. Department of Energy.

Q17: What is ASHRAE Standard 140?

A17: This is the testing standard adopted in USA for the evaluation of building energy analysis computer programs that calculate the thermal performance of a building and its M&E systems. The standard can be purchased and downloaded from the ASHRAE website.

Q18: Will BCA accept new energy modeling software?

A18: New energy modeling software is encouraged especially if it is customized to our tropical conditions. It must however be robust and tested in accordance to ASHRAE Standard 140 or other national equivalent standard.