

Our Ref : BCA ID 89.10.6 Vol 1

Date : 15 Mar 2007

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## **CIRCULAR TO PROFESSIONAL INSTITUTES**

### **FRAMEWORK FOR ENERGY MODELING FOR GREEN MARK INCENTIVE SCHEME (GMIS)**

#### **Background**

1. With the launch of GREEN MARK INCENTIVE SCHEME (GMIS) on 15 December 2006 to promote the adoption of environmentally-friendly Green Building Technologies and building design practices so as to achieve a sustainable built environment, air-conditioned buildings targeting incentives under Gold<sup>PLUS</sup> rating and above must demonstrate through Energy Modeling its superior performance in energy consumption.

#### **Objective**

2. The purpose of Energy Modeling is to adopt an integrated approach to building design so as to improve energy efficiency and achieve a superior performance in energy consumption. The superior performance in energy consumption is measured by comparing the annual power consumption of the Proposed Model (designed building) against the Reference Model (baseline building).

#### **Effective Date**

3. This new requirement will come with immediate effect.

#### **Details of the Requirement**

4. The Framework for Energy Modeling was developed by BCA's Energy Modeling Technical Committee comprising representatives from the private sector, public agencies and tertiary institutes.

5. For Green Mark Gold<sup>PLUS</sup> buildings under GMIS, the simulation results from the Proposed Model must show at least 25% savings in annual energy consumption compared to the Reference Model. For Green Mark Platinum buildings, the simulation results from the Proposed Model must show at least 30% savings in annual energy consumption compared to the Reference Model.

6. Energy Modeling under GMIS must be submitted in two stages:
  - a. At the Green Mark Certification stage, and
  - b. At the validation stage when the building is in steady operation.
7. The Energy Modeling submission forms shall be endorsed by the Qualified Persons (both the Mechanical and Electrical Professional Engineers).
8. The full details of the Framework for Energy Modeling can be found in our website at [www.bca.gov.sg](http://www.bca.gov.sg) using the following link: 'Sustainable' ⇔ 'Green Mark Incentive Scheme (GMIS)'.
9. I would appreciate it if you could convey the contents of this circular to members of your organization. For clarification, please contact Mr Frankie Lee at 6325-5050 (email: frankie\_lee@bca.gov.sg) or Ms Grace Cheok at 6325-7588 (email: grace\_cheok-chan@bca.gov.sg).

Thank you.



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