

## FAQs for Enhanced Green Mark Incentive Scheme for Existing Buildings

**Q1: What are the enhancements in Green Mark Incentive Scheme for existing buildings (GMIS-EB)?**

A1: The GMIS-EB comprises of (a) Cash Incentive for upgrading and retrofitting scheme; and (b) Health Check scheme. While there is no change to the Health Check scheme, the enhancements in the Cash Incentive scheme are:-

- a) qualifying criteria i.e. Green Mark certification under version 3 of the Green Mark for Existing Non-residential Buildings and aircon system efficiency;
- b) exclusion of “Certified” award from the scheme
- c) co-funding scope to include cost of installing the energy efficient equipment and professional services; and
- d) higher co-funding rate and cap amount.

Green Mark Requirement (GM ENRB Version 3)	+	Aircon System Efficiency	Co-funding Rate (Supply and installation cost of energy efficient equipment and professional services)	Cap on Total Incentive Sum
Gold or better	+	0.7 kW/RT	35%	\$1,500,000
Gold <sup>plus</sup> or better		0.65 kW/RT	40%	\$2,250,000
Platinum		0.6 kW/RT	50%	\$3,000,000

**Q2: Who is eligible for the enhanced GMIS-EB cash incentive (upgrading and retrofitting)?**

A2: The GMIS-EB cash incentive (upgrading & retrofitting) scheme is applicable to building owners of existing private commercial (non-residential) development with a minimum gross floor area of 2000 m<sup>2</sup>; who are planning to do energy improvement retrofitting works in their buildings.

The building must have a central chilled water air-conditioning plant. Buildings without this central plant are still eligible if the owners plan to upgrade their air-conditioning system to central chilled water air-conditioning plants.

The building must apply for Green Mark certification (GM ENRB Version 3) or must have attained a Green Mark rating (minimum GM Gold) which is still in its validity period.

**Q3: Are the existing applicants eligible for the enhanced GMIS-EB cash incentive (upgrading and retrofitting)?**

A3: The enhanced GMIS-EB will be extended to all existing applicants who have yet to apply for the first disbursement under the current GMIS-EB scheme. These existing applicants will be subjected to the new qualifying criteria. This means that they will need to be re-assessed based on the new Green Mark for Existing Non-Residential Buildings Version 3 (GM ENRB Version 3) and must achieve a higher Green Mark rating than their current rating. For example, if currently the building is Green Mark certified with Gold rating, then it has to achieve Gold<sup>plus</sup> rating to qualify for this enhanced scheme. In addition, the aircon plant must also meet the qualifying criteria for the Aircon System efficiency.

**Q4: What are professional services?**

A4: Professional services are services rendered by Consultants (e.g. M&E consultants, green consultants and ESCO) with respect to the energy efficient equipment and retrofitting works.

**Q5: What qualifies as energy efficient equipment under this scheme?**

A5: The approved energy efficient equipment is listed below. If the applicant has a equipment or system not in the list, he can submit his proposal and his calculation to quantify the energy savings, for BCA's review and evaluation. BCA shall be entitled to reject any proposal at its discretion without assigning any reason.

- 1) Regenerative drives for lifts
- 2) Variable Speed Drives (VSD)
- 3) Chillers
- 4) Chilled Water Pumps
- 5) Condenser Water Pumps
- 6) Cooling Towers
- 7) Chiller Plant Energy Optimization System
- 8) Chiller Auto Condenser Tube Cleaning System
- 9) Building Automation System (BAS)
- 10) Energy Efficient Lighting e.g. T5
- 11) Light Emitting Diodes (LED) Lightings
- 12) Efficient Air Handling Units and Fan Coil Units
- 13) CO2 Sensors for AHU System
- 14) CO Sensors for Carpark Ventilation Control System
- 15) Photo Sensors
- 16) Motion Sensors
- 17) Heat Pipe & Energy Recovery Wheel
- 18) Energy Efficient lifts and escalators
- 19) Solar Energy or other renewable energy sources
- 20) Permanent Measuring and Verification instrumentations i.e. flow meters, temperature sensors and power meters; for monitoring central chilled water plant system efficiency.

**Q6: Why GM certified rating is not eligible for the enhanced GMIS-EB?**

A6: The aim of this incentive scheme is to encourage building owners to retrofit their buildings to high energy efficiency standards. Hence, it would apply to only buildings who have achieved higher Green Mark ratings of Gold, Gold Plus, and Platinum.

**Q7: Are existing residential buildings eligible for the GMIS-EB scheme?**

A7: Existing residential buildings are not eligible because they are usually not centrally air-conditioned. The energy consumed by these residential buildings are mainly attributed to household loads. GMIS-EB scheme is targeting energy intensive buildings which have a central air-conditioning plant. Most of these existing buildings are not operating at an efficient level and there is significant potential for energy savings. With this incentive scheme, we hope to encourage owners of major commercial buildings to undergo energy efficiency retrofits early.

**Q8: Can owners of industrial facilities such as wafer fabs, pharmaceutical plants and manufacturing plants apply for GMIS-EB?**

A8: GMIS-EB is an incentive scheme targeting building owners of existing private commercial developments (non-residential). For industrial facilities, owners can apply for the incentive grant administered by NEA. It is called Grant for Energy Efficient Technologies or GREET where NEA co-funds the investment costs of energy efficient equipment, material, manpower and professional services.

**Q9: What sort of retrofitting is usually required to qualify for GMIS-EB?**

A9: To qualify for the enhanced GMIS-EB at the lowest tier, upgrading works to the air-conditioning system is required in order to achieve a minimum system efficiency of 0.7 kW/RT. In addition, the scheme is also pegged to Green Mark rating (minimum GM Gold), therefore the building must also do the necessary to achieve the Green Mark certification including complying with the pre-requisites. These include installation of permanent Measurement and Verification instruments for the air-conditioning plant and Indoor Air Quality audit.

**Q10: When will the cash incentive be disbursed?**

A10: The cash incentive would be disbursed in three stages: The first disbursement will be given for the professional fees once the contract between the owner and the consultants is formally established. This will help to relieve the building owner of the upfront cost barrier.

The second disbursement, which is 50% of the approved co-funding amount, is upon completion of the energy improvement retrofits including testing and commissioning; and Green Mark certification.

The final disbursement of the remaining approved co-funding amount is one year after the date of completion of the retrofitting works and upon verification of air-conditioning system efficiency and the commitments made during Green Mark assessment.

**Q11: When do building owners apply for the GMIS-EB cash incentive scheme?**

A11: Building owners can apply if they meet the eligibility criteria and applications shall be lodged before the start of the energy related upgrading/retrofitting works.

If the building owners have not applied for the Green Mark certification, they can submit the forms for the Green Mark certification first, followed by the application for the incentive. Alternatively, both application forms can be submitted together.

Building owner whose building has already attained the Green Mark rating and the certification is still in its validity period, can submit his application for the incentive if he plans to do energy related retrofitting works.

**Q12: What are the documents required to be submitted with the application form?**

A12: The documents to be submitted include latest 12 months utility bills, detailed calculation of the anticipated energy savings, details and anticipated costs of each retrofitting works, schedule of the works, targeted Green Mark rating and energy audit report by accredited ESCO. Please refer to the Application Form for GMIS-EB scheme for the list of supporting documents to be submitted with the Form.

**Q13: My building is served by a District Cooling System provided by external party, can I apply for the GMIS-EB incentive?**

A13: To be eligible for the incentive, the building owner is required to do upgrading or retrofitting works related to energy efficiency, which shall include replacement of the chillers. If a building's air-conditioning system is served by a DCS (which is provided and maintained by a third party), the owner will not be able to replace the chillers in the DCS plant since these are not owned by him. Therefore, this building owner is not eligible for the incentive.

**Q14: For existing applicants who opted for the enhanced GMIS-EB scheme, is there a grace period for them to go through the GM-ENRB Version 3 assessment?**

A14: Assessment has to be completed within 6 months from the date of application for GM assessment for Version 3 received by BCA.

**Q15: If Applicant has opt for the enhanced GMIS-EB scheme, but later decided not to go through GM-ENRB Version 3 assessment. Can the Applicant able to revert back to the previous GMIS-EB scheme? Are there any penalty, time constraint or etc?**

A15: There is no penalty if applicant wishes to revert back to GM-ENRB Version 2.1, but the applicant is required to write in to BCA to provide explanation. If the assessment for Version 3 has not been carried out, there will be a refund. There is no refund if the assessment has commenced

**Q16: Does “professional services” include structural consultant?**

A16: To encourage the replacement to more efficient water-cooled chillers, we will consider the Structural Engineer’s fees as part of the Professional Fees for the enhanced GMIS-EB. His scope of works should be related to the EE improvement works; for e.g. the strengthening of the structural loading for the new chillers. Evidences such as calculations and endorsements shall be submitted to BCA.

**Q17: Can the consultancy for this submission scope be part of the professional fees like Green Mark consultancy as stated?**

A17: Professional fees can include the M&E consultant, ESCO or Green consultants who are engaged to perform the GM-ENRB Version 3 assessment.

**Q18: One year after the work is complete; the applicant is required to do verification and submit a trend-logging report for the new chiller plantroom system efficiency. Can this service done by the ESCO or Mechanical PE i.e. retrieving data via BMS and churning out the verification report, be part of the professional services fees?**

A18: No, this is not part of the Professional Services Fees.

**Q19: To claim for final disbursement, is the applicant required to submit the latest EEI to show the energy saving as committed during the application and GM assessment?**

A19: There is no need to calculate the EEI. However, the applicant has to submit the calculation for the projected energy savings prior to the retrofitting works. After retrofitting, the applicant has to submit the utility bills and demonstrate the energy savings. The savings are calculated based on the difference in consumption BEFORE and AFTER the energy efficient improvement works. In addition to the GM rating achieved and the chiller plant system efficiency achieved, the applicant must demonstrate that the projected energy savings is also achieved. The final disbursement will not be given if the kW/RT and/or the energy savings are not achieved.