

Our Ref : APPBCA-2016-12

Environmental Sustainability Group

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See Distribution List

Dear Sir/Madam

CHANGES TO THE BUILDING CONTROL (ENVIRONMENTAL SUSTAINABILITY MEASURES FOR EXISTING BUILDINGS) REGULATIONS – EXPANSION OF BUILDING TYPES

OBJECTIVE

This circular serves to remind the industry that with effect from 02 January 2017, the minimum environmental sustainability standard for existing buildings will apply to all buildings with centralised cooling systems and GFA greater than 5,000m², when installing or replacing the building cooling system. The 1st circular ref: APPBCA-2016-06 was issued on 5 July 2016.

BACKGROUND

2. In 2014, BCA introduced environmental sustainability measures for existing buildings under the Building Control Act and Regulations. These measures are in line with the Government's commitment to reduce the carbon emission and energy intensity for the building sector.

3. Arising from the above, since 2 Jan 2014, building owners of any hotel, retail building or office building with Gross Floor Area (GFA) of 15,000m² or more have had to comply with minimum environmental sustainability standards when installing or replacing their building cooling systems.

EXPANSION OF BUILDING TYPES

4. With effect from 02 January 2017, under the amended Building Control (Environmental Sustainability Measures for Existing Buildings) Regulations, **buildings with centralised cooling systems and GFA greater than 5,000m² are required to comply with** the minimum environmental sustainability standard for existing buildings, **when installing or replacing the building cooling system.**

5. Only the following types of buildings will be excluded from the above requirement mentioned in paragraph 4:

- a) any industrial buildings;
- b) any railway premises, port services and facilities or airport services and facilities;
- c) any religious buildings;
- d) any data centres;
- e) any utility buildings; or
- f) any residential building (residential building does not include serviced apartments).

6. For more details please refer to Annexes A and B, as attached.

REQUIREMENTS UNDER THE BUILDING CONTROL ACT AND REGULATIONS

7. Building owners are required to submit to the Commissioner of Building Control for approval:

- a) a design Green Mark Score for the building, including other specified documents **before** installing or replacing the building cooling system; and,
- b) an as-built Green Mark Score for the building, including other specified documents **after** installing or replacing the building cooling system.

8. Building owners will have to engage a Mechanical Engineer (a Professional Engineer registered with the Professional Engineers Board in the branch of mechanical engineering) to ensure that the overall building design achieves the BCA Green Mark Standard for existing buildings at the Certified level, taking into account the building cooling system upgrade and other energy improvement works. The building cooling system upgrading and other energy improvement works must be completed within three years from the date BCA approves the designs of the retrofits.

9. An application fee is required upon submission of the design score. The computation of plan fees are as follows:

- \$8,900 for the first 15,000m² or part thereof, and \$0.15 for every subsequent square metre (or part thereof), of the gross floor area of the prescribed building.

IMPLEMENTATION TIMELINE

10. This amendment to the regulations was gazetted on 1st July 2016, and will take effect from 2nd January 2017. Building owners are reminded that they are not to install or replace any of their building cooling systems without first obtaining the approval from the Commissioner of Building Control if their buildings fall within the category of buildings as mentioned in paragraph 4 above.

CLARIFICATION

11. Details of the regulatory measures are provided in Annex A and B attached. Information on the regulatory measures and Codes are also available on the BCA website at <http://www.bca.gov.sg>. We would appreciate it if you could bring to the attention of your members the contents of this circular. If you require clarification or have any queries on the legislative requirements, please contact the following officers:

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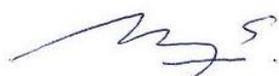
ENHANCEMENTS TO GREEN MARK INCENTIVE SCHEME FOR EXISTING BUILDINGS AND PREMISES (GMIS-EBP) (BUILDING OWNERS)

12. BCA has recently enhanced the GMIS-EBP (Building Owners) to provide better support to building owners and tenants with a cash incentive amounting to up to 50% incurred for the energy efficiency improvement works. These enhancements apply to applications received **on or after 30 June 2016**. The full details of this scheme such as application forms, application guidelines and Frequently Asked Questions can be found in our website at <https://www.bca.gov.sg/greenmark/gmisebp.html>. For clarifications, please contact the following officers:

Category	Contact Person	Department	Contact Details
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13. For general enquiry, please e-mail: bca_enquiry@bca.gov.sg

Yours faithfully



ANG KIAN SENG
GROUP DIRECTOR
ENVIRONMENTAL SUSTAINABILITY GROUP
for COMMISSIONER OF BUILDING CONTROL

Annex A

Extract Sections of the Act for the prescribed Green Mark standard for existing building

Submission of design score for building undergoing major energy-use change

22FB.—(1) No owner of any prescribed building shall carry out, or permit or authorise the carrying out of, any major energy-use change to that building, unless the owner has first —

- a. appointed a mechanical engineer to assess the design score for the major energy-use change to the building;
- b. submitted the design score assessed by the mechanical engineer appointed under paragraph (a) to the Commissioner of Building Control for approval, in the prescribed form and manner and accompanied by such documents and fee as may be prescribed; and
- c. obtained the approval of the Commissioner of Building Control for the design score, which approval has not lapsed at the time of commencement of the major energy-use change.

(2) The Commissioner of Building Control shall not approve the design score in relation to a prescribed building unless the design score meets the prevailing minimum environmental sustainability standard for that building or a building of that class or type.

(3) Upon receiving the submission of a design score relating to a prescribed building for approval under subsection (1), the Commissioner of Building Control may direct the owner of the prescribed building in writing —

- (a) to comply with such requirements in relation to the major energy-use change as the Commissioner of Building Control may specify so that the design score meets the minimum environmental sustainability standard applicable to the building; and
- (b) to re-submit the design score for his approval within such period as may be specified in the direction.

(4) If the direction given by the Commissioner of Building Control under subsection (3) is not complied with within the period specified in that direction, or such further period as may be extended by the Commissioner of Building Control, the application for approval of the design score shall, at the end of that period, be deemed to be disapproved by the Commissioner of Building Control.

(5) The Commissioner of Building Control may, on the application of an owner of a prescribed building in any particular case, modify or waive any requirement in relation to the minimum environmental sustainability standard applicable to the building, subject to such conditions as the Commissioner of Building Control may impose.

(6) The Commissioner of Building Control may approve the design score on the basis of a declaration by the mechanical engineer who assessed the score certifying the correctness of the design score.

(7) A mechanical engineer appointed under subsection (1)(a) in relation to a prescribed building shall —

- (a) design the proposed major energy-use change to the building so that the design score meets the minimum environmental sustainability standard applicable to the building;
- (b) assess the design score for the major energy-use change to the building in the manner prescribed; and
- (c) provide to the owner of the prescribed building —
 - (i) the design score and the documents on which the design score was assessed;
 - (ii) a declaration as to whether the design score meets the minimum environmental sustainability standard applicable to the building; and
 - (iii) such other documents as may be required by the Commissioner of Building Control.

(8) Any owner of a prescribed building who, without reasonable excuse, contravenes subsection (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$100,000 and, in the case of a continuing offence, to a further fine not exceeding \$1,000 for every day or part thereof during which the offence continues after conviction.

(9) Any mechanical engineer who —

- (a) without reasonable excuse, contravenes subsection (7); or
- (b) furnishes any information or makes any statement in relation to the design score, or in any other document required under subsection (7)(c), which he knows or has reason to believe is false, shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$10,000.

Completion of major energy-use change and submission of as-built score

22FE.—(1) The owner of the prescribed building shall, not later than 3 years after the approval of the design score for a major energy-use change to that building by the Commissioner of Building Control —

- (a) complete the major energy-use change in accordance with the design score approved by the Commissioner of Building Control, subject to any departure or deviation which complies with section 22FC; and
- (b) submit to the Commissioner of Building Control in such form and manner and within such time as may be prescribed —
 - (i) the as-built score of the building assessed by the mechanical engineer appointed under section 22FB(1)(a) or subsection (5) for the approval of the Commissioner of Building Control;
 - (ii) a declaration by the mechanical engineer who assessed the as-built score certifying the correctness of the as-built score; and
 - (iii) such other documents as may be prescribed.

(2) The Commissioner of Building Control may approve the as-built score on the basis of a declaration by the mechanical engineer who assessed the score certifying the correctness of the as-built score.

(3) A mechanical engineer appointed to assess the as-built score in relation to a prescribed building shall, within 7 days after the completion of the major energy-use change —

- (a) assess the as-built score of the prescribed building in the manner prescribed; and
- (b) provide to the owner of the prescribed building —
 - (i) the as-built score and the documents on which the as-built score was assessed;
 - (ii) a declaration as to whether the as-built score meets the minimum environmental sustainability standard applicable to the building;
 - (iii) such document certifying the completion of the major energy-use change as the Commissioner of Building Control may specify; and
 - (iv) such other documents as may be required by the Commissioner of Building Control.

(4) If the owner of the prescribed building ceases to be the owner thereof before the submission of the as-built score under subsection (1)(b), he shall notify the Commissioner of the Building Control of that fact not later than 7 days after he ceases to be the owner thereof.

(5) If any mechanical engineer appointed under section 22FB(1)(a) vacates his appointment before the submission of the as-built score under subsection (1)(b), the owner of the building shall —

- (a) appoint another mechanical engineer to assess the asbuilt score; and
- (b) within 7 days thereafter, notify the Commissioner of Building Control of that substitute appointment.

(6) Any owner of a prescribed building who, without reasonable excuse, contravenes subsection (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$100,000 and, in the case of a continuing offence, to a further fine not exceeding \$1,000 for every day or part thereof during which the offence continues after conviction.

(7) Any owner of a prescribed building who, without reasonable excuse, contravenes subsection (4) or (5) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$10,000.

(8) Any mechanical engineer who —

- (a) without reasonable excuse, contravenes subsection (3); or
- (b) furnishes any information or makes any statement in relation to the as-built score, or in any other document required under subsection (3)(b), which he knows or has reason to believe is false, shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$10,000.

Annex B

EXTRACT SECTIONS OF THE BUILDING CONTROL (ENVIRONMENTAL SUSTAINABILITY MEASURES FOR EXISTING BUILDINGS) (AMENDMENT) REGULATIONS 2016

Definitions

1. In these Regulations, unless the context otherwise requires —

“large shared cooling system” means a prescribed cooling system specified in regulation 4 that serves 2 or more buildings with a total gross floor area of 5,000 m² or more;

“mixed-use building X” means a mixed use building where —

- (a) no part of the building is used for a Type B use; and
- (b) part of the building is used for a Type A use;

“mixed-use building Y” means a mixed-use building —

- (a) where no part of the building is used for a Type B use;
- (b) where part of the building may be used for a Type A use;
- (c) that comprises two or more single-use parts;
- (d) that is served by more than one prescribed cooling system; and
- (e) where none of the prescribed cooling systems serving the building is a large shared cooling system;

“Type A use”, in relation to a building, means use of the building —

- (a) as a data centre;
- (b) as a religious building;
- (c) as a residential building (other than serviced apartments); or
- (d) as a utility building;

“Type B use”, in relation to a building, means use of the building —

- (a) as an industrial building, an industrial retail building, a light industrial building or a special industrial building;
- (b) as railway premises;
- (c) to provide airport services and facilities; or
- (d) to provide port services and facilities.”.

Prescribed buildings

3.—(1) Each of the following is a prescribed building for the purposes of Part IIIB of the Act:

- (a) a single-use building with a gross floor area of 5,000 m² or more, that is —
 - (i) not used for a Type A or Type B use; and
 - (ii) not served by a large shared cooling system;
- (b) a mixed-use building with a gross floor area of 5,000 m² or more, where —
 - (i) no part of the building is used for a Type A or Type B use;
 - (ii) there is only one prescribed cooling system serving the building; and
 - (iii) the prescribed cooling system is not a large shared cooling system;
- (c) all the parts of a mixed-use building X that are not used for a Type A use, where —
 - (i) the total gross floor area of the parts is 5,000 m² or more;
 - (ii) there is only one prescribed cooling system serving the parts;
 - (iii) the prescribed cooling system does not serve any part of the building used for a Type A use; and
 - (iv) the prescribed cooling system is not a large shared cooling system;
- (d) each single-use part of a mixed-use building Y, where the single-use part —
 - (i) is not used for a Type A use;
 - (ii) has a gross floor area of 5,000 m² or more; and
 - (iii) is served by one or more prescribed cooling systems, all of which serve the single-use part exclusively;
- (e) a building served by a large shared cooling system where —
 - (i) no part of the building is used for a Type A or Type B use; and
 - (ii) no part of the other buildings served by the large shared cooling system is used for a Type A or Type B use.

Prescribed cooling systems

2. Each of the following shall be a prescribed cooling system for the purposes of the definition of “major energy-use change” in section 22FA of the Act:

- (a) water-cooled chiller;
- (b) air-cooled chiller.

Minimum environmental sustainability standard

3.—(1) The minimum environmental sustainability standard shall be —

- (a) a Green Mark score of not less than 50 points, calculated using the scoring methodology specified in the Code;
- (b) such other requirements as may be specified in the Code.

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