First published in the Government Gazette, Electronic Edition, on 30 November 2020 at 5 pm.

No. S 972

## ENERGY CONSERVATION ACT (CHAPTER 92C)

# ENERGY CONSERVATION (ENERGY MANAGEMENT PRACTICES) (AMENDMENT) REGULATIONS 2020

In exercise of the powers conferred by section 78(1) of the Energy Conservation Act, the Minister for Sustainability and the Environment makes the following Regulations:

### Citation and commencement

**1.** These Regulations are the Energy Conservation (Energy Management Practices) (Amendment) Regulations 2020 and come into operation on 1 December 2020.

#### Amendment of regulation 2

**2.** Regulation 2 of the Energy Conservation (Energy Management Practices) Regulations 2013 (G.N. No. S 246/2013) (called in these Regulations the principal Regulations) is amended —

- (a) by inserting, immediately after the definition of "greenhouse gas", the following definition:
  - ""manufacturing and manufacturing-related services" has the meaning given by paragraph 2 of the Energy Conservation (Registrable Corporations) Order 2013 (G.N. No. S 248/2013);"; and
- (b) by deleting the full-stop at the end of the definition of "specified energy consumption" and substituting a semi-colon, and by inserting immediately thereafter the following definitions:

- ""supply of electricity, gas, steam, compressed air and chilled water for air-conditioning" has the meaning given by paragraph 2 of the Energy Conservation (Registrable Corporations) Order 2013;
  - "water supply and sewage and waste management" has the meaning given by paragraph 2 of the Energy Conservation (Registrable Corporations) Order 2013.".

## Amendment of regulation 7A

- 3. Regulation 7A of the principal Regulations is amended
  - (a) by deleting the definitions of "manufacturing and manufacturing-related services", "supply of electricity, gas, steam, compressed air and chilled water for air-conditioning" and "water supply and sewage and waste management"; and
  - (b) by deleting the semi-colon at the end of the definition of "post-assessment design" and substituting a full-stop.

### **New Part IIB**

**4.** The principal Regulations are amended by inserting, immediately after regulation 7E, the following Part:

### "PART IIB

### MINIMUM ENERGY EFFICIENCY STANDARDS FOR ENERGY-CONSUMING SYSTEMS

#### **Definitions of this Part**

**7F.** In this Part, unless the context otherwise requires —

"antifreeze" means any additive that prevents water from freezing by depressing the freezing point of water;

"assessment report" means a report mentioned in section 26B(2)(b) or (3)(b) of the Act;

"booster pump" means a pump that is installed on a chilled water pipeline to overcome a drop in pressure in the chilled water pipeline, to prevent over-pressurising chilled water in any parallel pipeline;

- "certificate of statutory completion" has the meaning given by section 2(1) of the Building Control Act (Cap. 29);
- "cooling tower" means any device in which atmospheric air is passed through sprayed water to lower the temperature of the sprayed water by evaporative cooling;
- "end-to-end uncertainty", in relation to a parameter of a prescribed system, means the combined uncertainty of
  - (*a*) every prescribed permanent measuring instrument installed for the prescribed system for measuring that parameter; and
  - (b) any accessory needed for the operation of those prescribed permanent measuring instruments, including a current or voltage transformer;
- "energy management system", in relation to a prescribed system, means a system that processes, analyses, displays and stores data collected from prescribed permanent measuring instruments installed for the prescribed system;
- "energy performance", in relation to a prescribed system, means —
  - (*a*) the ratio of electrical power consumption (measured in kilowatts) to the refrigeration output (measured in kilowatts) of the prescribed system; or
  - (b) the ratio of electrical energy consumption (measured in kilowatt-hours) to the refrigeration energy output (measured in kilowatt-hours) of the prescribed system;

- "gross floor area" has the same meaning as "floor area" in rule 2(1) of the Planning (Development Charges) Rules (Cap. 232, R 5);
- "kW<sub>c</sub>", in relation to a prescribed system, means the refrigeration output of the prescribed system, expressed in kilowatts;
- "prescribed permanent measuring instrument" means a measuring instrument mentioned in regulation 7J(1);
- "prescribed system" means an energy-consuming system mentioned in regulation 7H;

"qualified person" means —

- (*a*) an individual who is certified by the Institution of Engineers, Singapore as an energy efficiency opportunities assessor with systems-specific experience in chilled water systems; or
- (b) a professional engineer registered under the Professional Engineers Act (Cap. 253) in the branch of mechanical engineering, electrical engineering or chemical engineering, who has in force a practising certificate issued under that Act;
- "specified AHRI Standard" means the AHRI Standard 551/591-SI-2018 published by the Air-Conditioning, Heating and Refrigeration Institute;
- "SS 591/2013" means the Singapore Standard 591:2013 Code of Practice for long term measurement of central chilled water system energy efficiency, published by the Enterprise Singapore Board;
- "temporary occupation permit" has the meaning given by section 2(1) of the Building Control Act;
- "water-cooled chilled water system" means a system comprising one or more of each of the following components:
  - (a) a water-cooled chiller;

- (b) a chilled water pump for a water-cooled chiller;
- (c) a condenser water pump;
- (d) a cooling tower,

with interconnections and accessories (including thermal storage tanks, if any), operating together to produce chilled water, whether or not each component is situated in the same premises, and excludes any booster pump and other energy-consuming systems that use the chilled water produced, either directly or indirectly;

- "water-cooled chiller" means a factory-made and prefabricated assembly (whether or not it is shipped as one package) comprising one or more of each of the following:
  - (a) a compressor;
  - (b) a water-cooled condenser;
  - (c) an evaporator,

with interconnections and accessories, designed to produce chilled water by using a vapour compression refrigeration cycle to remove heat from chilled water in the evaporator and reject the heat to water in the condenser;

"water-cooled condenser" means a refrigeration system component where refrigerant vapour is condensed and the heat rejected to water, resulting in a rise in water temperature.

### **Relevant person**

**7G.** Section 26B(1) of the Act applies to a corporation that has operational control of —

(*a*) any premises that are located within any land that is zoned as a Business 1 or Business 2 zone in the Master Plan under the Planning Act (Cap. 232); or