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ENERGY CONSERVATION ACT (CHAPTER 92C)

ENERGY CONSERVATION (ENERGY MANAGEMENT PRACTICES) (AMENDMENT) REGULATIONS 2018

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

Citation and commencement

1. These Regulations are the Energy Conservation (Energy Management Practices) (Amendment) Regulations 2018 and come into operation on 1 October 2018.

New Part IIA

2. The Energy Conservation (Energy Management Practices) Regulations 2013 (G.N. No. S 246/2013) are amended by inserting, immediately after regulation 7, the following Part:

"PART IIA

ENERGY MANAGEMENT PRACTICES FOR NEW VENTURES

Definitions of this Part

- 7A. In this Part, unless the context otherwise requires
 - "best available technology" means technology that results in the best energy efficiency, use and consumption;
 - "energy" has the same meaning as in paragraph 2 of the Energy Conservation (Registrable Corporations) Order 2013 (G.N. No. S 248/2013);

- "energy and material flows" means a method of computing
 - (a) the energy and materials provided for and released from the processes and energy-consuming systems in a business activity; and
 - (b) the energy conversions and energy use within the processes and energy-consuming systems in the business activity;
- "energy commodity" has the same meaning as in paragraph 2 of the Energy Conservation (Registrable Corporations) Order 2013;
- "manufacturing and manufacturing-related services" has the same meaning as in paragraph 2 of the Energy Conservation (Registrable Corporations) Order 2013;
- "post-assessment design" means a design of a new venture facility that includes any energy efficiency opportunity identified in an energy efficiency opportunities assessment conducted in respect of the new venture;
- "supply of electricity, gas, steam, compressed air and chilled water for air-conditioning" has the same meaning as in paragraph 2 of the Energy Conservation (Registrable Corporations) Order 2013;
- "water supply and sewage and waste management" has the same meaning as in paragraph 2 of the Energy Conservation (Registrable Corporations) Order 2013.

Application of this Part

- **7B.**—(1) This Part applies to a new venture of any person (whether or not a registered corporation) that is a business activity where
 - (a) the estimated total energy to be consumed by the business activity equals or exceeds the threshold of 54 terajoules per calendar year, derived from one or more types of fuel or energy commodity specified in

- the First Schedule to the Energy Conservation (Registrable Corporations) Order 2013; and
- (b) the business activity is carried out at a single site and is attributable to one of the following industry sectors:
 - (i) manufacturing and manufacturing-related services;
 - (ii) supply of electricity, gas, steam, compressed air and chilled water for air-conditioning;
 - (iii) water supply and sewage and waste management.
- (2) For the purposes of paragraph (1)(a), the estimated total energy to be consumed by the business activity
 - (a) must be calculated on the basis that the business activity is carried out at full capacity for 24 hours every day throughout the calendar year; and
 - (b) must be derived from all fuel and energy commodities estimated to be used to provide or produce the energy to be consumed by the business activity, but excludes energy estimated to be produced from any fuel or energy commodity that is already accounted for in the estimated total figure.
- (3) If an estimated quantity of fuel to be used is to be converted to an amount of energy in joules, the conversion is to be done using
 - (a) the default net calorific values set out in the Second Schedule to the Energy Conservation (Registrable Corporations) Order 2013; or
 - (b) the net calorific values specified by the person mentioned in paragraph (1) and approved by the Director-General under paragraph (7).
- (4) If an estimated quantity of an energy commodity to be used is to be converted to an amount of energy in joules, the conversion is to be done using —

- (a) the default energy content values set out in the Third Schedule to the Energy Conservation (Registrable Corporations) Order 2013; or
- (b) the energy content values specified by the person mentioned in paragraph (1) and approved by the Director-General under paragraph (7).
- (5) A person mentioned in paragraph (1) seeking to specify the net calorific value of a fuel must submit to the Director-General a report by a laboratory containing the results of a test conducted in accordance with the relevant ASTM International, International Organization for Standardization (ISO) or other testing standards approved by the Director-General to ascertain the net calorific value of the fuel concerned.
- (6) A person mentioned in paragraph (1) seeking to specify the energy content value of an energy commodity must submit to the Director-General the method by which the person derived the energy content value.
- (7) The Director-General may approve or reject the net calorific value or the energy content value sought to be specified by a person under paragraph (5) or (6), as the case may be.

Energy efficiency opportunities assessment for new ventures

- **7C.**—(1) A person required to conduct an energy efficiency opportunities assessment for a business activity of a new venture under this Part must determine the following:
 - (a) the methods and processes of the business activity to be assessed;
 - (b) the energy-consuming systems of the business activity to be assessed;
 - (c) the objective of the assessment;
 - (d) the time period for the assessment;

- (e) the methods and processes to be used to conduct the assessment;
- (f) the individuals conducting the assessment, including each individual's role and experience.
- (2) For the purpose of paragraph (1)(c), the objective of the energy efficiency opportunities assessment must include
 - (a) identifying the energy efficiency opportunities that are available in respect of the business activity, including taking into account any dependencies in respect of the processes and energy-consuming systems of the business activity, after reviewing
 - (i) the optimum methods or processes of the business activity;
 - (ii) the proposed energy-consuming systems estimated to consume a total of at least 80% of the estimated annual energy consumption of the business activity, including the proposed location, arrangement and best operating practices of these energy-consuming systems; and
 - (iii) available alternative technology choices (including best available technology) for the business activity, and the proposed energy-consuming systems mentioned in sub-paragraph (ii);
 - (b) assessing the technical and economic feasibility of implementing each such energy efficiency opportunity based on a comparison, between a case if the energy efficiency opportunity is implemented and a case if the efficiency opportunity is not implemented, of all the following:
 - (i) the estimated investment and operation cost;
 - (ii) the estimated annual energy savings;
 - (iii) the estimated specific energy consumption;