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**No. S 806**

ENERGY CONSERVATION ACT 2012  
(ACT 11 OF 2012)

ENERGY CONSERVATION  
(TRANSPORT FACILITY OPERATORS)  
ORDER 2013

ARRANGEMENT OF PARAGRAPHS

Paragraph

1. Citation and commencement
  2. Definitions
  3. Qualifications by which airport service operator qualifies as transport facility operator
  4. Declaration of land transport operator or port service operator as transport facility operator  
The Schedules
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In exercise of the powers conferred by section 45 of the Energy Conservation Act 2012, the Minister for Transport hereby makes the following Order:

**Citation and commencement**

1. This Order may be cited as the Energy Conservation (Transport Facility Operators) Order 2013 and shall come into operation on 1st January 2014.

**Definitions**

2. In this Order, unless the context otherwise requires —
- “consumption of energy”, in relation to a business activity, means the use or disposal of energy from the operation of the business activity, including own use and losses in use, extraction, production and transmission;

“energy” means any form of energy derived from any fuel or energy commodity specified in the First Schedule;

“energy commodity” means a commodity from which energy may be derived without combustion, and includes electricity, steam, compressed air and chilled water.

### **Qualifications by which airport service operator qualifies as transport facility operator**

3.—(1) For the purposes of section 45(1)(b) of the Act, an airport service operator qualifies as a transport facility operator if —

- (a) it has operational control over a business activity which has attained the energy use threshold specified in sub-paragraph (2) in at least 2 out of the 3 preceding calendar years; and
- (b) the business activity is attributable to its business as an airport service operator.

(2) The energy use threshold referred to in section 45(2)(b) of the Act is 54 terajoules of energy consumed per calendar year, derived from one or more types of fuel or energy commodity specified in the First Schedule.

(3) The energy consumed by a business activity is the total consumption of energy derived from all fuel and energy commodities used to provide or produce energy, but the total shall not include energy so produced from any fuel or energy commodity that is already accounted for in the total figure.

(4) If a quantity of fuel 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; or
- (b) the net calorific values specified by an airport service operator and approved by the Civil Aviation Authority under sub-paragraph (8).

(5) If a quantity of an energy commodity used is to be converted to an amount of energy in joules, the conversion is to be done using —

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- (a) the default energy content values set out in the Third Schedule; or
  - (b) the energy content values specified by an airport service operator and approved by the Civil Aviation Authority under sub-paragraph (8).

(6) An airport service operator seeking to specify the net calorific value of a fuel shall submit to the Civil Aviation Authority a report by a laboratory containing the results of a test conducted by the laboratory in accordance with the relevant ASTM International, International Organization for Standardization (ISO) or other equivalent testing standards approved by the Civil Aviation Authority to ascertain the net calorific value of the fuel concerned.

(7) An airport service operator seeking to specify the energy content value of an energy commodity shall submit to the Civil Aviation Authority the method by which the airport service operator derived the energy content value.

(8) The Civil Aviation Authority may approve or reject the net calorific value or the energy content value sought to be specified by the airport service operator under sub-paragraph (6) or (7), as the case may be.

#### **Declaration of land transport operator or port service operator as transport facility operator**

4. For the purposes of section 45(1)(a) of the Act —
- (a) every land transport operator specified in the first column of the Table in Part I of the Fourth Schedule is declared to be a transport facility operator from the date specified opposite in the second column of that Table; and
  - (b) every port service operator specified in the first column of the Table in Part II of the Fourth Schedule is declared to be a transport facility operator from the date specified opposite in the second column of that Table.

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FIRST SCHEDULE

Paragraphs 2 and 3(2)

FUEL AND ENERGY COMMODITIES

PART I

FUEL

1. Crude Oil and Petroleum Products

- (a) Aviation Gasoline
- (b) Bitumen
- (c) Crude Oil
- (d) Ethane
- (e) Gas/Diesel Oil
- (f) Jet Gasoline
- (g) Jet Kerosene
- (h) Other Kerosene
- (i) Liquefied Petroleum Gases
- (j) Lubricants
- (k) Motor Gasoline
- (l) Naphtha
- (m) Natural Gas Liquids
- (n) Orimulsion
- (o) Paraffin Waxes
- (p) Petroleum Coke
- (q) Refinery Feedstock
- (r) Refinery Gas
- (s) Residual Fuel Oil
- (t) Shale Oil
- (u) White Spirit and Special Boiling Point (SBP) Spirit
- (v) Other Petroleum Products

2. Solid Fuel

- (a) Anthracite

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FIRST SCHEDULE — *continued*

- (b) Brown Coal Briquettes
  - (c) Coal Tar
  - (d) Coke Oven Coke and Lignite Coke
  - (e) Coking Coal
  - (f) Gas Coke
  - (g) Lignite
  - (h) Oil Shale and Tar Sands
  - (i) Patent Fuel
  - (j) Sub-Bituminous Coal
  - (k) Other Bituminous Coal
3. Derived Gases
- (a) Blast Furnace Gas
  - (b) Coke Oven Gas
  - (c) Oxygen Steel Furnace Gas
  - (d) Town Gas (Gas Works Gas)
4. Natural Gas
- (a) Natural Gas
5. Non Fossil-based Fuel
- (a) Industrial Waste
  - (b) Municipal Waste
  - (c) Waste Oils
6. Peat
- (a) Peat
7. Biomass and Fuel Derived from Biomass
- (a) Biodiesels
  - (b) Biogasoline
  - (c) Charcoal
  - (d) Landfill Gas
  - (e) Sludge Gas

FIRST SCHEDULE — *continued*

- (f) Sulphite Lyes (Black Liquor)
  - (g) Wood/Wood Waste
  - (h) Other Biogas
  - (i) Other Liquid Biofuel
  - (j) Other Primary Solid Biomass
8. Hydrogen
- (a) Hydrogen (H<sub>2</sub>)

## PART II

## ENERGY COMMODITIES

1. Energy Commodities
- (a) Chilled water
  - (b) Compressed air
  - (c) Electricity
  - (d) Steam.

## SECOND SCHEDULE

Paragraph 3(4)

## DEFAULT NET CALORIFIC VALUES

<i>First column</i>	<i>Second column</i>	<i>Third column</i>
<i>Fuel</i>	<i>Factor</i>	<i>Unit</i>
1. Crude Oil and Petroleum Products		
(a) Aviation Gasoline	44.3	TJ/ 10 <sup>3</sup> tonnes
(b) Bitumen	40.2	TJ/ 10 <sup>3</sup> tonnes
(c) Crude Oil	42.3	TJ/ 10 <sup>3</sup> tonnes
(d) Ethane	46.4	TJ/ 10 <sup>3</sup> tonnes
(e) Gas/Diesel Oil	43.0	TJ/ 10 <sup>3</sup> tonnes
(f) Jet Gasoline	44.3	TJ/ 10 <sup>3</sup> tonnes
(g) Jet Kerosene	44.1	TJ/ 10 <sup>3</sup> tonnes

SECOND SCHEDULE — *continued*

<i>First column</i>	<i>Second column</i>	<i>Third column</i>
<i>Fuel</i>	<i>Factor</i>	<i>Unit</i>
(h) Other Kerosene	43.8	TJ/ 10 <sup>3</sup> tonnes
(i) Liquefied Petroleum Gases	47.3	TJ/ 10 <sup>3</sup> tonnes
(j) Lubricants	40.2	TJ/ 10 <sup>3</sup> tonnes
(k) Motor Gasoline	44.3	TJ/ 10 <sup>3</sup> tonnes
(l) Naphtha	44.5	TJ/ 10 <sup>3</sup> tonnes
(m) Natural Gas Liquids	44.2	TJ/ 10 <sup>3</sup> tonnes
(n) Orimulsion	27.5	TJ/ 10 <sup>3</sup> tonnes
(o) Paraffin Waxes	40.2	TJ/ 10 <sup>3</sup> tonnes
(p) Petroleum Coke	32.5	TJ/ 10 <sup>3</sup> tonnes
(q) Refinery Feedstock	43.0	TJ/ 10 <sup>3</sup> tonnes
(r) Refinery Gas	49.5	TJ/ 10 <sup>3</sup> tonnes
(s) Residual Fuel Oil	40.4	TJ/ 10 <sup>3</sup> tonnes
(t) Shale Oil	38.1	TJ/ 10 <sup>3</sup> tonnes
(u) White Spirit and Special Boiling Point (SBP) Spirit	40.2	TJ/ 10 <sup>3</sup> tonnes
(v) Other Petroleum Products	40.2	TJ/ 10 <sup>3</sup> tonnes
2. Solid Fuel		
(a) Anthracite	26.7	TJ/ 10 <sup>3</sup> tonnes
(b) Brown Coal Briquettes	20.7	TJ/ 10 <sup>3</sup> tonnes
(c) Coal Tar	28.0	TJ/ 10 <sup>3</sup> tonnes
(d) Coke Oven Coke and Lignite Coke	28.2	TJ/ 10 <sup>3</sup> tonnes
(e) Coking Coal	28.2	TJ/ 10 <sup>3</sup> tonnes
(f) Gas Coke	28.2	TJ/ 10 <sup>3</sup> tonnes
(g) Lignite	11.9	TJ/ 10 <sup>3</sup> tonnes
(h) Oil Shale and Tar Sands	8.9	TJ/ 10 <sup>3</sup> tonnes
(i) Patent Fuel	20.7	TJ/ 10 <sup>3</sup> tonnes

SECOND SCHEDULE — *continued*

<i>First column</i>	<i>Second column</i>	<i>Third column</i>
<i>Fuel</i>	<i>Factor</i>	<i>Unit</i>
(j) Sub-Bituminous Coal	18.9	TJ/ 10 <sup>3</sup> tonnes
(k) Other Bituminous Coal	25.8	TJ/ 10 <sup>3</sup> tonnes
3. Derived Gases		
(a) Blast Furnace Gas	2.47	TJ/ 10 <sup>3</sup> tonnes
(b) Coke Oven Gas	38.7	TJ/ 10 <sup>3</sup> tonnes
(c) Oxygen Steel Furnace Gas	7.06	TJ/ 10 <sup>3</sup> tonnes
(d) Town Gas (Gas Works Gas)	38.7	TJ/ 10 <sup>3</sup> tonnes
4. Natural Gas		
(a) Natural Gas	48.0	TJ/ 10 <sup>3</sup> tonnes
5. Non Fossil-based Fuel		
(a) Industrial Waste	10.0	TJ/ 10 <sup>3</sup> tonnes
(b) Municipal Waste	8.5	TJ/ 10 <sup>3</sup> tonnes
(c) Waste Oils	40.2	TJ/ 10 <sup>3</sup> tonnes
6. Peat		
(a) Peat	9.76	TJ/ 10 <sup>3</sup> tonnes
7. Biomass and Fuel Derived from Biomass		
(a) Biodiesels	27.0	TJ/ 10 <sup>3</sup> tonnes
(b) Biogasoline	27.0	TJ/ 10 <sup>3</sup> tonnes
(c) Charcoal	29.5	TJ/ 10 <sup>3</sup> tonnes
(d) Landfill Gas	50.4	TJ/ 10 <sup>3</sup> tonnes
(e) Sludge Gas	50.4	TJ/ 10 <sup>3</sup> tonnes
(f) Sulphite Lyes (Black Liquor)	11.8	TJ/ 10 <sup>3</sup> tonnes
(g) Wood/Wood Waste	15.6	TJ/ 10 <sup>3</sup> tonnes
(h) Other Biogas	50.4	TJ/ 10 <sup>3</sup> tonnes
(i) Other Liquid Biofuel	27.4	TJ/ 10 <sup>3</sup> tonnes

SECOND SCHEDULE — *continued*

<i>First column</i>	<i>Second column</i>	<i>Third column</i>
<i>Fuel</i>	<i>Factor</i>	<i>Unit</i>
(j) Other Primary Solid Biomass	11.6	TJ/ 10 <sup>3</sup> tonnes
8. Hydrogen		
(a) Hydrogen (H <sub>2</sub> )	120	TJ/ 10 <sup>3</sup> tonnes.

## THIRD SCHEDULE

Paragraph 3(5)

## DEFAULT ENERGY CONTENT VALUES

<i>First column</i>	<i>Second column</i>	<i>Third column</i>
<i>Energy commodity</i>	<i>Factor</i>	<i>Unit</i>
1. Chilled Water	5.87	GJ/ 10 <sup>3</sup> tonnes
2. Compressed Air	240	kJ/ cubic metre
3. Steam	2.64	TJ/ 10 <sup>3</sup> tonnes.

## FOURTH SCHEDULE

Paragraph 4

## TRANSPORT FACILITY OPERATORS

## PART I

LAND TRANSPORT OPERATORS DECLARED TO BE  
TRANSPORT FACILITY OPERATORS

<i>First column</i>	<i>Second column</i>
<i>Land transport operator</i>	<i>Date</i>
1. SMRT Trains Ltd	1st January 2014
2. SMRT Light Rail Pte Ltd	1st January 2014
3. SMRT Buses Ltd	1st January 2014
4. SBS Transit Ltd	1st January 2014
5. SBS Transit DTL Pte Ltd	1st January 2014

FOURTH SCHEDULE — *continued*

## PART II

PORT SERVICE OPERATORS DECLARED TO BE  
TRANSPORT FACILITY OPERATORS

<i>First column</i>	<i>Second column</i>
<i>Port service operator</i>	<i>Date</i>
1. PSA Corporation Limited	1st January 2014
2. Jurong Port Private Limited	1st January 2014

Made this 26th day of December 2013.

PANG KIN KEONG  
*Permanent Secretary,*  
*Ministry of Transport,*  
*Singapore.*

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