



GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

[GP/ST/No.45/2024]



ENERGY EFFICIENCY AND CONSERVATION ACT 2024
[Act 861]

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

GP/ST/No.45/2024

IN exercise of the powers conferred by sections 7 and 67 of the Energy Efficiency and Conservation Act 2024 [Act 861], the Commission issues the following guidelines:

Citation and commencement

1. These guidelines may be cited as the Guidelines on Energy Efficiency and Conservation Report.
2. These Guidelines shall come into operation on 1 January 2025.

Purpose

3. The purposes of these Guidelines are to—
 - (a) specify the parameters and data that shall be reported in the energy efficiency and conservation report;
 - (b) specify the manner to collect the necessary data; and
 - (c) specify the energy efficiency and conservation measures for the preparation of the energy efficiency and conservation report.

Dated: 30 December 2024

DATO' IR. TS. ABDUL RAZIB BIN DAWOOD

Chief Executive Officer
Energy Commission

TABLE OF CONTENTS

1.	SCOPE.....	4
2.	INTERPRETATION.....	4
3.	INTRODUCTION.....	6
4.	EE&C REPORT.....	7
4.1.1	PREMISE PROFILE	7
4.1.2	ENERGY INFORMATION.....	8
4.1.3	PREMISE OPERATION INFORMATION	8
4.1.4	EnMS.....	9
4.1.5	ENERGY CONSUMPTION DATA.....	9
4.1.6	PRODUCTION AND SEC FOR INDUSTRY SECTOR.....	9
4.1.7	VARIABLE DATA.....	11
4.1.8	EIP FOR COMMERCIAL SECTOR.....	12
4.1.9	ESM.....	13
5.	SUBMISSION OF REPORT	17
6.	APPENDIXES	18
	APPENDIX A: CONVERSION COEFFICIENTS AND EQUIVALENCE	18
	APPENDIX B: SELECTION OF SECTOR, SUBSECTOR AND PRODUCT TYPES	20

1. SCOPE

These Guidelines shall apply to—

- (a) any energy consumer specified under section 3 of the Energy Efficiency and Conservation Act 2024 [Act 861]; and
- (b) registered energy manager under section 27 of the Energy Efficiency and Conservation Act 2024 [Act 861].

2. INTERPRETATION

In these Guidelines, the following terms shall bear the following meanings:

- “Act”** means the Energy Efficiency and Conservation Act 2024 [Act 861];
- “Commission”** has the meaning assigned to it under the Energy Efficiency and Conservation Act 2024 [Act 861];
- “EE&C report”** means the energy efficiency and conservation report under section 7 of the Act;
- “EIP”** means Energy Intensity Performance;
- “EnMS”** means an energy management system, which is a set of interrelated or interacting elements to establish an energy policy and energy objectives, and the processes and procedures to achieve the energy objectives
- “ESM”** means the Energy Saving Measures which refers to range of actions, strategies, and practices implemented

to reduce energy consumption and improve energy efficiency in various systems, processes, and operations;

“GFA”

means the Gross Floor Area which refers to the total area of floor space within a building, as measured between the external sides of wall or, in the case of party walls, between the centres of such walls but it excludes the following areas:

- (a) parking spaces and circulation areas, including any mechanical or electrical spaces within the parking area of the building;
- (b) open or covered parking area outside the building;
- (c) staircases and lift shafts on floors other than the ground floor or lobby;
- (d) waiting area for commercial vehicles unloading goods;
- (e) gardens or recreational facilities for residents provided on the rooftop or podium in open or semi-open spaces;
- (f) pedestrian pathway connected to the building or transit station, including any supporting activities; and
- (g) pedestrian pathways within building functioning as public walkways.

“POE”

means the Percentage Of Energy which refers to the fraction of energy used from the total energy consumption of each month to produce each product for that month in percentage;

“REM”

means the registered energy manager;

“SEC” means the Specific Energy Consumption which refers to the amount of energy consumed per unit of output or activity in a specific process, system, or sector;

“UOM” means Unit of Measurement.

3. INTRODUCTION

3.1 These Guidelines are issued to set out the manner for the preparation of the EE&C report by the REM and the submission of the EE&C report by the energy consumer.

3.2 The flow and timeline of the EE&C report submission process are illustrated in Figure 1 as follows:

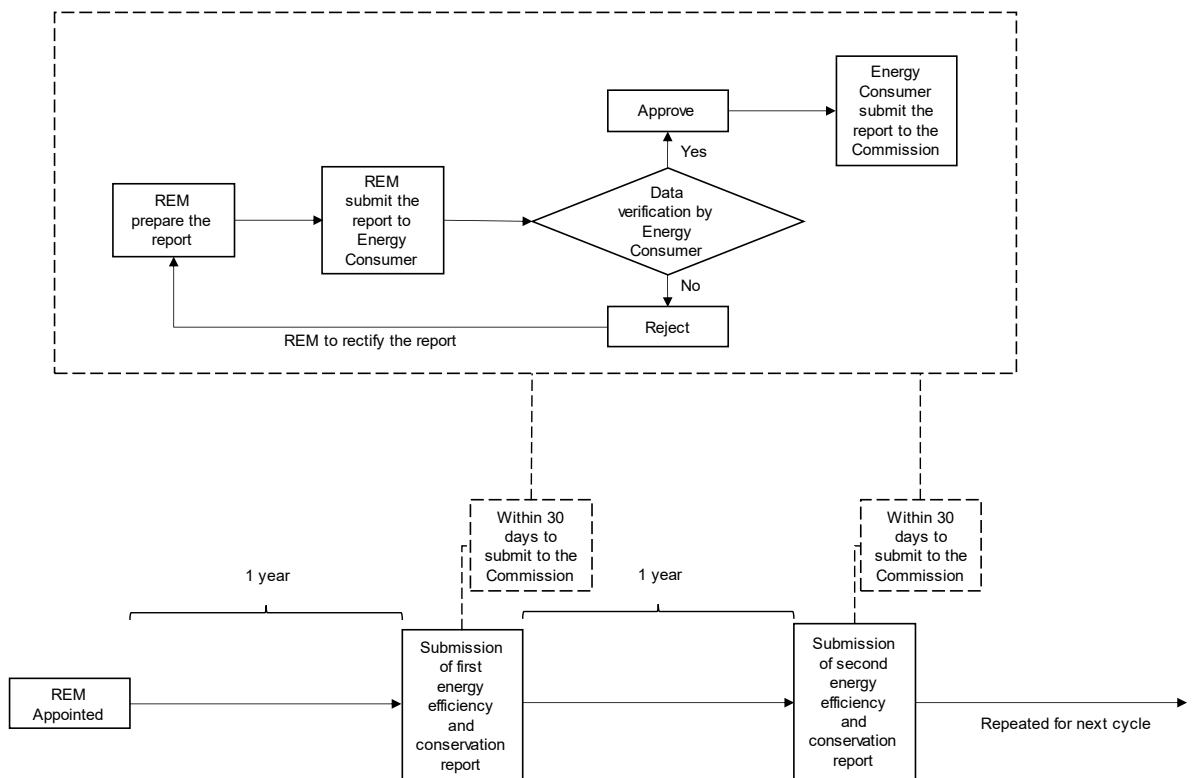


Figure 1: The EE&C report submission process

4. EE&C REPORT

4.1. Pursuant to section 7 of the Act, the EE&C report shall contain the following information:

4.1.1 Premise profile

4.1.1.1 The information that shall be provided under the premise profile includes but not limited to the following:

- (a) name of the premise;
- (b) address of the premise;
- (c) the details of the person in charge of the premise including—
 - (i) name;
 - (ii) designation;
 - (iii) telephone; and
 - (iv) email;
- (d) details of the REM including—
 - (i) name;
 - (ii) certificate of registration number;
 - (iii) expiry date of the practising certificate;
 - (iv) telephone; and
 - (v) email;
- (e) types of sector; and
- (f) types of subsector.

4.1.1.2 The types of sector and subsector are specified in **Appendix B: Selection Of Sector, Subsector And Product Types.**

4.1.2 Energy information

The information that shall be provided under the the energy information includes but not limited to the following:

- (a) energy resources specified under First Schedule of the Act with UOM;
- (b) energy specified under the Second Schedule of the Act with UOM;
- (c) energy supplier;
- (d) account number; and
- (e) tariff category.

4.1.3 Premise operation information

4.1.3.1 The information that shall be provided under the premise operation information includes but not limited to the following:

- (a) for commercial sector—
 - (i) GFA [m²];
 - (ii) air-conditioned area [m²];
 - (iii) data centre area [m²];
 - (iv) enclosed parking area [m²]; and
 - (v) external corridor area [m²]; or
- (b) for industry sector—
 - (i) types of product;
 - (ii) product name; and

(iii) UOM.

4.1.3.2 The types of sector and subsector are specified in **Appendix B: Selection Of Sector, Subsector And Product Types**.

4.1.4 EnMS

4.1.4.1 The REM shall develop an EnMS in accordance with the Guidelines on Energy Management System.

4.1.4.2 The REM shall establish the Energy Management Policy and the Energy Management Committee.

4.1.4.3 The information that shall be provided under the EnMS includes but not limited to the following:

(a) Energy Management Policy; and

(b) Energy Management Committee.

4.1.5 Energy consumption data

4.1.5.1 The energy consumption data shall be reported for a period of not less than twelve consecutive months for each energy or energy resources in the original UOM.

4.1.5.2 The energy consumption data will be automatically converted to GJ in the online system based on the conversion table specified in **Appendix A: Conversion Coefficients and Equivalence**.

4.1.6 Production and SEC for industry sector

4.1.6.1 The information that shall be provided under the production and SEC includes but not limited to the following:

(a) the data on production quantity for a period of not less than twelve consecutive months; and

(b) POE used for each production quantity.

- 4.1.6.2 If a company has—
- (a) only one product, the POE shall be 100%; or
 - (b) more than one product, the summation of the POE for each product in each month shall be 100%.
- 4.1.6.3 POE may be determined from the submetering or from the energy audit activity.
- 4.1.6.4 SEC shall be automatically calculated by the online system.
- 4.1.6.5 The calculation of SEC shall include the energy usage both in the production area and non-production area including the office areas and common facilities in the premise.
- 4.1.6.6 The formulas to calculate the monthly SEC and total SEC are shown in Equations 1 and 2, respectively, as follows:

- (a) monthly SEC; and

$$SEC_{Monthly} = \frac{E * \frac{POE}{100}}{P}$$

Equation 1

Where:

- E = Energy (GJ)
- POE = Percentage of Energy (%)
- P = Production Quantity

- (b) total SEC for specific product.

$$SEC_{Total} = \frac{\sum_{n=1}^{12} \left(E_n * \frac{POE_n}{100} \right)}{\sum_{n=1}^{12} P_n}$$

Equation 2

Where:

E = Energy (GJ)

POE = Percentage of Energy (%)

P = Production Quantity

n = month

4.1.7 Variable data

- 4.1.7.1 Variable data refers to the factors that affect the energy consumption at the premise such as the number of shutdown days, cooling degree days, occupancy rate, etc.
- 4.1.7.2 Prior to reporting the variable data in the online system, the REM shall make assesment on the impact of the variable data to energy consumption of the premise.
- 4.1.7.3 For the purpose of identifying all variable data, the REM shall consider the premise and effect of the variable to the energy.
- 4.1.7.4 The REM shall compile all variable data that may affect the energy consumption of the premise.
- 4.1.7.5 For the purpose of assessing the impact of the variable data to the energy consumption of the premise, mathematical modelling by way of regression analysis may be used to identify the key variable data that affect the energy consumption. Regression analysis is a statistical technique that estimates the dependence of a variable of interest which refers to the energy consumption on one or more independent

variables which refers to the variables that need to be reported.

4.1.7.6 The variable data shall be reported for a period of not less than twelve consecutive months.

4.1.7.7 For the industry sector, any variable data other than the production data may be reported.

4.1.8 EIP for commercial sector

4.1.8.1 An EIP is a method of calculation associating the energy consumption of the building to the factors such as the variable data which influence such energy consumption.

4.1.8.2 The variable data used in calculating the EIP may depend on the type and category of the building, which includes but not limited to the following:

(a) the GFA of the building;

(b) Information Technology (IT) equipment energy in data centre;

(c) the rate of occupancy;

(d) the number of beds in healthcare facility; or

(e) the number of rooms in hotel.

4.1.8.3 The variable data used in calculating the EIP shall be determined by the Commission in the online system.

4.1.8.4 The EIP for a period of not less than twelve consecutive months shall be automatically calculated by the online system on both an annual and monthly basis.

4.1.9 ESM

4.1.9.1 There are two sections in the ESM report namely List of ESM and Summary of Implemented ESM.

4.1.9.2 List of ESM

(a) The List of ESM shall include the status of ESM that occurs during the reporting period namely Proposed, Rejected, In Progress or Completed status. Any ESM that has been reported in the previous report, that has Completed status during the next reporting period, does not have to be reported again.

(b) The information that shall be provided in the List of ESM includes but not limited to the following:

- (i) Category of ESM;
- (ii) Type of ESM;
- (iii) ESM Description;
- (iv) Investment Cost (MYR); and
- (v) Status of ESM.

(c) The flow of reporting the ESM status specified in the List of ESM is illustrated in Figure 2 as follows:

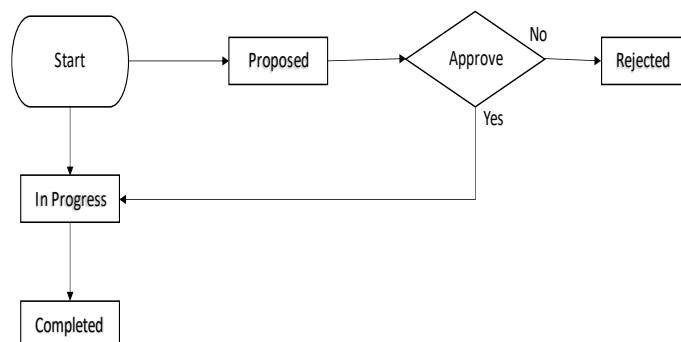


Figure 2: ESM status reporting process steps

4.1.9.3 Summary of Implemented ESM

- (a) Any completed ESM within the reporting period shall be reported in the Summary of Implemented ESM.
- (b) The information that shall be provided in the Summary of Implemented ESM includes but not limited to the following:
 - (i) Category of ESM;
 - (ii) Type of ESM;
 - (iii) ESM Description;
 - (iv) Yearly Savings (GJ);
 - (v) Yearly Savings Cost (MYR);
 - (vi) Investment Cost (MYR);
 - (vii) Simple Payback Period (Years);
 - (viii) Month Completed which refers to the month of the ESM implemented, not the duration of the project;
and
 - (ix) Year Completed which refers to the year of the ESM implemented, not the duration of the project.
- (c) For Yearly Savings (GJ) and Yearly Savings Cost (MYR), if the actual data for one year is not available, the estimation for one year savings is acceptable.
- (d) The formula to calculate simple payback period are shown in Equation 3 s follows:

Simple Payback Period (years)

$$= \frac{\text{Investment Cost (MYR)}}{\text{Yearly Savings Cost (MYR)}}$$

Equation 3

4.1.9.4 Category of ESM is defined as the implementation level of the ESM. Category of ESM may consist as follows:

(a) Operation

Operation category includes any energy saving measures performed through changes, improvement, optimization in the process, control, or operation.

(b) System

The system category covers improvement and optimization performed for a set of components (e.g., a pump system may consist of pipe, valves, pump, etc.).

(c) Equipment

Equipment category is specifically dedicated to the ESM of a component such as new installation or retrofitting.

4.1.9.5 The category of ESM may appear in more than one type of ESM. The type of ESM includes but not limited to the following:

(a) air conditioner / chiller / air handling unit (AHU) / cooling tower;

(b) compressor;

(c) fan;

(d) lighting;

(e) motor;

(f) pump;

(g) boiler;

- (h) thermal oil heater;
- (i) furnace;
- (j) heater;
- (k) dryer;
- (l) burner;
- (m) heat exchanger;
- (n) passive design;
- (o) awareness program – (Operation category only);
- (p) energy monitoring system – (Operation category only);
- (q) process – (Operation category only);
- (r) cogeneration/trigeneration – (System category only);
- (s) renewable energy – (System category only);
- (t) waste heat recovery system – (System category only);
or
- (u) inverter / variable speed drive (VSD) / variable frequency drive (VFD) – (Equipment category only).

4.1.9.6 Example of combination of different categories and type of ESM are illustrated in Figure 3 as follows:

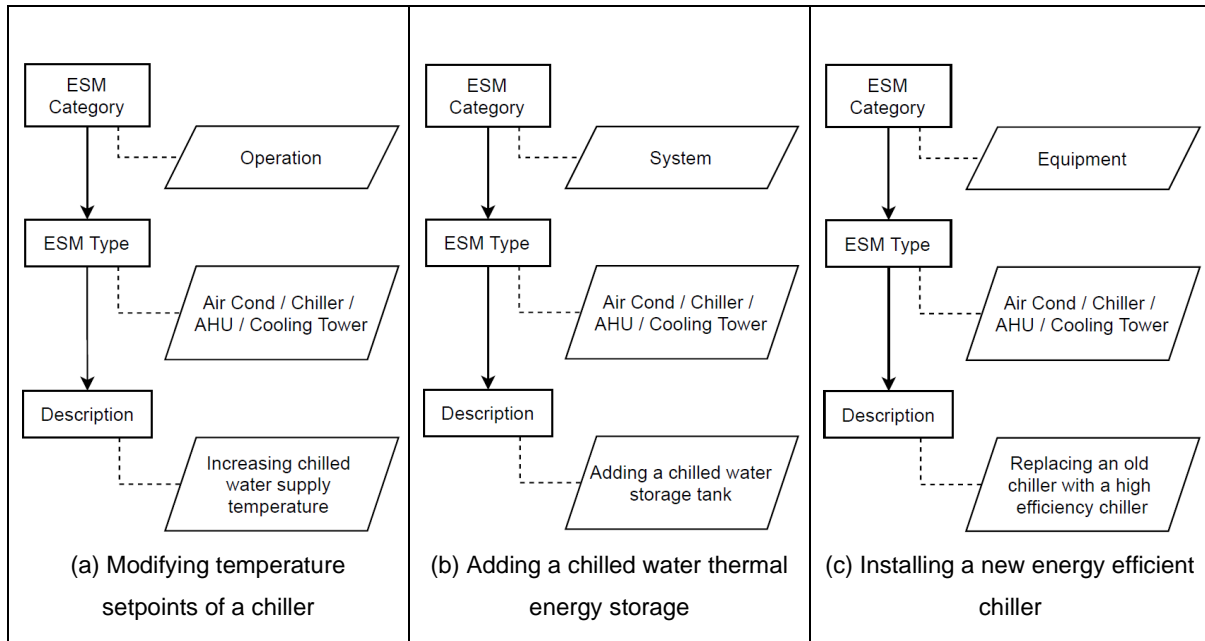


Figure 3: Example on the combinations of ESM Category and Type, which are decided based on the energy saving measures.

4.1.9.7 For ESM with Rejected status, it is compulsory to justify the rejection of the ESM in the report.

5. SUBMISSION OF REPORT

The EE&C report shall be submitted through the online system provided by the Commission. All information given in the report will be kept strictly confidential.

6. APPENDIXES

APPENDIX A: CONVERSION COEFFICIENTS AND EQUIVALENCE

Energy Resources

<i>Energy Resources</i>	<i>Conversion Coefficients/Equivalence</i>
Hard coal	29.3076 GJ/tonne
Coke/oven coke	26.3768 GJ/tonne
Gas coke	26.3768 GJ/tonne
Brown coal coke	19.6361 GJ/tonne
Pattern fuel briquettes	29.3076 GJ/tonne
Lignite/brown coal	11.2834 GJ/tonne
Peat	9.5250 GJ/tonne
Lignite briquettes	19.6361 GJ/tonne
Liquefied Natural Gas (LNG)	45.1923 GJ/tonne
Butane	50.393 GJ/tonne
Propane	49.473 GJ/tonne
Liquefied Petroleum Gas (LPG) (Mixture of Butane and Propane)	0.045544 GJ/kg
	0.13640 GJ/m ³
Natural Gas	1000 GJ/mscf
	1.055 GJ/mmbtu
	0.02898 GJ/m ³
Ethane	1,067.82 GJ/mscf
Methane	1,131.31 GJ/mscf
Solar Photovoltaic	0.0036 GJ/kWh
Solar Thermal	0.0036 GJ/kWh
Biogas	50.4 GJ/tonne
Biodiesel	27.0 GJ/tonne
Charcoal	29.5 GJ/tonne
Empty Fruit Bunch (EFB)	18.8 GJ/tonne
Fuelwood	15.6 GJ/tonne
Mesocarp Fibre	18.8 GJ/tonne
Palm Kernel Shell (PKS)	20.1 GJ/tonne

Energy

<i>Energy</i>	<i>Conversion Coefficients/Equivalence</i>
Electricity	0.0036 GJ/kWh
Chilled water	0.01266 GJ/RTH
Steam (Saturated condition) <ul style="list-style-type: none"> • at 10 bar steam pressure • at 8 bar steam pressure • at 6 bar steam pressure 	2.78 GJ/tonne 2.77 GJ/tonne 2.76 GJ/tonne
Hot water (Saturated condition) <ul style="list-style-type: none"> • at 80°C hot water temperature • at 90°C hot water temperature 	0.335 GJ/tonne 0.377 GJ/tonne

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

APPENDIX B: SELECTION OF SECTOR, SUBSECTOR AND PRODUCT TYPES

1. Industry Sector

No.	Subsector	Product Type	Note:
1	Agriculture	Poultry	<p>This class includes:</p> <ul style="list-style-type: none"> - Raising, breeding and production of chicken, broiler - Raising, breeding and production of ducks - Raising, breeding and production of geese - Raising, breeding and production of quails - Raising and breeding of other poultry n.e.c. - Production of chicken eggs - Production of duck eggs - Production of other poultry eggs n.e.c. - Operation of poultry hatcheries
2	Aquaculture	Marine Aquaculture	<p>This class includes:</p> <ul style="list-style-type: none"> - Fish farming in sea water - Production of bivalve spat (oyster, mussel), lobster lings, shrimp post-larvae, fish fry and fingerlings - Growing of laver and other edible seaweeds - Culture of crustaceans, bivalves, other molluscs and other aquatic animals in sea water - Aquaculture activities in brackish water - Aquaculture activities in salt water filled tanks or reservoirs - Operation of hatcheries (marine) - Operation of marine worm farms for fish feed - Marine aquaculture n.e.c.
		Freshwater Aquaculture	<p>This class includes:</p> <ul style="list-style-type: none"> - Fish farming in freshwater - Shrimp farming in freshwater - Culture of freshwater crustaceans, bivalves, other molluscs and other aquatic animals - Operation of hatcheries (freshwater) - Farming of frogs - Freshwater aquaculture n.e.c.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
3	Mining and Quarrying	Mining of Hard Coal	<p>This class includes:</p> <ul style="list-style-type: none"> - Mining of hard coal <p>Includes:</p> <ul style="list-style-type: none"> (a) underground or surface mining, including mining through liquefaction methods (b) cleaning, sizing, grading, pulverizing, compressing, etc. of coal to classify, improve quality or facilitate transport or storage (c) recovery of hard coal from culm banks
		Mining of Lignite	<p>This class includes:</p> <ul style="list-style-type: none"> - Mining of lignite (brown coal) <p>Includes</p> <ul style="list-style-type: none"> (a) underground or surface mining, including mining through liquefaction methods (b) washing, dehydrating, pulverizing, compressing of lignite to improve quality or facilitate transport or storage
		Extraction of Crude Petroleum	<p>This class includes:</p> <ul style="list-style-type: none"> - Extraction of crude petroleum oils - Extraction of bituminous or oil shale and tar sand - Production of crude petroleum from bituminous shale and sand - Processes to obtain crude oils
		Extraction of Natural Gas	<p>This class includes:</p> <ul style="list-style-type: none"> - Production of crude gaseous hydrocarbon (natural gas) - Extraction of condensates - Draining and separation of liquid hydrocarbon fractions - Gas desulphurization - Mining of hydrocarbon liquids, obtain through liquefaction or pyrolysis
		Mining of Iron Ores	<p>This class includes:</p> <ul style="list-style-type: none"> - Mining of ores valued chiefly for iron content - Beneficiation and agglomeration of iron ores

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Mining of Non-Ferrous Metal Ores	<p>This class includes:</p> <ul style="list-style-type: none"> - Mining of uranium and thorium ores - Mining of tin ores - Mining of copper - Mining of bauxite (aluminium) - Mining of ilmenite - Mining of gold - Mining of silver - Mining of platinum - Amalgam retreatment - Mining of other non-ferrous metal ores n.e.c.
		Quarrying of Stone, Sand and Clay	<p>This class includes:</p> <ul style="list-style-type: none"> - Quarrying, rough trimming and sawing of monumental and building stone such as marble, granite (dimension stone), sandstone - Quarrying, crushing and breaking of limestone - Mining of gypsum and anhydrite - Mining of chalk and uncalcined dolomite - Extraction and dredging of industrial sand, sand for construction and gravel - Breaking and crushing of stone and gravel - Quarrying of sand - Mining of clays, refractory clays and kaolin - Quarrying, crushing and breaking of granite
		Mining of Chemical and Fertilizer Minerals	<p>This class includes:</p> <ul style="list-style-type: none"> - Mining of natural phosphates - Mining of natural potassium salts - Mining of native sulphur - Extraction and preparation of pyrites and pyrrhotite, except roasting - Mining of natural barium sulphate and carbonate (barytes and witherite) - Mining of natural borates, natural magnesium sulphates (kieserite) - Mining of earth colours, fluorspar and other minerals valued chiefly as a source of chemicals - Guano mining

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Extraction of Peat	This class includes: <ul style="list-style-type: none"> - Peat digging - Peat agglomeration - Preparation of peat to improve quality or facilitate transport or storage
		Extraction of Salt	This class includes: <ul style="list-style-type: none"> - Extraction of salt from underground - Salt production by evaporation of sea water or other saline waters - Crushing, purification and refining of salt by the producer

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
4	Manufacture of Food Products	Meat Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Processing and preserving of meat and production of meat products Includes: <ul style="list-style-type: none"> (a) production of fresh, chilled or frozen meat, in carcasses (b) production of fresh, chilled or frozen meat, in cuts (c) production of fresh, chilled or frozen meat, in individual portions (d) production of dried, salted or smoked meat (e) production of meat products (e.g. sausages, salami boiled ham, etc.) (f) rendering of lard and other edible fats of animal origin (g) production of fresh chilled or frozen meat of ostrich and rabbit (h) production of fresh, chilled or frozen edible offal of bovine, sheep, goat and swine (i) production of frozen bovine tongue (j) production of fresh chilled or frozen offal of ostrich and rabbit - Processing and preserving of poultry and poultry products Includes: <ul style="list-style-type: none"> (a) production of fresh, chilled or frozen poultry, in carcasses (b) production of fresh, chilled or frozen poultry, in cuts (c) production of fresh, chilled or frozen poultry, in individual portions (d) production of dried, salted or smoked poultry (e) production of poultry products (e.g. sausages, etc.) (f) production of fresh, chilled or frozen meat quail (g) production of fresh, chilled or frozen offal of chicken, duck, geese and turkey - Production of hides and skins originating from slaughterhouses Includes: <ul style="list-style-type: none"> (a) fellmongery (b) production of bone (c) production of pulled wool (d) production of feathers or down - Operation of slaughterhouses engaged in killing, dressing or packing meat Includes: beef, poultry, lamb, mutton, pork, etc. - Processing and preserving of meat n.e.c.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Fish Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Canning of fish, crustaceans and molluscs - Processing, curing and preserving of fish, crustacean and molluscs Includes: <ul style="list-style-type: none"> (a) cooked fish, fish fillet, roes, caviar, caviar substitutes, etc. (b) fish ball, fish cake (c) deep-freezing, drying, smoking, salting, immersing in brine, canning, etc. (d) activities of vessels engaged only in the processing and preserving of fish - Production of fish meals for human consumption or animal feed Includes: <ul style="list-style-type: none"> (a) production of meals and solubles from fish and other aquatic animals unfit for human consumption (b) production of fish meals for human consumption or animal feed - Production of keropok including keropok lekor Includes: keropok of fish, shrimps, squids, crabs, etc. - Processing of seaweed
		Fruit and Vegetables Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of fruit and vegetable food products Includes: <ul style="list-style-type: none"> (a) manufacture of food consisting chiefly of fruit, except ready-made dishes in frozen or canned form (b) preserving of fruit (e.g. freezing, drying, immersing in oil or in vinegar, canning, etc.) (c) manufacture of food consisting chiefly of vegetables except readymade dishes in frozen or canned form (d) preserving of vegetables (e.g. freezing, drying, immersing in oil or in vinegar, canning, etc.) (e) manufacture of frozen potatoes, kerepek, potato chips from vegetables (uncooked) (f) manufacture of perishable prepared food and vegetables (e.g. salads, peeled or cut vegetables) (g) manufacture of dehydrated mashed potatoes and frozen potatoes - Manufacture of fruit and vegetable juices Includes: production of concentrates from fresh fruits and vegetables except pineapples - Pineapple canning Includes: canning of pineapple juice and jam - Manufacture of jams, marmalades and table jellies - Manufacture of nuts and nut products Includes: <ul style="list-style-type: none"> (a) roasting of nuts (b) manufacture of nut foods and pastes - Manufacture of bean curd products Includes: manufacture of tofu and fucuk

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Vegetable and Animal Oils and Fats	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of crude palm oil - Manufacture of refined palm oil - Manufacture of palm kernel oil - Manufacture of crude and refined vegetable oil Includes: <ul style="list-style-type: none"> (a) manufacture of linseed oil, crude (b) manufacture of refined linseed oil (c) manufacture of refined groundnut oil (d) processing of vegetable oil (e.g. blowing, boiling, dehydration and hydrogenation, etc.) (e) production of cotton linter, oil cake and other residual products of oil production (f) manufacture of non-defatted flour or meal of oil seed, oil nut and oil kernel (g) manufacture of other food vegetable oil n.e.c. (e.g. maize/corn oil, soya oil, sunflower oil) (h) manufacture of other refined vegetable oil n.e.c. - Manufacture of coconut oil Includes: manufacture of crude and refined coconut, coconut cakes and copra - Manufacture of compound cooking fats Includes: <ul style="list-style-type: none"> (a) manufacture of margarine (b) manufacture of mélanges and similar spreads - Manufacture of animal oils and fats Includes: <ul style="list-style-type: none"> (a) manufacture of fats and oils derived from milk (e.g. ghee, butter oil, anhydrous milk fat, etc.) (b) manufacture of non-edible animal oils and fats (c) extraction of fish and marine mammal oils (d) production of tallow and other edible fats of animals origin (e) rendering of fats of animals origin (f) extraction of oil of animal origin

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Dairy Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of ice cream and other edible ice such as sorbet - Manufacture of condensed, powdered and evaporated milk Includes: <ul style="list-style-type: none"> (a) manufacture of fresh liquid milk, pasteurized, sterilized, homogenized and/or ultra heat treated (b) manufacture of cream from fresh liquid milk, pasteurized, sterilized, homogenized (c) manufacture of dried or concentrated milk whether or not sweetened (d) manufacture of infant formula milk - Manufacture of other dairy products n.e.c. Includes: <ul style="list-style-type: none"> (a) manufacture of milk-based soft drinks (b) manufactured of milk or cream in solid form (c) manufactured of yoghurt (d) manufacture of casein or lactose (e) manufacture of cheese and cheese products (f) manufacture of butter (g) manufacture of follow up milk and other follow up foods
		Grain Mill Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Rice milling Includes: production of husked, milled, polished, glazed, parboiled or converted rice - Provision of milling services - Flour milling Includes: <ul style="list-style-type: none"> (a) production of flour or meal of dried leguminous vegetable, of roots or tubers or of edible nuts (b) production of rice flour (c) milling to produce rice flour, soya bean flour, wheat flour, gram flour and the like (d) manufacture of roots (e.g. potatoes), potato flour and meal, etc. - Manufacture of grain mill products n.e.c. Includes: <ul style="list-style-type: none"> (a) manufacture of cereal breakfast foods (b) manufacture of flour mixes and prepared blended flour and dough or bread, cakes, biscuits or pancakes

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Starches and Starch Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of starches and starch products Includes: (a) manufacture of starches from rice, potatoes, maize, etc. (b) wet corn milling (c) manufacture of gluten (d) manufacture of tapioca and tapioca substitute prepared from starch - Manufacture of glucose, glucose syrup, maltose, inulin - Manufacture of sago and tapioca flour/products
		Bakery Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of biscuits and cookies Includes: manufacture of rusks - Manufacture of bread, cakes and other bakery products Includes: (a) manufacture of bread and rolls (b) manufacture of fresh pastry, pies, tarts, production of egg-based dessert (e.g. egg custard), etc. (c) manufacture of preserved pastry goods, etc. (d) manufacture of dry and other bakery products n.e.c. - Manufacture of snack products Includes: crackers, pretzels, potato snacks, potato crisps, etc., whether sweet or salted - Manufacture of frozen bakery products Includes: pancakes, waffles, rolls, roti canai, murtabak, etc.
		Sugar	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of sugar Includes: (a) manufacture of refining of sugar (sucrose) and sugar substitutes from juice of cane, beet, maple and palm (b) manufacture of sugar syrups (c) manufacture of molasses - Manufacture of sugar products Includes: gula melaka, gula enau, etc.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Cocoa, Chocolate and Sugar Confectionery	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of cocoa products Includes: manufacture of cocoa mass, cocoa butter/oil/fat, cocoa cake, cocoa powder - Manufacture of chocolate and chocolate products Includes: <ul style="list-style-type: none"> (a) manufacture of chocolate and chocolate confectionery (b) manufacture of semi-process cocoa product such as chocolate lock, chocolate chip, chocolate nugget, chocolate rice - Manufacture of sugar confectionery Includes: <ul style="list-style-type: none"> (a) manufacture of caramels, nougats, white chocolate, etc. (b) manufacture of chewing gum (c) manufacture of confectionery lozenges and pastilles
		Macaroni, Noodles, Couscous and Similar Farinaceous Products	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of canned or frozen pasta products - manufacture of couscous - manufacture of meehoon, noodles and other related products Includes: manufacture of instant noodles, cendol, kuay teow, vermicelli, transparent vermicelli (laksa), glass noodles - Manufacture of pastas Includes: manufacture of spaghetti, macaroni, couscous and similar farinaceous products
		Prepared Meals and Dishes	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of meat or poultry dishes - manufacture of canned stews and vacuum-prepared meals - manufacture of other prepared meals (e.g. TV dinners, etc.) - manufacture of prepared frozen fish dishes, including fish and chips - manufacture of prepared dishes of vegetables - manufacture of frozen or otherwise preserved pizza - manufacture of prepared couscous dishes - manufacturing of perishable prepared foods [e.g. sandwiches, fresh (uncooked) pizza]
		Coffee	<p>This class includes:</p> <ul style="list-style-type: none"> - decaffeinating and roasting of coffee - production of coffee products (e.g. ground coffee, soluble coffee, extract and concentrates of coffee) - manufacture of coffee substitutes

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Tea	This class includes: - blending of tea and mate - extracts and preparations based on tea or mate
		Sauces and Condiments	This class includes: - mayonnaise, mustard flour and meal, prepared mustard, flavouring extracts - manufacture of sauces including flavouring extracts such as monosodium glutamate - manufacture of other sauces and condiments, n.e.c.
		Spices and Curry Powder	This class includes: - white and black pepper powder - manufacture of herb infusions (e.g. mint, vervain, chamomile, etc.) - manufacture of other spices n.e.c.
		Prepared Animal Feeds	This class includes: - manufacture of prepared feeds for pets (e.g. dogs, cats, birds, fish, etc.) - manufacture of prepared feeds for farm animals, including animal feed concentrated and feed supplements - preparation of unmixed (single) feeds for farm animals - treatment of slaughter waste to produce animals feeds
		Other Food Products	This class includes: - manufacture of vinegar - manufacture of artificial honey and caramel - manufacture of yeast - manufacture of extracts and juices of meat, fish, crustaceans or molluscs - manufacture of non-dairy milk (soya) and cheese substitutes - manufacture of baby foods - manufacture of soups and broths, canned or packets - processing of salt into food-grade salt (e.g. iodized salt) - manufacture of artificial concentrates - foods containing homogenized ingredients
5	Manufacture of Beverages	Wines	This class includes: - manufacture of sparkling wine - manufacture of fermented but not distilled alcoholic beverages (e.g. perry, cider, mead or sake, rice wine and toddy) - manufacture of low or non-alcoholic wine - blending of wine

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Malt Liquors and Malt	This class includes: <ul style="list-style-type: none"> - manufacture of malt liquors (e.g. beer, ale, porter and stout) - manufacture of malt - manufacture of low alcohol or non-alcoholic beer
		Soft Drinks	This class includes: <ul style="list-style-type: none"> - Manufacture of soft drinks Includes: <ul style="list-style-type: none"> (a) manufacture of non-alcoholic beverages, except non-alcoholic beer and wine (b) manufacture of soft drinks (non-alcoholic flavoured and/or sweetened waters, e.g. lemonade, orangeade, cola, fruit drinks, tonic waters, etc.)
		Mineral Waters and Other Bottled Waters	This class include: <ul style="list-style-type: none"> - Production of natural mineral water and other bottled water
6	Manufacture of Tobacco Products	Tobacco	This class includes: <ul style="list-style-type: none"> - Manufacture of tobacco products Includes: <ul style="list-style-type: none"> (a) manufacture of tobacco products and products of tobacco substitutes such as cigarettes, cigarettes tobacco, cigars, chewing tobacco, etc. (b) manufacture of "homogenized" or "reconstituted" tobacco (c) stemming and redrying of tobacco
7	Manufacture of Textiles	Preparation and Spinning of Textile Fibres	This class includes: <ul style="list-style-type: none"> - preparatory operations on textiles fibres - spinning and manufacture of yarn or tread for weaving or sewing, for the trade or for further processing - manufacture of paper yarn - spinning of synthetic or artificial fibres

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Weaving of Textiles	This class includes: <ul style="list-style-type: none"> - manufacture of broad woven cotton-type, etc. including from mixtures or artificial or synthetic yarns - manufacture of other broad woven fabrics - manufacture of imitation furs (long-hair cloth obtained by weaving)
		Finishing of Textiles	This class includes: <ul style="list-style-type: none"> - Batik making Includes: silk screen printing on textiles and wearing apparel - Dyeing, bleaching, printing and finishing of yarns and fabrics Includes: <ul style="list-style-type: none"> (a) bleaching and dyeing of textiles fibres, yarns, fabrics and textile articles, including wearing apparel (b) bleaching of jeans - Other finishing of textiles Includes: <ul style="list-style-type: none"> (a) dressing, drying, steaming, shrinking, mending, sanforizing, mercerizing of textiles and textile articles, including wearing apparel (b) pleating and similar work on textiles (c) waterproofing, coating, rubberizing or impregnating purchased garments
		Knitted and Crocheted Fabrics	This class include: <ul style="list-style-type: none"> - Manufacture of knitted and crocheted fabrics Includes: manufacture of imitation fur by knitting

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Made-up Textile Articles, except Apparel	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of made-up articles of any textile materials, including of knitted or crocheted fabrics <p>Includes:</p> <ul style="list-style-type: none"> (a) manufacture of blankets, including travelling rugs (b) manufacture of bed, table, toilet or kitchen linen (c) manufacture of quilts, eiderdowns, cushions, pouffes, pillows, sleeping bas, etc. <ul style="list-style-type: none"> - Manufacture of made-up furnishing articles <p>Includes:</p> <ul style="list-style-type: none"> (a) manufacture of curtains, valances, blinds, bedspreads, furniture or machine covers, etc. (b) manufacture of tarpaulins, tents, camping goods, sails, sun blinds, loose covers for cars, machine, furniture, etc. (c) manufacture of flags, banners, pennants, etc. (d) manufacture of dust cloths, dishcloths and similar articles, life jackets, parachutes, etc. (e) manufacture of other made-up furnishing articles n.e.c.
		Carpets and Rugs	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of carpets and rugs <p>Includes:</p> <ul style="list-style-type: none"> (a) manufacture of needle-loom felt floor coverings (b) manufacture of textile floor coverings (c) manufacture of mats or matting of textiles materials
		Cordage, Rope, Twine and Netting	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of cordage, rope, twine and netting <p>Includes:</p> <ul style="list-style-type: none"> (a) manufacture of twine, cordage, rope and cables of textiles fibres, knotted netting of twine, cordage or rope (b) manufacture of products of rope or netting (e.g. fishing nets, ships' fenders, unloading cushions, loading slings, rope or cable fitted with metal rings, etc.)

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Other Textiles	<p>This class includes:</p> <ul style="list-style-type: none"> (a) manufacture of narrow woven fabrics, including fabrics consisting of warp without weft assembled by means of an adhesive (b) manufacture of labels, badges, etc. (c) manufacture of ornamental trimmings (e.g. braids, tassels, pompons, etc.) (d) manufacture of felt (e) manufacture of non-woven fabrics (f) manufacture of tulle and other net fabrics, and of lace and embroidery, in the piece, in strips or in motifs (g) manufacture of fabrics, impregnated, coated, covered or laminated with plastics (h) manufacture of metallized yarn or gimped yarn or gimped yarn, rubber thread and cord covered with textile material, textiles yarn or strip covered, impregnated, coated or sheathed with rubber or plastics (i) manufacture of tyre cord fabric of high-tenacity man-made yarn (j) manufacture of other treated or coated fabrics (e.g. tracing cloth, canvas prepared for use by painters, buckram and similar stiffened textile fabrics, fabrics coated with gum or amylaceous substances) (k) manufacture of diverse textile articles (e.g. textile wicks, incandescent gas mantles and tubular gas, lighter wicks) (l) mantle fabric, hose piping, transmission or conveyor belts or belting, bolting cloth, straining cloth (m) automotive trimmings (n) manufacture of pressure sensitive cloth-tape (o) artists canvas boards and tracing cloth (p) manufacture of shoe-lace, of textiles (q) manufacture of powder puffs and mitts (r) handicraft spinning and weaving

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
8	Manufacture of Wearing Apparel	Wearing Apparel, except Fur Apparel	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of specific wearing apparel Includes: (a) wearing apparel made of leather or composition leather including leather industrial work accessories as welder's leather aprons (b) manufacture of work wear and service apparel (e.g. laboratory coats, surgical gown, work overalls, uniform) (c) manufacture of school uniforms, etc. (d) manufacture of apparel of elastic fabrics - Manufacture of clothings Includes: (a) manufacture of other outerwear made of woven, knitted or crocheted fabric, non-woven, etc. for men, women and children (b) manufacture of underwear and nightwear made of woven, knitted or crocheted fabric, lace, etc. for men, women and children (c) manufacture of babies garments, tracksuits, ski suits, swimwear, etc. (d) contract manufacturing of clothing (e) manufacture of elastic fabrics cloth - Custom tailoring - Manufacture of other clothing accessories Includes: (a) manufacture of hats and caps (b) manufacture of gloves, belts, shawls, ties, cravats, hairnets, etc. (c) manufacture of headgear of fur skins (d) manufacture of footwear of textile material without applied soles (e) manufacture of parts of the products listed (f) manufacture of apparel trimmed with fur
		Articles of Fur	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of articles made of fur skins - fur wearing apparel and clothing accessories - diverse articles of fur skin (e.g. rugs, unstuffed pouffes, industrial polishing cloths) - assemblies of fur skins (e.g. dropped fur skins, plates, mats, etc.)
		Knitted and Crocheted Apparel	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of knitted and crocheted apparel Includes: (a) manufacture of knitted or crocheted wearing apparel and other madeup articles directly into shape (e.g. pullovers, cardigans, jerseys, waistcoats and similar articles) (b) manufacture of hosiery, including socks, tights and pantyhose

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
9	Manufacture of Leather And Related Products	Luggage, Handbags and the like, Saddlery and Harness	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of luggage, handbags and the like, saddlery and harness - manufacture of luggage, handbags and the like of leather, composition leather or any other materials where the same technology is used as for leather - manufacture of non-metallic watch straps (e.g. fabric, leather, plastic, etc.) - manufacture of diverse articles of leather or composition leather (e.g. driving belts, packing, etc.) - manufacture of plastic luggage - manufacture of saddlery and harness - manufacture of whips and riding crops
		Footwear	<p>This class include:</p> <ul style="list-style-type: none"> - Manufacture of leather footwear Includes: manufacture of leather parts of footwear (e.g. uppers and parts of upper, outer and inner soles, heels, etc.) - Manufacture of plastic footwear - Manufacture of rubber footwear - Manufacture of other footwear n.e.c. Includes: <ul style="list-style-type: none"> (a) manufacture of boots or shoes containing fur parts (b) manufacture of wooden footwear
10	Manufacture of Wood and of Products of Wood and Cork, except Furniture	Sawmilling and Planing of Wood	<p>This class includes:</p> <ul style="list-style-type: none"> - Sawmilling and planning of wood - sawmilling, planning, machining, drying of wood - manufacture of unassembled wooden flooring - impregnation or chemical treatment of wood with preservatives or other materials - manufacture of wooden railway sleepers - manufacture of wood wool, wood flour, chips, particles

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Veneer Sheets and Wood-Based Panels	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of veneer sheets and plywood <p>Includes:</p> <ul style="list-style-type: none"> (a) manufacture of veneer sheets thin enough to be used for veneering, making plywood or other purpose (b) manufacture of plywood, veneer panels and similar laminated wood boards and sheets (c) manufacture of glue laminated wood, laminated veneer wood (d) manufacture of densified wood <ul style="list-style-type: none"> - Manufacture of particle board and fibreboard
		Builders' Carpentry and Joinery	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of builders' carpentry <p>Includes:</p> <ul style="list-style-type: none"> (a) manufacture of wooden goods intended to be used primarily in the construction industry (b) manufacture of prefabricated buildings or elements thereof, predominantly of wood (c) manufacture of mobile homes (d) manufacture of blocks for the manufacture of smoking pipes (e) manufacture of shingles and shakes, beadings and mouldings <ul style="list-style-type: none"> - Manufacture of joinery wood products <p>Includes: manufacture of wood partitions (except free standing)</p>
		Wooden Containers	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of wooden containers - manufacture of packing cases, boxes, crates, drums and similar packing of wood - manufacture of pallets, box pallets and other boards of wood - manufacture of barrels, vats, tubs and other coopers' products of wood - manufacture of wooden cable-drums

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Cork, Straw and Plaiting Materials	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of wood charcoal - Manufacture of other products of wood, cane, articles of cork, straw and plaiting materials <p>Includes:</p> <ul style="list-style-type: none"> (a) wooden handles and bodies for tools, brooms, brushes; household utensils and kitchenware of wood; wooden statuettes and ornaments, wood marquetry, inlaid wood; wooden cases of jewellery, cutlery and similar articles; wooden spools, cops, bobbins, sewing thread reels and similar articles of turned wood (b) floor covering, mats, matting, screens, cases, etc.; basket-ware and wickerwork; wooden mirror and picture frames; frames for artists' canvases; wooden shoe parts; handles for umbrellas, canes including manufacture of cane containers and similar, etc. (c) manufacture of cases of plaiting materials
11	Manufacture of Paper and Paper Products	Pulp, Paper and Paperboard	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of newsprint and other printing or writing paper - manufacture of carbon paper or stencil paper in rolls or large sheets - manufacture of bleached, semi-bleached or unbleached paper pulp by mechanical, chemical (dissolving or non-dissolving or semichemical processes) - manufacture of cotton-linters pulp - removal of ink and manufacture of pulp from waste paper - manufacture of paper and paperboard intended for further industrial processing - further processing of paper and paperboard: <ul style="list-style-type: none"> • coating, covering and impregnation of paper and paperboard • manufacture of crêped or crinkled paper • manufacture of laminates and foils, if laminated with paper or paperboard - manufacture of handmade paper - manufacture of cellulose wadding and webs of cellulose fibres - manufacture of printing and writing paper ready for use - manufacture of computer printout paper ready for use - manufacture of self-copy paper ready for use - manufacture of duplicator stencils and carbon paper ready for use

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Corrugated Paper and Paperboard and of Containers of Paper and Paperboard	This class includes: <ul style="list-style-type: none"> - manufacture of corrugated paper and paperboard - manufacture of containers of corrugated paper and paperboard - manufacture of folding paperboard containers - manufacture of containers of solid board - manufacture of other containers of paper and paperboard - manufacture of sacks and bags of paper - manufacture of office box files and similar articles
		Envelopes and Letter-Card	This class includes: <ul style="list-style-type: none"> - manufacture of correspondence cards or plain postcards
		Household and Personal Hygiene Paper	This class includes: <ul style="list-style-type: none"> - manufacture of cleansing tissue - manufacture of handkerchiefs, towels and serviettes - manufacture of toilet paper - manufacture of textile wadding and articles of wadding: sanitary towel and tampons - manufacture of napkins and napkins liners for babies - manufacture of cups, dishes and tray
		Gummed or Adhesive Paper in Strips or Rolls and Labels and Wall Paper	This class includes: <ul style="list-style-type: none"> - manufacture of label, whether printed or not
		Effigies, Funeral Paper Goods and Joss Paper	

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
12	Printing	Printing of Products	<p>This class includes:</p> <ul style="list-style-type: none"> - printing or reprinting of newspapers, magazines and other periodicals, books and brochures, music and music manuscripts, maps, atlases, posters, advertising catalogues, prospectuses and other printed advertising, postage stamps, taxation stamps, documents of title, cheques, bank notes and other security papers, smart cards, diaries, calendars, business forms and other commercial printed matter; personal stationery and other printed matter by letterpress, oggset, offset, photogravure, flexography and other printing presses, duplication machines, computer printers, embossers, etc., including quick printing - printing directly onto textiles, plastic, glass, metal, wood and ceramics (except silk-screen printing on textiles and wearing apparel) - printing on labels or tags (e.g. lithographic, gravure printing, flexography printing, etc.)
13	Manufacture of Coke and Refined Petroleum Products	Coke Oven Products	<p>This class includes:</p> <ul style="list-style-type: none"> - operation of coke ovens - production of coke and semi-coke - production pitch and pitch coke - production coke oven gas - production crude coal and lignite tars - agglomeration of coke

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Refined Petroleum Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of refined petroleum products <p>Includes:</p> <ul style="list-style-type: none"> (a) production of motor fuel (e.g. gasoline, kerosene, etc.) (b) production of fuel (e.g. light, medium and heavy fuel oil, refinery gases such as ethane, propane, butane, etc.) (c) manufacture of oil-based lubricating oils or greases, including from waste oil (d) manufacture of products for the petrochemical industry and for the manufacture of road coverings (e) manufacture of various products (e.g. white spirit, Vaseline, paraffin wax, petroleum jelly, etc.) (f) manufacture of hard-coal and lignite fuel briquettes (g) manufacture of petroleum briquettes (h) blending of bio fuels, i.e. blending of alcohols with petroleum (e.g. gasohol) (i) recovery of liquefied petroleum gases in the refining of petroleum (j) liquefaction and processing of natural gas, done off mine site (e.g. Malaysia LNG Sdn. Bhd.) and treating of condensate or natural gas to produce purified natural gas or liquefied hydrocarbon gases <ul style="list-style-type: none"> - Manufacture of bio-diesel products
14	Manufacture of Chemicals and Chemical Products	Liquefied or Compressed Inorganic Industrial or Medical Gases	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of liquefied or compressed inorganic industrial or medical gases
		Basic Organic Chemicals	<p>This class includes:</p> <ul style="list-style-type: none"> (a) manufacture of dyes and pigments from any source in basic from concentrate (b) other organic compounds, including wood distillation products (e.g. charcoal), etc. (c) manufacture of ethyl alcohol (d) manufacture of glycerol, synthesized from petroleum products

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Inorganic Compounds	<p>This class includes:</p> <ul style="list-style-type: none"> (a) manufacture of chemical elements (b) manufacture of inorganic acids except nitric acid (c) manufacture of alkalis, lyes and other inorganic bases except ammonia (d) manufacture of other inorganic compounds (e) manufacture of synthetic aromatic products (f) manufacture of other basic chemicals n.e.c. except fertilizers and nitrogen compounds
		Fertilizers and Nitrogen Compounds	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of fertilizers - Manufacture of associated nitrogen products Includes: nitric and sulphonitric acids, ammonia, ammonium chloride, ammonium carbonate, nitrites and nitrates of potassium
		Plastics And Synthetic Rubber In Primary Forms	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of plastics in primary forms Includes: polymers, polyamides, phenolic and epoxide resins, polyurethanes, alkyd, polyester resins, polyethers, silicones, ion-exchangers - Manufacture of synthetic rubber in primary forms: synthetic rubber, factice - Manufacture of mixtures of synthetic rubber and natural rubber or rubber - like gums Includes: manufacture of cellulose and its chemical derivatives
		Pesticides and other Agrochemical Products	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of insecticides, rodenticides, fungicides, herbicides - manufacture of anti-sprouting products, plants growth regulators - manufacture of disinfectants (for agricultural and other use) - manufacture of other agrochemical products n.e.c.
		Paints, Varnishes and Similar Coatings, Printing Ink and Mastics	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of paints and varnishes, enamels or lacquers - manufacture of prepared pigments and dyes, opacifiers and colours - manufacture of vitrifiable enamels and glazes and engobes and similar preparations - manufacture of mastics - manufacture of caulking compounds and similar non-refractory filling or surfacing preparations - manufacture of organic composite solvents and thinners - manufacture of prepared paints or varnish removers - manufacture of printing ink

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Soap and Detergents, Cleaning and Polishing Preparations, Perfumes and Toilet Preparations	This class includes: - Manufacture of soap and detergents, cleaning and polishing preparations Includes: (a) manufacture of organic surface-active agents (b) manufacture of soap for cleaning and polishing (c) manufacture of paper, wadding, felt, etc. coated or covered with soap or detergent (d) manufacture of crude glycerol (e) washing powders in solid or liquid form and detergents (f) dish-washing preparations (g) textile softeners (h) preparations for perfuming or deodorizing rooms (i) artificial waxes and prepared waxes (j) polishes and creams for leather (k) polishes and creams for wood (l) polishes for coachwork, glass and metal (m) scouring pastes and powders, including paper, wadding, etc. coated or covered with these - Manufacture of perfumes and toilet preparations (a) perfumes and toilet water (b) beauty and make-up preparations (c) sunburn prevention and suntan preparations (d) manicure and pedicure preparations (e) shampoos, hair lacquers, waving and straightening preparations (f) dentifrices and preparations for oral hygiene, including denture fixative preparations and denture adhesives (g) shaving preparations, including pre-shave and aftershave preparations (h) deodorants and bath salts (i) manufacture of soap for toilet preparation including shower cream and bath soaps
		Photographic Plates, Films, Sensitized Paper and Other Sensitized Unexposed Materials	This class includes: - Manufacture of photographic plates, films, sensitized paper and other sensitized unexposed materials

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Writing and Drawing Ink	This class includes: - Manufacture of writing and drawing ink
		Other Chemical Products	This class includes: - manufacture of propellant powders - manufacture of explosives and pyrotechnic products, including percussion caps, detonators, signalling flares, etc. - manufacture of gelatine and its derivatives, glues and prepared adhesives, including rubber-based glues and adhesives - manufacture of extracts of natural aromatic products - manufacture of resinoids - manufacture of aromatic distilled waters - manufacture of mixture of odoriferous products for the manufacture of perfumes or food - manufacture of chemical preparations for photographic uses - manufacture of various chemical products such peptones, peptone derivatives, other protein substances and their derivatives n.e.c, essential oils, chemically modified oils and fats, materials used in the finishing of textiles and leather, powders and pastes used in soldering, brazing or welding, substances used to pickle metal, prepared additives for cements, activated carbon, lubricating oil additives, prepared rubber accelerators, catalysts and other chemical products for industrial use, anti-knock preparations, antifreeze preparations, composite diagnostic or laboratory reagents - manufacture of matches - manufacture of scented joss sticks
		Man-Made Fibres	This class includes: - manufacture of synthetic or artificial filament tow - manufacture of synthetic or artificial staple fibres, not carded, combed or otherwise processed for spinning - manufacture of synthetic or artificial filament yarn, including hightenacity yarn - manufacture of synthetic or artificial monofilament or strip

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
15	Manufacture of Basic Pharmaceutical Products and Pharmaceutical Preparations	Pharmaceuticals, Medicinal Chemical and Botanical Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of medicinal active substances to be used for their pharmacological properties in the manufacture of medicaments Includes: antibiotics, basic vitamins, salicylic and O-acetylsalicylic acids, etc. - Processing of blood - Manufacture of medicaments Includes: <ul style="list-style-type: none"> (a) anti-sera and other blood fractions (b) vaccines (c) diverse medicaments, including homeopathic preparations - Manufacture of chemical contraceptive products Includes: for external use and hormonal contraceptive medicaments - Manufacture of medical diagnostic preparation Includes: pregnancy test - Manufacture of radioactive in-vivo diagnostic substances - Manufacture of biotech pharmaceuticals - Manufacture of other pharmaceuticals, medicinal chemical and botanical products n.e.c. Includes: <ul style="list-style-type: none"> (a) manufacture of chemically pure sugars (b) processing of glands and manufacture of extracts of glands, etc. (c) manufacture of medical impregnated wadding, gauze, bandages, dressings, surgical gut string, etc. (d) preparation of botanical products (grinding, grading, milling) for pharmaceutical use
16	Manufacture of Rubber Products	Rubber Tyres and Tubes	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of rubber tyres for vehicles Includes: <ul style="list-style-type: none"> (a) pneumatic tyres, solid or cushion tyres (e.g. equipment, mobile machinery, aircraft, toy, furniture and other uses) (b) manufacture of inner tubes for tyre - Manufacture of interchangeable tyre treads and retreading rubber tyres Includes: <ul style="list-style-type: none"> (a) manufacture of interchangeable tyre treads, tyre flaps, "camelback" strips for retreading tyres, etc. (b) retreading and rebuilding of tyres

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Natural or Synthetic Rubber, Unvulcanized, Vulcanized or Hardened	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of rubber plates, sheets, strip, rods, profile shapes - manufacture of tubes, pipes and hoses - manufacture of rubber conveyor or transmission belts or belting - manufacture of rubber footwear parts - manufacture of textile fabric impregnated, coated, covered or laminated with rubber, where rubber is the chief constituent - manufacture of hard rubber (including hard rubber pipe stems, hard rubber combs, hair pins, hair rollers and similar) - manufacture of rubber brushes
		Rubber Gloves	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of rubber gloves
		Rubber Remilling and Latex Processing	<p>This class includes:</p> <ul style="list-style-type: none"> - processing on the estates/smallholdings, if separate reporting for production and processing is not feasible - rubber smokehouses
		Rubber Products	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of rubber hygienic articles (e.g. sheath contraceptives or condoms, teats and soothers, hot water bottle, etc.) - manufacture of rubber articles of apparel (if only sealed together, not sewn) - manufacture of rubber thread and rope - manufacture of rubberized yarn and fabrics - manufacture of rubber rings, fittings and seals - manufacture of rubber roller coverings - manufacture of inflatable rubber mattresses - manufacture of inflatable balloons - manufacture of rubber repair materials - manufacture of textile fabric impregnated, coated, covered or laminated with rubber, where rubber is the chief constituent - manufacture of rubber waterbed mattresses - manufacture of rubber bathing caps and aprons - manufacture of rubber wet suits and diving suits - manufacture of rubber sex articles - manufacture of any other rubber products n.e.c.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
17	Manufacture of Plastics Products	Plastics Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of semi-manufactures of plastic products Includes: manufacture of semi-manufactures of plastic products (e.g. plastics plates, sheets, blocks, film, foil, strip, etc.) - Manufacture of finished plastic products Includes: manufacture of plastic tubes, pipes and hoses; hose and pipe fittings - Manufacture of plastic articles for the packing of goods Includes: manufacture of plastic articles for the packing of goods (e.g. plastics bags, sacks, containers, boxes, cases, carboys, bottles) - Manufacture of builders' plastic ware Includes: <ul style="list-style-type: none"> (a) plastic door, windows, frames, shutters, blinds, skirting boards (b) tanks, reservoirs (c) plastic floor, wall or ceiling coverings in rolls or in the form of tiles, etc. (d) plastic sanitary ware (e.g. plastic baths, shower baths, washbasins, lavatory pans, flushing cisterns, etc.) - Manufacture of plastic tableware, kitchenware and toilet articles Includes: manufacture of reinforced plastic articles - Manufacture of diverse plastic products n.e.c. Includes: <ul style="list-style-type: none"> (a) manufacture of diverse plastic products n.e.c. [e.g. plastic headgear, insulating fittings, parts of lighting fittings, office or school supplies, articles of apparel, (if only sealed together, not sewn) fittings for furniture, statuettes, transmission and conveyer belts, self-adhesive tapes of plastics, etc.] (b) manufacture of artificial stone: cultured marble (c) cellophane film or sheet (d) manufacture of resilient floor covering (e.g. vinyl, linoleum, etc.)

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
18	Manufacture of Non-Metallic Mineral Products	Glass and Glass Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of flat glass, including wired, coloured or tinted flat glass Includes: manufacture of glass paving blocks - Manufacture of laboratory, hygienic or pharmaceutical glassware - Manufacture of other glass products n.e.c. Includes: <ul style="list-style-type: none"> (a) manufacture of toughened or laminated flat glass (b) manufacture of glass in rods or tubes (c) manufacture of glass mirrors (d) manufacture of multiple-walled insulating units of glass (e) manufacture of bottles and other containers of glass or crystal (f) manufacture of drinking glasses and other domestic glass or crystal articles (g) manufacture of glass fibres, including glass wool and non-woven products thereof (h) manufacture of clock or watch glasses, optical glass and optical elements not optically worked (i) manufacture of glassware used in imitation jewellery (j) manufacture of glass insulators and glass insulating fittings (k) manufacture of glass envelopes for lamps (l) manufacture of glassware and glass parts for lighting fixtures (m) manufacture of glass figurines (n) restoring of stained glass windows
		Refractory Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of refractory mortars and concretes - Manufacture of refractory ceramic goods Includes: <ul style="list-style-type: none"> (a) manufacture of heat-insulating ceramic goods of siliceous fossils meals (b) manufacture of refractory bricks, blocks and tiles, etc. (c) manufacture of retorts, crucibles, muffles, nozzles, tubes, pipes, etc. (d) manufacture of refractory articles containing magnesite, dolomite or chromites

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Clay Building Materials	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of non-refractory ceramic Includes: (a) manufacture of non-refractory ceramic hearth or wall tiles, mosaic cubes, etc. (b) manufacture of non-refractory ceramic flags and paving (c) manufacture of structural non-refractory clay building materials - Manufacture of other clay building materials Includes: (a) manufacture of flooring blocks in baked clay (b) manufacture of ceramic sanitary fixtures
		Porcelain and Ceramic Products	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of ceramic tableware and other domestic or toilet articles - manufacture of statuettes and other ornamental ceramic articles - manufacture of electrical insulators and insulating fittings of ceramics - manufacture of ceramic and ferrite magnets - manufacture of ceramic laboratory, chemical and industrial products - manufacture of ceramic pots, jars, etc. used for conveyance or packing of goods - manufacture of ceramic furniture - manufacture of ceramic insulators - manufacture of porcelain electrical insulators - manufacture of ceramic products n.e.c.
		Cement	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of clinkers and hydraulic cements, including Portland, aluminous cement, slag cement and superphosphate cements
		Lime and Plaster	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of quicklime, slaked lime and hydraulic lime - manufacture of plasters of calcined gypsum or calcined sulphate - manufacture of calcined dolomite

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Articles of Concrete, Cement and Plaster	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of ready-mix and dry-mix concrete and mortars <p>Includes:</p> <ul style="list-style-type: none"> a) manufacture of powdered mortars <ul style="list-style-type: none"> - manufacture of precast concrete, cement or artificial stone articles for use in construction <p>Includes:</p> <ul style="list-style-type: none"> a) manufacture of plaster articles for use in construction (e.g. boards, sheets, panel, tiles, flagstones, bricks, pipes, post, etc.) <ul style="list-style-type: none"> - manufacture of prefabricated structural components for building or civil engineering of cement, concrete or artificial stone <p>Includes:</p> <ul style="list-style-type: none"> a) manufacture of building material materials of vegetable substances (e.g. wood wool, straw, reeds, rushes, etc., agglomerated with cement, plaster or other mineral binder) <ul style="list-style-type: none"> - manufacture of other articles of concrete, cement and plaster n.e.c. <p>Includes:</p> <ul style="list-style-type: none"> a) manufacture of articles of asbestos-cement or cellulose fibre-cement or the like (e.g. corrugated sheets, other sheets, panel, tiles, tubes, pipes, reservoirs, troughs, basins, sinks, jars, furniture, window frames, etc.) b) manufacture of other articles of concrete, plaster, cement or artificial stone (e.g. statuary, furniture, bas-and haut reliefs, vases, flowerpots, etc.)
		Cutting, Shaping and Finishing of Stone	<p>This class includes:</p> <ul style="list-style-type: none"> - cutting, shaping and finishing of stone for use in construction, in cemeteries, on roads, as roofing, etc. - manufacture of stone furniture - manufacture of statues, other than artistic originals
		Mineral Insulating Materials	<p>This class includes:</p> <p>manufacture of mineral insulating materials:</p> <ul style="list-style-type: none"> - slag wool, rock wool and similar mineral wools; exfoliated vermiculite, expanded clays and similar heat-insulating, sound-insulating or sound-absorbing materials
		Other Non-Metallic Mineral Products	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of millstones, sharpening or polishing stones and natural or artificial products, including abrasive products on a soft base (e.g. sandpaper) - manufacture of friction material and unmounted articles thereof with a base of mineral substances or of cellulose - manufacture of articles of diverse minerals substances [e.g. worked mica and articles of mica, of peat, of graphite (other than electrical articles), etc.] - manufacture of articles of asphalt or similar material (e.g. asphalt based adhesives, coal tar pitch, etc.) - manufacture of carbon and graphic fibres and products (except electrodes and electrical applications)

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
19	Manufacture of Basic Metals	Basic Iron and Steel	<p>This class includes:</p> <ul style="list-style-type: none"> - Production of pig iron and spiegeleisen in pigs, blocks or other primary forms Includes: <ul style="list-style-type: none"> (a) production of ferro-alloys (b) production of semi-finished products of iron or non-alloy steel (c) production of ingots, other primary forms and semi-finished products of stainless steel or other alloy steel - Production of bars and rods of stainless steel or other alloy steel Includes: <ul style="list-style-type: none"> (a) production of angles, shapes and sections of stainless steel or other alloy steel (b) production of bars and rods of iron or non-alloy steel (c) production of flat-rolled products of iron or non-alloy steel (d) production of angles, shapes and sections of iron or non-alloy steel (e) manufacture of steel bars or solid sections by cold drawing, grinding or turning - Manufacture of seamless tubes, by hot rolling, hot extrusion or hot drawing, or by cold drawing or cold rolling Includes: manufacture of welded tubes by cold or hot forming and welding, by forming and cold drawing, or by hot forming and reducing - Manufacture of steel tube fittings Includes: manufacture of open section by progressive cold forming on a roll mill or folding on a press of flat-rolled products of steel - Manufacture of other basic iron and steel products n.e.c. Includes: <ul style="list-style-type: none"> (a) operation of blast furnaces, steel converters, rolling and finishing mills (b) production of sheet piling of steel and welded open sections of steel (c) production of railway track materials (unassembled rails) of steel (d) manufacture of steel wire by cold drawing or stretching (e) production of granular iron and iron powder; production of iron of exceptional purity by electrolysis or other chemical processes (f) remelting ferrous waste and scrap

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Basic Precious and Other Non-Ferrous Metals	<p>This class includes:</p> <ul style="list-style-type: none"> - Tin smelting - Production of aluminium from alumina Includes: production of aluminium from electrolytic refining of aluminium waste and scrap, production of aluminium alloys, semi-manufacturing of aluminium, production of aluminium oxide (alumina), production of aluminium wrapping foil, manufacture of aluminium (tin) foil laminates made from aluminium (tin) foil as primary component - Manufacture of other basic precious and other nonferrous metals n.e.c. <p>Includes:</p> <ul style="list-style-type: none"> (a) production of basic precious metals such as gold, silver, platinum, etc. (b) production of precious metal alloys (c) production of precious metal semi-products (d) production of silver rolled onto base metals (e) production of gold rolled onto base metals or silver (f) production of platinum and platinum group metal rolled onto gold, silver or base metals (g) production of lead, zinc and tin from ores (h) production of lead, zinc and tin from electrolytic refining of lead, zinc and tin waste and scrap (i) production of lead, zinc and tin alloys (j) semi-manufacturing of lead, zinc and tin (k) production of copper from ores (l) production of copper from electrolytic refining of copper waste and scrap (m) production of copper alloys (n) manufacture of fuse wire or strip (o) semi-manufacturing of copper (p) production of chrome, manganese, nickel, etc. from ores or oxides (q) production of chrome, manganese, nickel, etc. from electrolytic and aluminothermic refining of chrome, manganese, nickel, etc., waste and scrap (r) production of alloys of chrome, manganese, nickel, etc. (s) semi-manufacturing of chrome, manganese, nickel, etc. (t) production of mattes of nickel (u) production of uranium metal from pitchblende or other ores (v) smelting and refining of uranium (w) manufacture of wire of these metals by drawing (x) manufacture of precious metal foil laminates

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Casting of Iron and Steel	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of seamless tubes and pipes of steel by centrifugal casting, manufacture of tube or pipe fittings of cast-steel - Casting of iron Includes: manufacture of seamless tubes and pipes of steel by centrifugal casting, manufacture of tube or pipe fittings of cast-steel - Casting of steel Includes: (a) casting of semi-finished steel products (b) casting of steel castings
		Casting of Non-Ferrous Metals	<p>This class includes:</p> <ul style="list-style-type: none"> - casting of semi-finished products of aluminium, magnesium, titanium, zinc, etc. - casting of light metal castings - casting of heavy metal castings - casting of precious metal castings - die-casting of non-ferrous metal castings
20	Manufacture of Fabricated Metal Products	Structural Metal Products	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of industrial frameworks in metal Includes: frameworks for blast furnaces, lifting and handling equipment, etc. - Manufacture of prefabricated buildings mainly of metal Includes: site huts, modular exhibition elements, etc. - Manufacture of metal doors, windows and their frames, shutters and gates - Manufacture of other structural metal products Includes: (a) manufacture of metal frameworks or skeletons for construction and parts thereof (e.g. towers, masts, trusses, bridges, etc.) (b) metal room partitions for floor attachment
		Tanks, Reservoirs and Containers of Metal	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of reservoirs, tanks and similar containers of metal, of types normally installed as fixtures for storage or manufacturing use - manufacture of metal containers for compressed or liquefied gas - manufacture of central heating boilers and radiators
		Forging, Pressing, Stamping and Roll-Forming of Metal; Powder Metallurgy	<p>This class includes:</p> <ul style="list-style-type: none"> - forging, pressing, stamping and roll-forming of metal - powder metallurgy: production of metal objects directly from metal powders by heat treatment (sintering) or under Pressure

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Treatment and Coating of Metals; Machining	<p>This class includes:</p> <ul style="list-style-type: none"> - plating, anodizing etc. of metals - heat treatment of metals - deburring, sandblasting, tumbling, cleaning of metals - colouring and engraving of metals - non-metallic coating of metals: - plasticizing, enamelling, lacquering etc. - hardening, buffing of metals - boring, turning, milling, eroding, planing, lapping, broaching, levelling, sawing, grinding, sharpening, polishing, welding, splicing etc. of metalwork pieces - cutting of and writing on metals by means of laser beams
		Cutlery, Hand Tools and General Hardware	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of domestic cutlery such as knives, forks, spoons, etc. - manufacture of cleavers and choppers, razors and razor blades, scissors and hair clippers - manufacture of knives and cutting blades for machines or for mechanical appliances - manufacture of hand tools such as pliers, screwdriver, etc. - manufacture of non-power-driven agricultural hand tools - manufacture of saws and saw blades, including circular saw blades and chainsaw blades - manufacture of interchangeable tools for hand tools, whether or not power-operated, or for machine tools (e.g. drills, punches, milling cutters, etc.) - manufacture of blacksmiths' tools (e.g. forges, anvils, etc.) - manufacture of vices, clamps - manufacture of padlocks, locks, keys, hinges and the like, hardware for buildings, furniture, vehicles, etc. - manufacture of cutlasses, swords, bayonets, etc. - manufacture of moulding boxes and moulds (except ingot moulds) - manufacture of press tools
		Tins and Cans for Food Products, Collapsible Tubes and Boxes	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of pails, cans, drums, buckets, boxes and kegs - manufacture of metallic closures

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Metal Cable, Plaited Bands and Similar Articles	This class includes: (a) manufacture of uninsulated metal cable or insulated cable not capable of being used as a conductor of electricity (b) manufacture of articles made of wire (e.g. barbed wire, wire fencing, grill, netting, cloth, etc.)
		Bolts, Screws, Nuts and Similar Threaded Products	This class includes: - manufacture of nails and pins - manufacture of rivets, washers and similar non-threaded products - manufacture of screw machine products - manufacture of springs (except watch springs) - manufacture of chain, except power transmission chain
		Metal Household Articles	This class includes: - manufacture of plates, saucers, pots, kettles, bowls, platters, saucepans, frying pans, metal scouring pads, etc. - manufacture of baths, sinks, washbasins and similar articles - manufacture of metal vacuum jugs and bottles
21	Manufacture of Computer, Electronic and Optical Products	Diodes, Transistors and similar Semiconductor Devices	This class includes: - manufacture of diodes, transistors, and related discrete devices - manufacture of dice or wafers, semiconductor, finished or semifinished - manufacture of light emitting diodes (LED)
		Electronic Integrated Circuits Micro Assemblies	This class includes: - manufacture of microprocessors - manufacture of integrated circuit (analogue, digital or hybrid) - manufacture of optical cable sets or assemblies
		Electrical Capacitors and Resistors	This class includes: - manufacture of capacitors, electronic - manufacture of resistors, electronic
		Printed Circuit Boards	This class includes: - manufacture of bare printed circuit boards - loading of components onto printed circuit boards - printed circuit boards assemblies
		Display Components	This class includes: - manufacture of electron tubes - manufacture of display components (plasma, polymer, LCD)

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Components for Electronic Applications	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of solenoids, switches and transducers for electronic applications - manufacture of interface cards (e.g. sound, video, controllers, network) - manufacture of printer cables, monitor cables, USB cables, connectors, etc. - manufacture of internal/external computer modems - manufacture of electronic component-type connectors, sockets, and switches - manufacture of inductors (e.g. chokes, coils, transformers), electronic component type - manufacture of electronic crystals and crystal assemblies - manufacture of other components for electronic applications n.e.c.
		Computers	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of desktop computers - manufacture of laptop computers - manufacture of main frame computers - manufacture of hand-held computers (e.g. PDA)
		Computers Parts	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of parts and accessories for automatic data processing machines - manufacture of parts and accessories equally suitable for use in type writers and office machines - manufacture of computer casing (CPU) - manufacture of disk drive parts - manufacture of computer disk cover
		Peripheral Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of magnetic disk drives, flash drives and other storage devices - manufacture of optical CD-RW, CD-ROM, DVD-ROM, DVD-RW, disk drives - manufacture of printers - manufacture of monitors - manufacture of keyboards - manufacture of all types of mice, joysticks and trackball accessories - manufacture of dedicated computer terminal (e.g. automatic teller machines, point-of-sale terminal, etc.) - manufacture of computer servers - manufacture of other peripheral equipment n.e.c. (e.g. scanners, including bar code scanners, smart card readers)

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Communication Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of central office switching equipment - manufacture of cordless telephones - manufacture of private branch exchange (PBX) equipment - manufacture of telephone and facsimile equipment, including telephone answering machines - manufacture of data communications equipment (e.g. bridges, routers and gateways) - manufacture of transmitting and receiving antenna - manufacture of cable television equipment - manufacture of pagers - manufacture of cellular phones - manufacture of mobile communication equipment - manufacture of radio and television studio and broadcasting equipment, including television cameras - manufacture of local area network and wide area network communication equipment (e.g. bridges, routers, gateways, etc.) - manufacture of modems, carrier equipment - manufacture of burglar and fire alarm systems, sending signals to a control station - manufacture of radio and television transmitters - manufacture of infrared devices (e.g. remote controls) - manufacture of telecommunication equipment for satellites

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Consumer Electronics	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of video cassette recorders and duplicating equipment - manufacture of televisions - manufacture of television monitors and displays - manufacture of audio recording and duplicating systems - manufacture of stereo equipment - manufacture of radio receivers - manufacture of speaker systems - manufacture of household-type video cameras - manufacture of jukeboxes - manufacture of amplifiers for musical instruments and public address systems - manufacture of microphones - manufacture of CD and DVD players - manufacture of karaoke machines - manufacture of headphones (e.g. radio, stereo, computer) - manufacture of video game consoles - manufacture of other consumer electronics equipment n.e.c.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Measuring, Testing, Navigating and Control Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of GPS devices - manufacture of aircraft engine instruments - manufacture of automotive emissions testing equipment - manufacture of meteorological instrument - manufacture of physical properties testing and inspection equipment - manufacture of polygraph machines - manufacture of instruments for measuring and testing electricity and electrical signals (including for telecommunications) - manufacture of radiation detection and monitoring instruments - manufacture of surveying instruments - manufacture of thermometers liquid-in-glass and bimetal types (except medical) - manufacture of humidistat - manufacture of hydronic limit controls - manufacture of flame and burner controls - manufacture of spectrometers - manufacture of pneumatics gauges - manufacture of consumption meters (e.g. water, gas) - manufacture of flow meters and counting devices - manufacture of tally counters - manufacture of mine detectors, pulse (signal) generators; metal detectors - manufacture of search, detection, navigation, aeronautical and nautical equipment, including sonobuoys - manufacture of environmental controls and automatic controls for appliances - manufacture of industrial process control equipment <p>Includes:</p> <ul style="list-style-type: none"> (a) manufacture of measuring and recording equipment (e.g. flight recorders) (b) manufacture of motion detectors (c) manufacture of laboratory analytical instruments (e.g. blood analysis equipment) (d) manufacture of laboratory type distilling apparatus, laboratory centrifuges, laboratory ultrasonic cleaning machinery (e) manufacture of laboratory scales, balances, incubators and miscellaneous laboratory apparatus for measuring, testing, etc. (f) manufacture of other measuring and controlling devices, such as radiation detection equipment, polygraph machines, thermometers (except bimetal medical type), meteorological instruments

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Watches and Clocks	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of watches and clocks and parts - manufacture of watches and clocks of all kinds, including instrument panel clocks - manufacture of watches and clock cases, including cases of precious metals - manufacture of components for clocks and watches - manufacture of time-recording equipment and equipment for measuring, recording and otherwise displaying intervals of time with a watch or clock movement or with synchronous motor, such as parking meters, time clocks, time/date stamps, process timers - manufacture of time switches and other releases with a watch or clock movement or
		Irradiation, Electro Medical and Electrotherapeutic Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of irradiation apparatus and tubes - manufacture of X-ray equipment - manufacture of CT scanner - manufacture of PET scanner - manufacture of MRI equipment - manufacture of medical laser equipment - manufacture of medical endoscopic equipment - manufacture of food and milk irradiation equipment - manufacture of medical ultrasound equipment - manufacture of electrocardiographs - manufacture of pacemakers - manufacture of hearing aids - manufacture of other irradiation equipment, electro medical and electrotherapeutic equipment n.e.c.
		Optical Instruments and Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of optical machinist's precision tools - manufacture of optical mirrors - manufacture of optical gun sighting, optical positioning equipment - manufacture of magnifying instruments, optical comparators - manufacture of optical measuring and checking devices and instrument: fire control equipment, photographic light meters - manufacture of laser assemblies - manufacture of lenses, optical microscopes, binoculars and telescopes - manufacture of other optical instruments and equipments n.e.c.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Photographic Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of film cameras and digital cameras - manufacture of motion picture and slides projectors - manufacture of overhead transparency projectors - manufacture of other photographic equipment n.e.c.
		Magnetic and Optical Recording Media	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of blank magnetic audio and video tapes and cassettes - manufacture of blank diskettes - manufacture of blank optical discs - manufacture of hard drive media - manufacture of other magnetic and optical recording media n.e.c. - manufacture of storage units for use with computer or other devices including memory cards, thumb drives/pen drives, etc.
22	Manufacture of Electrical Equipment	Electric Motors, Generators and Transformers	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of distribution transformers, electric - manufacture of arc-welding transformers - manufacture of fluorescent ballasts (e.g. transformers) - manufacture of substation transformers for electric power distribution - manufacture of electric motors (except internal combustion engine starting motors) - manufacture of power generators (except battery, charging alternators for internal combustion engines) - manufacture of motor generator sets (except turbine generator set units) - manufacture of prime mover generator sets
		Electricity Distribution and Control Apparatus	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of transmission and distribution voltage regulators - manufacture of power circuit breakers - manufacture of control panels for electric power distribution - manufacture of electrical relays - manufacture of duct for electrical switchboard apparatus - manufacture of electric fuses - manufacture of power switching equipment - manufacture of electric power switches (except push button, snap, solenoid, tumbler) - rewinding of armatures on a factory basis

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Batteries and Accumulators	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of non-rechargeable and rechargeable batteries - manufacture of primary cells and primary batteries (e.g. cells containing manganese dioxide, mercuric dioxide, silver oxide, etc.) - manufacture of electric accumulators, including parts thereof (e.g. separators, containers, covers) - manufacture of lead acid batteries - manufacture of NiCad batteries - manufacture of lithium batteries - manufacture of dry cell batteries - manufacture of wet cell batteries - manufacture of other types of batteries and accumulators n.e.c.
		Solar Power Products	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of photovoltaic cells and single solar cells
		Fibre Optic Cables	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of fibre optic cables for data transmission or live transmission of images
		Electronic and Electric Wires and Cables	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of insulated wire and cable, made of steel, copper, and aluminium
		Wiring Devices	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of bus bars, electrical conductors (except switchgear type) - manufacture of GFCI (ground fault circuit interrupters) - manufacture of lamp holders - manufacture of lighting arrestors and coils - manufacture of switches for electrical wiring (e.g. pressure, pushbutton, snap, tumbler switches) - manufacture of electrical outlets and sockets - manufacture of boxes for electrical wiring (e.g. junction, outlet, switch boxes) - manufacture of electrical conduit and fitting - manufacture of transmission pole and line hardware - manufacture of plastic non current-carrying wiring devices including plastics junction boxes, face plates, and similar, plastic pole line fittings - manufacture of current-carrying wiring devices for lighting fixtures - manufacture of communication and energy wire - manufacture of other wiring devices n.e.c.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Electric Lighting Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of electric light bulbs and tubes and parts and components - manufacture of lighting fixtures - manufacture of non-electrical lighting equipment - manufacture of lighting fixture components (except current-carrying wiring devices) - manufacture of lighting equipment for motor vehicles, ships, aircraft
		Domestic Appliances	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of refrigerators, freezers - manufacture of dishwashers, washing and drying machines - manufacture of vacuum cleaners, floor polishers, waste disposers - manufacture of grinders, blenders, juice squeezers, tin openers, electric shavers and other electric personal care device - manufacture of ventilating or recycling hoods - manufacture of ceiling fans or bath fans with integrated lighting fixtures - manufacture of electric water heater, electric blankets, electric hair dryers, electric smoothing irons, household-type fans, electric ovens, microwave ovens, cookers, hotplates, toasters, coffee or tea makers, fry pans, roasters, grills, electric heating - manufacture of non-electric space heaters, cooking ranges, grates, stoves, water heaters, cooking appliances, etc. - manufacture of other household and domestic electric appliances n.e.c.
		Other Electrical Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of battery charges, solid-state - manufacture of door opening and closing devices, electrical - manufacture of electric bells - manufacture of extension cords made from purchased insulated wire - manufacture of ultrasonic cleaning machines (except laboratory and dental) - manufacture of solid state inverters, rectifying apparatus, fuel cells, regulated and unregulated power supplies - manufacture of uninterruptible power supplies (UPS) - manufacture of surge suppressors (except for distribution level voltage) - manufacture of appliance cords, extension cords, and other electrical cord sets with insulated wire and connectors - manufacture of carbon and graphite electrodes, contacts, and other electrical carbon and graphite products - manufacture of particle accelerators - manufacture of electrical capacitors, resistors, condensers and similar components - manufacture of electromagnet - manufacture of sirens - manufacture of electronic scoreboards - manufacture of electrical signs - manufacture of electrical signalling equipment such as traffic lights and pedestrian signalling equipment

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
			<ul style="list-style-type: none"> - manufacture of electrical insulators (except glass or porcelain), base metal conduit and fittings - manufacture of electrical insulators equipment and component of internal combustion engines - manufacture of electrical welding and soldering equipment, including hand-held soldering irons, soldering guns - manufacture of tanning beds - manufacture of other electrical equipment n.e.c
23	Manufacture of Machinery and Equipment	Engines and Turbines, except Aircraft, Vehicle and Cycle Engines	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of marine engines - manufacture of railway engines - manufacture of pistons, piston rings, carburettors and such for all internal combustion engines, diesel engines, etc. - manufacture of inlet and exhaust valves of internal combustion engines - manufacture of steam turbines and other vapour turbines - manufacture of hydraulic turbines, waterwheels and regulators thereof - manufacture of wind turbines - manufacture of gas turbines, except turbojets or turbo propellers for aircraft propulsion - manufacture of boiler-turbine sets - manufacture of turbine-generator sets
		Fluid Power Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of hydraulic and pneumatic components (including hydraulic pumps, hydraulic motors, hydraulic and pneumatic cylinders, hydraulic and pneumatic valves, hydraulic and pneumatic hose and fittings) - manufacture of air preparation equipment to use in pneumatic systems - manufacture of fluid power systems - manufacture of hydraulic transmission equipment
		Pumps, Compressors, Taps and Valves	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of air or vacuum pumps, air or other gas compressors - manufacture of pumps for liquids whether or not fitted with a measuring device - manufacture of pumps designed for fitting to internal combustion engines (e.g. oil, water and fuel pumps for motor vehicles, etc.) - manufacture of industrial taps and valves, including regulating valves and intake taps - manufacture of sanitary taps and valves - manufacture of heating taps and valves - manufacture of hand pumps

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Bearings, Gears, Gearing and Driving Elements	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of ball and roller bearings and parts thereof - manufacture of mechanical power transmission equipment - manufacture of gears, gearing and gear boxes and other speed changers - manufacture of clutches and shaft couplings - manufacture of flywheels and pulleys - manufacture of articulated link chain - manufacture of power transmission chain
		Ovens, Furnaces and Furnace Burners	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of electrical and other industrial and laboratory furnaces and ovens, including incinerators - manufacture of burners - manufacture of permanent mount electric space heaters, electric swimming pool heaters - manufacture of permanent mount non-electric household heating equipment (e.g. solar heating, steam heating, oil heat and similar furnaces and heating equipment). - manufacture of electric household-type furnaces (electric forced air furnaces, heat pumps, etc.), non-electric household forced air furnaces - manufacture of mechanical stokers, grates, ash dischargers, etc.
		Lifting and Handling Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - pulley tackle and hoists, winches, capstans and jacks - derricks, cranes, mobile lifting frames, straddle carriers, etc. - works trucks, whether or not fitted with lifting or handling equipment, whether or not self-propelled, of the type used in factories (including hand trucks and wheelbarrows) - mechanical manipulators and industrial robots specifically designed for lifting, handling, loading or unloading - manufacture of conveyors, telfers (téléphériques), etc. - manufacture of lifts, escalators and moving walkways - manufacture of parts specialized for lifting and handling equipment

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Office Machinery and Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of calculating machines - manufacture of adding machines, cash registers - manufacture of calculators, electronic or not - manufacture of postage meters, mail handling machines, collating machinery - manufacture of typewriters - manufacture of stenography machines - manufacture of office-type binding equipment - manufacture of cheque writing machines - manufacture of coin counting and wrapping machinery - manufacture of pencil sharpeners - manufacture of staplers and staple removers - manufacture of voting machines - manufacture of tape dispensers - manufacture of hole punches - manufacture of cash registered, mechanically operated - manufacture of photocopy machines - manufacture of toner cartridges - manufacture of blackboards; white boards and marker boards - manufacture of dictating machines - manufacture of other office machinery and equipment n.e.c.
		Power-Driven Hand Tools	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of hand tools, with self-contained electric or non-electric motor or pneumatic drives (e.g. circular or reciprocating saws, drills and hammer drills, hand held power sanders, pneumatic nailers, buffers, routers, grinders, staplers, pneumatic rivet guns, etc.)
		Refrigerating or Freezing Industrial Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of non-domestic fans - manufacture of attic ventilation fans (gable fans, roof ventilators, etc.) - manufacture of commercial and industrial refrigerators and freezers
		Air-Conditioning Machines, Including for Motor Vehicles	<p>This class includes:</p> <ul style="list-style-type: none"> - Manufacture of air-conditioning machines, including for motor vehicles

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Other General-Purpose Machinery	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of weighing machinery, household and shop scales, etc. - manufacture of filtering or purifying machinery and apparatus for liquids - manufacture of equipment for projecting, dispersing or spraying liquids or powder (e.g. spray guns, fire extinguishers, sandblasting machines, steam cleaning machines, etc.) - manufacture of packing and wrapping machinery (e.g. filling, closing, sealing, capsuling or labelling machines, etc.) - manufacture of machinery for cleaning or drying bottles and for aerating beverages - manufacture of distilling or rectifying plant for petroleum refineries, chemical industries, beverage industries, etc. - manufacture of heat exchangers - manufacture of machinery for liquefying air or gas - manufacture of gas generators - manufacture of calendaring or other rolling machines and cylinders thereof (except for metal and glass) - manufacture of centrifuges (except cream separators and clothes dryers) - manufacture of gaskets and similar joints made of a combination of materials or layers of the same material - manufacture of automatic goods vending machines - manufacture of parts for general-purpose machinery - manufacture of level, tape measures and similar hand tools, machinists' precision tools (except optical) - manufacture of non-electrical welding and soldering equipment
		Agricultural and Forestry Machinery	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of tractors used in agriculture and forestry - manufacture of walking (pedestrian-controlled) tractors - manufacture of mowers, including lawnmowers - manufacture of agricultural self-loading or self-unloading trailers or semi-trailers - manufacture of agricultural machinery for soil preparation, planting or fertilizing (e.g. ploughs, manure spreaders, seeders, harrows, etc.) - manufacture of harvesting or threshing machinery (e.g. harvesters, threshers, sorters, etc.) - manufacture of milking machines - manufacture of spraying machinery for agricultural use - manufacture of poultry-keeping machinery, bee-keeping machinery - manufacture of machines for cleaning, sorting or grading eggs, fruits, etc. - manufacture of other diverse agricultural machinery and equipment n.e.c.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Metal-Forming Machinery and Machine Tools	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of punch presses, hydraulic presses, hydraulic brakes, drop hammers, forging machines, etc. - manufacture of draw-benches, thread rollers or machines for working wires - manufacture of stationary rotary or rotary percussion drills, filling machines, riveters, sheet metal cutters, etc. - manufacture of presses for the manufacture of particle board and the like - manufacture of other metal-forming machinery n.e.c. - manufacture of machine tools for working metals and other materials (e.g. wood, bone, stone, hard rubber, hard plastics, cold glass, etc.), including those using a laser beam, ultrasonic waves, plasma arc, magnetic pulse, etc. - manufacture of machine tools for turning, drilling, milling, shaping, planning, boring, grinding, etc. - manufacture of stamping or pressing machine tools - manufacture of stationary machines for nailing, stapling, glueing or otherwise assembling wood, cork, bone, hard rubber or plastic, etc. - manufacture of electroplating machinery - manufacture of parts and accessories for the machine tools listed above (e.g. work holders, dividing heads and other special attachments for machine tools) - manufacture of other machine tools n.e.c.
		Machinery for Metallurgy	<p>This class includes:</p> <ul style="list-style-type: none"> - manufactures of machines and equipment for handling hot metals: converters, ingot moulds, ladles, casting machines - manufacture of metal-rolling mills and rolls for such mills
		Machinery for Mining, Quarrying and Construction	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of continuous-action elevators and conveyors for underground use - manufacture of boring, cutting, sinking and tunnelling machinery (whether or not for underground use) - manufacture of machinery for treating minerals by screening, sorting, separating, washing, crushing, etc. - manufacture of concrete and mortar mixers - manufacture of earth-moving machinery (e.g. bulldozers, angledozers, graders, scrapers, levellers, mechanical shovels, shovels loaders, etc.) - manufacture of pile-drivers and pile-extractors, mortar spreaders, bitumen spreaders, concrete surfacing machinery, etc. - manufacture of track laying tractors and tractors used in constructions or mining - manufacture of bulldozer and angle-dozer blades - manufacture of off-road dumping trucks - manufacture of machinery for mining, quarrying and construction n.e.c.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Machinery for Food, Beverage and Tobacco Processing	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of agricultural dryers - cream separators - milk processing machinery (e.g. homogenizers) - milk converting machinery (e.g. butter chums, butter workers and moulding machines) - cheese-making machines - machinery to clean, sort or grade seeds, grain or dried leguminous vegetables - machinery to produce flour and meal etc. (e.g. grinding mills, etc.) - manufacture of presses, crushers, etc. used to make wine, cider, fruit juices, etc. - manufacture of machinery for the bakery industry or for making macaroni, spaghetti or similar products - machinery to make confectionery, cocoa or chocolate - machinery to manufacture sugar - machinery for breweries - machinery for process meat or poultry - machinery for prepare fruits, nuts or vegetables - machinery for prepare fish, shellfish or other seafood - machinery for filtering and purifying - other machinery for the industrial preparation of manufacture of food or drink n.e.c. - manufacture of machinery for the extraction or preparation of animal fats or vegetable fats oils - manufacture of machinery for the preparation of tobacco and for the making of cigarettes or cigars or for pipe or chewing tobacco or snuff - manufacture of machinery for the preparation of food in hotels and restaurants

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Machinery for Textile, Apparel and Leather Production	<p>This class includes:</p> <ul style="list-style-type: none"> - machines for preparing, producing, extruding, drawing, texturing or cutting man-made textile fibres, materials or yarns - machines for preparing textiles fibres (e.g. cotton gins, bale breakers, garnetters, cotton spreaders, wool scouters, wool carbonizes, combs, carders, roving frames, etc.) - spinning machines - machines for preparing textiles yarns (e.g. reelers, warpers and related machines) - weaving machines (looms), including hand looms - knitting machines - machines for making knotted net, tulle, lace, braid, etc. - manufacture of auxiliary machines or equipment for textile machinery (e.g. dobbies, jacquards, spindles, spindle flyers, etc.) - manufacture of textile printing machinery - machinery for washing, bleaching, dyeing, dressing, finishing, coating or impregnating textile fabrics - manufacture of machines for reeling, unreeling, folding, cutting or pinking textile fabrics - ironing machines, including fusing presses - dry-cleaning machines - manufacture of sewing machines - manufacture of machines for producing or finishing felt or non-woven - machinery for preparing, tanning or working hides, skins or leather - machinery for making or repairing footwear or other articles of hides, skins, leather or fur skins

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Other Special-Purpose Machinery	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of machinery for making paper pulp - manufacture of paper and paperboard making machinery - manufacture of dryers for wood, paper pulp, paper or paperboard - manufacture of machinery producing articles of paper or paperboard - manufacture of machinery for working soft rubber or plastics or for the manufacture of products of these materials such as extruders, moulders, pneumatic tyre making or retreading machines and other machines for making a specific rubber or plastic product - manufacture of printing and bookbinding machines and machines for activities supporting printing on a variety of materials - machinery for producing tiles, bricks shaped ceramic pastes, pipes, graphite electrodes, blackboard chalk, foundry moulds, etc. - manufacture of semi-conductor manufacturing machinery manufacture of diverse special-purpose machinery and equipment such as machines to assemble electric or electronic lamps, tubes (valves) or bulbs; machines for production or hot-working of glass or glassware, glass fibre or yarn machinery or apparatus for isotopic separation - manufacture of tire alignment and balancing equipment; balancing equipment (except wheel balancing) - manufacture of central greasing systems - manufacture of aircraft launching gear, aircraft carrier catapults and related equipment - manufacture of tanning beds - manufacture of automatic bowling alley equipment (e.g. pin-setters) - manufacture of roundabouts, swings, shooting galleries and other fairground amusements
24	Manufacture of Motor Vehicles, Trailers and Semitrailers	Passenger Cars	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of passenger cars - manufacture of MPVs (Multi Purpose Vehicles) - manufacture SUVs (Sport Utility Vehicles) - manufacture of motor vehicle engines for passenger cars - manufacture of chassis fitted with engines for passenger cars

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Commercial Vehicles	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of vans - manufacture of lorries - manufacture of over-the-road tractors, etc. - manufacture of buses, trolley-buses and coaches - manufacture of motor vehicle engines for commercial vehicles - manufacture of other motor vehicles n.e.c. - manufacture of chassis fitted with engines for commercial vehicles - manufacture of snowmobiles, golf carts, amphibious vehicles - manufacture of fire engines, street sweepers, travelling libraries, armoured cars, etc. - manufacture of concrete-mixer lorries - manufacture of ATVs (All Terrain Vehicles), race cars and go-carts, etc. - factory rebuilding of motor vehicle engines
		Bodies (Coachwork) for Motor Vehicles	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of bodies, including cabs for motor vehicles - outfitting of all types of motor vehicles, trailers and semi-trailers - manufacture of containers for carriage by one or more modes of transport
		Trailers and Semi-Trailers	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of trailers and semi-trailers: <p>Includes:</p> <ul style="list-style-type: none"> (a) for transport of goods: tankers, removal trailers etc. (b) for transport of passengers: caravan trailers etc.
		Parts and Accessories for Motor Vehicles	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of brakes, gearboxes, axles, road wheels, suspension shock absorbers, radiators, silencers, exhaust pipes, catalytic converters, clutches, steering wheels, steering columns and steering boxes - manufacture of safety belts, airbags, doors, bumpers - manufacture of car seats - manufacture of generators, alternators, spark plugs, ignition wiring harnesses - manufacture of power window and door systems - assembly of purchased gauges into instrument panels, voltage regulators, etc. - manufacture of cable sets, wiring harnesses and similar cable sets or assemblies for automotive applications

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Ships and Floating Structures	<p>This class includes:</p> <ul style="list-style-type: none"> - building of commercial and passenger vessels - building of ferry-boats - building of cargo ships, tankers, tugs, etc. - building of warship - building of fishing boats and fish-processing factory vessels - building of hovercraft (except recreation-type hovercraft) - construction of drilling platforms, floating or submersible - floating docks, dock fender and deck fender, pontoons, coffer-dams, floating landing stages, buoys, floating tanks, barges, lighters, floating cranes, non-recreational inflatable rafts, etc. - manufacture of sections for ship and floating structures - factory rebuilding of ships
		Pleasure and Sporting Boats	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of inflatable boats and rafts - building of sailboats with or without auxiliary motor - building of motor boats - building of recreation-type hovercraft - manufacture of personal watercraft - manufacture of other pleasure and sporting boats, such as canoes, kayaks, rowing boats, skiffs, etc.
		Railway Locomotives and Rolling Stock	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of electric, diesel, steam and other rail locomotives - manufacture of self-propelled railway or tramway coaches, vans and trucks, maintenance or service vehicles - manufacture of passengers coaches, goods vans, tank wagons, selfdischarging vans and wagons, workshop vans, crane vans, tenders, etc. - manufacture of bogies, axles and wheels, brakes and parts of brakes, hooks and coupling devices, buffers and buffer parts, shock absorbers, wagon and locomotives frames, bodies, corridor connections, etc. - manufacture of mechanical and electromechanical signalling, safety and traffic control equipments for railways, tramways, inland waterways, roads, parking facilities, airfields - manufacture of mining locomotives and mining rail cars - manufacture of railways car seats - factory rebuilding of locomotives and railroad cars

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Air and Spacecraft and Related Machinery	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of airplanes for transport of goods or passengers, for use by the defence forces, for sport or other purposes - manufacture of helicopters - manufacture of gliders, hand-gliders - manufacture of dirigibles and hot air balloons - manufacture of parts and accessories of the aircraft of this class: <ul style="list-style-type: none"> • major assemblies (e.g. fuselages, wings, doors, control surfaces, landing gear, fuel tanks, nacelles, lighting equipment, etc.) • airscrews, helicopter rotors and propelled rotor blades • motors, engines and parts of a kind typically found on aircraft • parts of turbojets and turbo propellers for aircraft - manufacture of aircraft seats - manufacture of ground flying trainers - manufacture of spacecraft and launch vehicles, satellites, planetary probes, orbital stations, shuttles, etc. - manufacture of intercontinental ballistic missiles (ICBM) - overhaul and conversion on aircraft or aircraft engines - factory rebuilding of aircraft
		Military Fighting Vehicles	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of tanks - manufacture of armoured amphibious military vehicles - manufacture of other military fighting vehicles
		Motorcycles	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of motorcycles, mopeds and cycle fitted with an auxiliary engine - manufacture of engines for motorcycles - manufacture of sidecars - manufacture of parts and accessories for motorcycles - manufacture of scooters
		Bicycles and Invalid Carriages	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of non-motorized bicycles and other cycles, including (delivery) tricycles, tandems, children's bicycles and tricycles - manufacture of parts and accessories of bicycles (saddles etc.) - manufacture of invalid carriages with or without motor - manufacture of parts and accessories of invalid carriages - manufacture of baby carriages - manufacture of wheelchairs

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
25	Manufacture of Furniture	Furniture	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of wooden and cane furniture - Manufacture of metal furniture - manufacture of chairs and seats for office, workrooms, hotels, restaurants, public and domestic premises - manufacture of chairs and seats for theatres, cinemas and the like - manufacture of sofas, sofa bed and sofa sets - manufacture of garden chairs and seats - manufacture of special furniture for shops (e.g. counters, display cases, shelves, etc.) - manufacture of office furniture - manufacture of kitchen furniture - manufacture of furniture for bedrooms, living rooms, garden, etc. - manufacture of cabinets for sewing machines, television, etc. - manufacture of laboratory benches, stools, and other laboratory seating, laboratory furniture (e.g. cabinets and tables) - manufacture of furniture for churches, school, restaurants - finishing (e.g. upholstery of chairs and seats) - finishing of furniture such as spraying, painting, french polishing and upholstering - manufacture of decorative restaurant carts (e.g. desert cart, food wagon) - manufacture of wood partitions, free standing
		Mattress	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of mattresses fitted with springs or stuffed or internally fitted with a supporting material - manufacture of uncovered cellular rubber or plastic mattresses - manufacture of mattresses support
26	Manufacture of Jewellery, Bijouterie and Related Articles	Jewellery and Related Articles	<p>This class includes:</p> <ul style="list-style-type: none"> - production of worked pearls - production of precious and semi-precious stones in the worked state including the working of industrial quality stones and synthetic or reconstructed precious or semi-precious stones - working of diamonds - manufacture of jewellery of precious metal or of base metals clad with precious metals, or precious or semi-precious stones - manufacture of goldsmiths' articles of precious metals or of base metals clad with precious metals (e.g. dinnerware, flatware, toilet articles, office or desk articles, articles for religious use, etc.) - manufacture of technical or laboratory articles of precious metal (except instruments and parts thereof) e.g. electroplating anodes, etc. - manufacture of precious metal watch bands, wristbands, watch straps and cigarette cases - manufacture of coins, including coins for use as legal tender, whether or not of precious metal - engraving of personal precious and non-precious products - manufacture of cutlery of precious metal

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Imitation Jewellery and Related Articles	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of customer or imitation jewellery (e.g. rings, bracelets, necklace, and similar articles of jewellery made from base metals plated with precious metals or imitation stones) - manufacture of metal watch bands (except precious metal)
27	Manufacture of Musical Instruments	Musical Instruments	<p>This class includes:</p> <ul style="list-style-type: none"> - manufactured or stringed instruments - manufacture of keyboard stringed instruments, including automatic pianos - manufacture of keyboard pipe organs, including harmoniums and similar keyboard instruments with free metal reeds - manufacture of accordions and similar instruments, including mouth organs - manufacture of wind instruments - manufacture of percussion musical instruments - manufacture of musical instruments, the sound of which is produced electronically - manufacture of musical boxes, fairground organs, calliopes, etc. - manufacture of instrument parts and accessories (e.g. metronomes, tuning forks, pitch pipes, cards, discs and rolls for automatic mechanical instruments, etc.) - manufacture of whistles, call horns and other mouth-blown sound signalling instruments
28	Manufacture of Sports Goods	Sports Goods	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of articles and equipment for sports, outdoor and indoor games, of any material (e.g. hard, soft and inflatable balls; rackets, bats and clubs; sailboards and surfboards; requisites for sport fishing, including landing nets; requisites for hunting, mountain climbing, etc.; leather sports gloves and sports headgear, roller skates; bow and crossbows; gymnasium fitness centre or athletic equipment, ski-boots, etc.)
29	Manufacture of Games and Toys	Games and Toys	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of dolls, toys (ceramic, glass, paper, paperboard, wooden, rubber, etc.) and games such as complete dolls, doll parts, doll clothes, action toys, games (including electronic, paper or paperboard), hobby kits, and children's vehicles (except metal bicycles and tricycles) - manufacture of articles of funfair, table or parlour games - manufacture of pin-tables, coin-operated games, billiards, special tables for casino games, etc. - manufacture of playing cards - manufacture of electronic games with fixed (non-replaceable) software

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
30	Manufacture of Medical and Dental Instruments and Supplies	Medical and Dental Instruments and Supplies	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of laboratory apparatus - manufacture of medical, surgical, dental or veterinary furniture (e.g. operating tables, examination tables, hospital beds with mechanical fittings, dentists' chairs) - manufacture of laboratory, surgical and medical instruments, surgical appliances and supplies (e.g. surgical drapes, sterile string and tissue, laboratory sterilizers, bone plates and screws, syringes, needles, catheters, cannulae, etc.) - production of artificial teeth - manufacture of orthopaedic and prosthetic devices - manufacture of dental fillings and cements, dental wax and other dental plaster preparations used in dentistry - manufacture of medical thermometers - manufacture of ophthalmic goods, eyeglasses, sunglasses, lenses ground to prescription, contact lenses, safety goggles - manufacture of other medical and dental instrument and supplies n.e.c.
31	Manufacture of Stationery	Stationery	<p>This class includes:</p> <ul style="list-style-type: none"> - manufacture of pens and pencils of all kinds whether or not mechanical - manufacture of pencil leads - manufacture of date, sealing or numbering stamps, hand-operated devices for printing, or embossing labels, hand printing sets, prepared typewriter ribbons and ink pads, etc.
32	Repair and Installation of Machinery and Equipment	Repair of Fabricated Metal Products	<p>This class includes:</p> <ul style="list-style-type: none"> - repair of metal tanks, reservoirs and containers - mobile welding repair - repair of steel shipping drums - repair and maintenance of steam or other vapour generators - repair and maintenance of auxiliary plant for use with steam generators (e.g. condenser, accumulators, etc.) - repair and maintenance of nuclear reactors, except isotope separators - repair and maintenance of parts for marine or power boilers - plate work repair of central heating boilers and radiators - repair and maintenance of shopping carts

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
		Repair of Machinery	<p>This class includes:</p> <ul style="list-style-type: none"> - Repair and maintenance of industrial machinery and equipment <ul style="list-style-type: none"> (a) repair and maintenance of non-automotive engines (b) repair and maintenance of pumps and related equipment (c) repair of valves, gearing and driving elements (d) repair and maintenance of industrial process furnaces (e) repair and maintenance of materials handling equipment (f) repair and maintenance of commercial refrigeration equipment and air purifying equipment (g) repair and maintenance of commercial-type general purpose machinery (h) repair of other power-driven hand-tools (i) repair and maintenance of metal cutting and metal forming machine tools and accessories (j) repair and maintenance of other machine tools, agricultural tractors, agricultural machinery and forestry and logging machinery, metallurgy machinery (k) repair and maintenance of mining, construction, and oil and gas field machinery, food, beverages and tobacco processing machinery textile apparel and leather production machinery, papermaking machinery, fire arms and ordnance (including repair of sporting and recreational guns) (l) repair and maintenance of other special purpose machinery (m) repair and maintenance of weighing equipment (n) repair and maintenance of vending machines (o) repair and maintenance of cash registers (p) repair and maintenance of photocopy machines (q) repair of calculators, electronic or not , typewriters (r) repair and maintenance of other machinery and equipment n.e.c.
		Repair of Electronic and Optical Equipment	<p>This class includes:</p> <ul style="list-style-type: none"> - Repair and maintenance of the measuring, testing, navigating and control equipment: <ul style="list-style-type: none"> (a) repair and maintenance of aircraft engine instruments (b) repair and maintenance of automotive emissions testing equipment (c) repair and maintenance of meteorological instruments (d) repair and maintenance of physical, electrical and chemical properties, testing and inspection equipment (e) repair and maintenance of surveying instrument (f) repair and maintenance of radiation detection and monitoring instruments (g) repair of time clocks, time/date stamps, time locks and similar time recording devices - Repair and maintenance of irradiation, electro medical and electrotherapeutic equipment: <ul style="list-style-type: none"> (a) repair and maintenance of magnetic resonance imaging equipment (b) repair and maintenance of medical ultrasound equipment (c) repair and maintenance of pacemakers (d) repair and maintenance of hearing aids (e) repair and maintenance of electrocardiographs (f) repair and maintenance of electro medical equipment

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
			(g) repair and maintenance of irradiation apparatus (h) repair and maintenance of apparatus and equipments n.e.c. - Repair of optical instruments and photographic equipment: (a) repair of binoculars, microscopes (except electron, proton), telescopes, prisms and lenses (except ophthalmic) (b) repair of photographic equipment (if the use mainly commercial)
		Repair of Electrical Equipment	This class includes: - Repair and maintenance of electrical equipment except domestic appliances: (a) repair and maintenance of power, distribution and specialty transformers (b) repair and maintenance of electric motors, generators and motor generator sets (c) repair and maintenance of switchgear and switchboard apparatus (d) repair and maintenance of relays and industrial controls (e) repair and maintenance of primary and storage batteries (f) repair and maintenance of electric lighting equipment (g) repair and maintenance of current-carrying wiring devices
		Repair of Transport Equipment, Except Motor Vehicles	This class includes: - Repair and maintenance of transport equipment except motorcycles and bicycles: (a) repair and routine maintenance of ships (b) repair and maintenance or alteration of pleasure boats (c) repair and maintenance of locomotives and railroad cars (except factory rebuilding or factory conversion) (d) repair and maintenance of aircraft (except factory conversion, factory overhaul, factory rebuilding) (e) repair and maintenance of aircraft engines (f) repair of animal drawn buggies and wagons
		Installation of Industrial Machinery and Equipment	This class includes: - Installation of industrial machinery and equipment: (a) installation of industrial machinery in industrial plant (b) dismantling large-scale machinery and equipment (c) activities of millwrights (d) machine rigging (e) installation of bowling alley equipment (f) installation of industrial process control equipment (g) installation of other industrial machinery and equipment n.e.c.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
33	Water Collection, Treatment and Supply	Water Treated	This class includes: - Purification and distribution of water for water supply purposes Includes: operation of irrigation canals - Desalting of sea or ground water to produce water as the principal product of interest Includes: potable water production by evaporation of saline water
		Water Distributed	This class includes: - distribution of treated water to end user
		Water Intake	This class includes: - collection of water from various sources to water treatment plant
34	Sewerage	Sewage Treated	This class includes: - operation of sewer systems or sewer treatment facilities, maintenance of sewers - collecting and transporting of human or industrial wastewater from one or several users, as well as rain water by means of sewerage networks, collectors, tanks and other means of transport (sewage vehicles, etc.) - emptying and cleaning of cesspools and septic tanks, sinks and pits from sewage; servicing of chemical toilets - treatment of wastewater (including human and industrial wastewater, water from swimming pools, etc.) by means of physical, chemical and biological processes like dilution, screening, filtering, sedimentation, etc. - maintenance and cleaning of sewers and drains, including sewer rodding

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
35	Waste Collection, Treatment and Disposal Activities and Materials Recovery	Waste Treatment and Disposal	<p>This class includes:</p> <ul style="list-style-type: none"> - Treatment and disposal of non-hazardous waste Includes: <ul style="list-style-type: none"> (a) production of electricity through incineration of waste (b) treatment of organic waste for disposal (c) energy recovery from non-hazardous waste incineration processes (d) operation of compost dumps (e) production of compost from organic waste (f) biological transformation process using effective microbial, enzyme, worms to produce secondary products raw material (e.g. organic fertilizer from livestock waste) - Treatment and disposal of hazardous <ul style="list-style-type: none"> (a) disposal of used goods such as refrigerators to eliminate harmful waste (b) treatment and disposal of transition radioactive waste from hospitals (c) treatment and disposal of toxic, contaminated waste (d) treatment and disposal of radioactive nuclear waste
		Materials Recovery	<p>This class includes:</p> <ul style="list-style-type: none"> - the recovery of materials from waste streams in the form of separating and sorting recoverable materials from non-hazardous waste streams (i.e. garbage) or the sorting of commingled recoverable materials, such as paper, plastic, used beverage cans and metals, into distinct categories, etc. - mechanical crushing of metal waste Includes: <ul style="list-style-type: none"> (a) mechanical crushing of metal waste such as used cars, washing machines, bikes, ship, etc. with subsequent sorting and separation (b) shredding of cars by means of a mechanical process (c) recycling of tin - dismantling of automobiles, computers, televisions and other equipment for material recover Includes: ship scaling, dismantling - Reclaiming of rubber such as used tires to produce secondary raw material Includes: recycling of rubber product, etc. - Reuse of rubber products - Materials recovery n.e.c.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
36	Utilities	Chilled Water	This group includes the production, collection, and distribution of chilled water specifically for cooling purposes. It involves generating cooled water, which is then circulated through a distribution network to provide air conditioning and cooling for various buildings and facilities.
		Steam	This group includes the production, collection, and distribution of steam specifically for heating, power generation, and industrial processes. It involves generating steam in boiler systems, which is then circulated through a distribution network to supply thermal energy for various applications, such as space heating, driving turbines, and supporting manufacturing processes.
		Hot Water	This group includes the production, collection, and distribution of hot water specifically for heating purposes. It involves generating heated water, which is then circulated through a distribution network to provide space heating, domestic hot water, and heating for industrial processes in various buildings and facilities.
		Electricity	This group comprises the generation of bulk electric power, transmission from generating facilities to distribution centers, and distribution to end users
		Gas	This group includes the manufacture of gas and the distribution of natural or synthetic gas to the consumer through a system of mains.
37	Cargo Handling	Cargo	This class includes: - Cargo handling services provided non-containerized freight or for passenger baggage - Services of freight terminal facilities, for all modes of transport, including stevedoring services (i.e. the loading, unloading and discharging of vessels' non-containerized freight at ports) - Cargo handling services incidental to freight transport not elsewhere classified - Baggage handling services at airports and at bus, rail or highway vehicle terminals
		Container	
		Reefer	
38	Storage	Chemical Storage	This class includes: - Bulk storage and warehousing services for liquids including oil and oil products, wine and the like. - Warehousing services for oil and gas industry (oil terminal)
		Oil Storage	
39	Technical Testing and Analysis	Technical Testing and Analysis	This class includes: - performance of physical, chemical and other analytical testing of all types of materials and products: <ul style="list-style-type: none"> • acoustics and vibration testing • testing of composition and purity of minerals, etc. • testing activities in the field of food hygiene, including veterinary testing and control in relation to food production • testing of physical characteristics and performance of materials, such as strength, thickness, durability, electrical conductivity, radioactivity, etc. • qualification and reliability testing • performance testing of complete machinery: motors, automobiles, electronic equipment whether or not with the use of models or mock-ups of ships, aircraft, dams, etc. • radiographic testing of welds and joints • failure analysis

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No.	Subsector	Product Type	Note:
			<ul style="list-style-type: none"> • testing and measuring of environmental indicators: air and water pollution, etc. - certification of products, including consumer goods, motor vehicles, aircraft, pressurized containers, nuclear plants, etc. - testing of textiles - operation of police laboratories - non-medical laboratory testing - periodic road-safety testing of motor vehicles
40	Transport via Pipeline	Transport of Petroleum Products	This class includes: <ul style="list-style-type: none"> - transport of petroleum products via pipelines - operation of pump stations - operation of pipelines
		Transport of Gas	This class includes: <ul style="list-style-type: none"> - transport of gases via pipelines - operation of pump stations - operation of pipelines
		Transport of Water	This class includes: <ul style="list-style-type: none"> - transport of water via pipelines - operation of pump stations - operation of pipelines
41	Manufacture of Ice	Ice	This group includes production of ice, including ice for food and non-food (e.g. cooling) purposes.

Note:

- a. Unit of Measurement (UOM) will be selected in the online system.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

2. Commercial Sector

No	Subsector	Note:
1	Hotel	Hotels and resort hotels
2	Hospital	Private Hospital
3	College and University	Private College and University
4	Office Building	Private office building
5	Retail-Commercial	This group includes the retail sale of a variety of product lines in the same unit (non-specialized stores), such as supermarkets or department stores.
6	Rail Transport	This group include urban and suburban railway passenger transport service (Example: Light Rail Transit (LRT), Express Rail Link (ERL), Monorail)
7	Port	This class include: - Operation services of ports, such as wharves, docks, piers or quays and other services connected with coastal and transoceanic marine terminal facilities, including passenger terminals - Navigation, pilotage and berthing activities
8	Telecommunications	This division includes the activities of providing telecommunications and related service activities, i.e. transmitting voice, data, text, sound and video. The transmission facilities that carry out these activities may be based on a single technology or a combination of technologies.
9	Data Processing and Hosting	This group includes the provision of infrastructure for hosting, data processing services and related activities, as well as the provision of search facilities and other portals for the Internet.
10	Amusement and Theme Parks	Activities of amusement parks and theme parks including operation of mechanical rides, water rides, games, shows, theme exhibits and picnic grounds
11	Warehousing	This class includes: - Storage and warehousing services for frozen or refrigerated goods, including perishable food products - Blast freezing services, associated with storage and warehousing - Storage services of grains - Other storage or warehousing services
12	Parking Facilities	Operation of parking facilities for motor vehicles (parking lots)
13	Airport	This group include operation of terminal facilities, the operation of airway terminal, etc., airport and air-traffic-control activities, ground service activities on airfields, Fire fighting and fire-prevention services at airports, Other service activities incidental to air transportation n.e.c.
14	Postal and Courier	This group include the pick-up, transport and delivery (domestic or international) of mail and parcels. The activity includes sale of postage stamps, collection of mail and parcels from public letter boxes or from post offices and distribution and delivery. Also includes such activities as mail sorting, mailbox rental, poste restante, etc.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No	Subsector	Note:
15	Programming and Broadcasting	This division includes the activities of creating content or acquiring the right to distribute content and subsequently broadcasting that content, such as radio, television and data programs of entertainment, news, talk, and the like. Also included is data broadcasting, typically integrated with radio or TV broadcasting. The broadcasting can be performed using different technologies, over-the-air, via satellite, via a cable network or via internet. This division also includes the production of programs that are typically narrowcast in nature (limited format, such as news, sports, education, or youth-oriented programming) on a subscription or fee basis, to a third party, for subsequent broadcasting to the public.
16	Operation of Sports Facilities for Indoor or Outdoor Sports Events	<p>This class includes:</p> <ul style="list-style-type: none"> - Football, hockey, cricket, baseball, badminton, futsal, paintball - Racetracks for auto - Equestrian clubs - Swimming pools and stadiums, ice-skating arenas - Track and field stadium - Golf courses - Bowling centre - Fitness centres - Organization and operation of outdoor or indoor sports events for professionals or amateurs by organizations with own facilities
17	Special Purposes Building	<p>Includes:</p> <ul style="list-style-type: none"> - place of worship
18	Research and Experimental Development on Natural Sciences And Engineering	<p>This class includes:</p> <ul style="list-style-type: none"> - Research and development on natural sciences <ul style="list-style-type: none"> • Includes: research and experimental development services on chemistry and biology - Research and development on engineering and technology - Research and development on medical sciences <ul style="list-style-type: none"> • Includes: research and development for pharmaceuticals and biotech pharmaceuticals - Research and development on biotechnology - Research and development on agricultural sciences - Research and development on Information Communication Technology (ICT) - Research and development on other natural science and engineering n.e.c. <ul style="list-style-type: none"> • Includes: interdisciplinary research and development, predominantly on natural sciences and engineering
19	Convention and Exhibition Facilities	<p>This class includes:</p> <ul style="list-style-type: none"> - This group includes the organization, promotion and/or management of events, such as business and trade shows, conventions, conferences and meetings, whether or not including the management and provision of the staff to operate the facilities in which these events take place.

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No	Subsector	Note:
20	Operation of Terminal Facilities	<p>This class includes:</p> <ul style="list-style-type: none"> - operation of terminal facilities such as railway stations, bus stations, stations for the handling of goods, freight terminal activities, etc.
21	Motion Picture, Video and Television Programme Production, Sound Recording and Music Publishing	<p>This class includes:</p> <ul style="list-style-type: none"> - Motion picture, video and television programme production activities - Motion picture, video and television programme post-production activities - Motion picture, video and television programme distribution activities - Motion picture projection activities - Sound recording and music publishing activities
22	Creative, Arts and Entertainment	<p>This class includes:</p> <ul style="list-style-type: none"> - Theatrical producer, singer group band and orchestra entertainment services Includes: circuses and individual artists - Operation of concert and theatre halls and other arts facilities Includes: related activities e.g. the operation of scenery and backdrops, lighting and sound equipment, ticket agencies, concert and theatre halls and other facilities and the design of scenery and lighting - Activities of sculptors, painters, cartoonists, engravers, etchers - Activities of individual writers, for all subjects Includes: <ul style="list-style-type: none"> (a) fictional writing, technical writing, etc. (b) activities of authors of scientific and technical books (c) activities of independent authors - Activities of independent journalists - Restoring of works of art such as painting - Activities of producers or entrepreneurs of arts live events, with or without facilities - Creative, arts and entertainment activities n.e.c.
23	Virtual Currency (Cryptocurrency) Mining	<p>This class includes:</p> <ul style="list-style-type: none"> - Cryptocurrency data processing service - Cryptocurrency cloud mining service

GUIDELINES ON ENERGY EFFICIENCY AND CONSERVATION REPORT

No	Subsector	Note:
24	Student Residences	This class includes: - Various types of housing arrangements designed to meet the needs of students, such as dormitories, student apartments, and private rental accommodations. It is dedicated to providing accommodation for students, typically within or near educational institutions.